

# **Appendixes**

# Evolution of China's Birth Planning Policy\*

## Introduction

The government of the People's Republic of China (PRC) announced the adoption of birth planning as a national policy in the summer of 1956. Following its formal declaration of antinatalist policy, the government moved to train medical personnel in birth planning procedures, set up family planning clinics, initiate biomedical research on contraceptives, and implement a massive publicity campaign.

These activities were abruptly suspended in August of 1958, when the "People Commune" and "Great Leap" movements were introduced, but were resumed in the spring of 1962 in the aftermath of the Great Leap failure. Although the birth planning policy had not been under attack during the 1966-68 Cultural Revolution, the service delivery system was disrupted by administrative breakdowns. At Chairman Mao's insistence, however, a nationwide, three-tiered system of rural health care was established that laid one of the foundations for China's spectacular decline in rural fertility during the 1970's.

In 1971 the State Council, headed by the late Premier Chou En-lai, issued "Directive No. 51," which called for vigorous promotion of birth planning to reduce fertility levels as quickly as possible. The government then began to diffuse, step by step, the three reproductive norms that were to serve as guidelines for birth planning:

**Late marriage.**—Urban men and women were urged not to marry until age 28 or 25, respectively; for rural dweller the respective ages were 25 and 23. However, the legal age of marriage remained unchanged until September 1980, when the National People's Congress raised it from 20 to 22 for men and from 18 to 20 for women. The new marriage law became effective January 1, 1981.

**Longer birth interval.**—Although the first child may be planned right after marriage, a subsequent birth was expected to follow a 4-year or longer interval.

**Fewer births.**—Each urban couple was at that time expected to have only two children, and each rural couple three children, regardless of the children's sex. In 1977 the term "fewer births" was redefined as two children per family, whether urban or rural. In 1979 the term was further redefined to mean "one is the best; at most two; never the third."

"The People's Republic of China has established historic precedent by rapidly lowering its birth rate while still at a low level of modernization. Understanding the magnitude of China's fertility decline is essential to assessing LDC population growth prospects to the year 2000. For this reason, and

In China, the three reproductive norms are known as wan xi shao, which means "later, longer, and fewer."

The post-Mao leadership has given top priority to the four modernizations—agriculture, industry, defense, and sciences—as the PRC attempts to raise its per capita gross national product (GNP) to \$1,000 by the year 2000. In the official view, the success of this effort is contingent upon bringing about zero population growth as quickly as possible. In February of 1980, Premier Hua Guo-Feng called for reducing the country's population growth rate to 10 per 1,000 within 3 years. At about the same time, the National People's Congress approved a revised constitution, which in article 53 states that "the state advocates and encourages birth planning."

Vigorous implementation of China's birth planning policy during the 1970's produced a phenomenal decline in the country's crude birth rate, which fell from about 31 per 1,000 in 1971 to 18 per 1,000 in 1979. The official natural increase rate for 1980 was 12 per 1,000, representing a net increase during that year of 11.6 million persons.

Yet despite this unprecedented achievement, PRC policymakers remained dissatisfied with the nation's population growth rate. An internal population projection showed that if the 1978 estimated total fertility rate of 2.3 were to remain constant, the population would grow from 958 million in 1978 to 1,282 billion by 2000 and to 2,119 billion by 2080 (18). Because of high fertility rates in the 1950's and 1960's, half of the population was under age 20 in 1978; between 1980 and 1995 the number of women reaching the recommended age of marriage (23) annually will rise to between 12 million and 13.5 million, or an average increase of 18 percent over that number in 1980 (13). Even if each of these women has only one child, these births alone would exceed 10 million per year, a number equal to almost 60 percent of the total births recorded in 1978.

Faced with this awesome prospect, the post-Mao leadership in 1979 launched a two-stage campaign, which calls for the reduction of the natural increase rate to 5 per 1,000 by 1985, and achievement of zero population growth by 2,000. According to Vice Premier Chen Mu-hua, the government official in charge

because of China's significance as 29 percent of the total LDC population, a special report on events in China was prepared for this assessment by Pichao Chen of Wayne State University. The following summary of his report provides detailed data on China's population policies and programs and on the results of these efforts, and new information on the rapidly changing situation in the world's most populous country.

of China's birth planning programs, of the 17.4 million births in 1978, 30 percent, or 5.2 million, were third and higher parity births, or multiparty births. If these multiparty births were to be reduced by half, the crude birth rate could fall from the 1979 figure of 18 per 1,000 to 15 per 1,000, and the natural increase rate from 12 per 1,000 to 9 per 1,000. If multiparty births were to be entirely eliminated by 1985, there would then be 5 million fewer births, the crude birth rate would drop to about 13 per 1,000, and the natural increase to below 7 per 1,000. Because these changes would still fall short of the target for 1985 by two percentage points, the government is now promoting the one-child family. In view of the expected increase in numbers of women reaching reproductive age in the next two decades, the promotion and spread of the one-child family is considered imperative if the nation hopes to achieve zero population growth by the year 2000 (4). Since its inception 2 years ago, the one-child campaign has exceeded most expectations. By the end of 1980, 10 million couples who were parents of one child had reportedly signed the official "one-child certificate," pledging to have no more children in return for a series of benefits.

### **Organization and management of the birth planning programs**

The agency in charge of China's overall birth planning program is the Birth Planning Leadership Group of the State Council, which was created in 1956 as the Birth Planning Guidance Committee of the State Council (9). The agency was revived and reorganized in 1963, 1973, and again in 1978, when Vice Premier Chen Mu-hua assumed its direction. Madame Chen Mu-hua has continued to head the agency since its elevation, in March 1981, to the State Birth Planning Commission. The Commission draws its members from a host of ministries, such as mass organizations as the Women's Federation and the Young Communist League, and such related professional associations as the China Medical Association. Working directly under it is the Birth Planning Staff Office of the State Council, which is responsible for day-to-day coordination and supervision of the birth planning programs throughout the country. The office convenes the annual birth planning work conference, usually held in December or January, to which provincial and selected county birth planning staff offices send delegates. The work conference is one of the mechanisms used to transmit new policy directives to the lower units, receive briefings and reports from below, and cite and reward advanced units. Concrete action plans for the next year are then developed through vertical consultation.

Below the national level, each province has its own planned-birth committee (or leading group), which is presided over by a deputy party secretary of the provincial party committee or a vice chairman of the provincial government. The provincial committee draws its members from various provincial government functional departments (health, public security, commerce, education, etc.) and provincial chapters of such mass organizations as the Women's Federation, the Young Communist League, and the Trade Union Federation. Under its direction, the provincial birth planning staff office carries out the day-to-day operations of the provincial birth planning programs with a small full-time staff and a modest budget. The Guangdong Provincial Birth Planning Staff Office, for example, has a staff of 32 full-time members, who are responsible for: 1) setting annual and intermediate-term plans and targets; 2) supervising lower level units in implementing programs and realizing targets; 3) providing technical assistance to lower level units (e.g., organizing training classes in which physicians and paramedics at lower levels are trained in surgical planned birth procedures); 4) organizing information, education, and motivation activities, including the printing of posters and utilization of mass media; 5) identifying innovative, successful units within the province and diffusing their innovations by convening on-the-spot conferences to exchange experiences; 6) calling annual provincial planned birth work conferences, in which the targets for the next plan year are set (by consultations with birth planning offices at other levels), and advanced units and persons in birth planning are cited; and 7) monitoring the program's progress and collecting and tabulating its statistics.

In 1980, for example, the annual budget of Guangdong's provincial Planned Birth Staff Office was 12.5 million yuan (1 yuan is equal to 60 U.S. cents), divided as follows:

- procurement of contraceptive supplies and reimbursement for the four planned birth operations (IUD insertion and removal, tubal ligation, vasectomy, induced abortion) (50 percent);
- information education, and motivation (1 EM) activities including subsidies to lower level birth units (30 percent); and
- manpower training and research (20 percent).

The budget covers neither the salaries of the 32 full-time staff members nor those of the planned birth workers at lower levels, whose salaries are budgeted under the overall personnel payroll of the level of the government for which they work. Part of the IEM fund has, however, been allocated to subsidize the salaries of the commune-level full-time planned birth cadres.

County birth planning offices also maintain 10 to 15 member full-time staffs. Their functions are to work out annual birth quotas; train, supervise, and supply contraceptives to the lower level units, the communes and brigades; direct IEM activities at lower levels; reimburse commune health centers for expenses generated by the four birth planning operations; and keep records and collect statistics.

Each commune has a birth planning leadership group, headed by the first Party secretary of the commune, who is its most powerful member. The group, which supervises the implementation of the local birth planning program, contains members from all relevant units within the commune: the commune Party committee, commune management committee, public security police station, commune chapter of the Women's Federation, Young Communist League, militia, local school system, commune health center, and so on.

Each brigade within the commune also has its own brigade birth planning leadership group, which supervises the local barefoot doctors, the part-time maternal and child health (MCH) workers (or trained birth attendants), and the team-level health aides who deliver contraceptives to the households and accompany the women or men to the commune health center to obtain the kind of planned birth operation they have chosen. The brigade group is also responsible for conducting local IEM activities, which are community based; community leaders (i.e., the local cadres) are deployed to educate the local people about the benefits of birth planning and persuade them of the importance of births planned in accordance with the new reproductive norms.

Urban organization of planned birth offices is similar to that of rural areas. A planned birth committee and staff office operate at the municipal level and a network of committees and offices functions at each of the various levels into which the city administrative structure is divided: the districts, neighborhoods, resident committees, and resident small groups (each of which consists of between 15 and 40 households). The organization and responsibilities of the district-level planned birth committees and staff offices are patterned after those at the municipal level, though with fewer staff and, of course, smaller areas of operation. By the early 1970's, each urban neighborhood, residents' committee, and residents' small group had reportedly set up its own planned birth committee or group (called a "group" when attached to a residents' small group). The neighborhood planned birth committee is made up of members representing the local party committee, the local administrative office (called a revolutionary committee until 1979), local chapters of the Women's Federation,

Young Communist League, and Trade Union Federation, and the neighborhood hospital or clinic. Under its umbrella are several "women's work" cadres—one for each residents' committee under the jurisdiction of the neighborhood administrative office. They assist and supervise the "planned birth propagandist" at the lower levels, and supervise the paramedics (the urban counterparts of barefoot doctors) working at the neighborhood or residents' cooperative medical station who deliver planned birth services.

At the residents' small group level, a "woman representative" (who represents the women in the unit at the neighborhood chapter of the Women's Federation) is responsible for promoting planned births in her unit. Assisted and supervised by the women's work cadres at the next higher level, these women representatives carry out planned birth activities in the residents' small group—which in recent years has come to include the formulation of community birth plans, as discussed in *Community planning of births*. Women working either in the state factories or neighborhood cooperative cottage industries attend mandatory political study sessions at their place of work. These study groups, which consist of 10 to 15 workers and are headed by "women's group" leaders (the factory's equivalent of the women's representative from the residents' small group), are a variation of the government mechanism used to promulgate the official ideology. These women's groups handle the birth planning activities of the women in the group, including education, provision of contraceptive supplies, arrangement of planned birth operations, organization of the group planning of births, and record-keeping.

All large state enterprise service units and large governmental organizations such as universities and hospitals have also set up their own planned birth committees, usually headed by a deputy Party secretary or deputy director of the unit. This committee handles the planned birth program for its employees and is required to coordinate its activities with the district-level planned birth staff office, or the neighborhood-level planned birth committee. This pattern of coordination whereby the planned birth work at an individual unit must be coordinated with that of a planned birth staff office responsible for a defined geographical-administrative area is referred to in China as the "vertical and horizontal integration" pattern.

Virtually all government bodies in China operate under what is called "multiple leadership," which consists of: vertical leadership, or control by another government body with a similar function at a higher level of the administrative structure; and horizontal

leadership, or control by first, the supreme local government organization at its level, and second, the local Party organization at that level. Planned birth offices are no exception. Given the enormous power of the Party organizations, what this means in practice is that only when Party members on any given level and in any given locality are active and imaginative concerning planned birth activities will these activities be well thought out and executed. This is in marked contrast to family planning programs in other LDCS, where family planning networks normally operate in isolation either as part of a ministry of health or family planning, or as a specifically created bureaucracy. Chinese sources have repeatedly admitted to “uneven progress” in birth planning work across provinces and regions, and have often attributed good performance to “strong” Party leadership and poor performance to “weak” Party leadership and involvement.

### **Community planning of births**

The underlying philosophy of the birth planning policy is to combine state guidance (education and persuasion as opposed to administrative orders) with the “voluntarism” of the people. The government does, however, see that its wishes are carried out. The most effective tactic at its disposal is community planning of births,

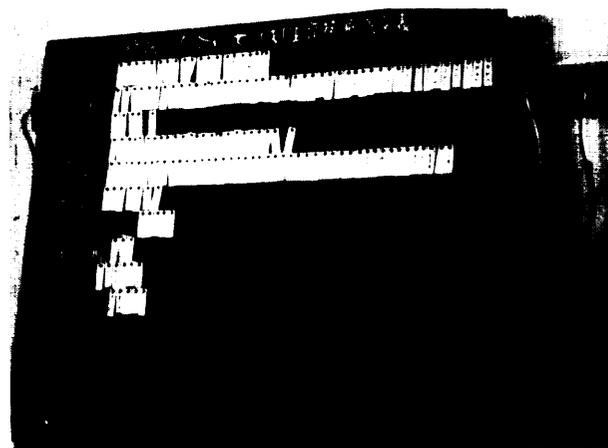
Although many of its elements have changed since the promulgation of the one-child family norm, the idea behind the model is simple. Since the mid-1970's, the State Council Birth Planning Staff Office has set yearly targets for natural increase rates (births minus deaths) in the various provinces, according to such factors as socioeconomic development, previous performance, and ethnicity. Each province, upon receiving the target that the central government has established for it, sets a natural increase rate target and allocates a birth quota for each of the prefectures under its jurisdiction. This process is repeated downward until it reaches the production team (or factory, residential unit, or whatever the birth planning unit happens to be in a particular locale; for this discussion we will refer to the production team). The production team must work out its birth plan, taking into account those couples who plan to marry—for such couples must report their plans to their employing or residential units months or even a year in advance and receive permission to do so—and assigning permission to have children to those couples who have observed the three reproductive norms. Childless couples and couples intending to marry soon who have observed the late marriage norm have first priority, followed by couples who have one child aged three or older. If the eligible number of couples

is larger than the quota allowed, some eligible couples must wait until the following year. Exceptions to these reproductive norms are allowed in practice wherever they are deemed justified by the local people and with the approval of the local birth planning leading group.

Each production team, having worked out its team plan, submits it to the brigade, which in turn works out a brigade plan. The brigades send their plans up to the commune, and so on. Sometimes adjustments must take place along the way; a commune committee may add quotas to one brigade and subtract them from another if it feels this is necessary.

Once a commune birth plan is approved, the members of the commune are expected to implement it. Couples who have been given permission to have a child are issued a “planned birth card” and may forego contraception; others are expected to practice contraception or to undergo abortion in the event of contraceptive failure. Because things do not always proceed as planned—eligible couples fail to conceive, an infant dies, a husband must be absent for a long time, an ineligible wife becomes pregnant accidentally—periodic adjustments must be made. If a couple who did not receive a birth quota conceives and then requests a quota, and another couple with a quota fails to conceive and agrees to give up their quota for that year, the request may be granted.

As these reproductive norms have become increasingly well understood, it is no longer necessary to call time-consuming group meetings to iron out community birth plans. Instead, eligible couples simply submit their own birth plans, and local birth planning committees work out multiyear plans in accord-



*Photo credit: Leslie Corsa*

The reproductive and contraceptive status of every woman in a neighborhood near Nanjing, China, is shown on the local health center's monitoring board

ance with the three norms and notify the couples concerned. The latter are expected to abide by the community's decision (6,7). Because every unplanned birth in defiance of the community decision means that an eligible couple must give up a birth permission they deserve and have earned, there is a collective interest in seeing that the community plan of births is carried out. Chinese birth planning programs thus involve local communities in the planning and implementation of a policy of vital national importance. In the process, community and/or peer pressure ensures its successful implementation.

In isolated instances, local authorities, under pressure to improve program performance, have resorted to high-handed methods. These have included denying full food rations and mobilizing intense community pressure against the defiant. Couples with three or more children have also been mobilized to undergo sterilization or abortion in order to fulfill quotas. The central government has repeatedly condemned and forbidden such practices, and emphasized the importance of patient education and persuasion.

### ***Contraceptive service delivery***

PRC population programs have fared as well as they have largely because of the government's success in creating a nationwide network of primary health care systems. Each of the 2,300 counties is organized into a regionalized, integrated, three-tier health care system that provides community-based preventive, contraceptive, and primary health care to virtually every member of the rural population.

At the county level, under the overall supervision of the county health bureau, are the county hospital, anti-epidemic station, and maternal and child health hospital. These facilities supervise and provide technical support (including in-service training) to the commune health centers within the county in their respective areas of specialization.

At the commune level, a commune health center serves a population of 5,000 to 50,000 persons; it has an average of 15 to 40 beds and 25 to 50 staff members, about one-third of whom are middle-level physicians and traditional herbalists. It is responsible for preventive, curative, and surgical contraceptive services for the entire commune. The health center also supervises and provides continuous in-service training to the barefoot doctors serving the next lower level, the brigade level, who offer preventive, contraceptive, and simple curative services. Cases beyond the competence of the barefoot doctors are referred to the commune health center, which in

turn refers difficult cases to the county general hospital.

At the bottom of the three-tier health service system is the cooperative medical station, manned by two to four barefoot doctors, at least one of whom is female. They supervise environmental sanitation, administer preventive health measures, treat minor ailments, and provide contraceptive services. This medical care unit is financed cooperatively, through payment of premiums by the members of the production brigade. It also receives subsidies from brigade and commune welfare funds, receipts from the growing, processing, and sale of medicinal herbs (in areas where this is done), and fees from users of the service. The state subsidizes cooperative medical services in several ways: 1) prices of some western drugs are set below cost; 2) vaccines and contraceptives are provided free; and 3) most of the initial and continuing cost of training barefoot doctors is subsidized. Once established, the cooperative medical service is expected to practice "self-reliance," raising its revenues from the abovementioned sources.

This insistence on mobilizing local resources while the state provides inputs not available locally largely accounts for the PRC's success in establishing its nationwide health care network. The three-tiered health care system, with the cooperative medical services as the base of the pyramid, provides comprehensive, community-based health and contraceptive services despite low per capita incomes and significant financial constraints.

By 1965, each of China's 2,300 counties was reported to have a well-equipped and competently staffed 100-bed general hospital; larger hospitals averaged 200-300 beds (3). By 1973, virtually all of China's 50,000 people's communes were said to have clinic/health centers, a third of them funded by the state and the remainder by the communes (8). By 1978, 80 percent of the nation's brigades, estimated to number 750,000, had their own cooperative medical service units, staffed by two to four barefoot doctors, or one barefoot doctor for every 400 rural residents (2).

Over the last few years, the number of barefoot doctors has declined, from 1.76 million in 1977 to 1.67 million in 1978 (21). Many barefoot doctors, underpaid or dissatisfied with their relatively low incomes, have abandoned paramedical practice in favor of farming. To counter this attrition, the Ministry of Health in April 1981 issued a directive, approved by the State Council, calling on rural communes and brigades to increase their subsidies to cooperative medical services and to ensure adequate compensation for barefoot doctors (11).

PRC birth planning programs have given major emphasis to providing as many contraceptive services within the community as possible. The goal of the programs is to make it possible for insertion and removal of IUDs to take place at the brigade medical station, and for the other operations (tubal ligation/occlusion, vasectomy, induced abortion) to be performed at the commune health center.

Most female barefoot doctors are trained in contraceptive counseling and some are able to perform abortions by the vacuum aspiration method. Assisted by the part-time birth attendant, MCH worker, or health aide who serves at the team level, the female barefoot doctor is responsible for providing prenatal and postpartum counseling; delivering babies; inserting IUDs and providing follow-up care; conducting contraceptive education; delivering contraceptive supplies to the homes of couples who need them; referring or accompanying to the commune health center clients who expect childbirth complications, need obstetrical or gynecological services, or wish to have one of the planned birth operations; keeping records of planned births and vital statistics for the brigade; and forwarding these statistics to the commune.

Since 1974, PRC birth planning programs have provided contraceptive services free of any charge to users. The county/municipal birth planning staff office reimburses health units that perform the four planned birth operations (i.e., tubectomy, vasectomy, insertion and removal of IUDs, and induced abortion). Women and men who undergo any of the four operations receive benefits in the form of nutritional or cash subsidies, paid leave of absence in the urban-industrial sector, and workpoints in the rural-agricultural sector.

The most popular method of contraception in China at present is the IUD (table A-1). In the estimate of the State Council Birth Planning Staff Office, IUDs

account for about 50 percent of all contraceptive use in China. In Jiangsu province, which ranks as one of the country's highest-performance provinces in birth planning, IUD users account for 52 percent of all current contraceptors; in Guangdong, a poor-performance province, the figure is 55 percent.

The second most popular method is sterilization. In most provinces for which data are available, female sterilizations far outnumber vasectomies. An exception is Sichuan province, where male sterilizations reportedly outnumber female sterilizations. Oral contraceptives are apparently not well accepted in rural areas, with some notable exceptions. In Gansu province, an economically backward province in the northwest, pill users surprisingly account for 23 percent of current contraceptive users. The reason for this is not clear. In major cities, the number of pill users as a percent of total current contraceptors ranges from 17 percent in Shanghai to 26 percent in Tianjin. Two highly effective methods, the IUD and sterilization, together account for about 80 percent of all contraceptive use in China.

Induced abortion was legalized in 1956. Shortly thereafter the social indications for induced abortion were liberalized, and the procedure has since been readily available, free of charge, and granted to women on request.

Table A-2 summarizes induced abortion statistics for the whole of China. As the table shows, China's abortion rate, or number of abortions per 1,000 women aged 15 to 44, remained more or less constant in the decade of the 1970's, averaging 26 abortions per 1,000 women of reproductive age. The abortion ratio, or number of abortions per 1,000 live births, rose from 128 in 1971 to 318 in 1978. China's abortion rate and abortion ratio are very similar to those of the United States in recent years. The statistics substantiate the official Chinese position that

Table A-1.—Contraceptive Users by Method and as Percent of Total Current Users in China and Selected Provinces, 1978 and 1980

	Year	Sterilization			Steroids	IUDs	Barriers	Others
		Female	Male	Both				
China . . . . .	1978	—	—	30	8	50	6	6
Jiangsu . . . . .	1978	32	7	39	7	52	—	3 <sup>a</sup>
Shanghai . . . . .	1978	40	7	47	17	25	—	11 <sup>a</sup>
Tianjin . . . . .	1978	16	—	16	26	37	15	6
Guangdong . . . . .	1978	20	10	30	5	60	5	—
	1980	27	11	38	4	55	1	3
Gansu . . . . .	1980	26	0	26	23	37	—	15 <sup>a</sup>

<sup>a</sup>Including barriers.

SOURCES: China: These are estimates by the Birth Planning Leading Group of the State Council, released to a PIACT mission in November 1979 and April 1980, PIACT, *Product News*, 1980; Tianjin: Chi'u-Lyle, 1980, p. 558; all others: Corsa and Chen, 1980.

**Table A-2.—Number of Abortions, Abortions per 1,000 Women of Reproductive Age, Abortions per 1,000 Live Births, China, 1971-1978**

Year	Number of abortions <sup>a</sup>	Abortions per 1,000 women of reproductive age <sup>b</sup>	Abortions per 1,000 live births <sup>c</sup>
1971.....	3,910,000	21.6	128
1972.....	4,814,000	25.8	193
1973.....	5,110,000	26.6	209
1974.....	4,985,000	25.1	212
1975.....	5,084,000	24.9	242
1976.....	6,570,000	31.2	361
1977.....	5,229,000	24.2	323
1978.....	5,528,000	24.8	318

SOURCES: <sup>a</sup>Zhang, 1980, pp. 35-36.  
<sup>b</sup>Numbers of women of reproductive age 15-44 derived from Chen's computer simulation of the population growth of China, 1953-78.  
<sup>c</sup>Numbers of live births from Wang, 1980.

abortion is not to be used as a method of contraception, but resorted to only as a last recourse in the event of contraceptive failure.

In certain major cities for which data are available, the abortion ratio is two or three times higher than the national average. For example, in 1977 the abortion ratio was 1,231 in Xian (the capital of Shaanxi province), 818 in Changsha (the capital of Hunan province) and 1,200 in Chengtu (the capital of Sichuan province). By comparison, the abortion ratio in Guangdong province was 318 in 1977 and 439 in 1980, and in Gansu province the figure was 303 in 1979 and 249 in 1980. The extremely high abortion ratio in some of China's major cities (which may be attributable to rural women who come to urban centers for abortion services), has led some outside observers to wrongly conclude that China has relied principally on abortion to control fertility—an assertion not supported by the available national and provincial abortion statistics.

**Program performance**

In the 1970's, the Chinese birth planning program evolved and diffused a system of program performance evaluation. First innovated in the major cities on the Yangtze delta, the system is designed to measure the extent to which eligible couples in a given geographic-administrative unit conform to the government-promoted reproductive norms. The system's three measures are the late marriage rate, the birth limitation rate, and the planned birth rate, which are defined as follows:

$$\text{Late marriage rate (male)} = \frac{\text{Number of men married at 25 years or age or older in one calendar year}}{\text{Total number of men married in one calendar year}} \times 100$$

$$\text{Late marriage rate (female)} = \frac{\text{Number of women married at 23 or older in one calendar year}}{\text{Total number of women married in one calendar year}} \times 100$$

$$\text{Late marriage rate (couple)} = \frac{\text{Number of men married at 25 years or older plus number of women married at 23 or older in one calendar year}}{\text{Total number of men and women married in one calendar year}} \times 100$$

$$\text{Birth limitation rate} = \frac{\text{Number of fecund married women of reproducing age practicing contraception}}{\text{Total number of married women of reproductive age}} \times 100$$

$$\text{Planned birth rate} = \frac{\text{Number of first live births to mothers conforming to the late marriage norm plus number of second live births to couples conforming to the longer-spacing norm}}{\text{Total number of births}} \times 100$$

Table A-3 summarizes the available data about the performance of birth planning programs in several provinces. Figures for the late marriage rate for the various provinces are not strictly comparable for the following reasons. First, until very recently in some provinces (e.g., Guangdong) it was possible for young couples to marry, but to wait until they reached the right ages to register the marriage, provided the team and brigade cadres cooperated (14). Second, recommended optimal ages at marriage differ not only between cities and rural counties, but also among prefectures and sometimes counties within the same province. Moreover, the demographic

**Table A-3.—The Late Marriage Rate, Birth Limitation Rate, Planned Birth Rate, and Crude Birth Rate, Selected Provinces, 1977-80**

Province	Year	LMR	BLR	PBR	CBR
Guangdong . . . . .	1978	75	76	61	18.6
	1980	87.6	73	66.2	20.2
Jiangsu . . . . .	1977	88.5	83.7	60.8	15.99
Hebei . . . . .	1977	93	83	77	15
Shaanxi . . . . .	1980	NA	86.1	NA	14
	1979	92	83.7	NA	16.6
Gansu . . . . .	1980	83.6	83.7	NA	14.1
Shanghai:					
City proper . . . . .	1978	90	85	85	7.4
Periurban counties. . . . .	1978	80	80	75	15.3
Tianjin:					
City proper . . . . .	1978	95.2	86.8	92	15.4a
Periurban counties. . . . .	1978		73	65	

NA - not available.  
<sup>a</sup>Refers to the whole municipality.  
 SOURCES: Hebei: *FBIS*, Jan. 9, 1978, p. K4; Tianjin: Chi'u-Lyle, 1980; the rest: Chen, 1979; Corsa and Chen, 1981.

meaning of such statistics is difficult to interpret except that a relatively high late marriage rate implies a relatively high average age at marriage. However, within a province, it does measure the relative conformity to the late marriage norms among various subunits and in the same subunit over time, provided that the same definition was observed and that the degree of underregistration of marriages is of the same magnitude. To this extent, it is a useful index of program performance. Because of local variations in interpretations of planned birth norms, the figures for planned birth rates for the various provinces are not comparable. This rate is, however, a useful indicator of relative program performance.

The birth limitation rate used in Chinese programs differs from the contraceptive prevalence rate commonly used in international comparisons. The principal difference is that the denominator excludes naturally sterile women, who become a large proportion in the older age groups. Another difference is that the numerator is derived from program statistics that usually credit partial use of contraception during the year with full use. Thus, a Chinese birth limitation rate of 70 is comparable to a contraceptive prevalence rate of 60, as commonly used internationally.

There is little doubt that China's programs have succeeded in raising average age at first marriage substantially. In Shanghai county, a periurban county under the jurisdiction of Shanghai, the average female age at first marriage rose from 20.9 in 1955-59 to 24.96 in 1975-79 (26). These figures may be compared with an average age at first marriage for females of 17.7 in north China in 1929-31 as obtained from John Buck's land utilization survey (2). There is also little doubt that the Chinese programs have succeeded in persuading an overwhelming majority of women of reproductive age to regularly practice contraception. A birth limitation rate of 70 percent and above is very different from the situation in the 1930's, when it may reasonably be assumed that the deliberate practice of contraception was virtually nonexistent in China.

A rapid, substantial increase in women's age at first marriage has an immediate, substantial depressant effect on the crude birth rate, provided there are no or few premarital births. By vigorously promoting late marriage, rapidly increasing the use of effective

contraception, and terminating about one-fourth of pregnancies, the Chinese programs were able to sharply reduce China's crude birth rate from 31 per 1,000 in 1971 to 18 per 1,000 in 1979. However, the benefit derived from the rapid substantial rise in age at marriage is by its nature a one-time occurrence. Although the majority of young women have been restrained by the programs from marrying before reaching the required age and thus delayed their first birth, once they reach that age they can marry and are then entitled to receive permission to have their first child. This, together with the much larger cohorts of young women who were born in the high-fertility period of the 1960's and are now nearing marriage age, will result in a vast increase in the number of women entering the approved childbearing ages, beginning in 1983. The process has already begun in a number of cities and provinces. This dramatic surge in numbers of women eligible to bear children is a major reason for the initiation of the one-child campaign. The campaign's success would prevent a new surge in the crude birth rate during the 1980's and enhance China's likelihood of achieving population stabilization by the end of the century.

### ***The historic one-child campaign***

In the August 1979 article in which she made public the government's intention to encourage one child per family, Vice Premier Chen Mu-hua indicated that a "planned birth law" designed to encourage the spread of the one-child family would soon be promulgated. Several drafts of the proposed planned birth law have been circulated at the grassroots level for comments and feedback. By August 1980, the eighth draft of the law was in circulation. However, the only legislation that has so far been enacted is the upward revision of the minimum legal age at marriage, passed by the National People's Congress in September 1980. Three reasons are believed to account for this lack of formal legislation on the one-child family. First, PRC policymakers have apparently not been able to reach a consensus on an experiment of this nature. Second, the law involves both monetary and nonmonetary rewards for couples who pledge to have only one child, raising the ques-



Photo credit: J. Chao and Population Information Program,  
Johns Hopkins University

One child family in Shanghai, shown with grandmother

tion of financing such rewards. Third, there are questions about the enforceability of the law in cases where couples defy the government admonition not to have a second birth, and of how the law would apply to national minorities, who so far have been affected by the birth planning policy selectively and less profoundly than the Han Chinese.

What has happened instead is that in September 1980 the Chinese Communist Party issued an open letter to all members of the Party and of the Young Communist League, which numbers 86 million, to take the lead by practicing the one-child-per-family norm (16). Using the draft planned birth law as a model, most provinces took the initiative in drawing up and promulgating their own provincial planned birth regulations on a trial basis.

The specific incentives offered by these provincial trial measures vary among provinces. All, however, contain generous economic and noneconomic incentives to one-child couples who pledge to maintain this status. Upon obtaining a one-child certificate, couples in urban areas are entitled to such benefits as: a monthly stipend ranging from 5 to 8 percent of the mean monthly wage for workers in urban-industrialized sectors, to continue until the child reaches 14 years of age; living space equal to that of two-child families, and preferential treatment when applying for housing; supplementary retirement pensions over and above those provided for under the current labor protection law; and priority consideration in job assignment and in admission to desired schools for the only child. Couples who have no children, but intend to stop at one child, are not eligible to apply for the certificate until their first child has been born.

In rural villages, couples who sign the one-child pledge are to be rewarded with as much as an extra month's work points for each of the child's first 14 years. The child can receive an adult's grain ration and count as 1.5 persons in the allocation of private farming plots. When the couple is unable to work because of old age, the official goal is to provide a standard of living equal to or higher than the local average.

In both cities and villages, should the only child of a one-child couple die, the parents may have another child and continue to enjoy the same benefits. If, however, they break their pledge by having a second child, they would have to return all stipends or workpoints received and would be fined.

Virtually all Chinese provinces are now believed to have promulgated their own trial regulations. In August 1981, Shanghai, the pace setter in birth planning in urban areas, promulgated a set of revised planned birth regulations. The new regulations retain previous measures aimed at spreading the one-child norm, and add new provisions designed to encourage late marriage, late births, and to "strictly control the second birth." Young men and women who marry after they reach 27 and 25 years of age are entitled to one extra week of wedding leave. Women who give birth to their first child after they reach 25 years of age (23 in periurban counties) are entitled to 15 extra days of maternity leave. Second parity births are to be strictly controlled by denying birth permissions to current one-child couples except for special circumstances (e.g., the one child has congenital, nonhereditary disease and will not grow to become a regular laborer; remarried couples who have only one child; couples certified by hospitals to be sterile who consequently adopted a child only to have their own child later) (23).

These provincial trial measures in effect reverse former welfare policy. Prior to 1977, official rules and regulations used in allocating housing, living space, welfare subsidies in urban areas, and in allocating basic grain and private farming plots in rural areas favored large families, and therefore had a pronatalist effect.

In the 2 years since the government's formal announcement of its one-child campaign, Chinese birth planning programs have placed major emphasis on raising the one-child certificate rate and the ratio of first births per 100 total births. Table A-4 summarizes data on the first-birth ratio for several provinces. Sichuan, the pace setter in birth planning for rural China, appears to have set the pace once again. In 1979, first births accounted for 72 percent of total births among this province's 100 million population.

Table A-4.—First Parity Births as Percent of Total Births, 1979-80

Area	First parity births as percent of Total Births	
	1979	1980
China . . . . .	—	51
Beijing:		
Western District . . . . .	77.7	36.1 <sup>a</sup>
Shanghai . . . . .	52	—
Shanghai county . . . . .	74	30
City proper . . . . .	—	95 <sup>b</sup>
Periurban counties . . . . .	—	75 <sup>b</sup>
Gansu . . . . .	NA	57 <sup>c</sup>
Shaanxi . . . . .	NA	53
Guangdong . . . . .	NA	43
Sichuan . . . . .	72	—

NA - Not available.

<sup>a</sup>As of the first half of 1980.<sup>b</sup>As of the first quarter of 1980.<sup>c</sup>As of June 1981.

SOURCES: China: JKB, June 7, 1981; Shanghai and Sichuan: LI, 1980; all others: Corsa and Chen, 1981.

The record in Shanghai, urban China's pace setter in birth planning, is no less impressive; the first-birth ratio was 95 percent in the city proper and 75 percent in periurban counties in the first half of 1980. In Gansu and Shaanxi, two economically backward provinces to the northwest, first birth ratios were 57 and 53 percent, respectively, in 1980. Even in Guangdong province, where the birth rate in 1980 was the highest of all provinces (excluding the autonomous regions), the first-birth ratio was 43 percent. According to Madame Li Xiu-zheng, deputy chairman of the State Planning Commission and director of the State Council of Birth Planning Staff Offices, first births accounted for 51 percent of all births in China in 1980 (11).

To measure the one-child campaign's relative progress, the Chinese programs have coined a "one-child certificate rate," defined as the percent of one-child couples who have obtained one-child certificates (thereby pledging not to have a second child). Table A-5 summarizes available statistics about the progress of the one-child campaign in several provinces. By the end of 1979, 29 percent of one-child couples had signed one-child certificates. By the end of 1980, more than 10 million one-child couples had signed up. By June 1981, according to Madame Li, 11 million one-child couples had signed up for the certificates, accounting for 57 percent of the nation's estimated total of 20 million one-child couples (about 10 percent of married women of reproductive age) (13). The one-child campaign has fared still better in several provinces. In Sichuan province, one-child certifi-

Table A-5.—Number of One-Child Certificate Holders, and the One-Child Certificate Rate, 1979-80

Area	Date	Number of one-child certificate holders	One-child certificate rate.
China . . . . .	December 1979	5,000,000	29
	December 1960	10,000,000	—
	June 1981	11,000,000	57
Beijing . . . . .	June 1980	220,000	78.6
Jiangsu . . . . .	February 1980	930,000	88
Zhejiang . . . . .	December 1979	120,000	NA
Shandong . . . . .	March 1980	1,170,000	77
Gansu . . . . .	December 1960	—	25.6
Shaanxi . . . . .	December 1960	—	79.6
Guangdong . . . . .	December 1980	—	21.9
Liaoning . . . . .	December 1979	NA	86
Sichuan . . . . .	December 1979	400,000	—
	December 1980	1,700,000	NA

NA - Not available.

<sup>a</sup>Defined as number of one-child certificate holders as percent of total one-child couples.SOURCES: China, 1979; LI, 1980b: *AMRB*, Feb. 11, 1980; 1980: *AMRB*, Jan. 27, 1981; 1981: JKB, "Continue to Promote One Child per Couple," June 7, 1981; Beijing: *Survey of World Broadcast*, FE/6645/B11/17, Feb. 10, 1981; Shanghai: *AMRB*, July 3, 1980; Jiangsu: *AMRB*, Feb. 11, 1980; Zhejiang: *AMRB*, Feb. 11, 1980; Shandong: *Survey of World Broadcast*, FE/6431/B11/12, May 29, 1980; Liaoning: *AMRB*, Feb. 11, 1980; Sichuan: Xinhua, Mar. 13, 1981; all others: Corsa and Chen, 1981.

cate holders rose from 400,000 in 1979 to 1,700,000 in 1980. By the end of 1980, Shandong and Shaanxi had achieved one-child certificate rates of 77 and 80 percent, respectively. Even in "backward" Guangdong, 22 percent of one-child couples had signed one-child certificates by the end of 1980.

Because of the way in which the one-child rate is defined, it will fluctuate substantially from year to year, since both the numerator and the denominator will change drastically from one year to another. Moreover, with numbers of women reaching the age of reproduction expected to average more than 10 million each year, the one-child campaign will do well to raise the one-child rate to 50 percent and maintain it at that level for any extended period.

The son-preference found among the overwhelming majority of rural peasants is a product of Confucian heritage reinforced by a rational calculation of old-age security needs. Although there is an adequate old-age pension system for a large proportion of those employed in the state-owned, urban-industrial sector, these employees number no more than 10 percent of the total population. In rural areas, agricultural collectives provide some security assistance, and are setting up the "five-guarantee household" system (whereby childless old people are guaranteed food, shelter, medical care, clothing, and burial by the collective), and institutionalized old-age care. But because it will be decades before the agricultural col-

lective units can afford these expenses, in today's China, as in the past, the average person must look to his or her son(s) for support in the declining years. And time-honored tradition calls for the son(s) and not the daughter(s) to support aged parents. Under such circumstances, the average peasant couple may not be ready for the one-child family if their first child is a female. The Chinese programs have promoted and arranged matrilocal marriage in recent years in cases where the bride's parents have no male child. This helps reduce multiparty births, but is likely to have little impact on the one-child campaign. If two families each have one child—one male and the other female—the questions of whose home they will live in upon marriage and whose parents they will support in old age become crucial. If they try to support both, the strain on their resources would be twice that of couples who support one set of parents. From the parents' point of view, two children, whatever their sex, are clearly better old-age insurance than one. Given the sex ratio at birth, believed to be 106 males to 100 females for the Chinese population, a 50-percent one-child certificate rate is probably the maximum feasible rate the one-child campaign can hope to sustain over a long period of time.

### ***Population growth prospects to 2000 and beyond***

The Chinese Birth Planning Commission appears to be in agreement with the assessment that the maximum feasible one-child certificate rate is 50 percent. Wang Shou-dao, a member of the Commission and the President of the China Birth Planning Association, reportedly told a visiting Japanese delegation that "our current program is aimed at reducing the average number of children per married couple to 1.5 on a step-by-step basis" (10). A total fertility rate of 1.5 implies, among other things, total elimination of third and higher parity births and a 50 percent one-child rate.

When she formally announced the launching of the one-child campaign in 1979, Vice Premier Chen Mu-hua indicated the campaign's target was the realization of zero population growth by the year 2000.

What will China's population size be in 2000 if the one-child rate can indeed be sustained at 50 percent over the next few years? And when will China achieve the coveted goal of zero population growth? According to Chen's computer simulation of the future growth of China's population (using the scattered demographic data available to the outside world), if China can raise its one-child rate to 50 percent by 1983 and maintain it at that level thereafter,

China's population would reach 1.189 billion in 2000, an increase of only 18 percent over the 1978 total. Thereafter, the momentum of population growth would so weaken that the annual net increase would amount to about 2 million. By the end of the first decade of the 21st century, China would achieve zero population growth.

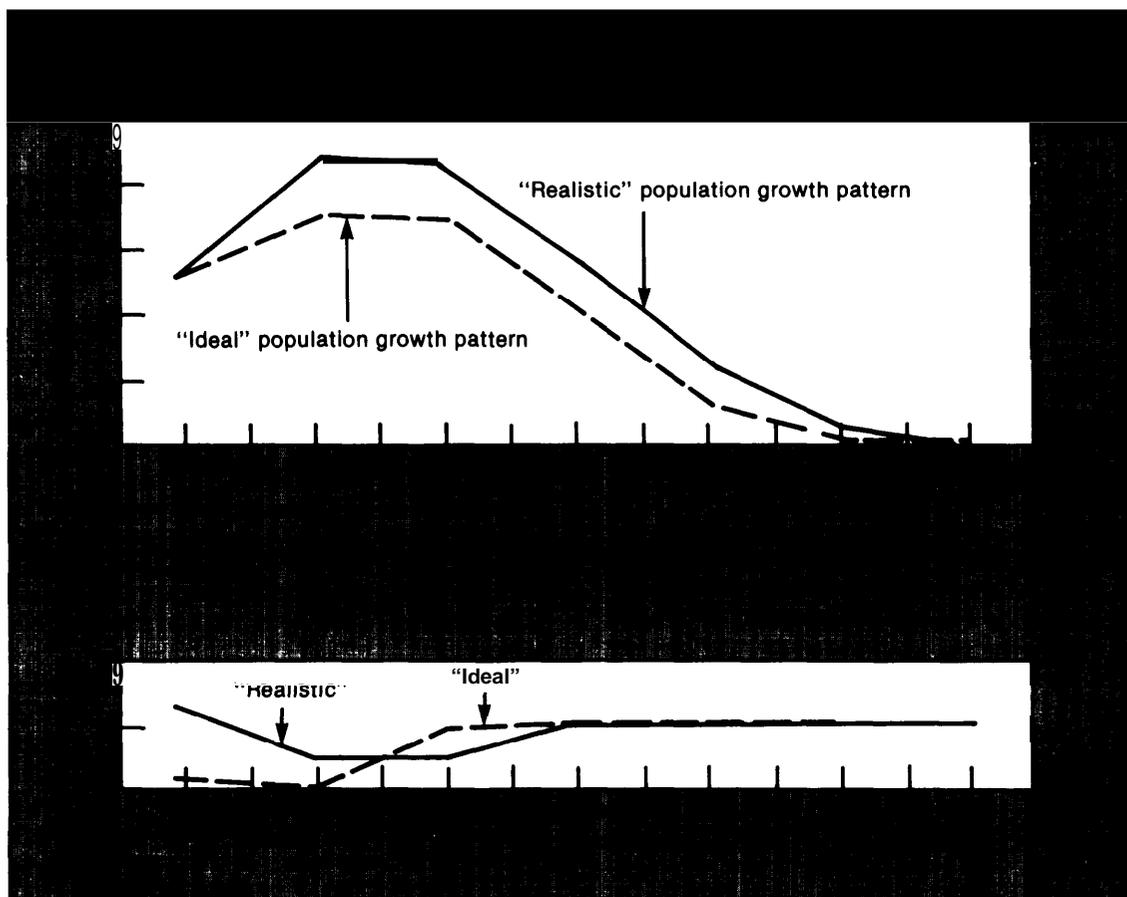
A computer simulation undertaken by a group of Chinese population scientists in 1981 arrived at a figure more or less similar to Chen's: 1.14 billion in 2000 if the total fertility rate were to be brought down to 1.5 in the next two decades.

If the Chinese government should decide to continue its one-child campaign after its population reaches zero population growth, China's population would decrease in absolute size, and the proportion of population aged 65 and above would steadily increase. If this policy were to continue in force, it would pose formidable social problems in the third and fourth decades of the 21st century. Obviously, Chinese policy makers have by now been informed by China's population scientists of the long-term consequences of indefinite pursuit of the one-child campaign.

In implementing the one-child campaign, the Chinese government hopes to persuade 50 percent of couples born in the 1960's and 1970's to forego the privilege of having two children, thereby avoiding otherwise inevitably high population growth rates in the next two decades, and bringing China's population to zero growth in 20 to 30 years. After realizing zero population growth, the government would presumably allow the fertility rate to rise to replacement level, or 2.16, but no higher, and stabilize it at this level for several decades.

In view of the lack of necessary information and the magnitude of a decision of this nature, it is difficult to imagine that the Chinese government has formulated its long-term population policy beyond the next three decades. A group of Chinese population scientists, however, recently advocated two scenarios (fig. A-1). The first scenario calls for reducing total fertility to 1 by 1985, and allowing it to rise to 2.16 after 2000, which would stabilize China's population at 700 million in 2070. The second scenario calls for reducing the total fertility rate to 1.5 by 1990 and allowing it to rise to 2.14 after 2025. If this scenario were to be followed, China's population would stabilize at 700 million by the end of the 21st century. Although the scientists suggested that the government strive to realize the first scenario, they conceded that it was not feasible. They did, however, strongly advocate striving to realize the second scenario, maintaining the total fertility rate at 1.5 in the next several

Figure A-1.-The "Ideal" and "Realistic" Population Growth Pattern, China, 1978=2100



SOURCES: Gong Xi-fang, "An Optimal Analysis of Population Planning," presented at the Third National Symposium on Population Science, Beijing, Feb. 19, 1981; and Song Jian, et al., "Report on An Investigation into the Most Optimal Population Size for Our Country," paper presented at the Third National Symposium on Population Science, Beijing, Feb. 1981.

decades so that China's population would not exceed 1.2 billion when it reaches its peak size (19).

The greatest problem of the one-child campaign to date appears to be the financing of its economic rewards. Thus far, the government has taken the easy step of mandating all employing units in urban areas and collective units (i.e., the commune, the production brigade, or the production team) in rural areas to pay for both cash and noncash benefits. In the urban industrial sector, all workers or government officials work for employing units "owned" either by the collective or by the state, which ultimately shoulders the burden of financing benefits to one-child families. In rural areas, mandating the collective unit to pay for such benefits in effect means that those couples who pledge to have only one child benefit at the expense of those families who are either ineligible or unwilling to make such a commitment. Since the income and living standard of the urban industrial population is already much higher and less subject to cy-

clical fluctuation, it is difficult to justify a policy that calls upon rural collective units to bear this burden without subsidy.

The provincial trial measures call for payment of 48 to 60 yuan (about 29 to 36 U.S. dollars) or more per year to the one-child family for 14 years. In 1980, this amounted to about \$0.34 (U. S.) per capita. In addition, commune and brigade costs for planned birth staff salaries rose to about \$0.25 (U. S.) per capita, and subsidies to couples having a planned birth operation were about \$0.15 (U. S.) per capita. A slight increase in the state contribution for county and higher level staff salaries, contraceptives, planned birth operations, training, and publicity, to about \$0.24 (U. S.) per capita, raised the overall 1980 governmental costs for China's planned birth program to a world high of about \$0.98 (U. S.) per capita, or a total approaching \$1 billion in U.S. dollars. As the number of one-child certificate holders increases, this will become a sizable financial burden for an economy

whose per capita GNP is only 256 U.S. dollars. Whether the government is prepared to take on this financial burden by centralizing the financing of the one-child payment remains to be seen.

### Conclusion

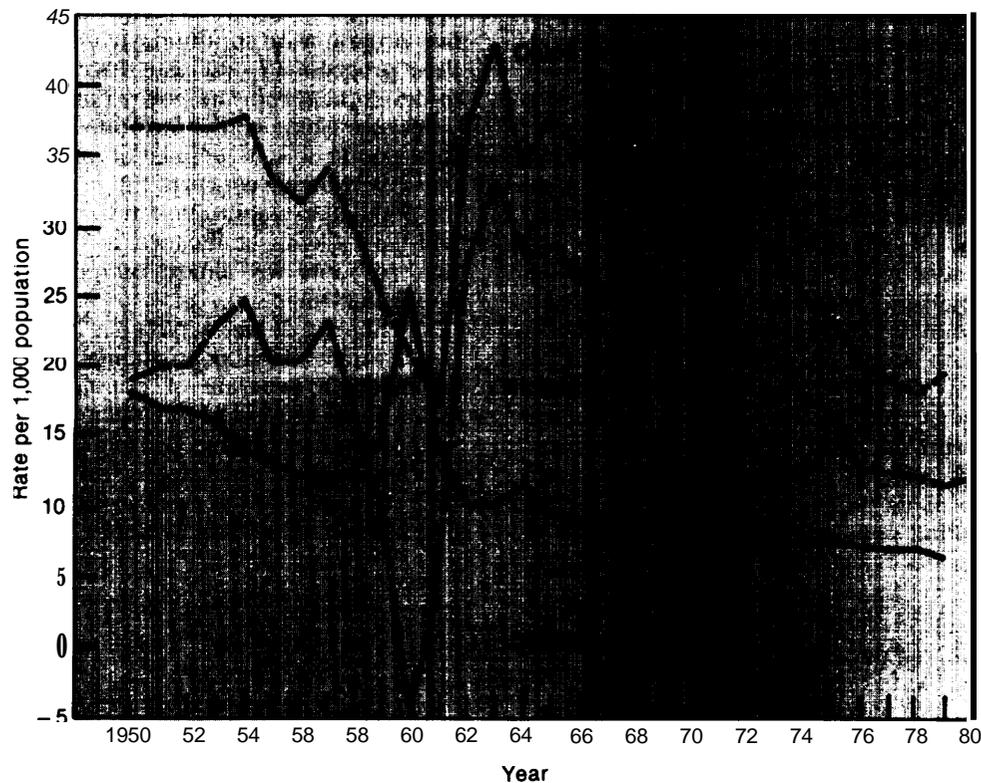
The PRC accomplishment in birth planning in the last decade is unprecedented in the annals of organized fertility reduction. Despite its youthful age structure, China's crude birth rate declined from 34 per 1,000 in 1970 to 18 in 1979 (fig. A-2). This is a remarkable feat for a country where most of the population lives in rural areas, the labor force is largely agricultural, and the per capita income is very low.

However, the PRC government has made tremendous strides in education, the emancipation of women, and health. By 1978 China had achieved virtual

universal education for its vast numbers of young people; more than 96 percent of elementary school-age children were attending school. Although the lives of contemporary Chinese women remain very different from those of their sisters in western Europe and North America, their legal and social status has improved tremendously since 1949. This improvement is particularly marked when the status of Chinese women is compared with that of women in nearly all other LDCs. China's accomplishments in public health and medical care are best measured by the life expectancy of its population: a recent estimate by western demographers yields a life expectancy at birth of 63 to 64 years for 1975 (1).

PRC government efforts to provide minimum but equitable living standards, universal primary education, equality for women, and basic health care for its vast population have greatly strengthened the

Figure A-2.—The Vital Trends of China, 1950-80



SOURCES: Tian, Zue-yuan, "China's Population Development in the Last 30 Years," *Chinese Science and Technology Historical Source Materials*, no. 3, Sept. 1981, pp. 18-27; Li, Chenrui (Deputy Director of State Statistical Bureau), "General Trend of Change Concerning Birth and Death Rates in China," paper presented at the Asian Conference of Parliamentarians on Population and Development, Oct. 1981, Beijing, October 1981; Sun Yefang, "Consolidate Statistics Work, Reform the Statistics System," *Jingji Guanli* (Economic Management), no. 2, Feb. 13, 1981, translated into Foreign Broadcast Information Service, Mar. 26, 1981; State Statistical Bureau, "Principal Statistical Figures of the National Economy," May 1980; and State Statistical Bureau, "Communique of the State Statistical Bureau," Xinhua News Agency Apr. 29, 1981, translated into *Survey of World Broadcasting* E/6711/C/1-9, Apr. 30, 1981.

government's appeal to the populace to accept the new reproductive norms. But the central factors in the PRC's success in birth planning have been the government's commitment of enormous resources, its capability to organize and implement a vigorous, highly organized birth planning program, and the apparently widespread grassroots support for these efforts. No government has ever committed greater human and financial resources to limiting its population growth, nor has any other government been able to rally the degree of community-level commitment and support seen in the PRC.

The task the PRC government has set for itself for the next two to three decades is even more prodigious. Enormous resources have been committed to its accomplishment. PRC leaders have repeatedly indicated that the success of China's four modernization programs is contingent upon realizing the demographic target they have set for the country in the next 20 to 30 years. China's experience in socioeconomic development has borne them out on this point. The population increases of the last three decades have offset their efforts to improve living standards in many areas. Although the total grain output has almost doubled in the last 30 years, there has been virtually no improvement in per capita grain output, which increased from 234 kilograms in 1952 to 260 kilograms in 1980. Population growth combined with the conversion of cropland to industrial and residential use has reduced cropland over the last three decades to the point that in 1979 arable land per farmer in China was a mere 0.12 hectares—lower than the amounts of land per farmer in Bangladesh—0.15 hectares—and South Korea—0.14 hectares. Even densely populated India has an amount of arable land per farmer of 0.45 hectare. Over the long run, the ability of the PRC government to improve the nutrition, living standards, health, and education of its population will depend on its success in limiting population growth. Its ability to create jobs for its burgeoning labor force and to

bring about acceptable rates of economic growth are all contingent on successful population limitation efforts.

PRC population programs have succeeded virtually without external assistance. The PRC government did not become the recipient of external assistance in population activities until June 1980, when the United Nations Fund for Population Activities approved a 4-year, \$50 million population assistance program for China. Most of these funds will go toward the import of hardware such as computers and materials for contraceptive manufacturing plants, leaving little for technical assistance and personnel training. The World Health Organization and the Rockefeller Foundation have also provided small grants to China to support small-scale biomedical and contraceptive research.

To successfully implement its ambitious population programs, China needs more information and scientific knowledge than it now possesses. In the near future China will require extensive scientific expertise to allow policymakers to plan and implement population programs, to continuously monitor and evaluate their progress, to anticipate their consequences, and to develop appropriate policy options.

Because China constitutes one-fifth of the world's total population, its population programs are a matter of worldwide concern. China's success in achieving population stabilization in the next 20 to 30 years will have global significance, as the Chinese population accounts for almost 30 percent of the LDC population total.

Neighboring Japan, which has become a major donor of international population assistance, will shortly initiate a program of population assistance to China at the request of the PRC government. Political stability and economic prosperity in China, which will depend to a great degree on its success in planning its population growth, will also be of strategic importance to the United States.

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