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Educational Reform and Manpower Policy in China, 1955-1958

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This paper will demonstrate that the radical educational reforms of the Great Leap Forward were initiated because of changing conceptions of manpower needs, and economic development plans and priorities. As the Chinese leadership became increasingly sensitive to the limited applicability of the capital-intensive strategy of development of the First Five Year Plan, they began to scale down the training of a limited number of very highly educated technical personnel. The new, more labor-intensive strategy required a much larger number of less well-educated, but more highly motivated and politically conscious workers. These changes in manpower needs eventually led to the radical educational reforms that emerged during the Great Leap Forward.

We will trace the development of Chinese manpower-training policy in the crucial years, 1955-1958. During those years the Chinese government experimented with a variety of programs and policies that would enable them to overcome the limitations of the Soviet model of development which they had adopted in their First Five Year Plan. Since manpower training policy is central to any developmental scheme, the

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policy debates in the mid- and late 1950s go to the heart of efforts to define a Chinese road to economic modernization and socialism.

Many educational reforms attempted during the Great Leap were placed aside during a more moderate period in the early 1960s, only to be revived during the Cultural Revolution. In reviewing the schooling time lost during the Cultural Revolution, many Western observers have noted the possibility of irreparable damage to the economy due to the loss of several classes of higher and middle school graduates (Barnett, 1974: 156-157; Eckstein, 1973: 241). More serious, however, is the view that the overall contents of the Great Leap-Cultural Revolution educational reform program are inimical to the requirements of industrial development (Barendsen, 1964: 27; Chen and Galenson, 1969; Cheng, 1971: 45; Emerson, 1971: 186-187; Orleans, 1961: 18-28). It is argued that Chinese educational reforms are politically motivated and that Mao, at least, had been willing to sacrifice economic development for other goals. This argument rests on the belief that any program which does not depend primarily on a technocratic elite, or retards the development of such an elite, will slow down the rate of economic development of a country. The record, however, will indicate that China moved away from an educational policy designed primarily to train a scientific or technical elite for economic reasons, and that the Chinese leadership understood the radical educational reforms proposed during the Great Leap period, and revived during the Cultural Revolution, to be consistent with the priorities of economic development.

EDUCATION, MANPOWER NEEDS AND ECONOMIC DEVELOPMENT

The notion that China's educational reforms conflict with the requirements of economic modernization is based on the assumption that increased levels of education play a central role in economic modernization (Schultz, 1962; Wykstra,

1971). As Berg (1970) points out, the belief that education is directly related to productivity has been so totally accepted by American educators and managers that contrary evidence generally is simply ignored by them. Berg's own findings indicate that there is no necessary correlation between educational background and performance on the job, that persons with less educational qualifications often perform better and are more stable and dependable workers. Berg (1970: 60) shows, moreover, that in the United States the increased educational level of the work force is mainly a result of the increased availability of education and not a result of increased educational requirements to perform many jobs.

Parnes' cross-national study of occupation and education shows that while there is a relative hierarchy of educational requirements to fill different jobs, different countries have widely variant patterns of the educational attainment needed to fill a specific role (Parnes, 1963: 152). Compared with the United States, each of the other countries in Parnes' study has a work force with a lower level of educational attainment performing comparable jobs. This situation suggests the possibility of greatly inflated assumptions about the educational qualifications of the labor pool needed to staff a modern economy (Baldwin, 1965: 171; Lewis, 1969: 3).

The United States is not the only nation where the economic value of formal education is accepted uncritically. The Soviet Union and the Socialist governments of East Europe have relied on conventional educational training to facilitate economic expansion (Skorov, 1964; Sokol, 1967; Timar, 1966). Public officials and scholars in these countries seem to share the faith of their American counterparts that increased levels of specialized training are necessary to foster economic growth. It is no wonder then that when China first attempted to organize its resources to modernize its economy, it adopted an education model that placed emphasis on formal education and provided for the training of a limited number of technologically sophisticated persons to lead and manage the transition. Although too

poor a nation to overeducate the greatest part of its population, China did initially place its trust in the development of an educated elite.

It is risky to argue the wisdom of China's various educational strategies on the basis of the possible overvaluation of education in the United States and other advanced industrial states, like the Soviet Union. There is, however, an extensive literature on education in developing nations, produced both by scholars in these countries and by foreign advisors, which identifies many problems in current educational policies and seeks to advise developing nations on the types of educational reforms that might facilitate their economic growth. The major theme in valued education, especially secondary and higher education and have ignored other less expensive manpower training strategies that might better serve economic development. Perhaps the core of the problem is that education does not necessarily promote economic growth; historically it often has worked to limit economic growth (Vaizey, 1963).

In spite of this advice, underdeveloped countries have been reluctant to restrict state expenditure on education and especially to curtail the development of secondary and higher education. In fact, more expensive higher education systems consume a relatively larger share of the education budget in underdeveloped countries than they do in more advanced countries (Harbison, 1973: 72-73). The extent of this problem is documented in the United Nations' *Economic Survey of Asia and the Far East*. This special study of education and employment in 1973 noted that secondary and higher education are growing faster than primary education in every country studied and that the discrepancy is greatest in those countries doing the worst job in universalizing primary education.

The overemphasis on secondary and higher education may be partly attributed to a desire to emulate the standards of economically advanced nations. However, it ignores the historical pattern of growth of the most economically advanced nations. The United Nations report further noted:

There is a sharp contrast between the pattern exhibited by almost every Asian country today and the historical pattern exhibited by, say, Britain, Japan, or Germany. In those countries, it was not until the spread of primary education was complete that substantial growth in secondary education took place, and not until secondary growth was well underway that expansion took place at the tertiary level. [p. 46]

Of course, more advanced countries may be able to afford the luxury of overeducation. It is doubtful, however, that developing nations can sustain that luxury, especially if it comes at the expense of universalizing primary education, much less if it precludes the possibility of capital investment.

Myrdal attributes the overdevelopment of higher education to the combination of the lingering impact of colonial education systems and the failure of the concerned governments to summon the political courage to plan the development of education to serve national goals. On the latter point Myrdal (1968: 1659) argues:

One is tempted to say that in (education) the governments have generally adhered to a conservative laissez-faire policy, letting a swelling stream of students take its course through the established channels without interfering other than by trying to enlarge these channels where the pressure was the greatest.

Myrdal further argues that the pressure for educational expansion is greatest at the secondary and higher levels and comes from the "educated and articulate upper classes," which continue to retain political power and which permit the continued expansion of higher education in order to satisfy their own demand (p. 1808).

Even with the ever increasing number of educated job seekers and the growing possibility of not finding a job, the disproportionate status and income benefits that accompany white-collar employment make it rational for the individual to pursue additional education (United Nations, 1973: 36-37). Ultimately, any shift in enrollment and curricular content must be accom-

panied by adjustments in employment and reward patterns to be effective.

One corrective to the overdevelopment of higher education is increased attention to and respect for mass primary education. Fafunwa (1969: 151-152), a Nigerian scholar, wrote:

The idea that elementary education does not fit a child for anything is of European origin and there is no conceivable reason why Nigeria or any underdeveloped country should accept it. With new methods and techniques in teaching and learning, coupled with the fact that the average African child by tradition is called upon to perform adult roles earlier than his European counterpart, the new trend in education in Nigeria should be to develop a curriculum that will make the elementary school leaver fit for something.

This is a strategy for raising the quality of manpower of the great bulk of the nation's labor force, rather than for producing a limited number of high-level specialists.

Another proposed solution for this problem is to emphasize educational content more than enrollment by shifting the focus of education to problem-solving and away from mastering a body of knowledge developed in advanced countries (Harbison, 1973: 65-67). Harbison argues that the problem in many developing nations is not a shortage of scientific and technical training and a surplus of liberal-arts graduates. Rather, it is the failure to develop an education system in response to internal needs and realities. As presently constituted, educational content in many developing nations is totally indifferent to national needs. The curriculum in lower schools is geared to prepare students for exams to gain entry to higher levels of education, while at the higher level the education system serves primarily as a credentialing service for white-collar jobs. The net effect is to limit the value of primary education where it is available, and to waste valuable resources training people for jobs they could have performed without additional high-cost, higher education.

This survey of the literature suggests that many aspects of China's "revolution in education" are addressed to economic

problems in a developing nation. These studies certainly challenge the notion that the development of an educated elite is the only, or even the optimal, strategy for promoting economic development. China's effort to depress demand for secondary and higher education, to universalize primary education, to redistribute educational opportunity, to integrate education and production, and to experiment with a wide variety of inexpensive educational formats, all find support in the literature on education and economic development.

**CHINESE MANPOWER NEEDS AND EDUCATION
POLICY: THE FIRST FIVE YEAR PLAN AND ITS
FIRST DIFFICULTIES**

After Liberation, and when order was fully restored in the country, the Chinese Communist Party sought to create an education system modeled on the Soviet Union. This was part of a broader effort to replicate the entire Soviet model of development. The formal articulation of that model was the First Five Year Plan, designed to cover 1953-1957, which was promulgated in July 1955 (First Five Year Plan, 1956). In the Plan educational objectives and policy received relatively little attention, despite the obviously important role which the education system had to play in order to realize the Plan's economic construction objectives. It was as if the important role that the education system had to play in the implementation of this Plan was obvious and required little discussion or consideration.

The Plan did recognize that large numbers of personnel, particularly industrial technicians, would be needed. The plan proposed to "make rational use of existing stock . . . and train new personnel during the First Five Year Plan" (First Five Year Plan, 1956: 176). The new manpower requirement was estimated to be one million specialized personnel.

This requirement was to be satisfied primarily through the expansion of higher and secondary specialized education. This meant a 127% increase in college graduates by 1957,

including a 166% increase in engineering graduates, a 183% increase in graduates from technical institutes, and a 182% increase in graduates from teachers' colleges. All together, China's colleges and universities would produce 280,000 graduates during the five-year period, while her secondary specialized schools would produce 880,000 graduates (Zhang, 1955: 35). The Plan clearly stated, "the main effort in higher education will be to develop engineering colleges and natural science departments in universities" (First Five Year Plan, 1956: 177).

In order to demonstrate their commitment to educational quality and to synchronize their higher education system with that of the Soviet Union, the Chinese leadership changed the course of study in universities and technical institutes from four to five years. Secondary specialized schools were extended from three to four years for the same reasons. A second proviso to insure educational quality was the requirement that all students develop clear lines of academic specialization and that the distribution of specializations be "framed commensurate with national construction needs" (Zhang, 1955: 39).

In terms of general education for the mass public, the Plan took a hard line on subordinating general education to the development of personnel specifically needed for industrial development. Educational authorities were ordered to limit the number of teachers and the amount of state funds to be used for general education (First Five Year Plan, 1956: 201). Little, if any, State resources were committed to the expansion of basic education or the universalization of educational opportunity. The Plan permitted communities to support their own primary schools so long as they did not draw funds away from higher priority projects.

The major form of mass public education linked with the First Five Year Plan was spare-time education for workers and peasants. Spare-time classes could be carried on by laborers without any significant interruption of their production work. These courses of study were inexpensive; the cost could be borne by the production units. Finally, spare-time education could

provide the necessary literacy to produce a semiskilled and rudimentarily educated labor force to back up the better educated technicians then being trained.

While China was gearing up its education system to produce high-level technicians and literate workers, pressures were building which ultimately led to the abandonment of this model of development. These pressures included excessive urban population growth and urban unemployment.

Up to mid-1955 Chinese leaders and planners had acted on the assumption that urban growth, including the transfer of rural population to urban centers, would be unlimited. China's peasantry was viewed as a future industrial proletariat. Urban industrial development linked to the First Five Year Plan was to have provided the economic foundation to support this population transfer (Howe, 1971: 88-89).

Much as anticipated, urban population grew appreciably during the early and mid-1950s, increasing from 58 million and 10.6% of the population in 1949 to 92 million and 14.3% of the population in 1957 (Chen, 1972: 369-370). This included a considerable natural population increase due to high birth rates and a high concentration of young, married couples in the cities. The considerable improvement in both security and living standards over conditions in the years prior to Liberation was responsible for this circumstance (Emerson, 1967: 419-422).

A second source of urban population growth was rural migrants, averaging 1.6 million per year during the years of the First Five Year Plan. Rural migrants included both rural unemployed who went to urban centers seeking employment, and laborers directly recruited from rural areas by enterprises. Many urban enterprises preferred to recruit their own workers from rural areas rather than employ individuals who had come to the city on their own in search of employment. Due to pressures to minimize costs and operate efficiently, many urban firms preferred to recruit workers on a temporary basis, and later discharge them during slack times and send them back to the countryside (Howe, 1971: 83).

In any case, urban population growth naturally led to increases in the potential urban work force. The annual natural increment to the work force during the years of the Five Year Plan was one million persons, plus an additional 800,000 persons of working age who migrated to cities. During this same time when the urban work force was growing by 1.8 million workers per year, only 1.4 million jobs were being created annually (Emerson, 1967: 419). In spite of a very high rate of saving and capital formation, it simply was not possible to expand industry rapidly enough to absorb all of the available workers. The combination of a developmental strategy based on large, capital intensive projects, requiring increasing amounts of investment per worker, and rapid urban population growth led to growing urban unemployment.

The first solution attempted was the end of the relatively free labor market, including the forced return of unemployed persons to the countryside (Howe, 1971: 116-117; Lee, 1966). A *Nanfang ribao* (1955) report from Canton [Guangzhou], described the 1966 *xiafang* (sending down) campaign in that city. The report explained that excess population growth in recent years was mainly caused by peasants coming to Canton for employment. A related problem was students who had come to Canton for schooling and were reluctant to leave the city even after they had been denied admission to the next higher level school. The combined population increase was far in excess of the production needs of the city, especially since Canton had not been designated as a key point city for industrial development under the Five Year Plan. The solution was to return excess population to the countryside to participate in rural production.

This limited modification of manpower policy led to several important adjustments in educational policy. Graduates of primary and junior middle schools not slated to go on to higher level schools, or to be drawn into industrial production, were instructed to take part in agricultural production (Renmin ribao, 1955). Students and their parents were to prepare for this possible fate and schools were directed to start teaching agri-

cultural production skills and to provide students with work experience. The State, in cooperation with local agencies, accepted responsibility for the placement of these young people in suitable work locations. Clearly there was little enthusiasm for "returning to" or "going down to" the countryside, especially at a time when economic, educational, and manpower planning for the society as a whole was based on heavy industry and science and engineering education, and when wage levels were being structured to the further advantage of workers in the industrial sector. In any case, the first response to the apparent discontinuity between the education system and the labor market was to drive surplus educated youth out of the education system and down to the countryside.

MANPOWER AND EDUCATION POLICY DURING THE FIRST LEAP FORWARD

The details of the First Five Year Plan had no sooner been made public than Mao began to call for some fundamental revisions in national economic development plans (Mao, 1955). He first initiated a speed-up in the pace of agricultural collectivization. This was followed by a general shift in economic planning and a "mini-leap forward" in late 1955-early 1956. The ambitious but cautious plans of the Five Year Plan were set aside in favor of still more ambitious plans founded on an expectation of greatly increased agricultural yields resulting from collectivization (Walker, 1965; MacFarquhar, 1974: 15-32). The speed-up of agricultural collectivization led to changes in industrial development plans, which, in turn, required changes in manpower and training policies.

The increased tempo of "socialist construction" led to a general labor shortage, in contrast to the growing urban unemployment in the first several years of the First Five Year Plan (Howe, 1971: 118-121). Adequate work opportunities now existed in the industrial sector and many unemployed persons were put to work. There was no more talk of involuntary

rustication. For example, in August 1956, NCNA noted that 11,386 unemployed persons in Canton were given jobs in the first six months of the year, in contrast to the xiafang program in that city six months earlier when surplus labor had been sent down to the countryside. All persons with skills were suitably placed and those without useful skills were given special training courses (NCNA, 1956c). An almost identical report from Jinan [Tsinan] noted similar conditions in that city. This report explicitly stated that junior middle school graduates not slated to go on to a higher level school could count on industrial or managerial jobs (NCNA, 1956d).

Educated manpower enjoyed excellent employment opportunities during this period. Newspaper reports from Beijing [Peking], Shanghai, Canton, Wuhan, and other municipalities and provinces described an active search to identify educated persons and to give them jobs (Guangming ribao, 1956b). The government was very interested in finding "intellectuals" educated before 1949 who had been unemployed or underemployed since Liberation. This program not only helped solve an immediate labor shortage, but also supported a more broadly conceived policy of encouraging the involvement of intellectuals in national economic construction (Chou, 1956; Lu, 1956).

Another important manpower policy to emerge in mid-1956 was a tightening up of job assignment procedures for college graduates. Agencies, departments, and enterprises were accused of "bureaucratism and departmentalism" for requesting more personnel than they actually needed and hoarding persons with valuable skills rather than considering the overall manpower needs of the country (Renmin ribao, 1956d). The State Council issued a "Directive Concerning Planned Assignment of Work to This Summer's University Graduates" (State Council, 1956). This directive formalized the National Economic Committee's proposal to distribute graduates according to specified priorities, and promised to enforce the allocation. Employers were ordered to set up permanent systems to monitor requests for and assignments given to graduates with higher education. There-

after, establishments would be accountable for irresponsible employment practices. Establishments also were ordered to stop drafting students for work before graduation. And, in cases where irrational allocations did occur, graduates were urged to seek redress from leadership organs. This last action had great appeal to the graduates themselves, as it gave them a politically acceptable justification for seeking reassignment from jobs that they did not want or from locations they did not favor.

Increasing the number of graduates and improving the quality of scientific and technical education had been the goal of education policy during the early years of the Five Year Plan. However, during the "mini-leap" in 1956 attention shifted to a more broadly defined expansion in educational opportunity. The figures presented in Table 1 summarize the expansion in enrollments which occurred in every level of the education system in 1956.

Changes in education policy to meet growing manpower needs in 1956 fell into two general categories: efforts to universalize educational opportunity and efforts to increase the number of specialists. The program to universalize educational opportunity included a renewed effort to eliminate illiteracy within two years, and a vastly expanded program of spare-time education (NCNA, 1956a). The later program was based on some sharp criticism of the Ministry of Education and local educational administrators for "rightist thinking" which had hindered the development of spare-time education. It was alleged that the failure to develop spare-time education had slowed industrial development and agricultural cooperation. Cadres were ordered to provide free time for workers and peasants to attend to their studies (Guangming ribao, 1956a).

Also part of the effort to universalize education was the decision to universalize obligatory primary education for children within 12 years (Renmin ribao, 1956a). The extension of primary education was scheduled to be phased, occurring more rapidly in places with dense populations, high levels of industrial development, and an adequate supply of teachers.

TABLE 1
Numbers of Enrolled Students During First Five Year Plan

(in thousands)

	Higher Education	Secondary Technical Schools	Middle Schools	Primary Schools	Spare-Time Higher Education	Spare-Time Secondary Technical	Spare-Time Middle Schools	Spare-Time Primary Schools	Newly Literate
1953	212	668	2,933	51,664	9.7	1.1	404	1,523	2,954
1954	253	608	3,587	51,218	13.2	186.0	760	2,088	2,637
1955	288	537	3,900	53,126	15.9	195.0	1,167	4,538	3,678
1956	403	812	5,165	63,464	63.8	563.0	2,236	5,195	7,434
1957	441	778	6,281	64,279	75.9	588.0	2,714	6,267	7,208

SOURCE: State Statistical Bureau, 1960: 192, 198.

In spite of this temporary inequality, the commitment to universal and obligatory primary education was made, along with a more nebulous commitment to the eventual universalization of junior middle education.

A number of programs also were undertaken in 1956 to satisfy the immediate and anticipated need for specialists. In fact, the expected need for specialists was so great that at a conference on secondary technical education the prospect was raised of universalizing access to secondary technical education during the Second Five Year Plan (NCNA, 1956b). Other programs, again involving spectacular enrollment increases, centered on producing an adequate pool of senior middle school graduates to take all the available places in universities, colleges, and higher education institutes. Specific programs included a campaign to discourage middle school students from leaving school and to discourage enterprises from attracting them away with employment offers. Unanticipated withdrawals had, in the past, limited the supply of senior middle school graduates (Renmin ribao, 1956b). Greater emphasis was placed on encouraging junior middle and senior middle graduates to sit for examinations for higher level schools (Renmin ribao, 1956c). Senior middle school leavers from previous years, who had gone to work instead of completing their studies, were given the opportunity to attend special make-up classes to prepare them to take higher level entrance examinations (Zhongguo qingnian bao, 1956). On the whole, although policy was shifting in the direction of improving the general education of the work force, national education policy still was heavily influenced by the belief that highly skilled scientists and technicians would play the central role in economic development. The prospect of accelerated economic growth due to agricultural collectivization permitted education policy makers to delude themselves to believe that expansion at all levels, without compromising the quality of secondary and higher education, was possible.

**MANPOWER AND EDUCATION POLICY AFTER
THE EIGHTH PARTY CONGRESS**

A poor harvest in 1956, accompanied by acute inflationary pressures, shortages of goods, and economic disorganization forced the Chinese government to back away from the "mini-leap forward" and to return to more cautious and tightly controlled policies which were laid out at the Eighth Party Congress in September 1956.

The Eighth Party Congress put a halt to the "leap forward" approach to economic development. The draft of the Second Five Year Plan, revealed for the first time at the Party Congress, promised slower paced and more moderate plans. One description of the new economic policies read:

During the period of late 1955 to early 1956 the nation's projects of construction were planned on too large a scale and the targets set too high . . . All those projects which could be put off or suspended for the time being should be. [Zhang Jian, 1957]

Regardless of this return to more cautious economic policies, manpower and education policy only partially reverted to policies originally identified with the First Five Year Plan.

The 1957 annual investment plan placed greater emphasis on diverting resources to small-scale enterprises using more labor-intensive techniques of production. This adjustment was made to help cope with urban unemployment which predated the "mini-leap" of 1955-56. This problem had been intensified by excessive recruitment into the urban workforce during the brief spell of optimism in 1955-1956. The year 1957 marked the first time that investment allocation was explicitly influenced by manpower availability (Howe, 1971: 51). Previously it had been assumed that the manpower supply could be adjusted to meet any investment decision that might be made.

Within enterprises the problem was equally serious and identical—an oversupply of labor. One report noted that employment was more than double the original plan (NCNA, 1957). A report published in June 1957 attributed the over-

supply of labor in many enterprises to the effort made in 1956 to find work for unemployed persons. The State Plan had permitted an increase of 840,000 workers, but 2.17 million actually had been recruited. Many firms had more employees than jobs, thereby increasing production costs. Many enterprises had been only too willing to overrecruit and accumulate personnel when they had been encouraged to expand (Xing, 1957).

In order to cope with the labor supply problem in 1957 the Chinese leadership instituted a number of reforms. Such varied policies as discouraging the participation of women in the work force, lengthening the apprenticeship of workers, and lowering the permitted retirement age, were attempted to gain control over the future size of the labor force (Howe, 1971: 127-130). At the enterprise level a number of reforms were imposed to restrict the expansion of the work force within an enterprise. Firms were required to carry out labor planning, limits were set on the wage bill and numbers of employees permitted, and the Labor Bureau was directed to provide closer supervision of employment practices (Xing, 1957).

In order to cope with the problem of urban unemployment, a new xiafang campaign was undertaken to handle the unemployed who had begun to flock to the cities in 1956 when jobs appeared plentiful, as well as to the underemployed who had managed to find an unproductive spot for themselves on some payroll. The campaign to send surplus workers down to the countryside, beginning in late 1956 and continuing through 1957, received additional support during the course of 1957 as a variety of other xiafang campaigns were undertaken. One was an effort to chase migrant peasants back to the land in time for spring planting. A second campaign was a movement to counter bureaucratization in Government agencies, while a third was intended to solve the problem of student unemployment. More than one million persons, not counting students, returned to the countryside during this period (Howe, 1971: 130-132).

The major education policy change in 1957 was to end the enormous expansion in senior middle and higher education

which had occurred in 1956. Mao had projected the need for 10 million technicians and specialists in the Twelve Year Plan and, to meet that expected demand, senior middle and university enrollments were expanded 90% over the 1955 figures (Zhang Jian, 1957). This excessive expansion was criticized as a planning error and miscalculation (NCNA, 1957). It was also suggested that expansion had been necessary in 1956 to meet the needs of a growing economy, but once they had been met, it was no longer necessary to continue to expand at the same rate (Zhang Xi-ruo, 1957). In either case, the result was a sharp cutback in the rate of expansion of education at all levels and an absolute decline in the number of new entrants into institutions of higher education.¹

One consequence of this decision was a renewed effort to prepare young people for an end to their schooling. The campaign to console disappointed students raised two basic arguments: first, that a student who does not go on to receive a higher education still has a bright future, (*Zhongguo qingnian bao*, 1957) and second, that in no country, including wealthy capitalist states or more advanced socialist states, did every person receive a higher education (Liu, 1957). Ultimately, of course, the situation was based on the fact that China could not afford to maintain such a large educational establishment, nor could her economy absorb that many high-level experts upon graduation. Political education classes were introduced in schools to avert anticipated student disappointment.

The next basic problem was to find suitable employment for the increased number of lower level graduates unable to go to higher schools. The solution was to send these young people down to the countryside to participate in agricultural production. Agriculture was the only sector of society that appeared to be large enough to absorb more labor. In certain areas of the country, particularly the northeast and the northwest, there were agricultural labor shortages. *Renmin ribao* editorials argued that youths were needed in the countryside. Moreover, by participating in agricultural labor, these young people would gain respect for physical labor, thereby contributing

to the elimination of status differences between manual and mental labor (Renmin ribao, 1957).

Even in the face of decisions to reverse the expansion of higher education, to moderate the expansion of intermediate education, and to reduce educational expenditures, there was no reversal of the decision to universalize education that had been made in 1955-1956. At the very time that apologies were being made to young people for not providing higher education opportunities, the State was making clear its intention to continue to pursue its goal of providing general education to the entire population: "secondary and primary education constitutes a kind of ordinary education, and its task is to foster a labor reserve force and successors to the present working generation" (Zhongguo qingnian bao, 1957). General mass education was now viewed as a necessary foundation for economic growth. Along with the economic shift to more labor-intensive industry came a reduced priority for specialist training and a higher priority for the general education of the labor force.

A second form of mass education that first came into its own in 1956-1957 was community-run, or *minban* schools. These were operated locally, and usually were supported by local revenues. Once accepted as a viable educational option, they represented the only means whereby China could afford to universalize primary education, especially in rural areas. Minban schools had been discussed for a long time as an answer to popular demands for education and scarce resources. Even the First Five Year Plan, when promulgated in 1955, had permitted the local option of operating community-run schools (First Five Year Plan, 1956: 201). However, significant development of these schools first occurred in 1957 in response to the goal of universalizing primary education (Renmin ribao, 1957). The minban school represented a means of meeting the goal of universal education without draining the State treasury of resources needed to finance industrial growth.

**MANPOWER AND EDUCATION POLICY DURING
THE GREAT LEAP: MAKING VIRTUE OUT
OF NECESSITY**

The readjustments in economic policy which led to the shifts in manpower and education policy were attempts to overcome the limitations of the First Five Year Plan without discarding the Plan and its model entirely. The first effort, in 1955-1956, had been an attempt to speed up industrialization through the accelerated collectivization of agriculture and the winning of the support of intellectuals. The failures of the expansionistic policies had given the more cautious economic planners the opportunity in mid-1956 to regain control over policy-making. However, they too were unable to resolve the basic problems facing the economy, not the least of which was the failure of agricultural production to keep pace with population growth and industrialization objectives. This once again made it possible to attempt some more radical experiments.

Another reason for attempting a radically different economic strategy was the apparent disloyalty of intellectuals and students revealed during the Hundred Flowers Campaign in the spring of 1957. Although the Party leadership had split on the wisdom of permitting intellectuals and the public to criticize the Party, since January 1956 there had been general agreement that the enthusiastic support of intellectuals was necessary to facilitate the industrialization of the country (Solomon, 1971: 268-329). Their support certainly had been considered essential to any capital-intensive program of development. The "Anti-Rightist Campaign," which followed the debacle of the "blooming and contending" period, ended the policy of enlisting the active support of intellectuals and prepared the public for a new policy direction. Other campaigns, which followed in late 1957 and early 1958, including an intensified xiafang campaign, a rural socialist education movement, and a campaign to build irrigation works, all led to the movement to establish communes and to the Great Leap Forward.

Although the Great Leap represented a major departure from earlier economic policies, there is a thread of continuity between

Great Leap manpower policy and policies which had begun to emerge in 1956 and 1957. The "mini-leap" in 1956 had attempted to eliminate an urban labor surplus by increasing production, and included a reallocation of investment in favor of more labor-intensive industries. Moreover, it was during the perceived labor shortage of 1956 that Chinese leaders first had begun to recognize the economic importance of universalizing educational opportunity. In 1957 the authorities made a concerted effort to place much stricter controls on labor flows into and out of cities and within enterprises. Although these strict controls broke down during the headiest days of the Great Leap, the Leap began with the realization that industrialization could not succeed without strict hiring controls or without attention to labor supply problems. In short, in 1956 and 1957 China already had begun experimenting with many of the ideas which formed the core of the Great Leap Forward.

In effect, the Great Leap Forward attempted to solve the labor supply problem primarily through the reorganization of agricultural labor and the creation of communes. The communes were supposed to make possible the massive absorption of surplus labor through both agricultural and industrial expansion. The development of rural agricultural and industrial production was to have facilitated the eventual expansion of urban employment and the development of large-scale industrial enterprises. In order to achieve this it was first necessary to stabilize the rural population, even to transfer population back to the countryside in order to increase the productivity of the countryside. This led to the very strict labor laws of December 1957 which severely restricted urban migration and continued the transfer of urban residents to the countryside (Wenhui-bao, 1958).

However, the tremendous overoptimism about the possibilities for immediate expansion of industry created a labor shortage in the cities (Jian, 1958). Urban enterprises were urged not to call up workers from the countryside to meet their demand for labor. The hope was that improved organization of the labor supply in the cities—including the recruitment of unemployed

urban residents, the mobilization of government and commercial cadres to work in industry, the adoption of half-work, half-study in schools, the formation of work brigades, and the improvement of work discipline—could meet the demand (Renmin ribao, 1958b). The simple fact is, however, that the failure of the system of labor controls led to massive urban migration. One estimate is that as many as 20 million peasants entered Chinese cities during the Great Leap years (Chen, 1972: 373).

The flow of population into the cities was triggered by the decision to decentralize hiring and firing power down to the enterprise level as part of the radical decentralization of 1958. Ideological controls proved insufficient to constrain enterprises from unlimited recruitment, especially at a time when the prospects were for unlimited expansion. Hiring controls were effectively abandoned during the height of the Great Leap (Howe, 1971: 141-143). The result was a labor shortage in the countryside and a renewal of massive unemployment in the cities when the anticipated expansion of production did not take place due to gross miscalculation of the resources potentially available. Although the Great Leap collapsed because it was poorly planned in a general sense, it is ironic that the failure to control urban labor flows contributed to the failure of the experiment. After the Leap, hiring controls were reestablished at the municipal level, where they had been during a short interlude in late 1957 and early 1958, when the decision to decentralize economic planning had been made.

During the Great Leap, the primary purpose of the education system became training large numbers of skilled, politically responsive, and enthusiastic workers. The first task was to expand the educational system at all levels, both to satisfy the popular demand for education and to provide for the increased number of literate workers who would be needed as the Great Leap took effect. The record of the expansion of enrollment is most impressive. Table 2, an extension of Table 1, compares enrollment figures for 1957 and 1958.

TABLE 2
Numbers of Enrolled Students

		(In Thousands)						
	Higher Education	Secondary Technical Schools	Middle Schools	Primary Schools	Spare-Time Higher Education	Spare-Time Middle Schools	Spare-Time Primary Schools	Literacy Classes
1957	441	778	6,281	64,279	75.9	2,714	6,267	7,208
1958	660	1,470	8,520	86,400	150.0	5,000	26,000	40,000

SOURCE: State Statistical Bureau, 1960: 192, 198.

Although the rate of expansion at all levels of education was most impressive, it was in the area of spare-time education—mostly classes run by factories and communes for workers and peasants—that the most significant enrollment increases occurred (NCNA, 1958b). The key to educational expansion was a flexible policy of promoting a variety of schools, with different teaching schedules, under different types of administration, and with different student clienteles, irrespective of standards. The objective was to raise the cultural level of the entire population, and to do that it was deemed proper to get every potential student, of whatever age, into some sort of school. After taking 15 years to universalize education, it was believed that it would take another 15 years to elevate and standardize the quality (Renmin ribao, 1958a: 12, 15-16). This, of course, was a complete reversal of the priorities of the First Five Year Plan. Higher quality education for a small elite had given way to efforts to provide general education for the masses.

Great Leap educational policy included increased time for political study in the school curriculum. This was hardly new to Chinese educational affairs. Political education campaigns had been encouraged in both 1955 and 1957 to prepare students for being sent down to the countryside by giving them a more favorable outlook on the importance and dignity of manual labor. Political education was assigned a more positive role during the Great Leap. Political study was intended to give students and teachers the "proletarian viewpoint" which was necessary to create workers who were both "red and expert." This new political consciousness was supposed to be particularly instrumental in creating the proper attitude toward combining study and labor, and combining mental and manual activity (Renmin ribao, 1958a: 17-18). Political education also was supposed to provide the basis for the increased enthusiasm of workers, which was to further raise the labor input into the economy.

The educational reform receiving the greatest amount of attention during the Great Leap was the program to combine labor and study in the education system. All schools, at all levels, were told to involve their students in labor. In order to

accomplish this, all schools were told to list productive labor as a formal course and to relate labor in all possible ways to academic work. Schools were instructed to set up factories, and communes were told to establish their own schools or to establish cooperative relationships with schools (Renmin ribao, 1958a: 13-14; NCNA, 1958c).

These programs were significantly more important to the overall Great Leap development scheme than earlier efforts to elevate the dignity of manual labor and to prepare graduates to be sent down to the countryside. Previously, labor education had been a means of preparing surplus graduates for a productive existence in agricultural labor at the margin of the economy. During the Great Leap, the program to combine labor and study was intended to produce the main labor force that was going to have primary responsibility for the economic development of the country. The new worker, who was both "red and expert," would be nurtured in an education system that combined labor and study.

Labor education was not only supposed to produce a new type worker, but it also was a means of expanding education while reducing State expenditures for education. Regular schools could lower their level of government subsidies by relying on the labor of their students. The media carried glowing reports of schools which were able to reduce their need for State funds and eventually to operate at a profit (NCNA, 1958a).

A second variety of school, which was based on half-work and half-study, was a new arrival on the Chinese educational scene. These schools were run by production units, were intended to be self-supporting, and were designed primarily to prepare young people to assume a role in the production unit (Renmin ribao, 1958a: 15). Schools run by factories were new and were first brought into existence during the Great Leap. In the countryside, many commune-operated schools had their origins in the community-run, or minban schools that had been developing in rural areas with some degree of success since 1956.

The final area of educational reform during the Great Leap was the decentralization of educational planning and

administration. This policy paralleled the general decentralization of authority and planning in society and the dismantling of the Central Ministries. The administration of primary, secondary, and most higher education was placed in the hands of provincial and municipal authorities (Renmin ribao, 1958a: 16). Perhaps even more important was the general decline in governmental regulation of education at all levels. Units of all sorts were urged to operate schools in an effort to encourage initiative, universalize educational opportunity, reduce costs, and make education fit the needs and resources of specific communities. Clearly, in the short run, spontaneity, high enrollments, and low cost all enjoyed much higher priority than academic rigor. In this respect, the Chinese education system had made a complete turnaround from the First Five Year Plan. In deciding to abandon an economic development strategy that emphasized the capital-intensive urban industrial sector in favor of a program of rural agricultural and industrial growth, China created new manpower needs which required major adjustments in manpower training policy.

CONCLUSION

This paper has attempted to establish the link between changing conceptions of manpower needs and educational reform policies in China. It has been shown that the radical educational reforms associated with the Great Leap were a product of an increased understanding of the complexities of promoting industrialization and socialism in a country as poor as China. Certainly, in developing these educational programs and policies, China was not turning its back on economic concerns. Rather, it was attempting to reshape its educational institutions to meet its perceived manpower needs in order to help itself out of what then appeared to be an economic trap.

The contention that education was ignored during the Great Leap is unfounded. Actually it was a more important policy area during the Great Leap than it had been during the early and

middle years of the First Five Year Plan. Policy makers stopped taking education for granted, and stopped assuming that formal academic training, particularly at the higher education level, would produce the needed mix of talents to meet production needs. They came to realize that there is a limited connection between classroom education and economic growth, and that a subtle blend of academic, political, and labor education was necessary to produce the labor pool best suited to China's stage of development and development goals.

A second lesson which helped to mold the Great Leap educational reforms concerned the limitations of a technical-scientific elite as an agent of economic development. In addition to ideological reservations about training a "new elite," it was by no means clear that China had the capital resources to make the high per capita investments needed to pursue a capital-intensive strategy of development. The greatest short-run need for China was the expansion of the primary sector of the economy. For this task a great deal of formal education was unnecessary or even counterproductive, as it produced a youth cohort poorly suited for the rigors of agricultural labor. A related dilemma was that training high-level experts and/or widely distributing opportunities for conventional format secondary and higher education were capital-consuming enterprises which used scarce resources that otherwise could be invested in the economy.

To resolve these problems the leaders attempted to substitute a politically educated worker, with less formal and less expensive training, but presumably a higher level of enthusiasm. They were counting on their ability to substitute labor for capital. They also were willing to permit persons with relatively low levels of skills to perform many tasks usually requiring greater training.

Another conclusion to be drawn from this study is that Chinese manpower and education policies evolved out of earlier efforts to solve problems. In spite of claims about a "struggle between two lines," our data suggests a more evolutionary and incremental approach to policy-making. Although broad

changes in the tempo of development did occur, within particular subsectors of society less radical shifts in policy are observable. For example, a substantial commitment to universalizing education was first noted during the 1955-1956 mini-leap. Although basic policy shifted in 1956-1957 toward more cautious management of the economy, the government maintained the goal of universal primary education while deciding that senior middle and higher educational development would have to be restrained, or even cut back.

A second example of the stability of policies was the changing role of manual labor in the education system. These policies, when first employed in 1955 and 1957, were designed to drain surplus labor out of the cities in order to facilitate the construction goals of the First Five Year Plan. Political education and labor education were intended only to prepare the unlucky for being sent down to the countryside. This same set of policies took on an entirely different coloring during the Great Leap. Participation in labor became the normal educational experience to prepare all workers for their roles in society. What had originally been conceived as a control which would not interfere with the training of a limited number of high-level experts had become the new mainstream route for manpower-training.

Actually, many of the Great Leap educational reforms were poorly implemented, with a tendency to make excessive compromises with immediate economic and production objectives. Party leaders were so burdened with economic responsibilities that they ignored education work, schools set up workshops but they began to ignore their teaching responsibilities and new "schools" were established with no regard to educational objectives (Glassman, 1974: 144-165). The educational reform package linked up with the Great Leap was not properly implemented and had no chance to survive, especially when the cumulative errors of the Leap became obvious and a full-scale retreat was ordered. Much as with the manpower policies discussed above, the failure to adequately plan and implement the initial objectives of the Great Leap permitted a constant spiral

of excesses to take hold in 1958, which led to failure and the discrediting of the program.

Nevertheless, even if one is not much impressed with the implementation of the Great Leap educational reforms, there still are some vital strengths which were demonstrated in laying out this new manpower-training program. What this paper has demonstrated is a constant process of self-scrutiny and analysis to identify and remove power and educational bottlenecks to economic development. The Party leadership—particularly Mao—was willing to look beyond the Soviet experience and experiment with different combinations of manpower and education. However, it is only when these actions are placed into a global perspective that the full measure of the effort can be appraised. Not only was China abandoning the Soviet model, but it was also challenging a nearly universal perception of the central role of scientific-technical elites in industrialization. Thus, in spite of the obvious and already widely recognized failures associated with the Great Leap Forward, one must admit that this was also a period of significant innovation in dealing with the educational and manpower problems of a developing nation.

Education and manpower-training policy in China since the Great Leap Forward has been a major area of contention among the leadership. Different educational priorities and strategies, entwined with leadership conflicts, were important elements in the Cultural Revolution and continue to be important. There have been many factors that explain these conflicts. This author certainly would not attempt to explain recent and current controversies completely on the basis of policy debates and changes that occurred from 1955 to 1958. Yet, this period still is crucial to an understanding of the continuing debate over education in China. These were the crucial formative years for defining a Chinese road, or roads, to socialism. The major issues and choices in manpower and education policy were first defined during these years. These issues were not crystalized until the Cultural Revolution, but one must return to the 1955 to 1958 period to understand the practical experience on which the debate over education policy rests.

NOTE

1. Su (1957) presents data which indicate that junior middle enrollments would be expanding at a faster rate than senior middle enrollments, probably to insure a larger pool of qualified applicants. This meant, however, that the education pyramid would be getting steeper and steeper and competition for admission to senior middle schools and universities would be increasingly difficult.

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