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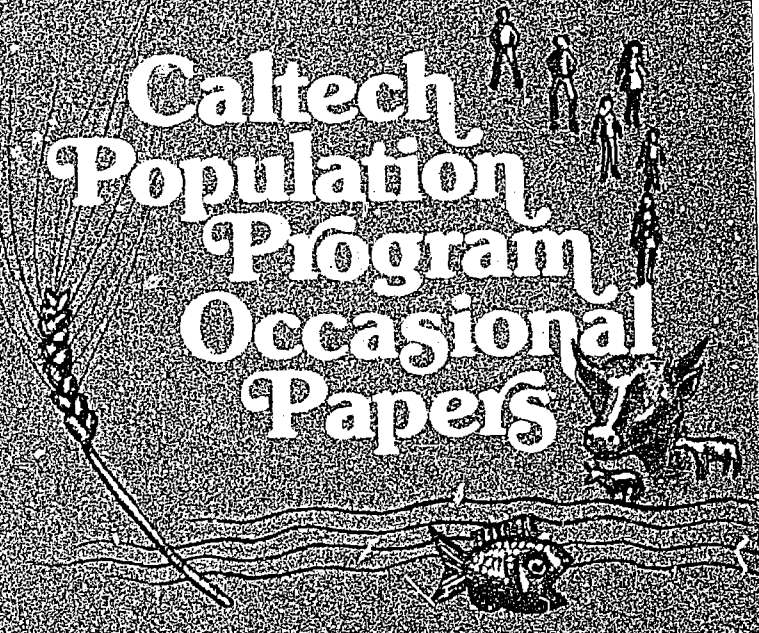
ABSTRACT

The goals of the Caltech Population Program are to increase understanding of the interrelationships between population growth and socioeconomic and cultural patterns throughout the world and to communicate this understanding. This series of occasional papers is one step in the process of communicating research results. The papers deal primarily with problems of population growth and the interaction of population change with such variables as resources, food supply, environment, urbanization, employment, economic development, and social and cultural values. This third paper in the series reports the observations and findings of the author during a trip to China in 1972. The emphasis is on birth control programs in urban areas and in the villages. Political considerations as well as cultural and institutional obstacles are discussed. (LS)

Series 1 Number 3

CHINA'S POPULATION PROGRAM AT THE GRASSROOTS LEVEL: REPORT ON A FIELD TRIP, SUMMER 1972

Pi-chao Chen



Caltech Population Program

The Caltech Population Program was founded in 1970 to study the factors influencing population growth and movement. Its goal is to increase our understanding of the interrelationships between population growth and socioeconomic and cultural patterns throughout the world, and to communicate this understanding to scholars and policy makers.

This series of Occasional Papers, which is published at irregular intervals and distributed to interested scholars, is intended as one link in the process of communicating the research results more broadly. The Papers deal primarily with problems of population growth, including perceptions and policies influencing it, and the interaction of population change with other variables such as resources, food supply, environment, urbanization, employment, economic development, and shifting social and cultural values.

The views expressed in this monograph are those of the author, and do not necessarily represent those of CIT or the Caltech Population Program, its directors, or staff.

CHINA'S POPULATION PROGRAM AT THE GRASSROOTS LEVEL: A REPORT ON FIELD TRIP, SUMMER 1972

Pi-chao Chen

In the summer of 1972 I was fortunate to be a member of a group that toured China for one month. During my stay I focused much of my attention on the Chinese population program at the grassroots level. The following are some of my findings during the trip.

Premier Chou on Population and Birth Control

On August 27, 1972, we were able to have a five-hour conversation with Premier Chou En-lai, and a part of our discussion concerned aspects of China's population and family planning program. The Premier told us that a census was taken in 1964-65, recording the population at around 700 million and revealing the natural increase rate at just under 2 percent a year. For the past two years, the government has provided free family planning service of all kinds, in order to facilitate the practice of planned childbirth. This decision was Chairman Mao's who felt that the government should do as much as possible to ease the financial burden of the masses and help those who desire such services.

In accord with a policy first adopted in the mid-1950s, the government has not promoted family planning in the provinces and autonomous regions on the borders which are areas inhabited mainly by the national minorities. There are two major reasons for this policy of selective promotion. First, before the Revolution, the national minorities experienced a decrease rather than an increase in population due to "the double exploitation and oppression of feudalism and imperialism," lack of adequate medical facilities and care, and widespread venereal disease. Secondly, the areas inhabited by the national minorities are sparsely populated and can absorb additional population. Differential growth rates may help redress the interregional imbalance in population density.

The Premier further observed that so far the family planning program has fared well in the urban areas where the natural increase rate has, in general,

been brought under control, down to about one percent a year, with some intercity variation. Shanghai, for instance, has already brought its natural increase rate below one percent a year. Due to the relative social, economic, and cultural backwardness of the countryside and inadequate medical facilities and manpower, the program has not fared as well in the rural villages. One of the major obstacles to the spread of planned childbirth in the countryside has been, as Chairman Mao pointed out to Edgar Snow a few years ago, the peasants' adherence to the traditional preference for male rather than female babies.[1] The government has and will continue to do its best to condemn and combat this "male chauvanism." But given the relatively low cultural level and living standards in the countryside, it will take time to persuade the peasants to give up this traditional attitude.

Birth Control in Urban Areas

Shanghai administrative subdivision and size of population. Shanghai is subdivided into ten urban *chü* (districts) and ten suburban *hsien* (counties). The ten urban districts had a total population of 5.7 million, all of whom were in nonagricultural occupations. The ten suburban counties also had a total population of slightly under 5 million, an unknown proportion of whom were in nonagricultural occupations. All together the metropolis had a total population of 10.4 million in 1971. Of this, over one million were in schools of various grades, with some 40,000 to 50,000 students in institutes of higher learning.

Vital trends. During my visit to the International Peace Maternal and Children's Hospital in Shanghai on September 6, 1972, Mr. Hsieh Kuei-pao, a member of the hospital's Revolutionary Committee told me: "In 1971 there were 1,290,000 women of reproductive age in Shanghai. Of these, 900,000 were practicing planned childbirth, 170,000 were using oral pills and injectable steroid contraceptives, 400,000 had tubal ligations (accumulated figure), 90,000 had IUDs inserted, and 80,000 to 90,000 of the women's husbands had undergone vasectomy (accumulated figure)." This account by Mr. Hsieh leaves 150,000 to 160,000 women whose contraceptive method(s) remain unaccounted for. Since I did not notice this discrepancy at that time, I did not further probe Mr. Hsieh on this. I suppose that these 150,000 to 160,000 women were using the conventional contraceptives, such as condoms (by their husbands of course), jellies, foam tablets, and diaphragms, all of which are very inexpensive and readily available at all drug stores and department stores, and sometimes even at grocery stores.

This remarkably high planned childbirth rate resulted in a low crude birth rate, 12/1000. The low crude birth rate combined with a low crude death

Table 1. Vital Statistics, Shanghai
1963 and 1971 (per 1000 population per year)

	Births			*Deaths*	*Natural increase*		
	Urban Districts	*Suburban counties*	*Average*		*Urban districts*	*Suburban counties*	*Average*
1963	23	41	30				
1971	6.93	18	12	5	1.4	13.18	6.84

Source: Information supplied by Mr. Hsieh Kuei-pao, a member of the Revolutionary Committee, and Dr. Wang Shih-yu, a medical doctor at the International Peace Maternal and Children's Hospital, Shanghai, September 9, 1972.

rate, 5/1000, produced a strikingly low natural increase rate of 7/1000 for Shanghai in 1971 (see table 1). If all the vital statistics presented in table 1 and the figures for planned childbirth practice given to me are accurate, they would place Shanghai, one of the major metropolises of the Third World, as having one of the highest planned childbirth rates, lowest crude death rates, and the lowest crude birth rates. Presumably, the vital trends monitoring system in a major municipality like Shanghai is better manned and, therefore, produces more accurate statistics than any other city in the country, with the possible exception of Peking which, in 1971, also recorded an extremely low birth rate, 18/1000, and a low natural increase rate, 12.4/1000.[2] There is no way to verify or disprove the accuracy of these figures in the absence of more detailed data than are available currently. However, the circumstantial evidence I obtained and present below seems to be consistent with and, hence, supportive of the figures claimed.

At a housing project in Shanghai, Kung-kiang New Village, one administrative cadre told us that in 1972 there were 64,000 persons living in this village.[3] Of these residents, 27,000 were students in primary and secondary schools. Of the student population, 13,000, ages 6-11, were in grade schools, and 14,000, ages 12-15, were in junior middle schools. If these figures are accurate, fertility began to decline drastically in the urban districts as soon as the early 1960s (more circumstantial evidence of this later).

The fertility decline may be attributed to the more favorable conditions conducive to widespread diffusion of family planning, and to the municipality's public health and planned childbirth service system. Some of

the favorable sociological conditions prevalent in the city are as follows: (1) high proportion of the population employed in nonagricultural occupations; (2) extremely low mortality, especially low infant and child mortality; (3) high proportion of married women participating in the labor force;[4] (4) vulnerability and susceptibility of the city's population to government and peer pressure regarding the ideal family size; and (5) relatively high cultural levels attained by the population of the city. Aside from these favorable demographic and sociological factors, another important factor responsible for the rapid fertility transition has been the municipality's pervasive and penetrating public health and planned childbirth network, described below.

Planned childbirth service network. In Kung-kiang New Village, approximately every 1,200 households occupying 1,200 apartment units (each unit usually has two but sometimes three rooms, depending upon the size of the household) are organized into a *li-non* committee, a resident committee. (The equivalent of the *li-non* committee in Peking is called the *chü-min* committee, resident committee.[5] Each resident committee has set up its own *i-liao chan*, health station. (Its counterpart in Peking is called *chün-chih chun-liao chan* or *chü-min i-liao chan*, resident health station.) Each station is manned by three to four *tu i*, native doctors. These native doctors usually have had four to six months of medical training at the district-level comprehensive people's hospitals. (The rural counterparts of such native doctors are called barefoot doctors, and the factory counterparts, red guard doctors.) The native doctors are responsible for (1) treating simple diseases on the spot (that is, at the health station) thus reducing the workload of higher level hospitals; (2) administering the mass vaccination program; (3) supervising environmental sanitation; and (4) giving lectures on personal hygiene at the grade and secondary schools run by the street committee. In addition, they are called upon to promote the government's birth control policy. They are responsible for distributing contraceptives of various kinds, mostly oral pills, and referring cases of unwanted pregnancy to the district-level people's hospital for induced abortion. As in the public health program the emphasis is on preventing unwanted conception. Only when preventive measures fail would induced abortion be urged, and only as a last resort and on a voluntary basis.

In carrying out their tasks in Kung-kiang, the native doctors are assisted by some 60 volunteer housewives. Each of the 60 housewives is responsible for coming to the health station to fetch the oral pills and other contraceptives and distributing them to the married women of reproductive age living in the 20 apartment units to which she is assigned. In other words, each resident committee is subdivided into 60 units; each unit consists of 20 households, and has an unpaid housewife who is responsible for birth control work in the 20 units.

Table 2. Birth Record, West Third Village Health Station, Kung-kiang New Village, Yang-pu Chü (District), Shanghai

Month	Name	Birth order	Sex	Address	Remarks
1	Sun . . . *	1	m	3-146-403 Chu . . **	72/1/22
	Chao . .	1	f	3-114-6 Chen . .	72/1/4
	Kuo . .	2	m	3-104-210 Han . .	72/1/25
3	Mao .	2	m	3-123-9	72/3/4
	Lin .	2	m	3-93-19	72/3/14
	Li . .	1	m	3-99-5	72/3/1
	Peng .	1	f	3-101-1	72/3/15
5	Chien .	2	m	3-146-304	72/5/15
6	Chen . .	1	f	3-88-5	72/6/11
	Yao . .	1	m	3-94-5	72/6/25
7	Yao . .	1	f	3-114-20	72/7/8
	Huang . .	1	m	3-113-20	72/7/14

Source: Author's notes from his visit

*Each dot (.) represents one given name. Thus two dots means the baby has two given names in two Chinese characters.

**The name between the address and remarks is the mother's.

Leadership. The native doctors and the volunteer housewives all work under a *chi-sheng kung-tso wei-yuan hui*, Committee on Planned Childbirth Work, a permanent subunit of the resident committee. This committee, composed of men and women, is usually headed by a female cadre who is a pro forma member of the resident committee. The Committee on Planned Childbirth Work, not the native doctors, assumes the overall responsibility for the "educational" and "motivational" work with respect to birth control.

At the next higher level, the Street Committee, there is a corresponding Committee on Planned Childbirth Work responsible for the birth control program of the entire area under the jurisdiction of the Street Committee.

The reporting system. The resident health station keeps two sets of records: one on birth statistics including the baby's name, the mother's name, birth order, and home address, and the other on the names and addresses of the married women of reproductive age, and the date on which a cycle (or cycles) of oral pills is delivered (see tables 2 and 3).

Table 2 reveals a great deal about the birth trends in this residential compound. The West Third Village Health Station, one of the health stations serving the residential compound, registered only 12 babies born from

Table 3. Oral Pills Distribution Record

Date*	Name	Address	Cycle of pills given	Remarks
...	...	...	...	...
...	...	...	...	...
...	...	...	...	...

Source: Author's notes from his visit. This is from West Third Village Health Station, Kung-kiang New Village, Yang-pu *Chii* (District), Shanghai.

*This refers to the month oral pills are given to married women of reproductive age.

January through July 1972. An even more striking statistic is the birth order recorded there. Of the twelve babies, eight are first-born, and four are second children. This evidence supports the claimed low birth rate for the inner city districts. Later, during the same visit to Shanghai International Peace Maternal and Children's Hospital, I was told by Mr. Hsieh that in the last two or three years the largest percentage of babies delivered at the hospital were first-born, the second largest percentage were second children, and the smallest percentage were third children. Furthermore, he continued, the last few years have witnessed a slight decline in the total number of deliveries at the hospital, from 5,700 in 1968 to 4,885 in 1971." And, in an effort to utilize its physical facilities further, the hospital has converted some of its maternity wards into cancer treatment wards.

However, Shanghai is not China: Shanghai is the most modernized city in the entire country. The planned childbirth service system in Shanghai is likely to be more adequate, pervasive, and penetrating than in any of the other cities in the country. This advantageous condition should make it easier for the government to reach and provide contraceptive service to the target population in Shanghai, who, to begin with, are likely to be highly motivated. But what about the countryside? How has the government implemented its population program in the villages where the facilities are bound to be less adequate and the target population less motivated?

The section below describes the planned childbirth work and the contraceptive delivery system in the countryside. Table 4 indicates the places we visited, together with some demographic and other statistics obtained during the visits. There are a number of missing data, especially with respect to the delivery system and vital statistics. This was due to the facts that (1) the administrative cadres I talked to could not cite me the figures offhand, and (2) due to the short length of the time we spent in a given place, I was not able to seek out and talk to the barefoot doctors, who are in a

Table 4. Demographic and Other Statistics of Some of the Brigades and Teams Visited, August-September 1972

Name	*Location (hsien & province)*	*Population*	*Households*	*Acreage (mou)*	*Level (unit) of accounting*
Hsi-pu brigade, Chien-min commune	Tsun-hua, Hopei	1,130	233	1,066	brigade
Sha-shih-yü brigade, Yueh-ko-chuang commune	Tsun-hua, Hopei	670	130	800	brigade
Chi-li-yin brigade, Chi-li-yin commune	Hsin-hsiang Honan	7,490	1,300+	13,700	team
Liu-chuang brigade, Chi-li-yin commune	Hsin-hsiang Honan	1,125	187	1,800 (1,000 planted to cotton, 800 to grain)	brigade
Ta-Tsai-yuan brigade, Cheng-kuang commune	Lin, Honan	1,500	310	1,519	brigade
Mei-chia-wu brigade, Hsi-hu commune	Hangchow, Chekiang	1,350	253	slightly over 1,000, 90% tea cultivation	brigade

Source: Author's notes from his visit.

Table 4. Continued

Name	*Income/ person/yr Cash: yuan* Grain: chin*	*Medical insurance/ person/yr (yuan)**	*Planned childbirth conditions*	*Death rate*
Hsi-pu brigade, Chien-min commune	Cash: 120 Grain: 450		80% practice planned childbirth; 8 cases induced abortion in 1971; IUD and sterilization popular; program has become a routinized, high-priority task since 1969.	
Sha-shih-yü brigade, Yueh-ko-chuang commune	Cash: 105 Grain: 445	1968: 1.4/ person/yr 1971: .5 Brigade contributes the rest	Oral pills: 25; IUD: 12; Sterilization: 3; induced abortion: 2 (1971), 1 (1972); some 40 households have not practiced planned childbirth.	1971: 3 deaths = 4.5/1000
Chi-li-yin brigade, Chi-li-yin commune	Cash: Grain: 500+			
Liu-chuang brigade, Chi-li-yin	Cash: 100 Grain: 500+	1/person/ yr; no increase since 1966. Brigade subsidizes the rest.	Program intensified since 1966; preference for male children and big family size strong; emphasis on delayed marriage and small family.	
Ta-Tsai-yuan brigade, Cheng-kuang commune	Cash: 30% of total income Grain: 445=70%		IUD and oral pills most popular; majority practice birth control, 30-40 households do not.	6 deaths = 4.0/1000
Mei-chia-wu brigade, Hsi-hu commune	Cash: Avg.: 1,050/5-person household Highest: 2,000+/5-person household Grain: No allowance; purchase 1 *chin* = .14 *yuan*			

*In August 1972, US $ = 2.24 *yuan*

Table 4. Continued

Birth rate	*National increase rate*	*Medical personnel*	*Target of program*
	20+/1000	6 barefoot doctors	To reduce birth rate to below 20/1000 as quickly as possible
1971: 15 births = 22.4/1000	17.9/1000	3 female barefoot doctors: one can do hernia, tubal ligations; another specializes in acupuncture and Chinese medicine.	"The higher-up demands us to reduce the birth rate to 15/1000 as quickly as possible."
	20+/1000	3 male and 1 female barefoot doctors: treat simple diseases and illness.	"To reduce birth rate to below 2% as quickly as possible."
1966: 30/1000 1971: 20/1000 decline began in 1964	16/1000	2 barefoot doctors, treat simple illness.	"To propagate delayed marriage and 2-child family idea. To do as much as can be done."
		4 barefoot doctors	"To do as much as we can to promote."

better position to answer my questions. Since we only visited a few places and the information we managed to obtain remains inadequate, I cannot overemphasize (and must caution the reader about) the extremely limited bases of my observations.

Birth Control in the Villages

Organization. At the commune level[7] there is a Committee on Planned Childbirth Work, headed by either the chairman of the commune's Revolutionary Committee or the vice-chairman, or a female cadre, and including cadres (both male and female) from the various commune subunits whose function is related to birth limitation work. This Committee on Planned Childbirth Work has the overall responsibility for supervising and coordinating the work on birth limitation in that commune.

At the production brigade and production team level, there is a *chi-sheng hsiao-chu*, a small group on planned childbirth work, with approximately the same personnel composition. For example, in Ta-chai-yuan Brigade, Lin Hsien, Honan, there is a small group on planned childbirth comprised of five members: the captain of the team (male), the secretary of the Party branch (male), two cadres in the women's militia (female), and one woman comrade. This group is under the supervision of the commune Committee on Planned Childbirth Work.

The Women's Work Cadre. At each of the three levels of birth control units, there is always a female cadre, usually a married woman in her late 20s to early 40s. She is a "natural" member of such units and is often the head of the local branch of the Women's Federation. More than any other person in a given unit, she is responsible for the day-to-day work on birth control. Before 1962-63, her responsibility consisted of overseeing the implementation and enforcement of the "New Marriage Law" promulgated in 1950. Since the revival of the birth control campaign in 1962-63, she has had one additional responsibility, namely to implement the Party's policy on birth limitation. She is responsible for the "educational" and "thought" work regarding birth control, or what is referred to elsewhere in Asia as "publicity" and "motivational" work.

Educational and motivational work. In carrying out this task with the married women of her unit, she is assisted by activists of the local branch of the Women's Federation. The contents of the propaganda are as follows.

(1) Socialism is superior to the old system. There is no need to raise numerous sons in order to ensure security at old age. In addition to the

guaranteed allotment of grain [amounting to 225-240 kilograms a year], subsidies are always available to those in need of help. For the childless widows or widowers, there is the "five guarantee system" [guarantee of food, clothes, shelter, medical care, and a decent funeral].

(2) In a socialistic society, one is equally blessed whether one bears sons or daughters. To have daughters is equally as good as to have sons.

(3) Today, with the improvement in public health and medical care, if one bears one child, the one survives, and if one bears two, the two survive. Therefore, there is no need to bear numerous children in order to ensure the survival of a few.

(4) Socialism means a planned economy. One should also plan the number of children one wishes to bear. Nothing should be left to "fate."

(5) If one bears fewer children, one can make a better contribution to the socialistic construction of the fatherland. The birth of a child would take away from active participation in production for a few years and hence reduce the number of years one can make a useful contribution to the socialist construction.

(6) Having numerous children means the same amount of income will have to be spread to bring up and educate them, which in turn means that quality of upbringing and education each child receives will be less adequate than it would be otherwise. Many children also means lower income for the family, for each childbirth will take the mother away from active participation in production, which in turn means that there will be less cash for the family.

(7) Practice of planned childbirth is not something to be ashamed of. Nor is it an ugly thing.[8]

These ideas and views are diffused to the community through periodic mass meetings and home visits. In some of the production brigades (or teams) we visited, the women's work cadres repeatedly told us that since the beginning of the year (1972) two meetings have been held, to which all married women of reproductive age in their unit were invited. Generally speaking, the younger women tend to be more receptive to the ideas than the older women. In case the married woman becomes convinced of the benefits of planned childbirth but has refrained from practicing it because of the opposition of her mother-in-law who still believes in having numerous grandchildren, especially grandsons, the women's work cadre and members of the Committee on Planned Childbirth Work (or the Small Group on Planned Childbirth Work) together with some female activists (usually married women of reproductive age who have two or three children and are currently practicing birth control) pay home visits to "talk it over" with the mother-in-law. They would not stop the home visits until the mother-in-law agreed at least not to interfere with her daughter-in-law's desire to practice

birth spacing.

Thus, it becomes clear that in "educational" and "motivational" work (or *sou-fu kung-tso*, the persuasion work) the emphasis has been on a face-to-face approach (small group meetings and home visits where peer pressure could be more effectively exerted) rather than on impersonal communication through mass media.

The function of the barefoot doctor. It has also become clear that the barefoot doctors have not played the leadership role in birth control work as many outside observers (including myself before last summer) thought.[9] Rather than assuming a leadership position in the birth control work at the grassroots level, they are more or less *yueh-wu jen-yuan*, task personnel, who provide contraceptive knowledge and means to the target population under the supervision of the Committee on Planned Childbirth Work. On the one hand, they constitute the lowest link in the distributive network delivering the oral pills and other conventional contraceptives to the target population. On the other hand, as the grassroots "referral point," they serve two functions. First, they refer unwanted pregnancies to the commune-level clinics or county-level comprehensive people's hospitals for induced abortion; second, they identify target persons (parents with at least three children, especially those with more male than female children) and persuade or refer them to the same clinics or hospitals for sterilization operations. The systematic and extensive use of the barefoot doctors frees the government to employ its regular, fully trained medical doctors in tasks that genuinely require professional competence, such as insertion of IUDs, induced abortion, tubal ligation, vasectomy, and treatment of side effects arising from use of contraceptives.

In carrying out their responsibilities, the barefoot doctors are assisted by the team-level *wei-sheng-yuan*, health aides and midwives. The health aides and midwives are usually primary school graduates with minimal medical training. The health aide's other jobs consist of supervising environmental sanitation, fostering healthy hygenic practices, and administering the mass vaccination and immunization program, while the midwife's additional duty is to perform child deliveries for her production team. Each production team has at least one health aide and one midwife, who are "undivorced from production."[10]

As in the cities, the approach of the program in rural villages is one of extentional rather than clinical services: rather than waiting for the target popultion to come to the health station to pick up the contraceptives, the paramedical personnel approach them and deliver the contraceptives to them at home. Needless to say, such an approach reduces the level of motivation required for the practice of planned childbirth to spread in a population which is not or little motivated. The "client homophyly"[11] of the

paramedical personnel—that is, the shared cultural values of the paramedics with their clients—should work to their advantage as agents of diffusion of innovation. Furthermore, the program, by placing a premium on distributing the pills, condoms, and jellies (but not diaphragms) should offset, to a certain extent, the lack of well-trained medical doctors, which could otherwise constitute a critical bottleneck.

In accordance with the current development strategy that extols the virtue of *yin-ti-chi-yi*, getting the best out of each area, the subnational administrations at various levels have been encouraged to organize their paramedic training programs, taking into account the local conditions and resources, in the way they see best serving the local needs.[12] One consequence of this is the uneven progress in the training programs. Another is the differential competence of the paramedics thus trained.[13] With the passage of time, as more and more barefoot doctors receive more advanced training, the uneven development should disappear.

All costs related to birth control are borne by the state. Everything, from pills to induced abortion, is provided free of charge. Conventional contraceptives such as condoms and jellies are extremely cheap relative to income and readily available at brigade or team grocery cooperatives. Not only are all planned childbirth means free, but compensation is also provided when the occasion so justifies. For instance, tubal ligation entitles the patient to three weeks of recovery time with full pay, induced abortion two weeks with full pay, IUD insertion two days with full pay, vasectomy one week with full pay. It is not clear to me whether a peasant-woman-cum-housewife who does not participate in farming full time is entitled to the same amount of compensation awarded the full-time worker. It is very important to point out that the paid rest period allowed for the various operations should not be regarded as "material incentive" as such. The official rationale is that it only compensates the patient for the time and wages lost for having undergone the operation and nothing more, which is of course true. Even so, such compensation or provision is quite a remarkable concession on the part of a government that has fought most vigorously against using material incentives as a device to motivate its people to perform desired tasks.

Recent high priority status. In nearly every place we visited, the local cadres (such as the chairman of the Revolutionary Committee or the women's work cadre) told us, "After the Ninth Party Congress [April 1969], we began to grasp firmly the work on planned childbirth." Others would say, "Planned childbirth has been a *chung-tien kung-tso* [high priority task] for several years now. The leadership demands that we get as much done as possible, and to grasp it firmly as a routine work." Everywhere we went I was impressed by the saliency of the birth control work in the minds of the cadres. They knew the exact number of married women of reproductive age in their unit, how

many of them practiced planned childbirth using what kind of contraceptive or having what permanent method (tubal ligation or vasectomy). They also answered without hesitation questions about crude birth and death rates and the number of babies born and deaths occurring in the last two years. The following is a typical answer I received: "We have altogether 670 persons in our brigade. [This is an unusually small brigade.] We have 97 *yü-fen yu-nen fu-nu*, married women of reproductive ages. Of these 97, 25 use pills, 12 have IUDs, 3 have husbands who have had vasectomies. That makes a total of 40 who practice planned childbirth. Last year we had two cases of induced abortion. And last year 15 babies were born and there were three deaths, two of old age and one soon after birth. As a result, our brigade had a net increase of 12 persons last year."

Cultural and Institutional Obstacles to the Spread of Birth Control in the Countryside

Instead of discussing here the relatively well-known obstacles to the spread of birth control in a predominantly agricultural society,[14] I would like to call attention to a unique convergence of a traditional cultural norm with the pattern of income distribution institutionalized by the Chinese government resulting in the reinforcement of the traditional cultural preference for male to female children, and hence, large families.

Needless to say, the peasant's preference for male to female children has its roots in the traditional agrarian economic order. The birth of a male represented an increase in assets, whereas a female meant a drain on the scarce resources since there was no prospect of recovering the capital investment nor realizing a return on the investment.

This traditional economic rationale for preference for male children has its counterpart or functional equivalent in the contemporary Chinese rural economic organization and the pattern of income distribution in villages. General speaking, the production team is the basic accounting unit in the so-called three-tier system of ownership—the commune, production brigade, and team. (There are instances where the production brigade is the basic accounting unit, although they are still in the extreme minority, as the government freely admits.) In the rural villages we visited, every member of the production team (or brigade) is given 450 to 480 *chin* (two *chin* equal one kilogram) of grain a year, irrespective of his (or her) age or amount of labor participation in production. In some areas, the amount of grain allocated to children from birth to 10 years is discounted by a factor of 0.4 to 0.1, with the factor decreasing with age.

The guaranteed allotment of 450 to 480 *chin* of grain equalizes and eases the burden of bringing up a child, male or female. In a way, this guarantee is a positive incentive to population growth. Now there is little or no need to

resort to infanticide as a last desperate device to curb the overgrowth of family size. On the other hand, the guarantee serves to reduce the incentive to reproduce children in order to ensure security in old age. However, this counterincentive seems to be weak compared to the positive incentive, because the security and care provided by the guarantee remains inadequate and of no comparison to that provided by one's grown-up children.

In some areas this guaranteed allotment of grain can amount to 70 to 80 percent of the average take-home income of a given accounting unit; in other areas it is lower. Cash income, however, is distributed according to contribution to the production process resulting in income differentials, with those contributing more to production (as represented by their higher accumulated work points) receiving higher cash incomes. Yet cash income comprises only 20 to 30 percent of the average take-home income.

The extended family is still the norm. In most cases the married son and his wife live with his parents. In a small production brigade with 680 persons in Hopei I was specifically told that there has been no instance in which a son and his wife moved out of his parents' home upon marriage, except for those who moved out of the village to settle in town.

Thus, the sex of a new baby has great family welfare consequences. A male offspring can be counted on to contribute to the family cash income by participating in production for the rest of his working life, beginning when he reaches 15 or 16 years of age. And he can be expected to further increase the family's potential and/or actual capacity for earning more cash income by "marrying in" a daughter-in-law in a few more years. The same, however, does not hold for the female offspring. While the cost of bringing her up is more or less the same, her parents cannot count on her to contribute to the family welfare by bringing home cash income for all the years of her maturity. Within a few years after she reaches maturity she will be "married out," thus contributing to the *lao don li*, labor power, and the cash earning capacity of her husband's, not her parents' household.

Conversation with the rural cadres and peasants led me to believe that the peasant's traditional preference for male offspring is now reinforced by the institutionalization of productive labor as the sole determinant of cash income. As in the past, the birth of a male baby is likely to be viewed as an increase in (human) capital assets, whereas that of a female baby is frowned upon or met with outright disappointment. In other words, the combination of the patrilineal system (in which the woman joins her husband's family upon marriage) and the institutionalized pattern of income distribution in the rural areas may have the unintended consequence of reinforcing, if not strengthening, the traditional cultural preference for male offspring. Other things being equal, such a sex bias is more likely than not to sustain high fertility, as Chairman Mao has pointed out.

Further, collectivization of land holdings may also have some demographic

consequences of mixed blessing. A sociological study of a northern Chinese rural community in 1930 revealed that the age of marriage was negatively correlated with the size of land holding.[15] W. Stys and others have also demonstrated that in a preindustrial society in which the family is the basic economic unit, the size of land holding tends to be negatively correlated with age at marriage, and positively correlated with fertility.[16] In other words, in a preindustrialized, noncollectivized society insufficient land holding tends to serve as a check on early marriage and overgrowth of these families. In contemporary China, the private ownership of land has been abolished all but in name, productive labor has become the major capital asset and major determinant of income, and the economic role of the family has been reduced to one of a consumptive unit (as opposed to the traditional family which was at once a productive and consumptive unit).

Whether these institutional changes have had the effect of removing the traditional check against early marriage remains to be seen. Whether the government's effort to promote delayed marriage through its educational campaign is strong enough to counteract the probably adverse fertility effects of early marriage also remains to be seen. Further, with collectivization of agriculture, the individual patriarch need no longer be concerned about having to divide a minimal plot among too many sons. Time shall tell whether the pattern of income distribution and the absence of inheritance considerations will work to increase fertility, or whether the government's services of education, contraceptive means, and social pressure will reduce it.

Notes

1. Chairman Mao's remarks as recorded by Snow are as follows: "In the countryside the woman still wanted to have boy children. If the first and second were girls, she would make another try. If the third one came and was still a girl, the mother would try again. Pretty soon there would be nine of them, the mother was already 45 or so, and she would finally decide to leave it at that. The attitude must be changed but it was taking time." Edgar Snow, "A Conversation with Mao Tse-tung," *Life* (April 30, 1971): 47. This article is reprinted in Edgar Snow, *The Long Revolution* (New York: Random House, 1971), pp. 167-178.
2. Anibal Faundes and Tapani Luukkainen, "Health and Family Planning Services in the Chinese People's Republic," *Studies in Family Planning*, vol. 3, no. 7, supplement, July 1972, p. 166; see also Tameyoshi Katagiri, "A Report on the Family Planning Programme in the People's Republic of China," mimeographed, May 1972, p. 11.
3. The Village constitutes a Street Committee, which in turn is subdivided into some 50 *li-non* committees, or resident committees, the lowest

administrative unit in China's cities. The resident committee's equivalent in Taiwan is the *lin*, the neighborhood, although the latter tends to be smaller in size. The average size of a resident committee in Shanghai is 1,200 households, with some variation.

4. Most women of reproductive age either work at the "regular" factories or the cottage-industry workshops erected near the housing projects. The extent of women's participation in the labor force in urban areas is reflected in the following statistics. The *Feng-hsen* Street Committee, Hsi-cheng District, Peking, has a total residential population of 52,968 persons. Of this, 22,808 persons have full-time regular outside employment. Of the full-time workers, 46.4 percent are women. There are 16,252 students in various grades, primary school through college, and 6,145 preschool age children. There are 7,762 nonworking, nonschooling residents who may be subdivided into three major categories: (1) retired teachers, workers, and clerks; (2) the handicapped and those losing the strength to do manual labor; and (3) housewives in ill health. This Street Committee has six "street factories" and one "service station," employing approximately 40 percent of the housewives in the Street Committee area who do not have full-time jobs at regular factories. In the urban-industrial sector, "equal pay for equal job" has been the norm since the mid-1950s. Those housewives who leave their infant children at the child-care centers and work in the "cottage industry" workshops subcontracted to the "regular" factories, earn a respectable wage. In Kung-kiang New Village, the housewife-workers make on the average 32 *ren-min-pei*, people's *yuan*, which is equivalent to the lowest monthly wage for a worker in a "regular" factory.
5. For a description of the structure and functions of the resident committee, see Ezra F. Vogel, "Preserving Order in the Cities," and Janet W. Salaff, "Urban Residential Communities in the Wake of the Cultural Revolution," in *The Cities in Communist China*, ed. John W. Lewis (Stanford: Stanford University Press, 1971), pp. 75-96 and pp. 289-324, respectively. For a recent, firsthand report on the health service at the grassroots, see Ruth Seidel, *Women and Child Care in China* (New York: Hill and Wang, 1972), especially chapter 3, pp. 45-68.
6. See also Faundes and Luukkainen, op. cit., table 2, p. 167.
7. According to Chou En-lai, on the average a rural commune has a population of 12,000 to 13,000 persons. (See "Chou En-lai on the Agricultural Problems," recorded by the Delegation on Japanese Peasant Activities, in *Asian Economic Bulletin*, February 1, 1971, trans. in *China Monthly*, no. 92, November 1971, p. 534.) The large communes can have as many as 50,000 to 60,000 persons or more, while the smallest ones as few as 8,000 or less. A commune is divided into 10 to 20 production brigades. Each production brigade is in turn subdivided into three to five

production teams. On the whole, a production team corresponds to a "natural" village or hamlet of 30 to 60 households. In cases where a natural village is large, it may be divided and organized into two production teams. On the other hand, two or more small natural villages may be combined and organized into a production team. For a recent firsthand study of the size, structure, functions, income distribution, and other aspects of the rural communes, see Shahid Javed Burki, *A Study of Chinese Communes, 1965* (Cambridge: Harvard University Press, 1970). See also John C. Pelzel, "Economic Management of a Production Brigade in Post-Leap China," in *Economic Organization in Chinese Society*, ed. W.E. Willmott (Stanford: Stanford University Press, 1972), pp. 387-416.

8. Needless to say, I never stayed in a given place long enough to attend a "motivation session." The contents of the propaganda as summarized here was supplied to me by a fellow team member who at my request obtained them from a female work cadre and barefoot doctor in a north China village while on a three-day visit. This friend of mine wishes to remain anonymous. I wish, however, to express my gratitude to him for his generosity in making available to me a copy of the notes he took.
9. For a description of the barefoot doctors' training program, see Joshua S. Horn, *Away with All Pests* (New York: Monthly Review Press, 1969), chapters 9 and 10.
10. For a discussion of the Chinese strategy and approach to public health and population planning in particular, see my "Population Planning in China: Policy Evolution and Action Program," presented at the Conference on Public Health in the People's Republic of China, Ann Arbor, Michigan, May 14-17, 1972. Proceedings to be published by the Josiah Macy, Jr. Foundation, N.Y., and the Univeristy of Michigan School of Public Health.
11. For an elaboration of the concepts of "homophyly" and "heterophyly," see Everett Rogers, "Homophyly and Credibility: Change Agent Aides in Family Planning Program" (unpublished manuscript, n.d.).
12. There is not even a uniform instructional manual for the training of barefoot doctors. Traveling in different parts of the country, in a five-week period I was able to pick up five different manuals, compiled by different medical colleges in various parts of the country. One instructional manual, designed for retraining barefoot doctors at an intermediate level, appeared recently and is entitled *Instructional Manual for Barefoot Doctors*, compiled by Chi-lin Medical University, published by Jen-min wei-shen Publishing Company, Peking, 1972. See appendix I for selected details on the five manuals I was able to obtain.
13. In Sha-shih-yü brigade, Tsun-hua *hsien*, Hopei, I ran into a barefoot doctor who obviously had had rather extensive training. At the time I met her, she was capable of performing such surgical procedures as hernia,

appendectomy, tubal ligation, and IUD insertion. She told me that she had performed over 20 tubal ligations, with some of the patients coming from the neighboring brigades. She could not, however, perform induced abortions. At that time she was serving as an apprentice to the regular medical doctors attached to the commune clinics whenever induced abortions were performed. At Ta-tsai-yuan brigade, Lin *hsien*, Honan, the barefoot doctor I interviewed, a Mr. Shu, could not do any of these. He was capable of treating only *hsiao-ping-hsiao-shang* (simple disease and small injuries). At that time, Mr. Shu was attending an on-going training program, weekly on Wednesday afternoons, run by the regular medical doctors at the *hsien*-level people's hospital.

14. See however, Frank Lorimer, *Culture and Human Fertility* (Paris: UNESCO, 1954), passim.
15. "The average age for the girls marrying into the families with 50 or more *mu* [*mou*] was a full year less than for those marrying into families with less than 50 *mu*, 16.8 as compared with 17.8. For the boys the difference was much more marked. Their average age at marriage was 18.4 for the 50 to 90 *mu* group and to the surprisingly low average of 13.2 in the families with 100 *mu* or over." Sidney D. Gamble, *Ting Hsien: A North China Rural Community* (Stanford: Stanford University Press, 1968), paperback edition, pp. 42-43. (Note: A *mou* is roughly .15 acres.)
16. W. Stys, "The Influence of Economic Conditions on the Fertility of Peasant Women," *Population Studies*, XI, no. 2 (November 1957): 136-48; see especially table 5. "But evidence is contradictory from a large number of recent Indian studies, which, presumably, are relevant to a preindustrial situation. Some studies indicate relatively low fertility in the lowest social stratum, some find no relationship to status, and others find a negative relationship. . . ." See Ronald Freedman, "The Sociology of Human Fertility: A Trend Report and Bibliography," *Current Sociology* X/XI (1961-62), excerpts reprinted in Thomas R. Ford and Gordon F. DeJong, eds., *Social Demography* (Englewood Cliffs, New Jersey: Prentice-Hall, 1970), p. 48.

Appendix I: Planned Childbirth Rationale, Age at Marriage, and Contraceptive Methods

During my five-week trip I was able to collect the texts and pamphlets listed below. They range from pamphlets written for literate laymen to instructional manuals for training barefoot doctors and midwives. Reproduced below is a summary of their information in three areas: reasons for practicing planned childbirth, recommended marriage ages, and contraceptive methods which are encouraged.

The pamphlets for laymen are relatively short and nontechnical. They are written essentially to familiarize the reading public with the minimally necessary knowledge regarding various contraceptive methods, their respective natures, merits, and shortcomings, how they work, how to use them, and so on. On the other hand, the instructional manuals written for the purpose of training barefoot doctors all tend to provide lengthy discussion of various contraceptive methods. And their discussion of contraceptive methods is more technical and know-how oriented. They all provide relatively elaborate discussion on surgical practices pertinent to IUD insertion and removal, induced abortion by suction as well as the water-bag method, vasectomy, and tubal ligation. (Notice the difference in space devoted to planned childbirth methods between pamphlets 3, 4, 5, on the one hand and 1 and 2 on the other.)

In addition to these I also brought back a small pamphlet available free of charge at drug stores in Shanghai. Issued by the Shanghai Municipal People's Health Propaganda Station, this pamphlet, entitled *Oral Contraceptive Pills and Injectable Contraceptives: Questions and Answers* (March 1971), discusses various types of oral pills, the characteristics of the pills and the injectable contraceptives, possible side effects, how to use them, and so on.

Shortly before we arrived in Peking, a new text entitled *Instructional Manual for Retraining of Barefoot Doctors* was published. Compiled by the Kilin Medical University and published by Jen Min Publishing House in July 1972, this manual was compiled on the basis of a pilot project for retraining barefoot doctors, which was conducted in Shuang-yang *hsien*, Kilin province, and lasted sixteen months. Before final publication, the manual was test-used in certain areas in south and central China. Designed for use in retraining those barefoot doctors who already have undergone the first-phase paramedical training, this instructional manual, interestingly enough, devotes no space to the discussion of any conventional methods. Instead its section on planned childbirth methods deals exclusively with those that require surgical operation, i.e., insertion and removal of IUDs, induced abortion by suction method, vasectomy, and tubal ligation (pp. 544-49). One hundred forty-one thousand copies of this manual were printed for the first edition, first printing.

It is unclear how many barefoot doctors have been instructed in these surgical contraceptive operations. However, given the recent evidence that indicates the government has every serious intention to improve the quantity and quality of the barefoot doctors (as reflected in Chinese newspapers accounts of barefoot doctors and cooperative medicine), the number of barefoot doctors trained to perform such surgical operations can be expected to increase with the passage of time.

In the official Chinese view, "planned childbirth" consists of the practice of (1) delayed marriage and (2) contraception, including vasectomy, tubal ligation, and termination of pregnancy by induced abortion. However, induced abortion is not encouraged except as a last resort, when contraception fails to prevent unwanted pregnancy. Thus it becomes clear that the term "planned childbirth" as it is used in China has a broader meaning than, and therefore is not be equated with, "family planning" as the term is used elsewhere.

1. Chung San Medical College Revolutionary Committee, compilers. *A Handbook for the Prevention and Treatment of Often-Seen Diseases in Rural Villages.* Canton, Kwangtung: Jen Min Publishing House, May 1970 (first edition, first printing). 1410 pages, 3.25 *yuan.*

Rationale and benefits of planned childbirth	To release more time and energy so to creatively study and apply the thought of Mao Tse-tung To better "grasp revolution, increase production, promote work, and prepare for war," or to better "grasp revolution and increase production" To faciliate the cultivation of the next generation into proletariat revolution successors To better protect the health of mothers and children (p. 632-3)
Most appropriate age of marriage recommended	After 25 years of age for both men and women (p. 633)
Contraceptive methods described and diffused	Oral contraceptive pills Number 1 and Number 2; injectable contraceptives; condom; diaphram; IUD, induced abortion by water-bag method; vasectomy; tubal ligation (pp. 633-43)

2. Hunan Medical College Revolutionary Committee. *Handbook for Rural Doctors.* Peking: Jen Min Publishing House, December 1959 (first edition, first printing), June 1971 (fourth revised edition, eleventh printing). 341,601-941,600 copies printed. 1241 pages, 2.55 *yuan.*

Rationale and benefits of planned childbirth	To release more time and energy so as to creatively study and apply the thought of Mao Tse-tung To better "grasp revolution, increase production, promote work, and prepare for war," or to better "grasp revolution and increase production" To better support socialist construction; in accordance with the planned arrangement of national economy [or socialist construction] To better protect the health of mothers and children In support of the world revolutions In the interest of the prosperity of the nation and state (p. 669)
Most appropriate age of marriage recommended	—
Contraceptive methods described and diffused	Condom; diaphram; IUD; oral contraceptive pills Number 1 and Number 2; injectable contraceptives; induced abortion by suction method; induced abortion by water-bag method (to terminate 16- to 24-week pregnancies); vasectomy; tubal ligation (p. 669-80)

3. Editorial Office of Jen Min Health Publishing House. *Text for Rural Midwives* (a trial edition). Peking: Jen Min Health Publishing House, September 1965 (first edition, first printing), April 1970 (fourth revised edition, eleventh printing). 1,413,301-1,613,300 copies printed. 109 pages, .011 *yuan*.

Rationale and benefits of planned childbirth	To better protect the health of mothers and children To better "grasp revolution, increase production, promote work, and prepare for war," or to better "grasp revolution and increase production"

	To better support socialist construction; in accordance with the planned arrangement of national economy [or socialist construction] (pp. 82-84)
Most appropriate age of marriage recommended	After 25 years of age for men; after 23 years of age for women (pp. 84-86)
Contraceptive methods described and diffused	Diaphram; IUD; condom; vasectomy; tubal ligation (pp. 86-91)

4. Lin Ch'iao-chu and Hsia Chung-fu. *Questions and Answers on Hygenic Common Sense for Rural Women.* Peking: Jen Min Health Publishing House, May 1966 first edition, first printing. 1-381,000 copies printed. 35 pages. .09 *yuan.*

Rationale and benfits of planned childbirth	To better protect the health of mothers and children To improve labor participation and raise living standards To better support socialist construction; in accordance with the planned arrangement of national economy [for socialist construction] (p. 30)
Most appropriate age of marriage recommended	After 25 years of age for men; after 23 years of age for women (p. 35)
Contraceptive methods described and diffused	Condom; diaphragm; IUD; jellies; induced abortion; vasectomy; tubal ligation (pp. 31-34)

5. Sheng Tan-ch'ien, *Health and Hygenic Knowledge for Women.* Shanghai: Jen Min Publishing House, August 1964 (first edition, first printing), November 1970 (new first edition, first printing). 135 pages, .28 *yuan.*

Rationale and benefits of planned childbirth	To better protect the health of mothers and children To release more time and energy so as to creativily study and apply the thought of Mao Tse-tung

	To better "grasp revolution, increase production, promote work, and prepare for war," or to better "grasp revolution and increase production" To better support socialist construction; in accordance with the planned arrangement of national economy [or socialist construction] (p. 8)
Most appropriate age of marriage recommended	30 years of age for men; 25 years of age for women (p. 9)
Contraceptive methods described and diffused	Condom; diaphram; oral contraceptive pills Number 1 and Number 2; injectable contraceptive Number 1 (pp. 11-15)

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Dr. Chen's research interest has been in the politics, demographic dynamics, and policies of the People's Republic of China. His studies on these subjects have appeared in a number of journals including *World Politics, Journal of Comparative Politics, Population Studies, Developpément et Civilisations*, and *Asian Survey*. His works have also appeared in anthologies edited by others. Dr. Chen is currently a consultant to the Population Council, and serves as panelist, the Smithsonian Institution's Interdisciplinary Communications Program.