

## Chinese census

# Demographic transition under way

*Washington*

A NEW analysis by the US National Academy of Sciences\* of recently released census data from the People's Republic of China has confirmed that there were some 27 million excess deaths during the "Great Leap Forward" in 1960, and provided indications that female infanticide may still be taking place in rural areas.

The data also show the substantial progress China has made in reducing both birth and death rates. The average lifespan, calculated from the new 1982 census data, is 66 years for men and 69 years for women, roughly comparable with that of Western countries in 1950. In the 1950s in China, the average lifespan was almost 25 years shorter — roughly comparable with the United States in 1890.

The birth rate in China has fallen from 40 per 1,000 in the 1950s and mid-1960s to half as much; expressed another way, women are now bearing children at an average of 2.6 per lifetime, down from 6.

Until last year, the Chinese Government had released only the barest minimum of census data. Censuses were conducted in 1953, 1964 and 1982, the latest being the most comprehensive and the first for which the Chinese sought outside assistance. Details of all three censuses were published last year in a Chinese journal; for the first time, the Chinese revealed data on its population distribution by age and sex. In addition, results of a fertility survey of a million Chinese women, conducted in 1982, have been made available; these results include marriage and birth rates broken down according to age of women for each year from 1950 to 1981.

According to Ansley Coale of Princeton University, who prepared the academy report, the data show a consistent under-reporting of births and deaths in the official registers. The census data themselves, on the other hand, show a remarkable internal consistency; especially striking is the almost perfect match between the total population figures from the census and the expected increase in population as calculated from the fertility survey and census-derived death rates.

The data on the "Great Leap Forward" — Mao's attempt at industrial and agricultural modernization that is said to have led to a near-collapse of the food distribution system in China — show sudden increases in the death rate followed by a sudden drop in fertility rate. Coale said the fertility decline was characteristic of a "quasi-biological" cause, rather than deliberate contraception; the drop occurred in women of all age groups.

The analysis of female births suggests that 60,000 female infants are "missing" each year. The normal ratio of males to females at birth is 106 to 100. First and second births in rural areas are very close to

that ratio; but for third and subsequent births there are 113 males to every 100 females. Coale says that sex-selective abortion is not a plausible explanation in rural areas; he also noted the regular denunciations in the Chinese press of female infanticide as a "feudal" practice. It is also possible, he said, that parents may be willing to face the penalties that come with having more than one child if the child is a boy, but are less likely to report the over-quota births if the child is female.

Coale's analysis also explains the recent increase in birth rate, seemingly breaking the trend of the past decade. Coale found

## Learning Japanese

# Plans for language teaching

*Tokyo*

IN line with its new status as the world's number two industrial power, Japan is now laying plans to become one of the world's leading educators. At present, only 10,428 foreign students are enrolled in Japan's universities — compared with 310,000 in the United States, 119,000 in France, 57,000 in West Germany and 52,000 in the United Kingdom. But a new report predicts that Japan will be in third place by the end of the century with 100,000 foreign students.

The report, from an 18-member committee of the Ministry of Education, Culture and Science headed by Shigeto Kawano, director-general of the Japan International Education Association, proposes fundamental reforms necessary to internationalize Japanese education and the Japanese language.

First and foremost, there has to be an improvement in the availability and standard of Japanese language education. Around 1.4 million people outside Japan are now thought to be studying Japanese, one million of them in China and the remainder in the countries bordering the Pacific Ocean, particularly South-East Asia and Australia.

Within Japan, there are some 26,000 foreigners studying Japanese, three times as many as ten years ago. But, serving these foreigners, there are only around 1,000 Japanese teachers and in the whole world there are only 2,400 institutions that can offer any kind of Japanese language course. Japan has no equivalent of the British and US-supported programmes for teaching English as a foreign language, no set of standard examinations by which foreign students can measure their progress or gain official recognition of their proficiency, no authorized textbooks and virtually no textbooks at all for those who wish to learn advanced colloquial Japanese.

To help end this chaotic situation, the report calls for the number of teachers in-

side Japan to be increased to 4,200 by 1992 and to 10,600 by the end of the century. A separate report from the ministry's Agency of Cultural Affairs suggests the establishment of a four-level standard proficiency examination to be held at at least twenty centres throughout China, South-East Asia and Australia.

Next, there will have to be reforms to make it easier to enter Japanese universities including the mutual recognition of academic qualifications and the setting up of a unified entrance examination suitable for all universities that can be taken abroad, the establishment of special short-term courses, changes in university timetables and an increase in accommodation for foreign students.

The plan will also require many more scholarships to be made available. Of the students at present in Japan, only 2,082 are sponsored by the Ministry of Education, Culture and Science. The report asks that scholarships should support 10,000 out of the 100,000 students there will be by the year 2000.

A big problem, however, is that as student numbers increase, more and more of them will be expected to attend private universities. Japanese private education now costs at least ¥1.3 million (£4,000) a year, and, as many of the students are expected to come from less affluent Asian countries, there is the risk that Japan will price itself out of the education market as its inexorable economic growth continues.

**Stephen Budiansky**

\**Rapid population change in China, 1952-1982*, National Academy Press, Washington, DC, 1984 (\$12.50).

**Alun Anderson**

**Correction**

OUR Israel correspondent, Nechemia Meyers, says that he was mistaken in saying (*Nature* 3 May, p.8) that Dr George Kanazi's work on mediaeval manuscripts on the art of wine-drinking had been described in a lecture at the Israeli Academic Centre in Cairo; rather, an extensive account of the work appeared in the centre's *Bulletin*. □