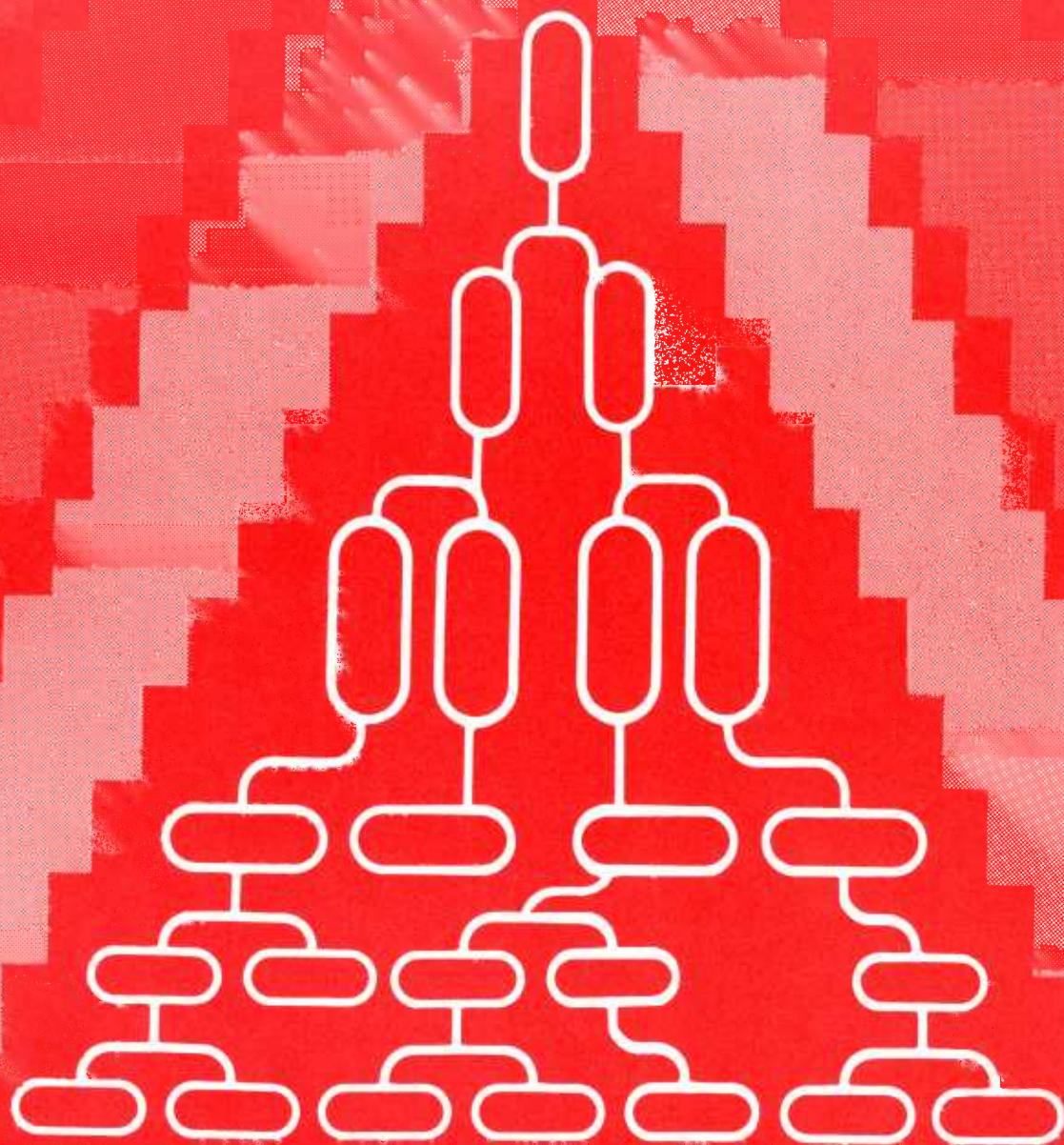


CASE STUDIES IN POPULATION POLICY:

China



UNITED  NATIONS

ST/ESA/SER.R/88

Department of International Economic and Social Affairs

Population Policy Paper No. 20

C A S E S T U D I E S I N P O P U L A T I O N P O L I C Y :

China



U N I T E D N A T I O N S

New York, 1989

NOTE

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The terms "country" and "area" as used in the text of this report also refer, as appropriate, to territories, cities or areas.

ST/ESA/SER.R/88

Copyright © United Nations 1989
All rights reserved
Manufactured in the United States of America

PREFACE

This publication is one in a series of country case studies being prepared by the Population Division of the Department of International Economic and Social Affairs of the United Nations Secretariat that focus on selected issues in the formulation, implementation and evaluation of population policies in various developing and developed countries.

The objective of the series is to present broadly comparative, issue-oriented case studies that illustrate the myriad approaches countries have pursued in implementing, formulating and evaluating their population policies. The specific issues addressed include the manner by which policies, programmes and targets aim to influence demographic variables directly or indirectly, how they have been formulated, and the extent to which they have been implemented in relation to one another and to other social, economic and political goals. Emphasis is placed on the problems encountered and the strategies undertaken to resolve the problems. It is hoped that this series will be useful to persons responsible for population programmes and policies and, in general, for the sharing of experiences among countries in the formulation, implementation and evaluation of population policies.

The population policy overview for China, presented on pages 1-7 of this publication, is taken from World Population Policies, volume I Afghanistan to France (United Nations publication, Sales No. E.87.XIII.4). The main body of the report is based on a draft prepared by Zhou Xizhang of the Population Research Institute of the People's University of China, Beijing, as a consultant to the United Nations. Following Zhou Xizhang's untimely death in 1986, the report was completed by Zheng Liu, Director of the Population Research Institute. The views and opinions expressed are those of the consultant and do not necessarily reflect those of the United Nations. The estimates and projections presented in the population policy overview may differ from those presented in the main body of the publication, owing to demographic assessments, subsequent adjustments and differences of time reference. Special acknowledgement is due to the United Nations Population Fund for its support of project INT/84/PO8, which made possible the preparation of this publication.

To date, reports issued in the Case Studies in Population Policy series are:

MALAYSIA	(ST/ESA/SER.R/80)
KUWAIT	(ST/ESA/SER.R/82)
NIGERIA	(ST/ESA/SER.R/83)
BRAZIL	(ST/ESA/SER.R/84)
MEXICO	(ST/ESA/SER.R/89)
UNITED REPUBLIC OF TANZANIA	(ST/ESA/SER.R/91)

CONTENTS

	<u>Page</u>
Preface	iii
Explanatory notes	viii
POPULATION POLICY OVERVIEW	1
INTRODUCTION	
A. The relevance of population problems for socio-economic development	9
B. Socio-economic trends	12
C. Philosophy towards economic and social intervention	17
I. DEMOGRAPHIC TRENDS	
A. Mortality	19
B. Fertility and family planning	22
C. Natural increase	30
D. Age composition	32
E. Minority groups	32
F. Rural-urban differentials	33
G. Regional differences	35
II. POLICY ON POPULATION GROWTH AND FERTILITY	
A. The evolution of policy	37
B. Elements contributing to programme success	40
C. Policy concerns	44
III. MORTALITY POLICY	48
IV. INTERNAL MIGRATION POLICY	55
V. CONCLUSIONS	60
REFERENCES	61
<u>Annex</u>	
GLOSSARY	63

List of tables

	<u>Page</u>
1. Output of staple crops (in 10,000 ton units), 1949-1985	13
2. Output of major industrial products, 1949-1985	13
3. Average annual growth rate of gross value of output of industry and agriculture, 1953-1984	14
4. Average annual growth rate of national income and gross value of social output, 1953-1983	14
5. Population by age and educational level, 1982	16
6. Rates of birth, death and natural increase for whole country, cities and counties, 1949-1985	20
7. Cause-specific mortality rates and composition of cause of death for the major diseases in partial municipalities, 1957-1982	23
8. Cause-specific mortality rates and composition of cause of death for the major diseases in partial counties, 1957 and 1982	24
9. Total fertility rates in three areas, 1980-1984	24
10. Urban-rural differences in total fertility rates, 1950-1979	26
11. Age-specific fertility rates in selected years	29
12. Proportions marrying late and total fertility rates among minority women	29
13. Rate of natural increase (per 1000) in selected periods	30
14. Age composition in 1953, 1964 and 1982	32

	<u>Page</u>
15. Total fertility rates of Han and national minorities, 1964-1981	33
16. Total fertility rates in urban and rural areas in selected years	34
17. Crude death rates in cities and counties in selected years ..	34
18. Distribution by age in the 1982 census	35
19. Total fertility rates and life expectancies of the 28 provinces, municipalities and autonomous regions in 1981 ..	36
20. National population in selected areas, 1964 and 1982	58

List of figures

I. Death rates for rural Chinese in 1936 and the total population of China in 1981	21
II. Trends in urban and rural total fertility rates, 1950-1979	27

EXPLANATORY NOTES

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

Reference to "dollars" (\$) indicates United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.

Annual rates of growth or change refer to annual compound rates, unless otherwise stated.

A hyphen between years (e.g., 1984-1985) indicates the full period involved, including the beginning and end years; a slash (e.g., 1984/1985) indicates a financial year, school year or crop year.

A point (.) is used to indicate decimals.

The following symbols have been used in the tables:

Three dots (...) indicate that data are not available or are not separately reported.

A dash (--) indicates that the amount is nil or negligible.

A hyphen (-) indicates that the item is not applicable.

A minus sign (-) before a number indicates a deficit or decrease, except as indicated.

Details and percentages in tables do not necessarily add to totals because of rounding.

3.2 yuan = \$U.S. 1 as of 1985.

POPULATION POLICY OVERVIEW

DEMOGRAPHIC INDICATORS	CURRENT PERCEPTION
<p>SIZE/AGE STRUCTURE/GROWTH</p> <p>Population: <u>1985</u> <u>2025</u> (thousands) 1 059 521 1 475 159 0-14 years (%) 29.7 19.5 60+ years (%) 8.2 19.3</p> <p>Rate of: <u>1980-85</u> <u>2020-25</u> growth 1.2 0.5 natural increase 12.3 5.3</p>	<p>The rate of growth is considered <u>unsatisfactory</u> because it is <u>too high</u>. There is concern over the eventual aging of the population as a consequence of lower fertility.</p>
<p>MORTALITY/MORBIDITY</p> <p> <u>1980-85</u> <u>2020-25</u> Life expectancy 67.8 75.7 Crude death rate 6.7 8.7 Infant mortality 39.3 11.4</p>	<p>Levels and trends are <u>unacceptable</u>; there is concern over unequal progress of health services in rural areas and insufficient training of health workers.</p>
<p>FERTILITY/NUPTIALITY/FAMILY</p> <p> <u>1980-85</u> <u>2020-25</u> Fertility rate 2.4 2.1 Crude birth rate 19.0 14.0 Contraceptive prevalence rate 74.0 (1985) Female mean age at first marriage 22.4 (1982)</p>	<p>Levels and trends are <u>unsatisfactory</u> because they are <u>too high</u> in relation to family well-being and population growth.</p>
<p>INTERNATIONAL MIGRATION</p> <p> <u>1980-85</u> <u>2020-25</u> Net migration rate 0.0 0.0 Foreign born population (%) </p>	<p>Immigration rates are considered <u>satisfactory</u> and <u>not significant</u>. Emigration rates are considered <u>satisfactory</u> and <u>not significant</u>.</p>
<p>SPATIAL DISTRIBUTION/URBANIZATION</p> <p>Urban <u>1985</u> <u>2025</u> population (%) 20.6 43.6</p> <p>Growth rate: <u>1980-85</u> <u>2020-25</u> urban 1.4 2.5 rural 1.2 -0.8</p>	<p>Patterns of population distribution are considered partially <u>appropriate</u>. The Government has expressed concern over improving the distribution of productive forces and developing small cities and lagging regions.</p>

GENERAL POLICY FRAMEWORK

Overall approach to population problems: The Government believes that the resolution of population problems lies in family planning (a basic national policy), population education and socio-economic development. Major emphasis is placed on controlling population growth.

Importance of population policy in achieving development objectives: Population control is an important component of the Government's overall development strategy. Population growth should be commensurate with the country's progress and should be in accord with its resources and socio-economic development.

INSTITUTIONAL FRAMEWORK

Population data systems and development planning: Three censuses have been conducted - in 1953, 1964 and 1982. The 1982 census is considered to be a complete head count and will be used to check population registers. The population Census Office under the State Council is responsible for conducting censuses. Vital registration is incomplete. Formal development planning on the basis of annual economic plans has existed since 1953. The Seventh Five-Year Plan covers the years 1986 to 1990.

Integration of population within development planning: The Population Group (PGSC), established in 1972 under the State Council, is the central body responsible for population matters. The PGSC formulates and implements policies concerning the growth, structure and distribution of the population. In 1981, the Government established the State Commission on Family Planning to supervise family planning work. Responsibilities of the Commission include implementing state policies and laws concerning family planning, formulating long-term plans for population development and organizing educational activities and scientific research.

POLICIES AND MEASURES

Changes in population size and age structure: An important aim of China's population policy is to control and limit growth. The Government notes that the rapid increase in population has constrained efforts to achieve modernization in agriculture, industry, defense and science and technology, and has contributed to a shortage of housing and consumer items and to unemployment. The Government has adopted measures concerning birth rates and fertility, morbidity and mortality, migration and eugenics. The Government has responded to concern about the aging of the population by scientifically planning adjustments in the birth rate. The National Committee on Aging, created to attend to the needs of the aged and to establish organizations for research on aging, became a permanent body in the early 1980s. In order to alleviate concerns about old age support for couples with only one child, plans have been implemented to establish a social security system.

Mortality and morbidity: Government policy aims to reduce mortality and morbidity with emphasis on preventive measures. A recent increase in life expectancy is attributed to a decline in infant mortality and the control of infectious, parasitic and endemic diseases. Morbidity issues of concern include heart disease, strokes, malignant tumours and respiratory diseases. Governmental measures include developing medical and health services, increasing the number of maternal and child health facilities and training qualified medical personnel. A system of barefoot doctors has been established in rural regions to upgrade medical services. The barefoot doctors are themselves members of the commune and participate in agricultural work.

Fertility and the family: The policy is to limit fertility while ensuring healthy births. Population education and birth planning are the main aspects of the policy. The principal goals of family planning are delayed marriage, birth control and prolonged birth spacing. Both the husband and wife are expected to participate in the family planning process. The Government has advocated a policy of one child per family but has never issued a regulation limiting births. In lieu of a codified law, the Government has established a set of incentives and disincentives to persuade couples to have only one child. Parents with one child have priority for housing, receive monthly subsidies, have higher pensions upon retirement and are allowed free education for their child. Families with more than one child are excluded from the above benefits and are subject to financial penalties if they have already accepted a one-child certificate. The guidelines governing the one-child-per-family principle have recently been relaxed under certain circumstances. Minority nationalities (i.e., non-Han ethnic groups) with less than 10 million people should be allowed to have two children per couple. Immigrants from Hong Kong and Taiwan are also excluded from stringent family planning policies. Restrictions vary according to geographic region or familial composition. In the countryside, a second child is permitted when continuation of the family line is threatened or when either parent is an only child, while in urban areas a second child is permitted if both parents are only children. In some provinces, a couple may have a second child if the first is a female. The second child is allowed on the basis of proper spacing to avoid peak years. The recent family planning emphasis has been to formulate a flexible policy taking into account differing socio-economic conditions, age structures and religious beliefs. The policy of producing a healthier population is manifested in several ways. The expansion of maternal/child health centres increases available assistance for prenatal care. Pre-marriage counselling on genetics is offered to young people; persons with hereditary or congenital diseases may be prohibited from marriage. Abortion is available upon request and sterilization is permitted.

International migration: Although immigration is not considered to be significant, the policy for refugees and returning overseas Chinese is to integrate them into society. Emigration is limited by strict controls. The Government provides manpower for co-operative projects abroad.

Spatial distribution/urbanization: Between the late 1950s and the late 1970s, the dominant policy was to develop existing small- and medium-sized cities, restrict the growth of the largest cities and prevent massive rural-to-urban

migration. Towns with populations above 10,000, cities and towns in natural resource areas and satellite towns of major cities were especially targeted for development. Development strategies were also implemented in lagging rural regions and border areas, including such measures as infrastructure subsidies, restrictions on industrial location, migration assistance, job training, and residential controls. The location of consumer goods' factories and light industries in small cities has been widely used to achieve better spatial distribution. In the late 1970s and early 1980s, the restrictions on rural-to-urban migration were relaxed somewhat, with the goal of increasing economic growth in small- and medium-sized cities, providing additional services to urban residents and reducing rural-labour surplus. The development of small cities is being encouraged through the dispersion of light industry.

Status of women: In its commitment to raise the status of women, the Government plans to use education to eradicate feudal ideas about women and to launch publicity campaigns to inform women of their legal rights. Free legal advisory centres have been set up in major cities. In 1980 a new marriage law, also aimed at influencing fertility rates, was intended to promote equal rights for men and women in marriage. The bride price was made illegal and concubinage and polygamy were prohibited. The minimum age for marriage was increased to 20 for females and 22 for males. The recommended age for marriage is 25 or 26 years.



MAP NO. 3402 UNITED NATIONS
NOVEMBER 1986

SELECTED SOURCES

The information contained in the overview is based on the continuous monitoring of population policies undertaken by the Population Division of the Department of International Economic and Social Affairs of the United Nations Secretariat, as part of its work programme.

Except where otherwise noted, the demographic estimates and projections are based on the tenth round of global demographic assessments undertaken by the Population Division. The various demographic indicators are derived from data that were available to the United Nations generally by the end of 1985; therefore, the figures supersede those that were previously published by the United Nations.

Anonymous (1986). The seventh five-year plan of the People's Republic of China for economic and social development (1986-1990). Beijing Review, (28 April).

Chen, Pi-Chao and Adrienne Kols (1982). Population and Birth Planning in the People's Republic of China. Population Reports, Population Information Program, The Johns Hopkins University, Series J, No. 25, (January-February).

China Population Newsletter (1985), vol. 2, No. 1 (June).

Liu Zheng, and others (1981). China's Population: Problems and Prospects. New World Press, Beijing.

Qie Jianwei (1986). Tentative ideas about the population programme of the seventh five-year plan. Population Research, vol. 3, No. 1 (January). Chinese Academy of Sciences, Beijing.

Sikkel, Arnold and others. (1984), China: Report of Mission on Needs Assessment for Population Activities. United Nations Fund for Population Activities, New York. Report No. 67.

State Statistical Bureau (1983). China Statistical Yearbook, 1983. Beijing.

United Nations (1985). The Mexico City Conference: The Debate on the Review and Appraisal of the World Population Plan of Action.

World Population Prospects: Estimates and Projections as Assessed in 1984. Sales No. E.86.XIII.3.

_____, Department of International Economic and Social Affairs, and United Nations Population Fund (1981). Population Policy Compendium: China.

Wan Li (1986). Reiteration of the importance of birth planning in China. Population and Development Review, vol.12, No. 3, pp. 603-606.

Yu, Y. C. (1979), The population policy of china. Population Studies, vol. 33, No. 1, (March), pp. 125-142.

Contraceptive prevalence rate

United Nations. Recent Levels and Trends of Contraceptive Use as Assessed in 1988. Sales No. E.89.XIII.4.

Female mean age at first marriage

United Nations. World Population Trends and Policies: 1987 Monitoring Report. (Sales No. E.88.XIII.3).

INTRODUCTION

A. The relevance of population problems for socio-economic development

At the beginning of the Opium War in 1840, China's population stood at 412 million, and by 1949 the population had grown to a little over 540 million. This was an increment of nearly 130 million in 109 years, representing a gradual annual growth rate of 0.25 per cent. In the 27 years between 1949 and 1976, the population grew from 542 million to 933 million, up by more than 390 million, representing an annual growth of 2 per cent, nearly eight times the average rate during the 109 years between 1840 and 1949.

The rapid population increase after Liberation was caused by a drastic drop in the death rate without a corresponding decline in the birth rate. The crude death rate came down from 20 per thousand before 1949 to anywhere between 10 and 18 per thousand in the 1950s. It fell further to 8-11 per thousand in the 1960s (except in the difficult period of 1958-1961), and to 6-7 per thousand in the 1970s. The fall in the infant mortality rate was even more drastic, from about 200 per thousand before 1949 to 139 per thousand in 1954. In the 1970s, the infant mortality rate stood at about 15 per thousand in the cities and more than 30 per thousand in the rural areas.

The size of a population, its density and its growth rate are by no means the decisive factors for socio-economic progress, but they do act to speed up or retard it. Generally speaking, when a country or region has enough natural resources and land, but insufficient labour power, a bigger population and faster population growth will promote the development of the social productive forces. If a country is economically backward and is already densely populated, then high rates of population increase will certainly bring many obstacles to socio-economic development. Such is the case with China.

Rapid population growth has impeded China's social and economic development in several respects. First of all, rapid population growth has led to a greater difficulty in providing jobs. In the cities, the average industrial worker requires an investment of 10,000 yuan. During the fourth five-year plan period (1971-1975), fixed assets increased at an annual rate of 20 billion yuan. Even if all these newly added assets had been used to absorb new workers, leaving nothing for equipment renewal, industry could have provided only 2 million new jobs per year. This would still have left a considerable number of young people jobless. By 1976, urban youths waiting for employment numbered upwards of 10 million.

The same problem exists in rural areas, though it does not present itself as directly as in the cities. In the countryside it is manifested in the inefficient use of labour and very low agricultural productivity. The rural work-force grew from 200 million in the 1950s to 300 million in the 1970s, and the cultivated land per agricultural labourer declined from eight mu to five mu (1 hectare = 15 mu), resulting in a sharpening contradiction between the fast expanding rural work-force and the limited cultivatable land. The high natural growth of the rural work-force and the large pool of labour saved through the modernization of agriculture have posed a major problem for the state - the problem of how to deal with surplus labour in the rural areas.

Notable changes have also taken place in two other factors related to human resources. One is the vast number of women entering the labour force, which has doubled China's human resources, and increased the pressure to create jobs. The second change is that people now have longer working lives, thanks to the greatly increased life expectancy which has extended the average working life to approximately 40 years compared to approximately 20 years before Liberation; thus the mortality decline has added substantially to the difficulty of providing jobs for people entering the labour force.

A second undesirable consequence of rapid population growth in China is that it has impeded improvements to the people's standard of living. After Liberation in 1949, much growth was registered in the production of grain, cotton and light industrial goods, and in the construction of new housing: grain output rose from 163.9 million tons in 1951 to 284.5 million tons in 1975, and cotton production from 1,304 million tons to 2,381 million tons. But the per capita amount of grain and cotton produced rose only slightly, from 288 kilogrammes in 1952 to 312 kilogrammes in 1975 and from 2.3 kilogrammes to 2.6 kilogrammes respectively. In a few years, there were even some decreases. An important cause of the short supply of grain, cotton, textiles and other light industrial goods for many years has been rapid population growth, apart from sluggish increases in production.

The impact of rapid population growth on the people's life has thus been manifested in the slow increase of per capita annual income and consumption. Total national income rose from 58.9 billion yuan in 1952 to 250.3 billion in 1975, increasing by a factor of 4.25, but per capita income increased from 104 yuan to 274 yuan, thus rising by a factor of only 2.63, without allowing for inflation. It has been estimated that about 53 per cent of increased disposable income between 1952 and 1975 was used to meet the needs of increased family size while the remaining 47 per cent was used to improve the life of the older population. A considerable share of the gains in production was thus used up by increases in population.

In the cities, rapid population increase led to rising pressures on housing, medical facilities, services, public transport, cultural and recreational facilities and investment in the production of consumer goods decreased year after year. During the first five-year plan period, the production of consumer goods accounted for 28.3 per cent of total investment - fairly adequate to satisfy the needs of the people. Investment in consumer goods production then fell to 13.2 per cent during the second five-year plan period, rose to 17 per cent during the readjustment period of 1963-1965, and again dropped to 10.6 per cent in 1966-1970 and 13.4 per cent in 1971-1975. In 20 out of 27 years this investment was too small to meet the ever-growing needs of the people. This and the large absolute increase in the urban population led to a serious shortage of housing, public utilities and educational facilities. In the rural areas where production grew at a slow pace for many years, the population increased at a faster rate than in the cities. A considerable part of the fruit of the peasants' work each year was swallowed up by the newly added population, so that their life was not improved as much as it would have been if the population had not grown so fast.

A third negative consequence of rapid population growth has been its adverse effects on economic and social infrastructure. The building of socialism requires adequate investment funds because it is imperative to enlarge production of material goods and expand educational, physical, cultural and health services for training and bringing up people so that they can develop morally, intellectually and physically. These funds come mainly from internal savings. The overly fast growth in population since 1949 has required the setting aside of a large part of the national income for consumption needs, thereby impeding accumulation of funds for investment in infrastructure.

In 1978, the population born after 1949 numbered more than 600 million, accounting for 63.4 per cent of the total. Calculated on the basis of the living standards of the Chinese people in 1978, bringing up a child from the time of pregnancy to 16 years of age costs an average of 2,200 yuan (30 per cent comes from the state and 70 per cent from the family). Between 1949 and 1978, the total costs reached 1,320 billion yuan (2,200 yuan times 600 million), about half the aggregate consumption funds for 1952-1978. Clearly, a great portion of goods and services was consumed by the post-liberation generation.

A fourth negative consequence of rapid population growth is that it has impeded improvements to the educational system. The key to realizing the four modernizations (that is agriculture, industry, defence, science and technology) lies in upgrading the cultural and scientific levels of the whole nation. This requires providing workers, peasants and intellectuals with relatively high levels of education and a command of modern science and technology. The rapid rise in China's population has greatly slowed down the effort to introduce universal

primary and middle school education and to expand university education. Approximately 95 per cent of all children of primary school age are in school today: since there are about 20 million children reaching primary school age each year, this means that each year about 1 million cannot go to school; furthermore, only 88 per cent of primary school pupils go on to junior middle school, only half the junior middle school students go on to senior middle school, and less than 5 per cent of senior middle school graduates acquire a higher education. This means that a majority of young people cannot receive a full secondary education. This is obviously detrimental to the improvement of the general scientific and cultural levels of the nation and is incompatible with the needs of the four modernizations.

B. Socio-economic trends

Because of war with Japan between 1931 and 1945, and the revolutionary civil war between 1946 and 1949, comprehensive and systematic socio-economic data for China as a whole are not available for the 1930s and 1940s.

The available statistics indicate that after the founding of the People's Republic in 1949, the national economy expanded greatly. The expansion is described in varying levels of detail in tables 1-4. The growth between 1949 and 1985 in the physical output of basic agricultural and industrial commodities is shown in tables 1 and 2.

In the agricultural sector, table 1 shows that between 1949 and 1985 there were noteworthy increases in the production of basic products. Grain production tripled, cotton production expanded ninefold and there were large increases in the output of oil crops, sugar-cane, beet and fruit.

In the industrial sector, table 2 indicates there were very substantial increments in the output of the most basic products between 1949 and 1985. Electricity output grew nearly a hundredfold, steel production expanded by a factor of three hundred, coal production was raised to 30 times its 1949 level, and there were significant rises in the production of yarn, cloth and fertilizer.

A more summary indication of economic trends is given in table 3, which shows aggregate growth rates per annum in the industrial and agricultural sectors between 1953 and 1984, mostly by five-year periods. In the 1950s, land reform and co-operative transformation of agriculture were carried out in the countryside, while in urban areas, the socialist transformation of privately owned industrial and commercial enterprises was effected. Starting in 1953, a large-scale economic programme led to a period of rapid growth in the industrial sector, averaging 18 per cent per annum between 1953 and 1957.

Table 1. Output of staple crops (in 10,000 ton units) 1949-1985

	1949	1952	1957	1962	1965	1970	1975	1980	1985
Grain	11 318	16 392	19 505	16 000	19 453	23 996	28 457	32 057	37 898
Cotton	44.4	130.4	164.0	75.0	209.8	227.7	238.1	270.7	415.0
Oil crops	256.4	419.3	419.6	200.3	362.5	377.2	452.1	769.1	1 578.0
Sugar cane	264.2	711.6	1 039.2	344.3	1 339.1	1 345.7	1 667.0	2 280.7	5 147.0
Beet	19.1	47.9	150.1	33.9	198.4	210.3	247.6	630.5	891.0
Fruit	120.0	244.3	324.7	271.2	323.9	374.5	538.1	679.3	-

Source: 1986 Statistical Yearbook of China.

Table 2. Output of major industrial products, 1949-1985

	1949	1952	1957	1962	1965	1970	1975	1980	1985
Yarn (ten thousand tons)	32.7	65.6	84.4	54.8	130.0	205.2	210.8	292.6	351.0
Cloth (hundred million metres)	18.9	38.3	50.5	25.3	62.0	91.5	94.0	134.7	143.0
Raw coal (million tons)	32	66	131	220	232	354	482	620	850
Electric energy production (hundred million KWH)	43	73	193	458	676	1 159	1 958	3 006	4 073
Steel (ten thousand tons)	15.8	135	535	667	1 223	1 779	2 390	3 712	4 666
Fertilizer (ten thousand tons)	0.6	3.9	15.1	46.4	172.6	243.5	524.7	1 232.1	1 322.2

Source: 1986 Statistical Yearbook of China.

Table 3. Average annual growth rate of gross value of output of industry and agriculture, 1953-1984

(Percentage)

	Industry	Agriculture
1953-1957	18.0	4.5
1958-1962	3.8	-4.3
1963-1965	17.9	11.1
1966-1970	11.7	3.9
1971-1975	9.1	4.0
1976-1980	9.2	5.1
1981-1984	9.0	11.0

Source: 1985 Statistical Yearbook of China.

Table 4. Average annual growth rate of national income and gross value of social output, 1953-1983

(Percentage)

	1953- 1957	1958- 1962	1963- 1965	1966- 1970	1971- 1975	1976- 1980	1979- 1983*
National income	8.3	-3.1	14.7	8.3	5.5	6.0	7.1
Gross value of social output	11.3	-0.4	15.5	9.3	7.3	8.3	8.2

* Calculated by author from 1986 Statistical Yearbook of China.

The 1958 "Great Leap Forward" Drive and the organization of people's communes coincided with a difficult period between 1958 and 1962, known as the "national hard time", during which agricultural output declined at a rate of -4.3 per cent per year and industry grew at a comparatively slow annual pace of 3.8 per cent. Between 1963 and 1965, as a result of implementing the "adjustment, consolidation, replenishment and improvement" policy, the national economy resumed a rapid pace of development, with industrial output growing at 18 per cent per annum and agricultural output growing at 11 per cent. However, this was disrupted by the Cultural Revolution in 1966, which substantially reduced growth rates in both industry and agriculture. After the fall of the "Gang of Four" in 1976, and particularly since the third plenary session of the Eleventh Central Committee of China's Communist Party took place in 1978, the work priority has shifted to vitalizing the domestic economy while practicing an open policy with the other parts of the world. As a result of practicing the "production responsibility system" in rural areas and introducing economic reforms in the urban areas, the economy again resumed a rapid pace of growth, with agricultural output growing at 11 per cent in the 1981-1984 period, which was comparable to the rate of growth in industrial output (see table 3).

The overall trend in national income (net material product and gross value of social output) is presented in table 4, which indicates that annual gains in output remained above 5 per cent in 26 years out of the 31-year period 1953-1983, and exceeded 8 per cent in 13 of those years.

The above discussion shows that China's economy has developed significantly since 1949. However, the per capita figures are still too low and thus China is still a developing country.

Since the founding of the People's Republic there has been a very substantial expansion in education. From the 1982 census figures shown in table 5, it can be seen that the older the age, the higher the proportion of illiterate and semi-literate, which is the result of the backward educational system of old China. The table indicates that since 1949 the Chinese Government has greatly expanded the educational system. Indeed, 79 per cent of the population aged 60 and over in the 1982 census was illiterate or semi-literate, as compared with 9 per cent among the population aged 15-19. Similarly, the percentage with more than a primary education was 62 per cent among 15-19 year-olds in 1982, compared with 4 per cent among those aged 60 and over. Not shown in the table is that in all age groups, female illiteracy is higher than that of males, though the sex difference in education at the younger ages is smaller than among older people. This indicates marked improvements in female educational attainment, but at the same time implies that much remains to be done in order to eliminate gender differences in educational opportunity.

Table 5. Population by age and educational level, 1982

Age	Population	College graduates	College students	Senior middle school	Junior middle school	Primary school	Illiterate and semi-literate	Total
6-9	91 314 571	0.0	0.0	0.0	0.0	55.9	44.1	100.0
10-14	131 810 957	0.0	0.0	0.1	14.7	75.0	10.2	100.0
15-19	125 366 344	0.0	0.5	15.2	46.7	28.2	9.4	100.0
20-24	74 363 020	0.2	0.7	28.3	33.4	23.1	14.3	100.0
25-29	92 563 882	0.6	0.2	13.3	29.9	33.5	22.4	100.0
30-34	72 958 237	0.7	0.1	5.4	23.3	44.3	26.2	100.0
35-39	54 221 629	1.3	0.1	5.9	21.6	43.1	28.0	100.0
40-44	48 437 943	2.0	0.2	6.1	14.5	38.5	38.7	100.0
45-49	47 403 331	1.5	0.1	3.5	9.6	33.1	52.1	100.0
50-54	40 815 501	0.8	0.1	2.4	7.8	27.2	61.7	100.0
55-59	33 894 327	0.6	0.1	1.7	5.9	23.8	67.9	100.0
60 & over	76 637 753	0.3	0.0	0.9	3.1	16.4	79.4	100.0
Total	889 787 495	0.5	0.2	7.5	20.0	39.9	31.9	100.0

Source: 1982 Population Census.

C. Philosophy towards economic and social intervention

The very rapid economic development and educational expansion since the founding of the People's Republic are closely associated with the policy of the Central Government, which has played a guiding role. Since China's social system is socialist, private capital was confiscated in the 1950s, and the state-owned economy was established. Privately-owned industrial and commercial enterprises were transformed into joint state-private enterprises and handicraftsmen were organized into co-operatives. Land reform initially redistributed land to individual farmers but soon afterwards the co-operative movement turned the land over to agricultural producers' co-operatives and by 1956, 96 per cent of rural households were members of agricultural producers' co-operatives.

During the early years after the founding of the People's Republic, China's Government was faced with the immense task of unifying the whole country financially and economically, of carrying out the socialist transformation of capitalist industrial and commercial enterprises and of starting economic development on a large scale with the aim of establishing a centralized and unified economic system. China's planning system is based on the principle of administration at different levels guided by a national unified plan. Different forms of planning administration are adopted according to type of ownership and in light of the importance of the products produced by the enterprise, and thus, economic activities at the grass-roots level are brought into the plans at all levels.

Important enterprises associated with the national economy and essential industries are under the direct administration of responsible departments of the State Council, or under the dual leadership of central and local governments. Other enterprises and undertakings are mostly under the administration of local governments, or else under the dual leadership of central and local governments with the local administration as the dominant partner. Planning is managed by a State Planning Commission and the planning organs of different ministries at the central level, with provincial, municipal, autonomous regional and county planning committees at corresponding levels and with planning organs in enterprises or undertakings at the grass-roots level. Nevertheless, grass roots enterprises and undertakings are, in fact, not independent corporations, and are subject to the administration of higher authorities.

In rural areas, with the establishment of the people's communes in 1958, the Government administration was integrated with commune management, thereby lessening the influence of farmers in decision-making. The farmers' productive initiative was consequently restricted and the development of agriculture was impeded. The third plenary session of the Eleventh Central Committee in 1978 called for

important reforms in this system and established the "productive responsibility system". Land is still owned by the collective, but farmers have much greater autonomy in making decisions. Part of the product is reserved for the state, part for the collective and the rest goes to farmers themselves. In such a way, farmers have been stimulated to produce more.

In urban areas, the reform of the economic system is under way in order to increase the vitality of large and medium-sized enterprises owned by the state. The enterprises are allowed to select flexible and varied ways of management and to plan their own supply and marketing activities, with a greater role given to employees. As a result, the enterprises have become relatively independent economic entities which produce commodities under autonomous management assuming sole responsibility of profits and losses.

Under these reforms, the Central Government's role in the economic sphere is to determine goals for long-term and medium-term plans and to regulate economic activities at the macro-level in order to facilitate realization of the national plan.

In the provision of social services the Central Government continues to play a central role in promoting development in the areas of population, education and health care services. The State determines demographic goals and population policy. In designing family planning policy, the State follows the principle of combining the State's guidance with the people's willingness. Based on general guidelines issued by the Government, local measures are developed to fit local conditions.

The State has also developed a plan for expanding the educational system. A compulsory education law has been approved, which proposes to raise the scientific and cultural level of the entire Chinese nation by encouraging people in all walks of life to run the schools so as to realize the goal of universal nine-year education as soon as possible. In 1982, the national economic plan was replaced by the National Economic and Social Development Plan, which is intended to be more consistent with the State's intended role in guiding socio-economic activities.

I. DEMOGRAPHIC TRENDS

Before the People's Republic was established in 1949, China had high birth and death rates, and a low rate of natural increase. Estimates for 1936 indicate a crude birth rate of 38.9 per thousand, a crude death rate of 27.6 per thousand, a rate of natural increase of 11.3 per thousand, and a high infant mortality rate, in the vicinity of 200 deaths per thousand live births. Since no accurate vital statistics were available in the Old China, these figures are indicative rather than conclusive, and it is difficult to provide a systematic description of demographic trends.

Since the founding of the People's Republic in 1949, China's demographic status has experienced great changes, as illustrated in table 6.

A. Mortality

As can be seen from table 6, the crude death rate has declined greatly, from 20 per thousand in 1949 to the range of 6-7 per thousand since 1970. The infant mortality rate has also dropped, from 200 per thousand before the founding of the People's Republic to 34.8 per thousand in 1981 (State Statistical Bureau, 1984). As can be seen, the death rate declined substantially in the 1950s, but then rose suddenly between 1959 and 1961 in response to the economic difficulties of the Great Leap Forward, then decreased to 6-7 per thousand in the 1960s and 1970s.

With the decline in the crude death rate, life expectancy has increased. Average life expectancy for the rural population has been estimated at 33.3 years for 1936; by 1973-1975 it had increased to 64.9 years, and by 1981 it had reached 67.9 years, more than double the level prior to liberation. Figure I compares the mortality functions for 1936 and 1981.

The age structure of deaths has changed substantially. In 1957, deaths at ages 0-4 accounted for 42 per cent of the total deaths whereas the corresponding figure was only 16 per cent in 1981. Deaths at ages over 50, on the other hand, accounted for 36 per cent in 1957 and 65 per cent in 1981. The pattern of deaths predominantly in childhood has turned to one of deaths mostly at the older ages.

Changes are also seen in sex-specific death rates. In 1936, the crude death rate for males was 26.7 per thousand while the rate for females was 27.6 per thousand. The 1957 mortality rates by sex may not be very reliable, but it is clear that female mortality still remained higher. Survey data for 1973-1975, however, showed that female

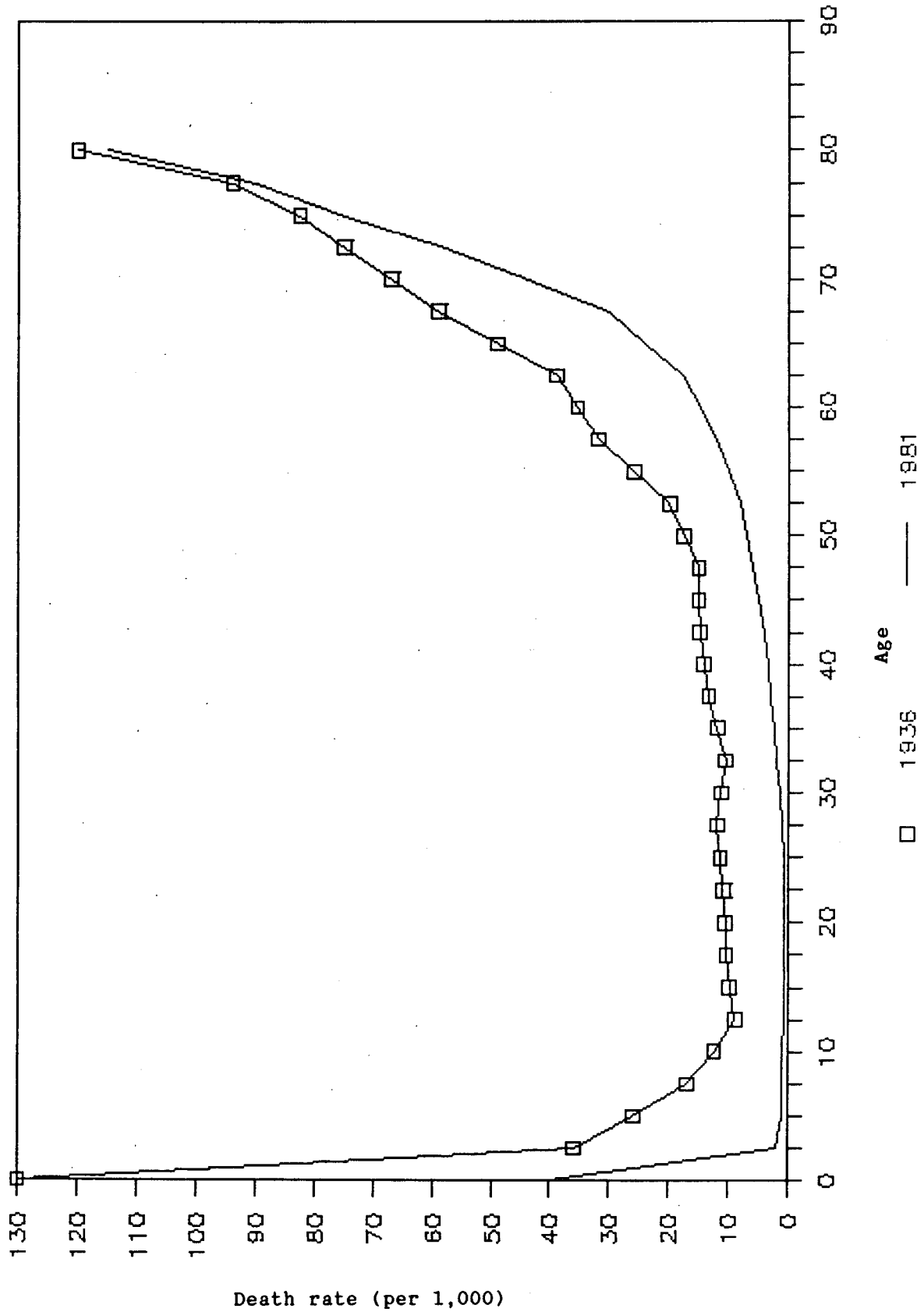
Table 6. Rates of birth, death and natural increase for whole country, cities and counties, 1949-1985

(Percentage)

Year	Whole country			Cities			Counties		
	Birth rate	Death rate	Rate of natural increase	Birth rate	Death rate	Rate of natural increase	Birth rate	Death rate	Rate of natural increase
1949	36.00	20.00	16.00						
1950	37.00	18.00	19.00						
1951	37.80	17.80	20.00						
1952	37.00	17.00	20.00						
1953	37.00	14.00	23.00						
1954	37.97	13.18	24.79	42.45	8.07	34.38	37.51	13.71	23.80
1955	32.60	12.28	20.32	40.67	9.30	31.37	31.74	12.60	19.14
1956	31.90	11.40	20.50	37.87	7.43	30.44	31.24	11.84	19.40
1957	34.03	10.80	23.23	44.48	8.47	36.01	32.81	11.07	21.74
1958	29.22	11.98	17.24	33.55	9.22	24.33	28.41	12.50	15.91
1959	24.78	14.59	10.19	29.43	10.92	18.51	23.78	14.61	9.17
1960	20.86	25.43	-4.57	28.03	13.77	14.26	19.35	28.58	-9.23
1961	18.02	14.24	3.78	21.63	11.39	10.24	16.99	14.58	2.41
1962	37.01	10.02	26.99	35.46	8.28	27.18	37.27	10.32	26.95
1963	43.37	10.04	33.33	44.50	7.13	37.37	43.19	10.49	32.70
1964	39.14	11.50	27.64	32.17	7.27	24.90	40.27	12.17	28.10
1965	37.88	9.50	28.38	26.59	5.69	20.90	39.53	10.06	29.47
1966	35.05	8.83	26.22	20.85	5.59	15.26	36.71	9.47	27.24
1967	33.96	8.43	25.53						
1968	35.59	8.21	27.38						
1969	34.11	8.03	26.08						
1970	33.43	7.60	25.83						
1971	30.65	7.32	23.33	21.30	5.35	15.95	31.86	7.57	24.29
1972	29.77	7.61	22.16	19.30	5.29	14.01	31.19	7.93	23.26
1973	27.93	7.04	20.89	17.35	4.96	12.39	29.36	7.33	22.03
1974	24.82	7.34	17.48	14.50	5.24	9.26	26.23	7.63	18.60
1975	23.01	7.32	15.69	14.71	5.39	9.32	24.17	7.59	16.58
1976	19.91	7.25	12.66	13.12	6.60	6.52	20.85	7.35	13.50
1977	18.93	6.87	12.06	13.38	5.51	7.87	19.70	7.06	12.64
1978	18.25	6.25	12.00	13.56	5.12	8.44	18.91	6.42	12.49
1979	17.82	6.21	11.61	13.67	5.07	8.60	18.43	6.39	12.04
1980	18.21	6.34	11.87	14.17	5.48	8.69	18.82	6.47	12.35
1981	20.91	6.36	14.55	16.45	5.14	11.31	21.55	6.53	15.02
1982	21.09	6.60	14.49	18.24	5.28	12.96	21.97	7.00	14.97
1983	18.62	7.08	11.54	15.99	5.92	10.07	19.89	7.69	12.20
1984	17.50	6.69	10.81	15.00	5.86	9.14	17.90	6.73	11.17
1985	17.80	6.57	11.23	14.02	5.96	8.06	19.17	6.66	12.51

Source: 1986 Statistical Yearbook of China.

Figure I. Death rates for rural Chinese in 1936 and the total population of China in 1981



mortality had fallen below the male level, and data for 1981 showed an even greater contrast in the mortality rates for the two sexes (Wang Weizhi, 1984).

Drawing on Ministry of Public Health data, cause-specific mortality rates for the first 10 major diseases in partial municipalities are shown for 1957, 1963 and 1975 in table 7. The data indicate a radical change in the pattern of disease specific death rates in urban areas. The predominance of acute infectious, respiratory and digestive diseases as major causes of death were increasingly replaced by the predominance of cerebrovascular diseases, heart diseases and malignant tumours.

The cause-specific mortality rates and composition of death causes for the first 10 major diseases in partial counties in 1975 and in 1982 are listed in table 8. Comparing tables 7 and 8, it becomes apparent that the ordering of the first 10 major diseases in partial counties and in partial municipalities in 1975 and in 1982 are, by and large, similar to each other.

B. Fertility and family planning

While mortality declined substantially between 1950 and 1970, a different trend is seen in table 6 for the birth rate, which instead of declining, fluctuated at a high level in the 1950-1970 period, typically between 30 and 40 per 1,000, though with one year below 20 per 1,000. Fertility then started to decline in the early 1970s from the 33 per 1,000 observed in 1970 to the 18 per thousand seen in 1985.

The high fertility of the 1950s can be understood in terms of several factors. In the early and mid-1950s, rapid expansion of production and significant improvements in living conditions provided good material conditions for rearing large families. In the meantime, agricultural production methods had not changed radically, so that rural children could contribute to farm labour without much training, and entered the rural labour force at about age 10; therefore farmers saw children as a source of wealth. Moreover, the traditional desire for several sons which had continued for thousands of years was still present, and infant mortality had just recently begun to decline. Taken together, these factors probably explain the high birth rate between 1951 and 1957, which varied between 32 and 38 per 1,000.

The high birth rate then fell substantially during the period of economic difficulty associated with the Great Leap Forward, declining to 25 per thousand in 1959, 21 per thousand in 1960 and further to 18 per thousand in 1961, a historic low. After 1962, the birth rate began to rise again, reaching 43 per thousand in 1963 (with a total fertility rate of 7.5), and then remained in excess of 30 per 1,000 up to 1971.

Table 7. Cause-specific mortality rates and composition of cause of death for the major diseases in partial municipalities, 1957-1982

1957			1963		
Cause of death	Cause-specific mortality rate (per 100,000)	Composition of death causes (percentage)	Cause of death	Cause-specific mortality rate (per 100,000)	Composition of death causes (percentage)
Respiratory diseases	120.3	16.86	Respiratory diseases	64.57	12.03
Acute infectious diseases	56.6	7.93	Malignant tumour	46.12	8.59
Pulmonary tuberculosis	54.6	7.51	Cerebral hemorrhage	36.87	6.87
Digestive diseases	52.1	7.31	Pulmonary tuberculosis	36.32	6.77
Heart diseases	47.2	6.61	Heart diseases	36.05	6.72
Cerebrovascular diseases	39.0	5.46	Digestive diseases	31.35	5.84
Malignant tumour	36.9	5.17	Acute infectious diseases	21.24	3.96
Nervous diseases	29.1	4.08	Trauma	16.19	3.02
Trauma, intoxication	19.0	2.66	Nervous diseases	13.76	2.56
Other	14.1	1.98	Blood and hematopoietic diseases	9.81	1.83
Total	-	65.57	Total	-	58.19

1975			1982		
Cause of death	Cause-specific mortality rate (per 100,000)	Composition of death causes (percentage)	Cause of death	Cause-specific mortality rate (per 100,000)	Composition of death causes (percentage)
Cerebrovascular dis.	127.91	21.61	Cerebrovascular dis.	124.44	22.26
Heart diseases	115.34	19.49	Heart diseases	117.70	21.05
Malignant tumour	111.49	18.84	Malignant tumour	115.50	20.60
Respiratory diseases	63.64	10.75	Respiratory diseases	48.50	8.67
Digestive diseases	28.78	4.86	Digestive diseases	24.44	4.37
Pulmonary tuberculosis	21.15	3.57	Trauma	18.14	3.25
Trauma	16.84	2.85	Intoxication	11.57	2.07
Infectious diseases	13.17	2.23	Pulmonary tuberculosis	11.34	2.03
Urinary diseases	11.63	1.97	Neonatal diseases*	514.41	1.63
Intoxication	6.27	1.06	Urinary diseases	9.03	1.61
Total	-	87.23	Total	-	87.54

Source: 1983 Yearbook of Public Health.

* The denominator is neo-natal births.

Table 8. Cause-specific mortality rates and composition of cause of death for the major diseases in partial counties, 1957 and 1982

Cause of death	1975		1982		
	Cause-specific mortality rate (per 100,000)	Composition of death causes (percentage)	Cause of death	Cause-specific mortality rate (per 100,000)	Composition of death causes (percentage)
Heart diseases	123.18	18.02	Heart diseases	159.32	23.70
Malignant tumours	119.57	17.50	Cerebrovascular diseases	103.52	15.40
Cerebrovascular diseases	92.32	13.51	Malignant tumour	102.97	15.32
Respiratory diseases	88.15	12.90	Respiratory diseases	77.27	11.49
Digestive diseases	46.30	6.78	Digestive diseases	38.25	5.69
Pulmonary tuberculosis	32.16	4.77	Intoxication	28.48	4.24
Trauma	24.26	3.55	Pulmonary tuberculosis	28.30	4.21
Infectious diseases (not including pulmonary tuberculosis)	23.82	3.49	Trauma	19.96	2.97
Neonatal diseases*	194.81	2.65	Infectious diseases (not including pulmonary tuberculosis)	16.83	2.50
Urinary diseases	10.16	1.49	Neonatal diseases*	655.37	1.65
Total	-	84.66	-	-	87.17

Source: 1983 Yearbook of Public Health.

* The denominator is 10,000 births.

Table 9. Total fertility rates in three areas, 1980-1984

	1980	1981	1982	1983	1984
Hebei	2.55	2.95	3.02	2.41	2.37
Shaanxi	2.00	2.32	2.32	2.34	2.31
Shanghai	1.12	1.42	1.60	1.38	1.14

After 1970, China achieved considerable success in restricting fertility and controlling population. The birth rate began to decrease, falling from around 30 per thousand in 1972 to between 18 and 21 per thousand after 1976, a substantial decline. This was accompanied by considerable declines in both the urban and rural crude birth rate (table 6).

From 1971 to 1975, the average annual rate of natural increase was 21.9 per thousand and the average annual absolute increase in population was approximately 19 million, compared with 27.1 per thousand and 21 million between 1966 and 1970. During the fifth five-year plan period (1976-1980), the average annual rate of natural increase further declined to 13.25 per thousand and absolute natural increase decreased to 12.57 million. During the sixth five-year plan period (1981-1985), the rate of natural increase decreased to 12.45 per thousand, but due to increased total population size, the absolute natural increase rose very slightly to 12.59 million. Annual absolute increase in population had thus decreased from over 20 million in the 1960s to around 13 million by the late 1970s.

The natality decline since 1970 can also be viewed in terms of the total fertility rate. According to the one-per-thousand fertility survey of 1982, which interviewed one woman in every thousand of child-bearing age, the total fertility rate was 5.81 in 1970, and then declined to 4.98 in 1972, 3.57 in 1975, 2.88 in 1977, and 2.24 in 1980. Such a rapid decline in the total fertility rate is virtually without precedent. The TFR rose slightly in 1981 and 1982; however, according to the 1982 census, the TFR for 1981 was 2.61. Judging from a fertility survey conducted in 1985 by the State Statistical Bureau in Hebei and Shaanxi provinces and in Shanghai Municipality, the total fertility rate appears to have fluctuated somewhat between 1980 and 1984 as shown in table 9.

As can be seen in figure II and table 10, the total fertility rate decreased substantially in both urban and rural areas between 1970 and 1979, by 1.9 births in urban areas and by 3.3 births in rural areas.

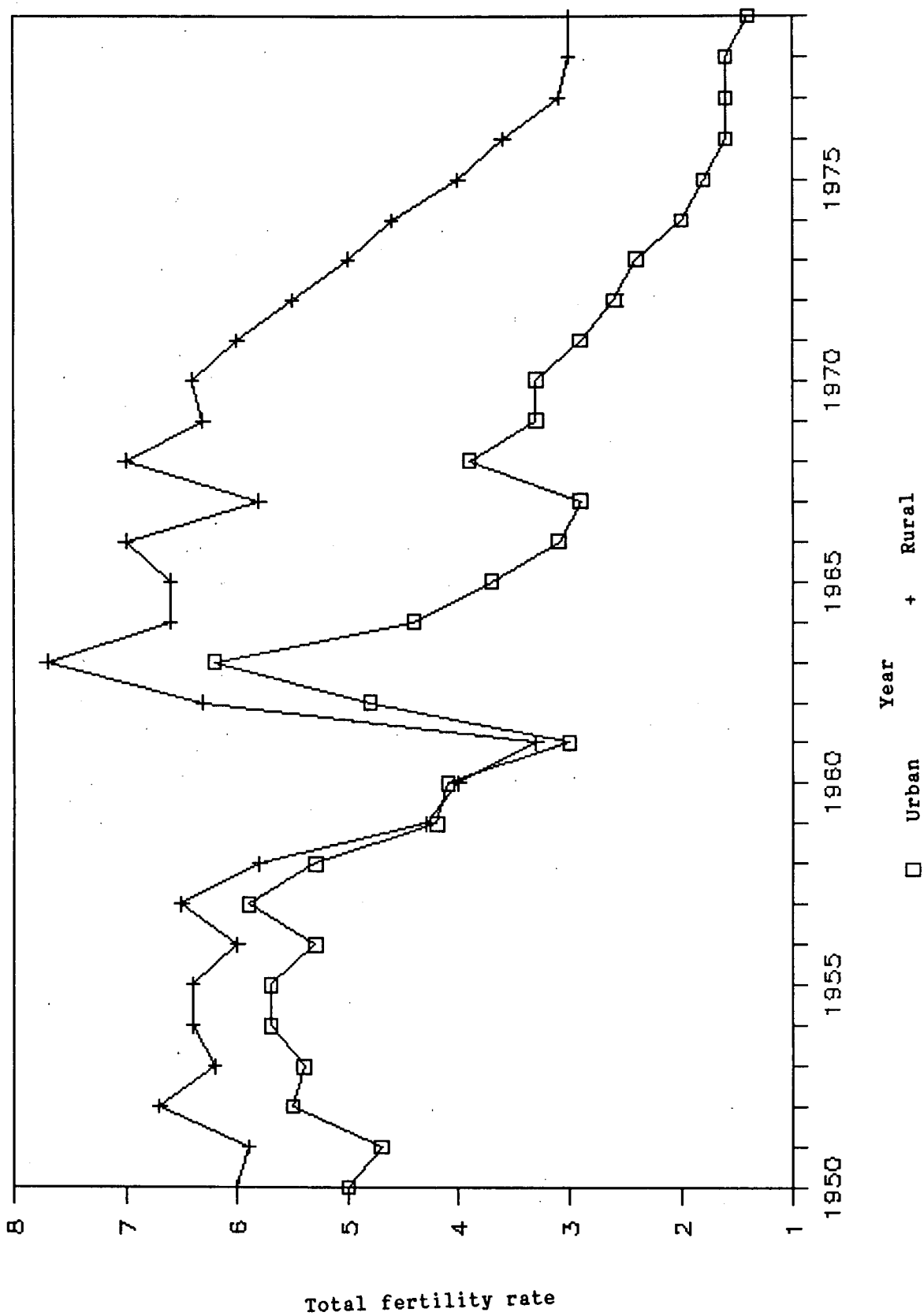
From table 10 and figure II it may be seen that the urban and rural total fertility rate share a similar broad trend, with a sudden rise after the three-years' "national hard time" between 1958 and 1961, and a steady decrease beginning in the 1970s, though with more rapid absolute decline in the rural TFR than in the urban one.

The encouragement of late marriage has been an important part of China's fertility control policy. Calculations based on data from the one-per-thousand fertility survey conducted in 1982 showed that the percentage of women marrying below age 20 was 63.5 in 1955, 56.7 in 1960, 48.2 in 1964, 37.5 in 1970, 22 in 1973, 17 in 1975 and 12.5 in 1979, demonstrating a substantial decrease in early marriage. The

Table 10. Urban-rural differences in total fertility rates, 1950-1979

Year	Total fertility rate		
	Urban	Rural	Rural-urban ratio (urban as 1)
1950	5.001	5.963	1.19
1951	4.719	5.904	1.25
1952	5.521	6.667	1.21
1953	5.402	6.183	1.14
1954	5.723	6.390	1.12
1955	5.665	6.391	1.12
1956	5.333	5.974	1.12
1957	5.943	6.504	1.09
1958	5.253	5.775	1.10
1959	4.172	4.323	1.04
1960	4.057	3.996	0.98
1961	2.982	3.349	1.12
1962	4.789	6.303	1.32
1963	6.207	7.704	1.25
1964	4.395	6.567	1.49
1965	3.749	6.597	1.76
1966	3.104	6.953	2.24
1967	2.905	5.847	2.01
1968	3.872	7.025	1.81
1969	3.299	6.263	1.90
1970	3.267	6.379	1.95
1971	2.882	6.011	2.09
1972	2.637	5.503	2.09
1973	2.387	5.008	2.10
1974	1.982	4.642	2.34
1975	1.782	3.951	2.22
1976	1.608	3.582	2.23
1977	1.574	3.116	1.98
1978	1.551	2.963	1.91
1979	1.373	3.045	2.22

Figure II. Trends in urban and rural total fertility rates, 1950-1979



one-per-thousand fertility survey showed a corresponding rise in the mean age at first marriage for females, 19.02 years in the 1950s, 19.81 in the 1960s, and 21.59 years in the 1970s. An increase in the urban-rural difference in the mean age at first marriage is one of the important reasons for the enlarged urban-rural difference in the total fertility rate.

The delayed age at marriage partially accounts for the decline in the total fertility rate. Another important reason for the decline in the total fertility rate has been the decrease in the percentage of third or higher births over the years. During the 1940s, infants of third or higher parities accounted for 40-50 per cent of all births (40.9 in 1946 and 48.3 in 1949). After the founding of the People's Republic, the percentage rose further, reaching 61.3 in 1957 and hitting 65.8 in 1960, and always exceeding 60 per cent up to the early 1970s. That is to say, more than half of the annual births were infants of third or higher parities. Since the 1970s, with the practice of family planning, the percentage of births at parities three and higher has gradually declined. The one-per-thousand fertility survey showed the percentage of third or higher births was 59.8 in 1970, 51 in 1975, 46.3 in 1976, 39 in 1978 and 29.1 in 1980; according to the 1982 census, the percentage of third or higher births in 1981 was 27. The percentage of births occurring at parities three and higher thus dropped from 50 in 1975 to 27 in 1981, a very rapid decline. It is thus clear that the programmes to promote late marriage and fewer births have been remarkably successful.

The persistence of urban-rural differentials in the total fertility rate is largely attributable to differences in the percentages of rural and urban women having third or higher births. According to data from the one-per-thousand fertility survey in 1982, the percentage of births occurring at parities three and higher in 1981 was 1.7 per cent in urban areas and 31.0 in rural areas. Data from the fertility survey conducted in the two provinces and one municipality in 1985 showed that during the 1980-1984 period, the percentage of third or higher births was 27.2 in Shaanxi, 24.2 in Hebei and 5.5 in Shanghai.

The achievements in restricting fertility are also reflected in age-specific fertility rates, as shown for 1953, 1964 and 1981 in table 11.

As can be seen, China's fertility pattern has changed from relatively early child-bearing, short birth spacing and many births to a pattern of late child-bearing, longer birth spacing and fewer births. That is to say, women's child-bearing has changed from the spontaneous unplanned state to a conscious and planned one.

Since family planning policies are not so strictly implemented in those areas where minority nationalities live in small communities, the fertility of minority women at reproductive age is much higher than that

Table 11. Age-specific fertility rates in selected years*
(per 1,000)

Age	1953	1964	1981
15-19	96	70	6
20-24	275	296	144
25-29	286	309	235
30-34	242	261	85
35-39	192	193	32
40-44	102	96	14
45-49	16	11	3
Total	6.05	6.18	2.61

* The 1981 data are from the 1982 census while the 1953 and 1964 data are obtained from the 1982 one-per-thousand fertility survey.

of Han nationality. Data from the one-per-thousand fertility survey showed that in 1981 the total fertility rate was 2.52 for Han women of reproductive age and 4.49 for minority women of reproductive age. The trend in the total fertility rate for minority women is shown in table 12.

Table 12. Proportions marrying late and total fertility rates among minority women

Year	Proportion marrying late*	TFR
1965	15.0	6.71
1970	14.8	6.49
1975	30.8	5.52
1978	34.5	4.15
1980	41.6	4.01
1981	37.8	4.49

* Late marriage refers to marriages taking place at ages 24 and over.

The priority given to contraception has been very important in explaining the success of the programme. Remarkable achievements have been obtained in this respect since the 1970s. Surveys conducted in two provinces and one municipality in 1985 have shown high levels of contraceptive knowledge, and that on the average, currently married women knew (at the time of the survey) five or six kinds of contraceptive methods. In Shanghai, 90 per cent of the interviewed women knew of the IUD and the pill, while 50 per cent knew of the condom, injectable contraceptives and the rhythm method. In Hebei and Shaanxi, 90 per cent of interviewed women knew of the IUD, and 50 per cent of them knew of the pill and the condom.

According to the national one-per-thousand fertility survey of all China conducted in 1982, 69.7 per cent of currently married women were current users of contraception. The percentage using contraception was 73.8 per cent in urban areas and 68.9 per cent in rural areas. At the national level, women using sterilization accounted for 35.6 per cent of total contraceptive use, while 64.4 per cent were using other methods. Among urban contraceptors, 23 per cent were using sterilization and among rural contraceptors the number was 38 per cent.

The success of the family planning programme can be attributed to intensified publicity and education, to measures taken to encourage couples to have a single child, to progress in providing support for the elderly and to the provision of contraceptive information and supplies. As a result, contraceptive use has reached a high level, the percentage of third or higher births has decreased and fertility has fallen greatly.

C. Natural increase

The changes in the rate of natural increase resulting from changes in the death rate and birth rate are shown in table 13, with peak levels of increase in 1952-1957 and 1962-1973.

Table 13. Rate of natural increase
(per 1,000) in selected periods

Period	Rate of natural increase
1952-1957	20 to 25
1958-1961	-5 to 17
1962-1973	20 to 33
1974-1975	15 to 17
1976-1980	12 to 13
1981-1985	11 to 15

It should be pointed out that both the peak and the lowest level of population increases are directly associated with economic development and living conditions; moreover, they are also closely related to the population policy adopted in the country.

The first peak, between 1952 and 1957, occurred as a result of a substantial drop in the death rate with the birth rate still remaining at or exceeding the high level that was seen before the founding of the People's Republic. The natural rate of population increase during this period was as high as 25 per thousand, representing a transitional pattern characterized by a high birth rate and low death rate. The high birth rate during this period is attributed largely to a period of prosperity in agriculture, discussed at greater length above.

The rise in the death rate and fall in the birth rate between 1958 and 1961 led to very low rates of natural increase of population and a negative figure in 1960. This coincides with the Great Leap Forward period, and strongly suggests a link between depressed economic conditions, low fertility and high mortality.

After the Great Leap Forward, the second peak period of natural increase occurred between 1962 and 1973 with a rate of natural increase between 20 and 33 per thousand. During the Cultural Revolution, the total population grew dramatically with the average rate of natural increase being as high as 27.4 per thousand during the six years from 1966 to 1971. There were altogether 159.2 million births during the six-year period, amounting to 26.5 million births per year. If the deaths are deducted, the absolute increase during the six-year period was 121.2 million, or a net increase of 20.2 million per year.

The situation changed greatly after 1970. The introduction of intensive family planning programmes was followed by a rapid drop in both the crude birth rate (CBR) and the total fertility rate (TFR). After 1976 the CBR stabilized at around 20 per thousand and the TFR at around 2.3. During this period a pattern emerged of low fertility, low mortality, and a low rate of natural increase. During the fifth five-year plan (1976-1980), the average annual rate of natural increase was 13.3 per thousand with an average net increase of 12.57 million, which is much smaller than during the peak period. During the sixth five-year plan (1981-1985), the rate of natural increase declined further to an average rate of 12.4 per thousand. Despite the increased population size, the net annual increase in population remained almost unchanged at 12.59 million, as compared to 12.57 million between 1976-1980.

D. Age composition

With changes in the rates of birth, death and natural increase, changes in age composition are inevitable. The three population censuses of 1953, 1964 and 1982 allow an examination of shifts in age structure, as shown in table 14.

Table 14. Age composition in 1953, 1964 and 1982

	<u>Age structure</u> <u>percentage</u>			<u>Median</u> <u>age</u> <u>(years)</u>	<u>Mean</u> <u>age</u> <u>(years)</u>	<u>Dependency ratio</u>		
	0-14	15-64	65+			<u>Old-age</u> <u>Total dependents</u>	<u>Child</u> <u>dependents</u>	
1953	36.3	59.3	4.4	22.7	26.5	68.6	7.44	61.16
1964	40.7	55.7	3.6	20.2	24.9	79.4	6.39	73.01
1982	33.6	61.5	4.9	22.9	27.1	62.62	7.98	54.64

As a result of the 1950s' "baby boom", median age declined 2.5 years between 1953 and 1964, the dependency ratio rose from 69 to 79, the percentage aged 0-14 increased from 36 to 41 per cent, while the percentage aged 65 and over decreased from 4.4 to 3.6 per cent. Between 1964 and 1982, age composition nearly reverted to that observed in 1953, though the dependency ratio declined to its lowest level. The decrease in the birth rate since 1970 has thus led to a moderate increase in the average age of the population.

The age structure of the population in 1982 contains two different kinds of inertia with implications for future population growth. At ages over 13 the age structure is particularly expansive and contains a potential for rapid population growth, whereas below age 13 the pyramid is somewhat less conducive to population growth.

E. Minority groups

China's national minorities have had a somewhat different demographic development than the majority Han ethnic group, with higher birth and death rates. During the period from 1953 to 1964, the national minorities had a lower rate of natural increase (11.1 per

thousand) than that of the Han group (15.9 per thousand) owing to a higher death rate stemming from the less developed economy and the poorer medical and health services in the areas inhabited by the national minorities. Between 1964 and 1982, however, the natural increase of the national minorities (29.4 per thousand) came to exceed that of the Han nationality (20.4 per thousand), because of a slower rate of fertility decline attributable to a more relaxed family planning policy towards the national minorities. Total fertility rates for the minority and the Han population between 1964 and 1981 are compared in table 15, which indicates a considerable divergence between the two groups.

Because of their higher growth rates in recent times, the national minorities have now acquired a younger age structure than that of the Han majority, and the population aged 0-14 exceeds 40 per cent for the Miao, Yi, Hani, Yao and Weiwuer nationalities.

Table 15. Total fertility rates of Han and national minorities from 1964 to 1981

Year	Total fertility rate		Year	Total fertility rate	
	Minority	Han		Minority	Han
1964	6.717	6.013	1973	5.893	4.338
1965	6.713	5.931	1974	6.012	3.936
1966	6.988	6.111	1975	5.517	3.356
1967	6.004	5.172	1976	5.138	3.030
1968	7.024	6.281	1977	4.458	2.667
1969	6.577	5.569	1978	4.148	2.575
1970	6.491	5.649	1979	4.490	2.598
1971	6.031	5.287	1980	4.007	2.121
1972	5.854	4.782	1981	4.492	2.521

F. Rural-urban differentials

While China's fertility and mortality have declined to a rather low level, there are still significant rural-urban differentials in fertility, mortality and natural increase, owing to the different levels of socio-economic and cultural development between urban and rural areas.

As can be seen in table 16, rural total fertility rates have been persistently higher than urban rates since the 1950s. From 1975 onwards, urban fertility has been below replacement level, while rural fertility has remained at a level much higher than replacement.

Table 16. Total fertility rates in urban and rural areas in selected years

Year	Urban	Rural	Year	Urban	Rural
1952	5.52	6.67	1975	1.78	3.95
1957	5.94	6.50	1978	1.55	2.97
1962	4.79	6.30	1980	1.15	2.48
1965	3.75	6.60	1981	1.39	2.91
1970	3.26	6.38			

As can be seen in table 17, urban-rural differences in mortality have also persisted, with rural mortality remaining somewhat higher at all times, though the gap has been narrowing. Mortality data strictly divided into urban and rural areas are not available, and the crude death rates shown in the table are consequently for cities and counties.

Table 17. Crude death rates in cities and counties in selected years

(per 1,000)

Year	City	County	Year	City	County
1954	8.07	13.71	1975	5.39	7.59
1957	8.47	11.07	1980	5.48	6.47
1962	8.28	10.32	1981	5.14	6.53
1965	5.69	10.06	1983	5.92	7.69
1971	5.35	7.57			

Because rural mortality is only slightly higher while rural fertility is much higher, the urban natural increase has been substantially lower than that of the rural population. For the same reason, the urban population has lower proportions aged 0-14, as can be seen in table 18 below, and relatively more persons of working age.

Since rural fertility is higher than urban, and the age structure of the rural population is younger, the rural population has a greater momentum for future population growth.

G. Regional differences

The total fertility rates and life expectancies of the 28 provinces, municipalities and autonomous regions in table 19 indicate substantial areal variation, with the total fertility rate ranging between 1.3 and 4.4, and life expectancy ranging from 61 to 73 years.

A number of areas are experiencing rapid population growth owing to mortality decline not yet counterbalanced by declines in fertility. At present, many rural women have a fertility level approaching the replacement level, but in some provinces the total fertility rates are still over four. It is expected that the fertility level will decline further in response to improved publicity and education on family planning as well as wider dissemination of contraceptive information and supplies. However, the children of the 1960s, "baby boom" are now entering the reproductive ages, which will tend to raise the rate of population growth. The seventh five-year plan (1986-1990) projects a population of 1.113 billion on China's mainland in 1990, with an annual rate of natural increase at about 12.4 per thousand. In order to limit China's population to 1.2 billion by the end of the century, much needs to be done. The age structure will, in consequence, experience great changes, with a further drop in the percentage aged 0-14 and an expected rise in the percentage aged 65 and over from 4.9 per cent in 1982 to about 7 per cent in the year 2000.

Table 18. Distribution by age in the 1982 census
(Percentage)

	0-14	15-64	65 and over
Country as a whole	33.6	61.5	4.9
Cities	26.0	69.3	4.7
Towns	28.4	67.4	4.2
Villages	35.4	59.6	5.0

Table 19. Total fertility rates and life expectancies of the 28 provinces, municipalities and autonomous regions in 1981

Region	TFR	Life expectancy*	Region	TFR	Life expectancy*
Beijing	1.59	72.03	Shandong	2.10	70.24
Tianjin	1.65	71.07	Henan	2.65	69.81
Hebei	2.65	70.65	Hubei	2.44	65.85
Shanxi	2.38	67.95	Hunan	2.83	65.76
Nei Monggol	2.62	67.04	Guangdong	3.28	71.17
Liaoning	1.77	70.80	Guangxi	4.10	69.92
Jilin	1.84	69.03	Sichuan	2.43	64.33
Heilongjiang	2.06	68.35	Guizhou	4.36	61.94
Shanghai	1.32	73.01	Yunnan	3.81	61.45
Jiangsu	2.08	69.64	Shaanxi	2.39	65.24
Zhejiang	1.98	69.71	Gansu	2.73	66.08
Anhui	2.80	69.35	Qinghai	3.93	61.58
Fujian	2.72	68.61	Ningxia	4.12	65.91
Jiangxi	2.79	66.28	Xingjiang	3.85	61.29

* Calculated by the Institute of Population Research, the People's University of China.

II. POLICY ON POPULATION GROWTH AND FERTILITY

A. The evolution of policy

Adequate formulation of population policy requires a thorough understanding of demographic trends and their relation to economic development. The process of formulating population policy is not achieved in a single step, but instead through continual modification and improvement.

In the early years after the founding of the People's Republic in 1949, China was faced with the great challenge of economic recovery and the population issue was not, and could not be, put on the agenda. Indeed, the initial view of the Government was somewhat pronatalist, with strict regulations against abortion and sterilization (Hou, 1981). However, despite great progress in developing the economy during the first five-year plan, it gradually became apparent that the development of the national economy was not commensurate with the rate of population growth. Between 1949 and 1954, the population increased by nearly 61 million. During both the period of recovery (1950-1952) and the period of the first five-year plan (1953-1957), the rate of natural increase stood at about 2 per cent with an annual net increase of about 12 million people, which substantially exceeded the rate of population increase in Old China. Gradually it became apparent that population was growing too rapidly, particularly in the urban areas, placing too heavy a burden on the grain supply and on the development of education, housing and medical care, and thereby impeding improvements in living standards and attainment of full employment while slowing down investment in machinery and infrastructure. It was in this context that a number of leaders and scholars began to advocate planned regulation of population growth. The first action in this direction occurred in August 1953, when the Government Administration Council, forerunner of the State Council, instructed health departments to provide contraceptives on request, and at the same time partly relaxed the restrictions concerning induced abortion (Hou, 1981). In 1954, the Government received letters from a number of individual women requesting help with limiting their number of children. It was under these circumstances that Liu Shaoqi, who later became president, chaired a discussion on birth control in December 1954, at which he said that the Party endorsed birth control. In 1955, the Government began to manufacture appliance-type contraceptives and further relaxed the restrictions on induced abortion, and in 1956 the health departments launched an extensive campaign to provide general information on contraception. In September 1956, Premier Zhou Enlai at the Eighth National Congress of the Chinese Communist Party stated that an appropriate measure of birth control was desirable "to protect women and children and educate our younger generation in a way conducive to the health and prosperity of the nation", and added that health departments should "carry out intelligent propaganda and adopt effective measures

towards this end" (The People's Daily, 1956). In the same year, the National Programme for Agricultural Development, drafted under the chairmanship of Mao Zedong, stated that other than in areas inhabited by national minority people, birth control should be publicized and popularized in all densely populated areas and family planning advocated, so that the family could avoid being overburdened and so that children could have a better education and chances of full employment. At about the same time, Ma Yinchu, the president of Beijing University, strongly advocated the necessity of controlling births and population growth to support national development (Ma Yinchu, 1957). In 1957, at the Supreme State Conference, Mao Zedong stated: "Mankind should control itself in order to have a planned growth" (The People's Daily, 1957). Thus, the first five-year plan period saw the earliest definition of the basic orientation of China's current policy towards limiting fertility and population growth.

In 1958, however, the Great Leap Forward drive was initiated to collectivize agriculture and decentralize industry, and the policy of regulating population growth came under strong attack. It was argued that more people would provide richer human resources, making it possible to develop the socialist economy at greater speed. With this change in atmosphere, proponents of population control fell into disfavour as "Malthusian reactionaries"; Ma Yinchu was removed from the presidency of Beijing University, population theory sank into oblivion and political support for family planning was severely undermined. While official family planning activity was curtailed during the 1958-1961 period, economic difficulties caused the crude birth rate to fall from 29 per 1,000 in 1958 to 18 per thousand in 1961 and the crude death rate to rise from 12 per 1,000 in 1958 to 25 per 1,000 in 1960, thus producing negative population growth in 1960 and very low rates of population growth in 1959 and 1961.

In 1962, natural increase surged upwards again, topping the 25 per thousand mark. In response to this, the State Council at the end of 1962 gave instructions to the various localities to "promote family planning work conscientiously" in urban areas and densely populated rural areas. It also called on health departments to produce and supply adequate amounts of contraceptives, and to make it easier to obtain induced abortions and surgical sterilizations. But in 1963 the rate of increase rose further to 33.5 per thousand, the highest level recorded since 1949. In response to this, the State in 1964 established a special agency responsible for family planning - the Family Planning Office of the State Council, with corresponding offices in each province, city and autonomous region. During 1965, support continued for the family planning programme; the summary of the City Planning Conference stated that making great efforts to carry out planning and to reduce the birth rate was a very important task and Zhou Enlai said that late marriage and birth control must be vigorously advocated for the sake of industrialization, scientific and technological progress,

maternal and child health, and for national prosperity. Support continued as late as January 1966, when the Party Central Committee endorsed a statement that family planning was necessary, not only for individual welfare, but also for building socialism in China. This period was characterized by progress in family planning work and, in the urban areas, the crude birth rate declined from the 44 per thousand observed in 1963 to 27 per thousand in 1965. A basic policy of controlling population growth in a planned way had reasserted itself.

Between 1966 and 1968, however, the Cultural Revolution interfered with activities in all fields, including family planning. The work of the state family planning agencies came to a standstill, their personnel were disbanded and there was virtually no official family planning activity (Hou, 1981). The crude birth rate remained at a virtually constant level of 33-35 per 1000 between 1966 and 1970, with a population growth rate that stayed above 2.5 per cent.

The period 1971-1979 saw a re-establishment of family planning activity at a more intensive pace. After repeated statements by Zhou Enlai in 1969 and 1970, criticizing the decline in family planning work during the Cultural Revolution, large-scale implementation of the family planning programme resumed in 1971, when State Council Directive 51 was issued, stating that except for thinly populated national minority areas and others, the leading comrades at each level must strengthen leadership and conduct intensive propaganda and education campaigns so that late marriage and birth planning would become voluntary behaviour on the part of the broad masses in cities and rural villages. In 1973 the State Council set up a Leading Group for Family Planning which was to be responsible for carrying out family planning country-wide and instituting a more comprehensive policy to limit fertility. The policy's theme was "later, sparser and fewer", and this theme was to become the dominant one in family planning policy up until 1979. The word "sparser" advocated a four-year interval between births, both to promote maternal and child health and to reduce population growth. "Fewer" advocated having two children, and "later" encouraged marriage at a later age. In 1974, Mao Zedong indicated his support for the policy, saying, "Population growth has to be controlled". In the same year, the State Council's Leading Group for Family Planning, together with the departments, concerned issued a circular stating that contraceptives should be issued free of charge. Support for the programme continued throughout the 1970s, and in 1978 the third plenary session of the Eleventh Central Committee, which instituted significant shifts in national policy, reaffirmed the importance of regulating births, and declared that family planning should be considered as strategically important for the realization of the four modernizations -- agriculture, industry, defence, science and technology. Between 1971 and 1979 the crude birth rate fell steadily from 31 per thousand in 1971 to 18 per thousand in 1979.

The "one-child" policy

In June 1979 the work report of the State Council to the People's Congress recommended the provision of incentives and rewards to couples giving birth to only one child. This recommendation was adopted the next year at the third session of the Fifth National People's Congress in 1980, which put forward a general call for "only one child per couple". Since that time the basic content of birth control policy has been to encourage having one child, to control the second birth, and to prohibit the third birth. In practice, implementation of the policy has differed between regions and ethnic groups. In urban areas, second births are more strictly discouraged, while in rural areas there is more relaxed implementation in accordance with local conditions. For instance, in some rural areas couples may have a second child if the first birth was female. Such relaxations make the policy more flexible and increase public acceptance.

Some foreign observers have misunderstood China's policy concerning the number of children per family to mean that all families are limited to having only one child. Instead, China's policy of controlling population is to encourage couples to have one child as the most desirable number rather than to have only one child universally. This is because: (a) China's current policy itself is not universally a one-child policy; (b) In order to limit China's population to around 1.2 billion, it is not necessary for all couples to have only one child; (c) The total fertility rate demonstrates that the fertility level has always exceeded two children in both the 1970s and 1980s; (d) The policy of strongly encouraging couples to have only one child is a measure adopted during a certain period with the aim of alleviating population pressure, and it will certainly experience adjustments as time passes and as the demographic situation changes.

B. Elements contributing to programme success

A number of elements can be identified as having been particularly important in the success of China's fertility regulation programme.

A first crucial element in the success of the programme was the effort given to securing a shift in the attitude of public officials at all levels of Government from the view that fertility control was a trivial matter unworthy of attention towards a belief that great importance should be attached to helping in the effort to make the family planning programme succeed. Considerable energy was expended in the effort to persuade such officials that excessive rapid population growth was an obstacle to economic development and to securing a sufficiently fast rise in the standard of living. To induce greater support, courses in demography were organized in various localities to acquaint officials with current statistics on population growth and to

convince them of the necessity for bringing population growth into harmony with economic growth and for introducing effective measures to control population. Through this effort, all levels of government came to give higher priority to supporting the programme to limit population growth and to control fertility.

A second and particularly important element in the success of the family planning programme was an energetic publicity and education campaign aimed at the general public. As with the more narrowly focused campaign aimed at officials in Government, the publicity campaign emphasized the need to limit population growth in order to realize the goals of modernization and a better life, and to advance the long-term interests of the Chinese nation. In addressing women, the publicity campaign stressed the strong correlation between family planning and the liberation of women, and emphasized that women who give birth to many children at short intervals are burdened by heavy household chores and are thus unable to give their full energies to social labour. Limiting births would help them to increase their participation in paid activities and thus raise their social and economic status. Concrete examples were used to drive home the benefits of late marriage and fewer births by showing the harm done to mothers and to children by early marriage, early child-bearing, short spacing between births, and excessive numbers of children. The publicity campaign included financial comparisons to illustrate how the interests of the individual couple and the society as a whole would both benefit through adopting conscious control over fertility. Through their participation in production brigades and teams, commune members were exposed to local projections showing how differing patterns of local population growth were likely to affect local per capita crop yields, farmland per head, and per capita income, in order to persuade them that excessive population growth directly threatened the prosperity of their own commune.

Another aspect of the publicity and education campaign was to widely publicize family planning as an important tool for transforming undesirable social traditions, ideas, customs and habits. To erode the old custom of early marriage, repeated emphasis was given to the idea that early marriage, early child-bearing and frequent births inhibits young people from further education in science and technology, and from devoting their energies to production and work. Premature marriage and child-bearing were presented as impeding physical and intellectual development and as adding to the financial burdens of families and of the State. By practising late marriage and family planning, young people could be freed to devote their full energies to work and the development of production, science and technology. A tradition particularly assaulted by the publicity campaign was the age-old concept that "males are better than females". Traditionally in China, males are the only bearers of continuity in the ancestral line, the only source of prosperity for the family or the clan, and the only source of

support to parents when they are old. In attacking this concept, the idea of male superiority was assailed as a feudal, small-peasant idea which should be supplanted by the idea that under socialism, females and males are equal and are both needed for societal growth. Overcoming old ideas of gender inequality requires the elimination of the economic conditions that engender such ideas, and repeated emphasis of the principle of equality between men and women and between male and female children from the time of birth.

A third element that has been important in instituting control over fertility has been the insistence on integrating population as a variable in the development planning progress. For a number of years, national economic planning was preoccupied only with the increase in total output while ignoring per capita output. No allowance was made for population increase in development planning, so that economic growth became uncoordinated with population growth. The emergence of official support for the formal incorporation of population into development planning can be seen in a statement by Zhou Enlai in June 1970, when he said: "Family planning falls within the scope of state planning. It is a question of planning, not of health. There is no point in drawing up state plans if one cannot even plan the growth of the population". Beginning in 1971, in drawing up the fourth five-year plan and subsequent annual plans, the Government began to plan not only for economic growth but also for population growth.

As well as integrating population with development planning at the national level, China has also instituted regional population programmes. The national programme sets the overall requirements for controlling population growth, setting targets for natural increase, fertility and population size, and determining the proper balance between population increase and economic growth. Regional programmes are developed by provinces, municipalities, autonomous regions and counties. These programmes devise population targets in the light of local conditions in a manner that ensures the realization of the goals of the national programme. These targets provide an important basis for economic planning in each locality.

In developing an appropriate regional population programme, local authorities have been called on to devise ways to encourage late marriage, longer intervals between births, and fewer births, while taking account of local conditions. Local conditions that have been taken into consideration include different control targets for the majority Han nationality and the minority nationalities, differences between the birth rates of the minorities, rural-urban fertility differentials, the differing age and sex composition in various localities, and variation in family planning programme effort between places.

A fourth important ingredient in the success of the effort to limit fertility has been the adoption of appropriate legislative measures. In 1978, article 53 of the Constitution of the People's Republic of China was adopted, including the phrase "The State advocates and encourages family planning". This was the first instance since the founding of the People's Republic in 1949 that family planning became part of the fundamental law of the country. In 1980, the new Marriage Law contained a number of clauses intended to stimulate fertility regulation, as follows:

- (a) Husband and wife are duty bound to practise family planning;
- (b) Late marriage and late childbirth should be encouraged;
- (c) After a marriage has been registered, the woman may become a member of the man's family, or the man may become a member of the woman's family, according to the agreed wishes of the two parties.

This latter stipulation was intended to overcome the tradition whereby brides customarily became part of the husband's family and to advance equality between the sexes. Article 6 of the 1980 Marriage Law was intended to reduce mental retardation, congenital disabilities and hereditary diseases. It prohibited marriage in cases where prospective spouses are either lineal or collateral relatives by blood, up to the third degree of relationship, and in instances where one or other parties has a currently incurable disease that is regarded as a barrier to marriage, such as leprosy. Article 49 of the new Constitution, adopted in 1982, further emphasized family planning, stating, "Both partners in marriage are committed to practice family planning".

A fifth critical element in securing fertility decline was the close attention given to the provision of adequate family planning education and services. A number of specific guidelines were set forth in this regard. Contraception, abortion and sterilization were to be supplied free of charge. Each couple should select the type of contraceptive method that would be most effective in the light of their own wishes and physical conditions. Induced abortion would be made available in the event of contraceptive failure, though it was hoped that the increasing popularity of efficient scientific contraceptive methods and an increasing supply of contraceptives would cause the need for abortion to diminish. In addition, the Government instituted a system of giving a certain number of days' leave with full pay to people undergoing sterilization or induced abortion. In order to provide adequate technical guidance on contraception and family planning, and to provide adequate services, emphasis was placed on staffing health facilities with well-trained medical personnel. The past record indicates considerable progress in this direction; some of the facilities responsible for sterilization and abortion have performed as many as 10,000 operations without severe complications.

A sixth factor important in the success of the family planning programme was that of appropriate organization. The Family Planning Office of the State Council resumed work in 1973 and in 1980 the State Family Planning Commission was established. Family planning organizations were set in motion at various levels of Government, including provinces, municipalities, autonomous regions and counties. Full-time and part-time family planning personnel were employed in communes and neighbourhoods, with responsibility for family planning publicity, population planning, surveys and studies. Family planning workers were assigned to making direct contact at the grass-roots level, supported by family planning cadres and enthusiasts in the villages, neighbourhoods, factories, workshops, government offices and schools. In making direct contact with clients, family planning workers were responsible for patiently and meticulously explaining to fertile couples and older family members the benefits of family planning. They were also responsible for feeding back information to their supervisors that would help formulate more effective approaches and policies and for carrying out demographic surveys to provide the population programme with reliable statistical foundations.

A seventh factor important in causing fertility to decline was the introduction of a system of incentives to bring about later child-bearing and fewer births, and to put eugenics into practice. While material rewards varied from place to place, there were three typical types of incentives:

- (a) Subsidies to cover the health fees of only children;
- (b) Longer maternity leave with full pay to mothers who had received the "one-child certificate";
- (c) Priority given to the children of one-child families in admission to nurseries and schools and in medical treatment.

In introducing new incentives it was found necessary to abolish the old system of allocating more housing and more land to larger families, because it provided a counter-incentive that encouraged couples to have more births.

An eighth and fundamental element in promoting the success of the fertility regulation programme was adherence to the basic principle of "combining the Government's guidance with the people's willingness".

C. Policy concerns

The target of confining China's population to around 1.2 billion by the end of this century stands out as perhaps the most ambitious target ever adopted in the field of population policy. In an effort to

communicate its thinking on how the problems implied by this goal might be resolved, the Central Committee of the Chinese Communist party in September 1980 addressed an open letter to all members of the Communist Party and Communist Youth League, calling on them to promote the one-child family and providing official responses to various concerns that were prevalent at the time (State Family Planning Commission, 1983).

One concern addressed in the letter was the anxiety that the one-child family would lead to an increase in the number of elderly people with no family to look after them, beginning in the year 2020. It noted that in the future, "as production grows and people's living standards rise, social welfare and insurance are bound to be improved step by step to provide all old people with a secure life". Another concern was that the one-child family would lead to a shortage of entrants to the labour force. The letter stated that the labour force is expected to rise from about 500 million in 1980 to 600 million by the year 2000, and that at the beginning of the twenty-first century, there will still be 10 million or more joining the labour force each year. By the year 2010, said the letter, China will be able to adopt a different population policy, once the "present unusual tension" in population growth has been mitigated.

An additional source of concern was that the one-child policy might lead to an excess of males over females. The letter noted that the sex ratio of firstborns in areas affected by the one-child family was very similar to the sex ratios at birth observed in vital statistics since 1949.

National minorities

China's national minorities have less developed socio-economic and educational backgrounds, and for historical reasons it has been necessary to formulate a policy different from that for the Han majority.

China's 55 national minorities may conveniently be placed in three categories. First, there are 27 nationalities with very small populations, with 19 groups in the range 10,000 to 100,000 and 8 groups of fewer than 10,000. It is considered necessary to allow such small populations to grow in order to strengthen nationality unity, and therefore to adopt less stringent targets for fertility decline.

Second, there are a number of national minorities who live in sparsely populated pastoral areas, forest regions and border areas where population density is too low, by the end of 1983 the Xizang Plateau had a population density of 1.6 persons per square kilometres, the Xinjiang Uygur Autonomous Region had a density of 8.2 persons per square kilometre and Qinghai Province had a density of 5.4 persons per square kilometre. The policy of limiting fertility is relaxed in these areas in order to supply the labour force necessary for economic development, to strengthen border defence, and to support national unity.

The third group of national minorities consists of relatively large populations in densely settled areas. For example, the population density is 162 persons per square kilometre in Guangxi Zhuang Autonomous Region. In 1982 the region contained 36.4 million inhabitants among which 12.3 million were people of Zhuang nationality, whose rate of population increase far exceeded that of the Han majority, both in the country as a whole and in the Guangxi region as well. Because of these factors, family planning policy for the Zhuang nationality closely resembles the policy for the Han majority, though with a few minor differences.

Old age security

A major social problem to be overcome in promoting one child per couple is to ensure that the elderly will be looked after properly. Owing to differences in levels of production and contrasts in ownership of the means of production and in the social guarantee of support for the elderly, young couples in the cities and rural areas vary in their acceptance of the policy of one child per couple.

According to the prevailing regulations concerning labour protection, workers in urban units under public or collective ownership are paid pensions upon retirement at the age of 60 for men and 55 for women, with the amount of the pension depending on length of service. To the extent that the pension eliminates the economic dependence of workers on their sons or daughters when they reach old age, workers have practically no reason to rear many children as a source of financial support and they need not worry so much about retirement as they would if there were no pensions. To encourage couples to have one child each, some provinces and municipalities have stipulated that they will receive an additional 5 per cent in current salary and on retirement will receive a pension amounting to 100 per cent of their prior wages. But social services to assist the elderly in the cities are at present inadequate, and many couples are probably worried that they will have no one to look after them when they are old. For instance, much difficulty may arise in doing the daily shopping or during periods of illness. Elderly parents who only have a daughter face particular difficulties: a son is better able to perform such tasks as carrying coal or kerosene, or, in northern China, digging a cellar for storing vegetables. To encourage one child per couple, therefore, the cities must expand service trades, especially those catering to the needs of the elderly without offspring. At the same time, great efforts are needed to develop medical and health services for the elderly, to remove the anxieties of those who want to have more children for fear that they might have no one to depend on if they become ill in their old age.

The problem of providing for elderly couples with only one son or daughter is especially difficult in the poorer rural areas. The better-off townships and villages with bigger public accumulation funds

and welfare funds are usually able to provide adequate retirement pension schemes. Old people, when they are unable to work, can live on their pensions and thus reduce dependence on their sons or daughters. For example, the Sijiping Commune of Beijing started its retirement pension scheme in 1978, giving each retired commune member a pension of 23 yuan a month, and a co-operative medical service which fully guarantees old persons of their needs for the rest of their lives. Under such conditions many young couples are more willing to have only one child.

Another solution frequently adopted in townships and villages with a consolidated collective economy and a sizable sum to provide for helpless old couples, is to set up homes for the aged, where they are looked after well both in everyday life and in sickness.

In the economically less well-off villages the state provides relief, or the production team gives five guarantees (of food, clothing, medical care, housing and burial expenses), for old people without sons or daughters, but the standards of provision are usually low when the local collective economy is weak. In consequence, many rural people still think it better to have their own sons or daughters to look after them when they are old.

Some brigades and teams which are short on funds have succeeded in obtaining state aid to establish and run homes for the elderly. For instance, the Civil Affairs Bureau of Hebei Province has helped two communes in Nangong and Leting counties, with the bureau financing the buildings, the communes providing the staff, and the brigades taking responsibility for the individual expenses of the elderly. Each home now accommodates dozens of helpless older people.

Formulating policies to solve the problem of how to care for an old couple with only one son or daughter and old people without offspring is thus an important condition for promoting acceptance of the one-child per-couple norm in the rural areas. Since the countryside is vast and economic development is uneven, practicable measures are needed to provide social security to the elderly in light of the different conditions in various places.

III. MORTALITY POLICY

From the time of the founding of the People's Republic in 1949, China's policy towards mortality has been one of lowering the death rate through public health measures, improvement of living standards and the provision of medical and health facilities.

Judged in terms of trends in mortality statistics, the policy has been successful, achieving one of the fastest mortality declines ever recorded. Deaths per 1,000 population (the crude death rate) fell from 20.0 in 1949 to 9.5 in 1965 and to 6.6 in 1985. Infant deaths per 1,000 births (the infant mortality rate) dropped even faster, from about 200 in the 1930s to 35 in 1981. The same is true of maternal mortality, which declined from about 15 per 1,000 births prior to 1949 to 0.5 per 1,000 in 1982. With these declines, life expectancy has risen greatly. Average life expectancy for the rural population has been estimated at 33.3 years for 1936. By 1973-1975, life expectancy for the country as a whole had risen to 64.9 years and by 1981 it had risen to 67.9 years.

China has adopted a multi-faceted health strategy, relying not only on preventive and curative activities of health personnel, but also on improved nutrition, sanitary disposal of wastes, cleaning up the water supply and expansion of the educational system. The decline in mortality is directly attributable to the adoption of these measures throughout both the rural and urban areas of the entire country. In recent years, between 3 and 4 per cent of the gross domestic product (GDP) has been spent on health care.

Shortly after 1949, large-scale efforts were initiated to improve environmental sanitation, to reduce infectious diseases through vaccination and curative therapies, to eliminate rats, flies, mosquitoes and bedbugs and to control vector-borne diseases such as schistosomiasis and malaria.

Total technical health personnel numbered about 3.1 million in 1982. There are a large variety of health practitioners in China, including doctors and assistant doctors of traditional medicine (303,000 in 1982), pharmacists of traditional medicine (140,000 in 1982), doctors and assistant doctors of western medicine (1,002,000 in 1982), nurses and assistant nurses (564,000 in 1982), as well as various types of paramedical personnel, including "barefoot doctors" (State Statistical Bureau, 1983).

The manpower policy of the health care system since 1949 has, for most of the time, placed great emphasis on educating as many personnel as possible, training paraprofessionals to do the simplest tasks and full professionals to do the more complex ones. Starting in the early 1980s, there has been a shift towards the longer training of physicians,

from the three years formerly required, to between five and six years' training and towards improving the training of "barefoot doctors" to the level of assistant doctors.

The widespread distribution of preventive and curative health facilities throughout rural China has been extremely important in promoting mortality decline. Rural health care is provided through central county facilities, through commune health centres, and through brigade health posts, with the objective of extending basic health care to all the rural population, through providing at least one paramedical worker within walking distance of every rural resident.

At the most fundamental level in rural China, each production brigade, numbering between 1,000 and 3,000 people, has its own brigade health post, containing at least one paramedical worker. At the next level, each commune, with a population of 15,000 to 50,000, typically contains a health centre or small hospital, usually with about 10 beds, with responsibility for preventive medicine and family planning, and for the simpler types of curative work. Each commune hospital or health centre has several paramedical staff, usually has one or more assistant doctors and sometimes has a full doctor. Brigade and commune health facilities thus perform the crucially important function of extending basic health care to nearly all of the rural population.

More comprehensive centralized facilities exist at the county level, which supervise preventive and curative health facilities throughout the county and which provide curative facilities for the more complicated cases. The average county has a population of about 500,000, subdivided into 10 to 30 communes. In each county, a county health bureau supervises a fully equipped county hospital, an epidemic control station and a county maternal and child health care station. The typical county hospital has several senior doctors and provides referral services for the entire county as well as training for commune medical staff. The county epidemic control station, with between three and 10 staff members, has several functions. It distributes vaccines, is concerned with preventive health and infectious disease control throughout the county and supervises preventive health work by the commune health centres.

The primary health care system in urban areas is, broadly speaking, similar to the rural health care system. Instead of medical facilities at the brigade and commune level, there are neighbourhood "street clinics" which are the source of basic local health care. Urban clinics are staffed by paramedicals, usually have at least one full doctor, and have a small number of beds. Complicated cases are referred to district or provincial hospitals. A parallel health care system exists for employees of government or state enterprises, which provides free services to workers and accounts for a substantial amount of health provision in China.

Curative health services are paid for in several different ways. The Government directly finances services for employees of government and state enterprises, while communes and brigades provide their own internal financing supplemented by payments by individual patients. In rural areas, co-operative health insurance systems have historically provided much of the financial support.

Patriotic health campaigns have made an important contribution to China's effort to control mortality. The first campaign was conducted in 1951, and since then there have typically been four or five campaigns per year, under the leadership of an agency named the National Patriotic Health Campaign, which has a small number of full-time staff at each level of government. The patriotic health campaigns are linked to the brigade level by a brigade health campaign committee, which mobilizes brigade members to contribute their labour. Some campaigns originate from the central office in Beijing, while others are developed at provincial and country levels to deal with local conditions. In each campaign there is mass mobilization to achieve some specified goal to promote health. For example, there have been multiple campaigns to eradicate malaria through eliminating habitats where mosquitoes can breed, and repeated campaigns to combat schistosomiasis, through destroying snails and through diverting the course of infested rivers and canals away from the water supply. Additionally, there have been a number of general hygiene campaigns, responsible for such tasks as teaching people to boil drinking water and to dispose of excreta more safely. Other campaigns have been directed at the cleaning of refuse, dredging of ditches and drainages, construction or remodeling of public lavatories and reconstruction of water wells. The patriotic health campaigns have thus done much to reduce and prevent the spread of contagious diseases.

In building the public health service, preventive health has been the primary focus, though with considerable attention paid to curative medicine. Preventive medicine has emphasized the promotion of physical exercise, better nutrition, the control of contagious diseases, the popularization of hygiene, the provision of clean water supplies and improvements in sewage disposal, mass vaccination campaigns and measures to reduce infant and maternal mortality. Curative medicine, on the other hand, has emphasized a great expansion in the number of health facilities.

For over 30 years the Government has carried out health work in accordance with the above-mentioned policies. Free medical service, labour protection medical service and co-operative medical service have been instituted in a planned way; prevention and cure, coupled with the control of contagious diseases, have diminished the threat of illness; integration of Chinese traditional medicine with western medicine - giving full play to practitioners of Chinese traditional medicine - has contributed greatly to the improvement of people's health and

prolongation of their life expectancy; and above all, popularization of hygienic knowledge and mobilization of the broad masses in the fight against diseases have helped strengthen their general physique and lowered their mortality rates.

Development of health facilities

At the time of liberation in 1949, there were only 3,670 medical establishments of all kinds for both urban and rural areas across the country, while in 1982, there were 193,438 establishments, a 50-fold increase in 34 years. In 1949, there were only nine maternal and child health stations and 769 outpatient departments (including clinics) in the whole country, as against 2,645 and 113,916 respectively in 1982 (Ministry of Health, 1983, p.69).

At the grass-roots medical and health unit in the countryside, commune hospitals greatly outnumber county hospitals and are playing an important role in the prevention and treatment of diseases for the rural population. A rapid increase in the number of commune hospital beds and technical staff was registered during 1965 to 1982, increasing by a factor of 4.7 for the former and 3.4 for the latter in 18 years (Ministry of Health, 1983).

For the broad masses of the rural population at the commune level, the Government has trained medical orderlies, midwives and peasant-doctors who perform over 80 per cent of the first-aid treatment and most of the preventive health work. In 1982, there were 608,431 health stations set up in 717,951 villages country-wide constituting 84.7 per cent of the total, with 1.34 million peasant-doctors and 2.10 million medical orderlies and midwives.

The number of hospital beds and health technicians is an important yardstick of the level of development of medical and health services. The number of hospital beds per thousand people in 1983 was 13.8-fold of that in 1949, and the number of health technicians per thousand people was 3.41-fold. (Ministry of Health, 1983).

Nowadays, most births occur under strictly sterile conditions, with full sterile conditions for mother, baby, midwife and medical instruments. In 1982, in 18 provinces the percentage of births under sterile conditions was 92.7 per cent nationwide, 98.6 per cent in municipalities and 91.6 per cent in counties.

Elimination and control of diseases that seriously affect people's health has been an important factor in promoting the rapid decline in mortality. To protect children's health, the Government has always given high priority to the prevention and treatment of contagious diseases. In the early years after Liberation, children were given smallpox and BCG vaccinations. Later on, inoculations against

pertussis, diphtheria, tetanus, poliomyelitis and measles were introduced one after another on a large scale and smallpox was completely eradicated in 1960. Reports from 1,784 counties in 24 provinces, municipalities and autonomous regions indicated there were 1,040 counties with no incidence of diphtheria for three consecutive years from 1979 to 1981, or 58.3 per cent of the total. For the same period, 768 counties or 43.1 per cent of the total reported no incidence of poliomyelitis, while 259 counties or 14.5 per cent of the total had brought the incidence of measles under almost complete control (with incidence kept under 10 per 100,000). Between 1978 and 1984, the incidence of diphtheria came down from 2 per 100,000 to 0.33 per 100,000 and poliomyelitis from 1 per 100,000 to 0.17 per 100,000 (Ministry of Health, 1984).

Aside from promoting scientific methods of child delivery, the main efforts in the area of women's health have been directed toward the prevention and treatment of cervical cancer in urban areas and a general survey and treatment of prolapse and vesicovaginal fistula in rural areas. In the case of Beijing, for instance, the incidence of cervical cancer declined from 109 per 100,000 in 1973-1975 to 9 per 100,000 in 1980. Beginning in 1978, sufferers have been given free medical treatment, and in 1979, two mobile medical teams were sent to rural districts for that purpose. By 1982, 80 per cent of the women had been cured (Ministry of Health, 1983, p. 175).

Improvements in living standards

In the past three decades, total annual grain output more than tripled, from 113.18 million tons in 1949 to 387.28 million tons in 1983. Particularly noticeable is the change in the structure of grain production in which the percentage of wheat and rice rose from 55.2 per cent in 1949 to 64.6 per cent in 1983 (China Statistical Yearbook, 1984).

Over the same 1949 to 1983 period, the average per capita output of grains increased from 461 pounds to 837 pounds - an increase of 82 per cent - and cotton and aquatic products grew 469 and 529 per cent respectively.

The average per capita consumption of agricultural products grew correspondingly with production, when nonconsumables such as seeds, forage, reserve stock and exports are excluded. Between 1952 and 1983, sugar consumption increased by 391 per cent, eggs 190 per cent, pork 109 per cent, and vegetable oil 92 per cent. Grain consumption increased by only 17 per cent, however, indicating a shift towards consumption of non-staple food to improve the diet (China Statistical Yearbook, 1984). An important factor in the decline of infant mortality has been the reliance on breast-feeding, which benefits the growth and development of children. The 1964 figures for the Hungqiao Commune show

that out of 3,944 births, 91 per cent were breast-fed, and 9 per cent were fed by cow's milk. The same thing was true in the city of Shanghai where, according to a 1980 survey of 2,430 births, 81.3 per cent of them were breast-fed, with only 18.7 per cent fed by other means. The feeding period appears to be longer with urban babies. More than half the breast-fed babies in the Hungqiao Commune sample had a feeding period of from one to two years.

Improvements in health and nutrition are clearly reflected by the pattern of height and weight change among children. From 1955 to 1979, for the 7-to-18 age group in 11 provinces and municipalities, there was an increase of 5.16 cm. in average height, or an average decadal increase of 2.3 cm. for both male and female, compared to a decadal height increase of 1.5 cm. among European youth. The average weight increase for the same age group for the same period was 3.25 kg. for boys and 2.21 kg. for girls, as against 0.5 kg. for European youth.

With the anticipated progress in science and technology, socio-economic development, improvement in living standards and the bettering of medical and health care, the age-specific mortality of China's population is expected to decline further. China's infant mortality rate of 34.7 per 1,000 in 1981 was somewhat higher than in the developed countries, suggesting a possibility of further reduction in China's infant mortality. In response to this, various infant mortality rate targets have been adopted by the Chinese Government. During the seventh five-year Plan (1986 to 1990) the targets are to reduce infant mortality by 15 per cent in urban areas, 30 per cent in rural areas, and by 50 per cent in remote localities, with an intended achievement date of 1990. In addition, by the year 2000, the Government intends to make comprehensive health care available to all children and to reduce the national infant mortality rate to a level no higher than 25 per thousand.

Recent cause of death statistics for infants indicate that of all infant deaths, infantile diseases accounted for 43 per cent, pneumonia for 17 per cent and congenital deformities for 11 per cent, so that together these three causes accounted for about 70 per cent of all infant deaths. It is thus obvious that the effective prevention and treatment of these conditions are of great importance to the reduction of infant mortality.

Maternal mortality

The maternal mortality rate had already dropped to five per 10,000 in 1984. However, perinatal maternal care is still in need of improvement. Data on maternal deaths show that obstetric bleeding is the leading cause, followed by heart diseases, hypertension and puerperal infection. The four together make up over 70 per cent of the total maternal deaths.

Plans for strengthening the health system

Of China's 715,265 villages, 707,168 (87.2 per cent) contain medical clinics, and of these, 31.5 per cent are private practices. Because of this distribution of facilities, rural people with minor illnesses are treated mostly in their own villages.

China will further develop medical and health care by increasing the number of medical and health facilities in urban and rural areas, as well as by increasing the number of medical personnel and improving the scientific and technological level of medicine. The policy of putting prevention first in medical work will be carried out continuously with emphasis put on the health care of people living in the mountainous areas, on people of national minorities and on people living in remote and economically underdeveloped areas.

In 1984, there were 2.166 million hospital beds, or 2.1 per 1,000 population. An increase of 0.3 or 0.4 million, to 2.4 hospital beds per 1,000 population, is expected by 1990. The number of doctors per 1,000 population was 0.9 in 1984 and is expected to rise to 1.0 per 1,000 by 1990.

Disease prevention

The measures taken to prevent disease include quarantine on country boundaries, monitoring environmental sanitation, school sanitation and food hygiene. Under current regulations, 10 infectious diseases (the plague, cholera, smallpox, typhoid fever, encephalitis B, measles etc.) are quarantined. By 1982, there were 89 quarantine clinics (or stations) established at seaports, airports and river-ports of 23 provinces, municipalities and autonomous regions. They are responsible for the quarantine and monitoring of both immigrants and emigrants crossing boundaries. Regulations have been instituted for monitoring infectious diseases at boundary ports and for monitoring boundary port sanitation. The monitoring of environmental sanitation is aimed at reducing the incidence of infectious diseases in urban and rural areas. Since 1980, investigations and surveys on the impact of environmental pollution on the health of residents have been carried out in urban public places and among service trades. Technical instructions have been given to provide clean drinking water and for the sanitary treatment of garbage and excrement in rural areas. The monitoring of water pollution has also been carried out, with the goal of ensuring safe and clean drinking water to 80 per cent of the rural population.

IV. INTERNAL MIGRATION POLICY

Internal migration in China is defined as a change in permanent household residence to a different village, town or city, and is monitored by means of a household registration system which requires individuals to follow the domicile-changing procedure prescribed by governmental regulations.

An initial household registration system was established in July 1951 under the title "Provisional Regulations of Urban Household Administration", which required the registration of births, deaths, arrivals and departures in urban areas and thus provided the Government with information about natural increase and internal migration of the urban population, but did not provide information for the country as a whole.

A more complete household registration system was established in January 1958, under the title "Regulations Regarding the Household Registration of the People's Republic of China". This system required the registration of permanent residents, births, deaths, arrivals and departures on a country-wide basis. In urban areas there was the additional requirement that transient residents be registered.

In the early and mid-1950s there was unrestricted rural migration to the cities. This ended with the regulations of January 1958, however, which imposed relatively stringent requirements on rural residents who wished to move to urban areas. The second paragraph of article 10 of the 1958 regulations stated that citizens who wanted to move from rural to urban areas must have a certificate of recruitment given by a city labour department, or a school enrolment notice, or a permit for immigration issued by the city's household register, and must ask the household registrar of their permanent residence to initiate the relocation procedure. This regulation was introduced to reduce pressures on urban housing, food supplies, employment and educational facilities, and in order to make the flow of rural people into urban areas commensurate with urban economic development.

In the 1960s and 1970s there were further restrictions imposed on rural-to-urban migration in order to prevent overly rapid city growth. The 1970s saw the introduction of a policy whose objectives were "to control large cities strictly, to develop medium-sized cities properly and to develop small cities vigorously". To promote this policy, numerical limits were introduced to control migration from villages to towns, from towns to cities, and from small and medium-sized cities to large cities, and prospective migrants were required to obtain permits to migrate. On the other hand, there were no numerical limits on migration from large cities to small or medium-sized cities, from cities to towns, or from urban to rural areas. Taken together, these measures

had a positive effect in preventing the over-expansion of urban population, but probably had negative effects through impeding development of the production of commodities.

In the late 1970s and early 1980s, new measures were adopted to promote the migration of rural people to urban areas in order to develop the production of commodities and to vitalize the economy. One of the measures was to permit rural residents to settle in small market towns so long as they supplied their own foodstuffs and income independent of the State. Another measure was to allow rural people to register as transient residents in urban areas without limits on duration of stay, for those engaged in construction work or in manual labour, such as carpenters and children's nurses. These measures reduced rural surplus labour as well as helped increase production, vitalized the economy and provided additional services to urban residents.

China has had considerable internal migration during the past 30 years. Two forms of internal migration can be distinguished, namely, state-planned migration and spontaneous migration. State-planned migration refers to the Government's planned transference of manpower. This includes the transfer of the labour force to new industrial bases for such activities as factory construction and mining and also refers to planned migrations for the opening up of virgin lands for farming and forestry and the construction of reservoirs in order to develop agricultural production. Planned internal migration also includes the transference of cadres, workers and intellectuals to support the construction of inland and border areas as well as migration due to enrolment in school or recruitment in the army. All planned migration is directly associated with the implementation of the State's socio-economic development plan. As the construction projects of the five-year plans are mostly concentrated in inland and Northeast China, which are rich in natural resources, most planned migration has been from east to west and from south to north. Migration from Beijing, Tianjin and Shanghai has been mostly of intellectuals and skilled labour to support the development of the other parts of the country. It is estimated that about 25-30 million people have migrated under state direction between provinces (or autonomous regions) during the past 30 years (Tian Fang and Lin Futang, 1986).

Spontaneous migration refers mostly to voluntary movements by rural people from densely-populated or disaster areas to the sparsely-populated areas, border areas or richer areas. These migrants have followed the direction similar to that seen in history. This includes movements from Shendong and Hebei provinces to Northeast China; from Hebei and Shanxi provinces to Nei Monggol and Ningxia; from Henan and the southern part of Shanxi province to Gansu, Qinghai, Xinjiang; from Hunan and Sichuan to Yunnan and Guizhou provinces. The general direction of population flow is identical with that of state-planned migration, from east to west and from south to north.

The internal population migration of the past 30 years is therefore closely related to the socio-economic development of different historical periods as well as to the migration policies in effect during each period.

Between 1954 and 1984, the average number of migrants was 18.33 million per year, with a migration rate of 26 per thousand. Internal population migration between 1954 and 1984 can be described in terms of five periods. The first period (1954-1957) was profoundly influenced by the large-scale economic construction of the first five-year plan. The development of new factories, mines and cultural and educational institutions resulted in the establishment of many new cities and towns, requiring a large-scale labour migration. The average number of migrants per year during this period was 26.27 million with a migration rate of 43 per thousand.

The second period (1958-1960) was characterized by an even larger volume of population migration owing to the "Great Leap Forward" drive which gave priority to the development of industry and resulted in the migration of large numbers of rural workers to cities and towns. The average number of migrants was as large as 32 million per year while the migration rate averaged 49 per thousand.

The third period (1961-1965) saw a sharp drop in internal migration as a result of the "National Hard Time". In response to commodity and food supply shortages in urban areas, the Government adjusted by taking measures to reduce urban population growth through closing down or combining some enterprises in order to reduce staff and by limiting the scale of rural-to-urban migration. In consequence, migration decreased significantly to an average number of 16.8 million migrants per year and a migration rate of 25 per thousand.

During the fourth period (1966-1976), the average number of migrants per year dropped to 12.22 million, the lowest level since 1949. This period coincided with the 10-year epoch of the Cultural Revolution, during which the normal migration pattern was disrupted and when much of the migration stemmed from abnormal political reasons. Between 1966 and 1969 the average number of migrants per year fell to 7.97 million and consisted mostly of educated urban youth sent to work in the countryside.

The fifth period (1977-1984) saw substantial changes. The "Gang of Four" fell in 1976 and the third plenary session of the Eleventh Central Committee of China's Communist Party was held in 1978. Between 1977 and 1979, educated youth and cadres returned to the cities and there was rapid development of the economy, with a migration rate in 1979 of 24.2 per thousand. During the period from 1980 to 1984, the flow of migrants decreased somewhat, averaging 18.2 million per year and a rate of 18.2 per thousand. This was caused by alterations in the policy for rural

labour force migration to cities which were associated with the open policy to other parts of the world and the policy of vitalizing the economy at home (Zhang Qingwu and Wei Jinsheng, 1986). During the past 30 years, about 90 per cent of the total migrants were male, and the majority of migrants were young persons and people aged 30-50.

Internal migration has played a considerable role in the development of China, in four respects. First, migration has hastened the development and construction of border areas, in cases such as the opening up of the Great Northern Wilderness in Heilongjiang Province, the establishment of farms and pasturelands in Xinjiang and the construction of the Daqing and Kelamayi oil fields. Second, migration has been crucial in supplying expert personnel and science and technology. For example, the development of border areas has been supported by intellectuals from Beijing, Tianjin and Shanghai and by soldiers transferred to civilian work who have supplied scientific and technological expertise. Third, migration has helped to improve population distribution. This can be seen by comparing the 1964 and 1982 censuses (see table 20) which show that some sparsely populated provinces have gained in their share of the national population, while some densely populated areas have lost.

Table 20. National population in selected areas, 1964 and 1982

(Percentage)

Gaining	1964	1982	Losing	1964	1982
Heilongjiang	2.91	3.25	Beijing	1.10	0.92
Guizhou	2.48	2.84	Tianjin	0.90	0.77
Xinjiang	1.05	1.30	Shanghai	1.56	1.18
Ningxia	0.36	0.39	Shandong	8.03	7.41
Qinghai	0.31	0.39	Hebei	5.70	5.28
Nei Monggol	1.78	1.92	Jiangsu	6.44	6.03

Fourth, migration has enabled the establishment of a number of new cities and towns and has increased the percentage of the population living in urban areas. The percentage living in urban areas rose from about 11 per cent in 1950-1952 to 13-15 per cent in 1953-1957, and to

16-20 per cent during the second five-year plan (1958-1962). During the Cultural Revolution, the proportion urban remained almost static between 17 and 18 per cent. After 1981, as the result of economic reforms in both urban and rural areas, the percentage of population living in urban areas rose to 23.5 per cent in 1983, to 31.9 per cent in 1984 and to 36.6 per cent in 1985. It is noted that the standard for the setting up of new towns was adjusted in 1984, which led to the establishment of many new towns and to a significant increase in the proportion urban between 1984 and 1985.

There have been successes and failures in migration policy during the past 30 years. It is believed that great fluctuations in the number of migrants to and from urban areas should be avoided in order to cause fewer difficulties and problems in city development and fewer personal disruptions. Moreover, the number of immigrants should be commensurate with economic development.

V. CONCLUSIONS

At present, China's population policy has eight elements: to control the size of the population, to decrease women's fertility, to slow down the rate of population growth, to decrease mortality, to achieve healthier births and the better upbringing of children and to improve the quality of the population; moreover, in the light of the planned expansion of consumer production, to shape internal migration in a planned way which favours economic growth and the migration of rural people into cities.

During the past 30 years, there has been transition from a high to a low mortality pattern. In order to reduce mortality and morbidity, various health care services have been provided, environmental hygiene has been emphasized, food composition has been improved and people's nutritional level has been raised, which should lead to further decline in infant mortality and further increase in life expectancy.

Since the 1970s, there has been remarkable progress in controlling the birth rate. During a single 10-year period the transition from high to low fertility has largely been achieved. However, the percentage of third or higher parity births is still too high, and further fertility decline requires the reduction of births at parities three and higher.

Population policy has moved in the direction of greater specificity and elaboration. On the premise of encouraging, with great efforts, couples to have one child, supplementary policy measures have been stipulated in different provinces. For instance, in rural areas, those families with only one daughter may have a second child.

Since the 1970s, following the principle of combining the State's guidance with the people's willingness, abundant experience has been accumulated in practising family planning. Contraceptive prevalence rose rapidly in response to the call to practise family planning, and it is expected that further progress will be achieved in the control of population size and in the improvement of the quality of the population.

To practise family planning is regarded as a matter for the people themselves and is encouraged in all strata of the society. An important contribution will probably be made by non-governmental mass organizations, such as the China Family Planning Association, the Women's Federation and the trade unions. The China Family Planning Association is of particular significance, since it draws members from throughout the society who are eager to promote family planning, including many rural women of reproductive age. Since such individuals have wide association with the broad masses, they can do what centralized governmental departments can not, and it is therefore likely that the Family Planning Association will be encouraged to play an increasingly important role in the future.

References

- Anonymous (1986). The Seventh Five-Year Plan of the People's Republic of China for Economic and Social Development (1986-1990). Beijing Review (28 April).
- Hong Qi (1978). (Red Flag, the official journal of the Communist Party of China), No. 6.
- Liu Zheng, and others (1981). China's Population Problems and Prospects. New World Press, Beijing.
- Jen-min Jih-Pao (1958). (People's Daily), Population and household registration regulations (10 January).
- Ma Yinchu (1957). The New Theory of Population. Xinhua Banyuekan, 15, (August 10). Republished 1979, Beijing Publishing House, Beijing.
- Ministry of Health (1983). Implementation of refrigeration China pilot project of extended immunity programme for 1985-1989.
- People's Daily (1956). A report on the second five-year plan of the development of the national economy (27 September).
- People's Daily (1957). The National Programme for agricultural development from 1956 to 1967 (revised draft) (26 October).
- Qie Jianwei (1986). Tentative ideas about the population programme of the seventh five-year plan. Population Research, vol.3, No. 1, (January). Chinese Academy of Sciences, Beijing.
- State Family Planning Commission (1983). Open letter from the Central Committee of the Communist Party of China to all members of the Party and the Communist Youth League concerning the problem of controlling the country's population growth (25 September 1980). State Family Planning Commission, China Population Information Centre, Beijing.
- State Statistical Bureau (1982). 1982 Population Census.
- State Statistical Bureau (1986). 1985 Statistical Yearbook of China, Beijing.
- State Statistical Bureau (1987). 1986 Statistical Yearbook of China, Beijing.
- Tian Fang and Lin Fatang (1986). Migration in China. Beijing, Knowledge Publisher (October).

Wang Weizhi (1984). Preliminary analysis of mortality rates. Population Research, vol. 1, No. 5. Beijing, Chinese Academy of Sciences.

Yan Zhongpin and others. (1955). The Collection of Statistical Data on Modern Chinese Economic History. Beijing, Science Press.

Zhang Qingwu and Jinsheng Wei (1986). The general trend of China's internal population migration since the 1950s. Renkou Dongtai, No. 4.

GLOSSARY

Contraceptive prevalence rate: percentage currently using contraception; usually based on married or sexually active couples with women in the reproductive age.

Crude birth rate: the number of births in a year per 1,000 mid-year population.

Crude death rate: the number of deaths in a year per 1,000 mid-year population.

Dependency ratio or age dependency ratio: the ratio of the combined child population under 15 years of age and adult population 65 years and over to the population of intermediate age per 100.

Foreign-born population: persons born outside the country or area in which they were enumerated at the time of the census.

General fertility rate: the annual number of births divided by the mid-year population of women aged 15 to 49 years multiplied by 1,000.

Gross reproduction rate: a measure of the reproduction of a population expressed as an average number of daughters to be born to a cohort of women during their reproductive age, assuming no mortality and a fixed schedule of age-specific fertility rates. More specifically, it is the sum of age-specific fertility rates for the period multiplied by the proportion of the total births of girl babies.

Infant mortality rate: the probability of dying between birth and age 1 multiplied by 1,000; commonly calculated as the number of deaths of infants under one year of age in any given calendar year divided by the number of births in that year and multiplied by 1,000.

Life expectancy at birth: a life-table function to indicate the expected average number of years to be lived by a newly born baby, assuming a fixed schedule of age-specific mortality rates.

Mean age at first marriage (females): the average age at which women marry for the first time.

Median age: the age which divides the population into two groups of equal size, one of which is younger and the other is older.

Natural rate of increase: the difference between the crude birth rate and the crude death rate, expressed per 1,000 mid-year population.

Net migration: the difference between gross immigration and gross emigration.

Net migration rate: the difference between gross immigration and gross emigration per 1,000 of the mid-year population.

Net reproduction rate: a refined measure of the reproduction of population expressed as an average number of daughters that a cohort of newly born girl babies will bear during their lifetime, assuming fixed schedules of age-specific fertility and mortality rates. In other words, it is the measure of the extent to which a cohort of newly born girls will replace themselves under given schedules of age-specific fertility and mortality rates.

Rate of growth: the exponential average annual rate of population growth, expressed as a percentage.

Sex ratio: the number of men per 100 women.

Survival ratio: the probability of surviving from one age to an older one; it is often computed for five-year age groups and a five-year time period.

Total fertility rate: the sum of the age-specific fertility rates over all ages of the child-bearing period; if five-year age groups are used, the sum of the rates is multiplied by 5. This measure gives the approximate magnitude of "completed family size", that is, the total number of children an average woman will bear in her lifetime, assuming no mortality.

Urban population: population living in areas defined as urban by national authorities.