

SUPPLEMENT

to "Population Problems in Japan"

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JAPAN

SUPPLEMENT

Recent Trends and Current Population Situation

A. Current Situation and Trends Since 1950

(1) Population Increase

According to the Population Census, the total population of Japan in 1950 had grown to 83.20 million and the population increase during the 5 year period from 1945 to 1950 was the biggest in the history of Japan, with the high annual average rate of population increase of 2.9%. Needless to say, this was only a passing growth trend caused by an exceptional increase in the birth rate and by an influx of people who were repatriated from abroad at the end of World War II. Being affected by above particular circumstances, the annual average rate of population growth during the 5 year period, 1950-1955, was also high, 1.4%. But the rate has been stable at around 1% since 1955 to the present.

According to the population census, the total population of Japan in 1970 was 103.72 million, exceeding 100 million for the first time, and the population density reached 280 people per square kilometer, or fourth highest in the world. Most of Japan's land area is mountainous and the population density in farming areas (18% of our land area), 1600 persons per square kilometer, is the highest in the world.

(2) Changes in Geographical Distribution of Population

(a) Population in Urban and Rural Areas

Classifying cities (administrative division) as 'urban' areas and towns or villages as 'rural areas', the proportions of urban population and rural population was 37.5% to 62.5% in 1950 respectively. The urban population, however, has grown rapidly owing to the increase of mergers of cities, towns or villages and expanded flow of population to the cities, both of which, as mentioned later, have increased since 1955; the urban population swelled to 63.5% in 1960 and 72.2% in 1970, while the rural population shrank to 36.5% and 27.8%.

(b) Geographical Distribution by Prefecture

Only 7 prefectures showed trends towards a drop in population in the period between 1950 and 1955, but 26 prefectures showed some falling off in the period 1955-1960 and 25 prefectures exhibited such a trend in 1960-1965. There were

still 20 prefectures whose population declined in the period 1965-1970.

(c) Geographical Distribution by City, Town and Village

2,574 out of a total of 3,376 cities, towns and villages across the country declined in population in the period 1960-1965, and 2336 out of 3275 registered a drop in population in the period 1965-1970. This suggests that a significant change is beginning in the geographical distribution of the population—only less than 30% of all cities, towns, villages showed a population increase, which caused the decline in population in other area.

(d) Increase and Changes in the Composition of Population in Large Cities

In Japan, there have been 7 huge cities each containing a population of one million or more since the census year of 1965. These 7 huge cities have been swiftly and steadily expanding their population since 1950 but this trend has fallen off recently, and there is even evidence of a reversal of the former trend. The populations of the Wards of the Tokyo Metropolis, Osaka City and Kitakyushu City dropped during the period from 1965 to 1970. All other large cities except Yokohama City, which is still continuing its remarkable population growth, have been rapidly slowing down their expansion in population and may be expected to begin to decline in population during the period 1970-1975.

The decline in population or the slowing-down of population growth in these large cities is mainly due to the decentralization of people to the surrounding areas, which has brought about the growing size of metropolitan zones. These changes can be seen by reference to the ratio of daytime populations to nighttime populations. The ratios in the Tokyo Ward area and Osaka City were 118.0 and 129.6 in 1970. 1.6 million people flow into the Tokyo Ward area to attend offices and schools from the surrounding areas in the daytime and 0.9 million go into Osaka City.

(e) Marked Population Increase in the Pacific Coast Industrialized Zone

The above-mentioned changes in geographical distribution of the population resulted in a marked population increase in the Pacific Coast Industrialized Zone which extends from the Tokyo area to the Kyoto-Osaka-Kobe area linking the big cities along the Tokaido Railway Line. While the national average rate for population increase for each five-year period since 1950 has been 5% or thereabouts, the average increase rate in the 10 prefectures and the Tokyo Metropolis, covered by the said zone has been 12% or 14%, which is twice or three times the national average rate. In particular, since 1955, a remarkable scale of population increase which exceeded the scale of national population increase has been registered in this zone. All other areas, on the contrary, have shown a decline in population increase or a drop in population.

(3) Stability of Population Reproduction

(a) Crude Birth Rate

Immediately after a short-lived 'baby boom' in the period between 1947 and 1949, the birth rate began to drop suddenly and reached its lowest level of 17.3‰ in 1957. It remained stable at this low level till the first half of the 1960's, but began to rise slightly from 1968, rising to 19.3‰ in 1972, though it fell remarkably in 1966 (considered an unlucky year-called the fire-horse year—for girls to be born in according to the traditional Chinese calendar). This recent trend towards a slight increase in the crude birth rate seems to have been due to the increase in the number of girls of marriageable age—those born during the 'baby boom'.

(b) Crude Death Rate

The crude death rate was still as high as 14.7‰ in 1947 soon after World War II. However, it began to decline and dropped to 7.5‰, almost half the 1947 level, in 1958. Thereafter, it continued to fall gradually and reached its lowest level, 6.5‰, in 1972.

As a result of the rapid lowering of the death rate, the average expectation of life recorded an epoch-making increase. "Average expectation of life at birth" in the immediate post-war years was 50.1 years for males and 54.0 years for females. In 1960, the average expectation for females reached 70 for the first time, and the expectation, according to the abridged life table in 1972, was remarkably lengthened to 70.5 years for males and 75.9 years for females. Examining the death rate by age and cause of death, there seems to be much room for improvement in the mortality rate for pre-school children and in the maternal mortality rate.

(c) Reproduction Rates

The considerable decline in the birth rate can be indicated by changes in the gross reproduction rate, which went below the level of 1 (below unity) in the 8-year period 1957-1964 and in 1966 but has been keeping level at 1.02~1.04 since 1968. The net reproduction rate, which takes into account female baby mortality, dropped down to the level of 1 in the 9-year period 1956-1964 and in 1966. It has remained stationary at 1.00, though it rose a little after 1968, and the provisional rate for 1972 slightly exceeded 1, being 1.04. It is very difficult to forecast changes in reproduction rate in Japan but it can be expected that this rate will, with all conditions taken into account, maintain the stationary state shown above.

(d) Changes in Population Dynamics by Area

One of the most notable changes in the field of population movement is the change by area. Generally speaking, the rate of natural increase of population was traditionally high in rural areas and low in urban areas. All rural areas, however, were outstripped in natural increase rate by the Tokyo Metropolis, Kanagawa, Osaka and Aichi Prefectures—each of which contain big cities—and by the areas surrounding Tokyo, for instance, Saitama Prefecture and Chiba Prefecture. The rates for these urban areas rose to more than 1.5% in 1970, while those for rural areas dropped to less than 1.0% and several prefectures in Western Japan registered less than 0.5%; typically, Shimane, Koochi, Kagoshima and Tottori Prefectures registered 0.35%, 0.42%, 0.46% and 0.49% each.

This reversal of the traditional pattern resulted from changes in the age composition of the population in the two types of area, with a great proportion of the young population of the rural areas (chiefly, between the ages of 15 and 29) moving to the urban areas. The urban areas absorbing young population recorded an increase in the birth rate and a decrease in the death rate, while, on the other hand, the rural areas losing their population showed the opposite trend.

(4) Internal Migration

Since about 1957, when Japan was beginning to move from the stage of postwar economic reconstruction to that of highspeed economic growth, internal migration began to expand. The yearly average for such migration was about 5.2 million in the latter half of the 1950's, about 6.5 million in the first half of the 1960's, about 7.6 million in the second half of 1960's, and it at last passed the 8 million mark in 1969 and reached to a migration rate of 8% of the total population. The chief characteristics of this accelerated migration were, from a geographical point of view, the movement of population from the provinces and farming areas to the large cities and large metropolitan areas and, from the industrial point of view, the movement of workers from primary industries to secondary or tertiary industries.

Changes in population distribution appeared with the population flow from agricultural districts, prefectures far from big industrial areas or from small cities into the large cities. With regard to the industrial distribution of workers, the percentage of workers in primary industry was 48.2% in 1950, thereafter, it dropped to 19.3% in 1970. However, the structure of employment in Japanese agriculture should not be overlooked; the actual percentage of workers in primary industry is much less than the 19.3% given above because many people included in the statistics for agriculture, which accounted for 92% of all employees in

primary industry, have a second job outside agriculture and the number of people engaged exclusively in farming (which might be regarded as the real agricultural population) is far smaller.

It is obvious that population movement cannot continue indefinitely according to this pattern as there is a limit to the supply of the surplus population from agriculture areas. In fact, the flow of surplus population is reaching the point where the movement from farm villages to cities or from agriculture to industry will cease.

The volume of internal migration is still continuing to grow even today. Nevertheless, new changes can be found in the qualitative pattern of the migration. First, there is a decreasing trend of population inflow from the provinces to large metropolitan areas and a increasing trend for population outflow from the city zones. Secondly, there is a rapidly growing trend of inflow from surrounding towns and villages to provincial large or middle-sized cities—a new type of migration, that is, short-distance migration from rural areas to provincial cities is replacing the old long-distance migration from remote areas to mammoth cities, for example, Tokyo and Osaka. Thirdly, there is the increasing migration between or within large metropolitan areas.

The changes in population movement mentioned above show that the predominant form of simple migration from farm villages to large cities is giving place to new and more varied types of migration.

(5) Changes in Relation between Population Migration and Natural Increase

Rise or fall in population in an area depends upon population migration, what is called social increase, and upon natural increase, which is the difference between the number of births and the number of deaths. It is not too much to say that the increases in Japan's urban population were chiefly decided by the increase in population migration.

Recently, however, a new trend can be seen. Judging from analysis of population increase since 1950 in, for example, three large metropolitan areas (the Tokyo-Yokohama zone, the Nagoya zone and the Kyoto-Osaka-Kobe zone, covering 11 prefectures) along the Tokaido Railway Line, the percentage of social increase to population increase in these zones fell to 39.8% during the five year-period from 1965 to 1970, although it had been more than 50% (60% in the Tokyo-Yokohama zone). At present, that is, natural increase is the principal factor which decides population increase in a large metropolitan area, and the above change was brought about by a combination of shrinking surplus rural population flow into these areas and a rising natural increase there.

(6) Abrupt Change in Age Composition

The age composition of the Japanese population remained fixed for a long time until about 1950; the population of children aged between 0 and 14 had accounted for 36% of the total population, the population of productive people aged between 15 and 59 had been 56% and the population of elderly people aged 60 or more 8%.

From 1950, this ratio rapidly began to lose stability and the population of productive age and old age suddenly increased, while the 0-14 population decreased rapidly as follows; in 1970, those under age 15 accounted for 23.9% of the total population, those between 15 and 59 for 65.4% and those over 60 for 10.7%. Consequently, the dependency ratio has shifted from the former high level of 80% to the present low level of 53%. Needless to say, this remarkable change in the age composition is a result of the postwar demographic revolution.

The following table shows the figures and distribution percentages for the age composition every 10 years after 1950.

	Population ⁽¹⁾ (thousands)			Proportion (%)		
	1950	1960	1970	1950	1960	1970
Population Total	83,200	93,419	103,720	100.0	100.0	100.0
(i) Pre-school (0-4)	11,025	7,844	8,806	13.5	8.4	8.5
(ii) School Age (5-14)	18,226	20,222	16,018	21.9	21.7	15.4
(iii) Working Age (15-64)	49,658	60,002	71,566	59.7	64.2	69.0
(iv) Old Age (65 and over)	4,109	5,350	7,331	4.9	5.7	7.1
Females of Repro- ductive Age (15-49)	21,287	25,289	29,560	25.6	27.1	28.5
Dependency Ratio ⁽²⁾				67.5	55.7	44.9

(1) Based on results of Censuses

(2) Calculated as follows; $((i) + (ii) + (iv)) \div (iii)$

B. Population Projections for the Country and Its Regions (Prefectures)

The most recent estimate of future population was made by the Institute of Population Problems, Ministry of Health and Welfare, in 1969. The population till 1985 was estimated on the assumption that hypothetical figures for age-specific fertility rates of women and those for mortality rates by age and sex will change every year, but the population from 1985 to 2015 was calculated on

the basis of projections using hypothetical figures for 1985.

The above assumptions give a total fertility rate for 1985 of 2.43535 at maximum level and 2.02690 at minimum level. At its medium level, the arithmetic mean of these two levels, the population of Japan will be about 116 million in 1980 and 131.8 million in 2000, and it will show an increase of about 28 million during the 30 year-period 1970-2000. As the population increase rate during the 30 year-period will be only 27%, it is naturally expected that it will be the scale of population increase, rather than the rate of increase, which will seriously affect the economy and society in Japan in view of its already high population density.

In addition, a sharp fluctuation in population composition by age is a particularly noticeable point in the estimates. This means that the aging of the population will appear, and it is expected that not only the size of the elderly population but also that of the middle-aged population, in a period of transition, will rapidly increase, a fluctuation which will become increasingly visible, especially in the 1970's. The population between 30 and 44 years of age will register an increase of about 4 million, that between 45 and 59 an increase of 5.6 million and that more than 60 an increase of 3.6 million, while the population between 15 and 29 will drop by about 3.7 million in the 1970's. Consequently, while the percentage of the population over 60 to the total population was still only 10.7% in 1970, it will be 12.6% in 1980 and 18.9% in 2000.

With reference to future population by [area, the Institute of Population Problems made its estimate covering all of Japan's administrative areas (Tokyo, Osaka, Kyoto, Hokkaido and 42 prefectures) in October 1964. Moreover, in January 1970, the Institute made provisional amendments in accordance with new future population estimates for Japan which were made in August 1969. All types of population increase in Japan were classified into several floating patterns by means of analysis of trends of population increase and the components of the increases in each prefecture, and maximum and minimum levels were assumed for the purposes of calculation. Furthermore, the medium estimates for 1975, 1980 and 1985 were computed. These estimates forecast that 11 prefectures, which compose the Pacific Industrialized Zone along the Tokaido Railway Line, will account for 50.7% of the total national population in 1975 and will reach 54.3% in 1985.

C. Policy and Action Programmes in Relation to Population Change

Population changes as well as social and economic fluctuations resulted in

population policy. As problems of sharp population increase, actual and latent unemployment entered an acute phase in the period immediately after World War II, problems of quantitative population adjustment and problems of country's population supporting capacity came to the attention of the Population Problems Inquiry Council. Year by year, the spread of population control and the progress of favourable economic growth caused the priority in population problems to be given to the qualitative improvement of population and to welfare in regional development. In 1969, the Council recommended, "Stationary population is desirable," in its interim report on population submitted to the Government.

On the other hand, overpopulation in large cities and excessive depopulation in rural villages and towns have been getting worse, so the Government is seriously concerned about ways and means of achieving the dispersal of population and industry. As early as 1962, the Government passed the "Act for the Promotion of New Industrial City Construction" and has been promoting the building of "New Industry Cities," to become the nuclei of local development projects, to prevent excessive concentration of population and industry in big cities. To assist this promotion, many measures—for example, the enactment of the "Act for the Promotion of the Industrial Development of Under-developed Areas"—were taken to develop under-developed areas. In this way the number of employment opportunities available in provincial cities and towns gradually increased and the dispersal of enterprises and the location of factories in rural areas were facilitated owing to the increase of external dis-economies in the metropolitan areas. To accelerate this dispersal, the "Act for the Promotion of Relocation of Industrial Allocation and the Development of Mining Areas" was set up in 1972.

The Government is studying the feasibility of an overall plan to achieve the balanced geographical distribution of industry and population in order to relieve the critical overconcentration of industry and population in large cities and intended to counteract the environmental deterioration resulting from the overconcentration.

D. Adequacy of Demographic Data, Research and Training Facilities

It can be probably said that the vital statistics and the census taken every five years in Japan approximately meet the requirements of the economic and social development plan and demographic data needs.

Population study is promoted mainly by the Institute of Population Problems,

Ministry of Health and Welfare, but also by universities, where a number of interested social or natural scientists are devoting themselves to special subjects related to population. There is no organization specialized in training related to population problems, and, however, the necessary training concerned with population is given at the Institute for Statistics Officers, Bureau of Statistics, Prime Minister's Office, in the statistical departments or divisions of local government bodies, and at the National Institute of Public Health. Universities have courses on matters related to population in their departments of economics, sociology and public health.

When the Government and local government bodies draw up plans for economic and social development, the Institute of Population Problems cooperates closely with them in gathering the necessary information and analyzing population data.

