〈Supported by〉
The Nippon Foundation

AGING IN JAPAN

2000

JARC

JAPAN AGING RESEARCH CENTER

AGING IN JAPAN

Japan Aging Research Center

Published by Japan Aging Research Center (JARC)

Diamond Plaza Building, 25 Ichiban-cho Chiyoda-ku, Tokyo l02-0082, Japan
Phone: +81 3 3265-2343 Fax: +81 3 3221-6744. E-mail: aging@ask.ne.jp
Editor in Charge: Shigeyoshi Yoshida
(Standing Director, Japan Aging Research Center)

This publication was made possible in part through a financial support of The Nippon Foundation.

Foreword

In the 21st century the proportion of the aged in Japan is getting the highest all over the world according to population estimates. Therefore it is noticed on a world-scale how the society and measures for it will be changed.

We have published *Aging in Japan* to provide people outside Japan with updated information on aging trends, socioeconomic changes, and policies in Japan.

This booklet consists of four parts. In the first part, Dr. Shigemi Kono (Professor, Reitaku University), describes demographic patterns and social situation in Japan. In the second part, Dr. Atsushi Otomo (Professor, Japan Women's University), introduces aging population trends in sub-national areas and relationship between aging population and migration. In the third part, Dr. Naohiro Ogawa (Professor, Nihon University, Deputy Director of Nihon University Population Research Institute) discusses the current socioeconomic conditions and the future perspectives. In the final part, Professor Daisaku Maeda (Professor, Japan Lutheran College) focuses on the history of welfare structures and present conditions of health, medical, and social services for the elderly, the public long-term care insurance and the new adult guardianship system.

We would like to express our gratitude for their great work and generous cooperation.

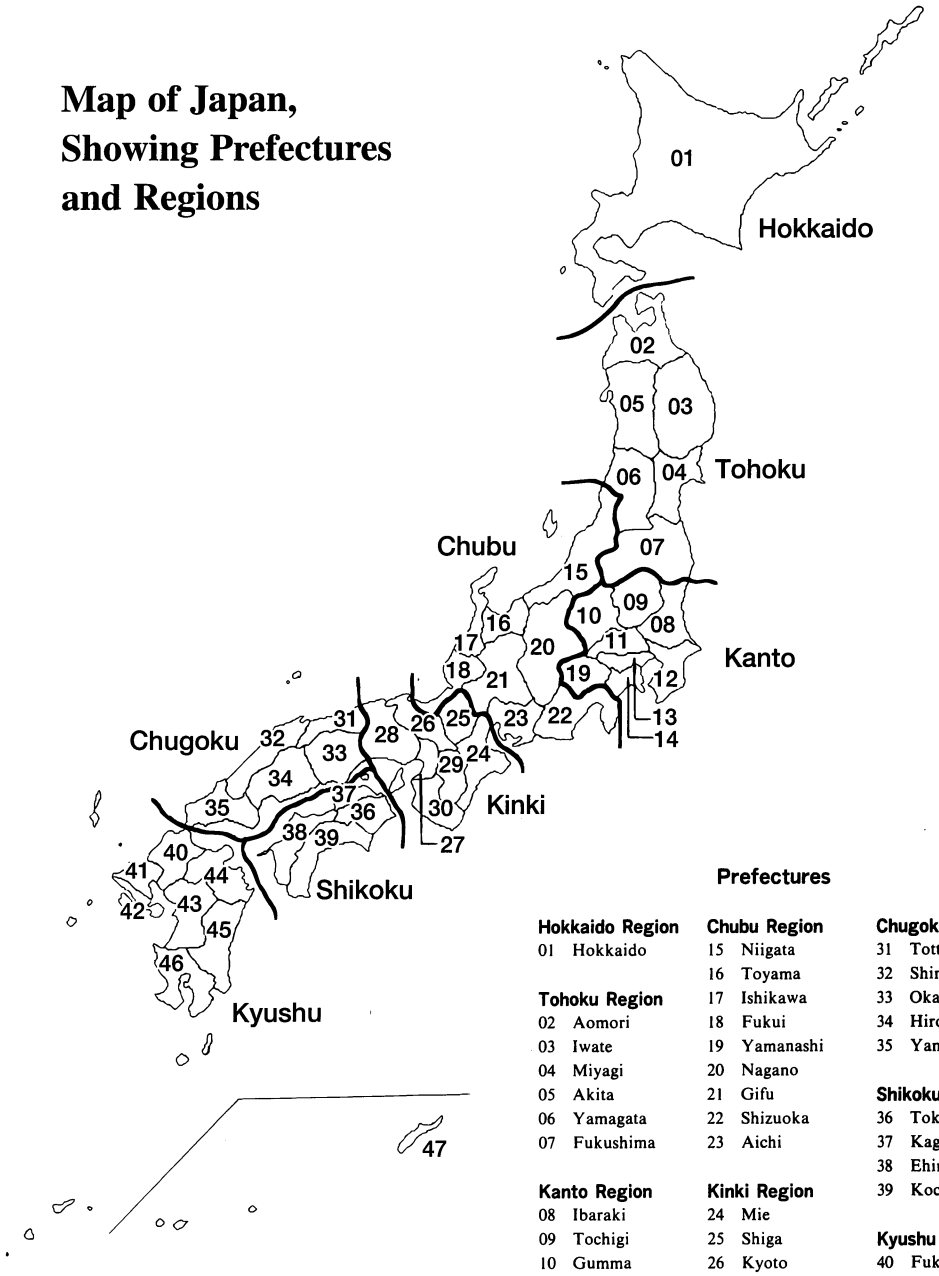
Our special thanks also go to The Nippon Foundation, whose grant enabled us to publish this booklet.

Summer 2000

Fumio TAKAGI
Chairman,
Japan Aging Research Center (JARC)

CONTENTS

Map of Japan, Showing Prefectures and Regions



Prefectures

Hokkaido Region
01 Hokkaido

Tohoku Region
02 Aomori
03 Iwate
04 Miyagi
05 Akita
06 Yamagata
07 Fukushima

Kanto Region
08 Ibaraki
09 Tochigi
10 Gumma
11 Saitama
12 Chiba
13 Tokyo
14 Kanagawa

Chubu Region
15 Niigata
16 Toyama
17 Ishikawa
18 Fukui
19 Yamanashi
20 Nagano
21 Gifu
22 Shizuoka
23 Aichi

Kinki Region
24 Mie
25 Shiga
26 Kyoto
27 Osaka
28 Hyogo
29 Nara
30 Wakayama

Chugoku Region
31 Tottori
32 Shimane
33 Okayama
34 Hiroshima
35 Yamaguchi

Shikoku Region
36 Tokushima
37 Kagawa
38 Ehime
39 Kochi

Kyushu Region
40 Fukuoka
41 Saga
42 Nagasaki
43 Kumamoto
44 Oita
45 Miyazaki
46 Kagoshima
47 Okinawa

PART I

Demographic Aspects of Population Ageing in Japan

Shigemi KONO
Professor of Demography
Reitaku University

Introduction

The term "population ageing" has become a household word for average citizens in Japan. Population ageing is viewed almost unanimously here as a process causing shortages of young labour, sluggish economic growth and higher tax burdens to support social security for the elderly. Population ageing has been considered one of the most crucial demographic and social problems facing contemporary Japan. Actually, the awareness of the seriousness of population ageing came rather prematurely in the 1970s and early 1980s when Japan's ageing was not in full swing and the elderly population comprised less than 10% of the total population. Most of discussions and arguments dominating those decades were quite pessimistic. However, adverse effects were not immediately apparent and people tired of its discussion of the issue. The advent of the bubble economy let the general public forget the reality of population ageing.

But, in the very recent years after the bubble economy was bust, the people have come to realize that the population ageing is now in full swing. There is a resurgence of keen public interest in its enormous impact upon economic, social, psychological and familial spheres of the Japanese life. Slow growth or non-growth in Japan's economy has shattered people's previously held illusion that a bigger pie of economy allocated to each individual earner could easily afford to shoulder an increasing burden of the outcome of population ageing. When the society enters the fin de siècle, there is a growing sense of urgent necessity among the Japanese people to reassess the reality of the trend and to formulate a more innovative and balanced strategy for the forthcoming 21st century.

The first section attempts to describe the general trend of population ageing in Japan and elucidate its several salient features such as rapidity in the speed of population ageing in reference to various indicators of population ageing. Then, the section will go on discussing the factors causing the population ageing and show that fertility is the one which has played the most important role in getting population ageing. In very recent years, however, fertility has fallen to the unprecedentedly low level, hence, to the general reader's interest, a few paragraphs will be devoted to dealing with determinants of the currently very low level of fertility.

The second section is related to the question of the transformation of the family in the face of population ageing. It is extremely interesting to observe how much demographic changes bring about changes in the size and structure of the family and household.

Finally, towards the end of the second section, the paper would discuss what would be good about at the imminent arrival of an aged society. The section would like to evoke some new ideas which might interest the general reader.

1. Demography and Population Ageing in Japan

A. Change in Age Profile

ln discussing the general trend in population ageing, it is useful to compare various age profiles, or what has conventionally been called "population pyramid", in different years which are indicative of demographic transition at different stages that Japan has undergone. "Demographic transition" is here taken to mean a process of demographic transformation from high birth and death rate to low birth and death rate along with the course of modernization and economic and social development.

Figures 1 and **2** show age profiles of the population of Japan in 1950 and 1995. **Figures 3** and **4** show age profiles for the years 2025 and 2050. The age profiles for 1950 and 1995 represent the actual ones and the year 1995 was the one when the last census was taken. But the other two are projected ones based on the latest population projections prepared by the National Institute of Population and Social Security Research (1997).

These four age profiles depict dramatic changes occurred or occurring according to different demographic regimes over a long span of time covering 100 years, and the general reader will get from these graphs some ideas about population ageing in Japan that has been going on along with the demographic transition.

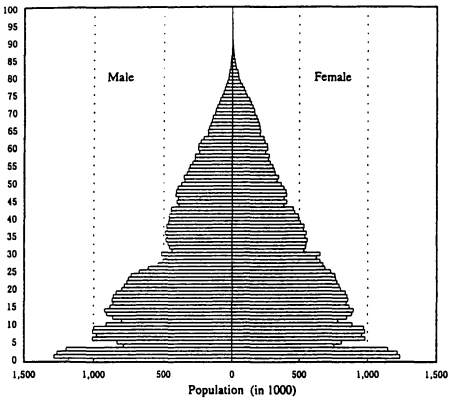
The first one for 1950 in **Figure 1** looks really like a "pyramid". Although the shape is of ruggedness with minor dents and bumps, particularly troughs at ages 4 and 5, the general contour is unmistakably bottom-heavy, triangle-shaped and is somewhat typical of present-day developing countries.

On the other hand, **Figure 2** shows the profile for the year 1995 dramatically divergent from the above-mentioned profile for 1950. It looks actually a quite complex shape resembling a Japanese war helmet (kabuto) and clearly tracing the vestige of World War II. Yet, there are one or two clear traits which are characterized by its shrinking lower (younger) sector of the population and by a very large body of middle and early-elderly age groups. This population pyramid may be said to be the one starting to experience a considerable degree of population ageing.

The age profile for the year 2025 shows a vicissitude of age structure which is top-heavy and characterized by two salient bulges, one in the middle and the other in the old ages. Here, population ageing is coming to its climax.

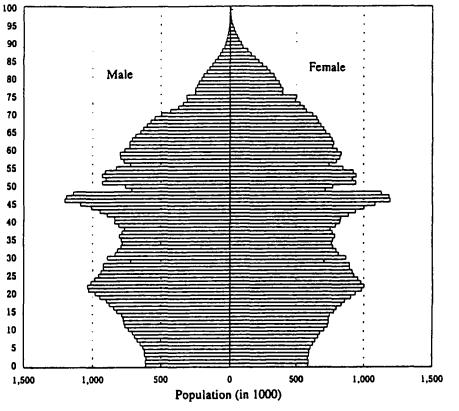
The last age profile for the year 2050 represents a more classic pen-shaped figure with a narrower base, though it still has an accordion-like vestige of echo effects of past baby booms and baby busts. The last one might draw a contour line pretty close to that of a stable population which

Figure 1. Age Profile of the Population of Japan: 1950



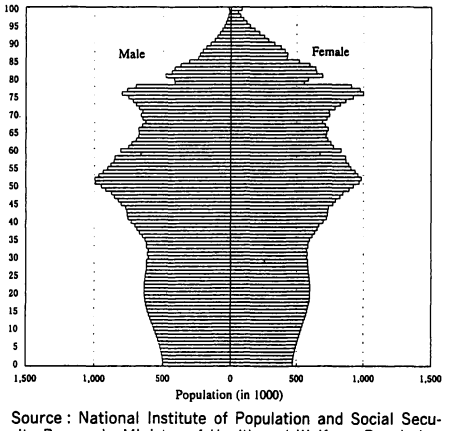
Source : Statistics Bureau, Management and Coordination Angency, 1950 Population Census of Japan.

Figure 2. Age Profile of the Population of Japan: 1995



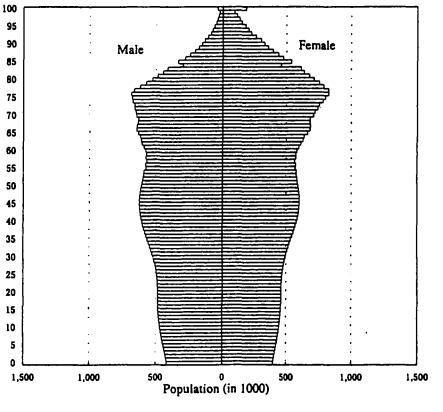
Source : Statistics Bureau, Management and Coordination Angency, 1995 Population Census of Japan.

Figure 3. Age Profile of the Population of Japan: 2025



Source : National Institute of Population and Social Security Research, Ministry of Health and Welfare, Population Projections for Japan : 1996-2100, 1997.

Figure 4. Age Profile of the Population of Japan: 2050



Source : See Figure 3.

has been generated by many year's interactions of constant low fertility and constant low mortality with the originally rugged population. The reader may be quite impressed with that picture in which the accordion-shaped population contour remains quite tenaciously for so many years, nearly one century long. Anyhow, here population ageing will start getting settled down as a result of population dynamics operated for many years.

Population ageing can be measured by various indices. The most popular one deals with the proportion of aged population which is aged 65 and over. If this proportion increases, it is called population ageing. If the proportion stays too small, however, say five percent or less, we do not usually call the population "aged" or "ageing". According to the United Nations' report published in 1956, the population is arbitrarily defined as "aged" when the percentage of old people aged 65 and over exceeds seven percent (United Nations, 1956). In view of the present levels of the population ageing in the developed countries, however, the figure of seven percent seems too small. In the present author's view, the threshold value of 10 percent seems more appropriate. As another index, a use is made of age dependency ratio for the elderly, that is the ratio of the elderly population over the working-age population of 15-64 or 20-64 years. The third often-used indicator is the elderly-children ratio, that is the ratio of the elderly over the children. **Tables 1** and **2** show the trends in the age structure of population in Japan, one for the past and the other for future. By any measure, Japan is experiencing an increasingly pronounced and rapid process of population ageing.

Let us discuss and explain a little bit more of the trends in these indicators.

B. Proportion of the Aged

As already mentioned, the age composition of Japan has undergone a very sharp transformation, from a broad-based, youth-heavy population to a more urn-shaped, top-heavy ageing population, in a relatively short period of time. **Table 1** shows the change in the age composition in terms of various indicators for the period from 1868 to 1998; **Table 2** shows the projected transformation for the periods from 1995 to 2100 based on the population projections prepared recently in Japan in 1997 (National Institute of Population and Social Security Research, 1997).

Columns (2) to (4) in these tables show percentages of population for

Table 1. Trends in Population Structure: 1868-1998

(percent)

Year	population composition by major groups			Age dependency ratio			Elderly-children ratio
	0-14	15-64	65+	Total	Children	Old-age	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1868	30.36	63.88	5.76	56.5	47.5	9.0	19.0
1898	32.50	61.70	5.80	62.1	52.7	9.4	17.9
1920	36.48	58.26	5.26	71.6	62.6	9.0	14.4
1925	36.70	58.24	5.06	71.7	63.0	8.7	13.8
1930	36.59	58.66	4.75	70.5	62.4	8.1	13.0
1935	36.89	58.46	4.66	71.1	63.1	8.0	12.6
1940	36.08	59.19	4.73	69.0	61.0	8.0	13.1
1947	35.30	59.90	4.79	66.9	58.9	8.0	13.6
1950	35.41	59.64	4.94	67.7	59.4	8.3	13.9
1955	33.44	61.24	5.29	63.3	54.6	8.7	15.9
1960	30.15	64.12	5.72	55.9	47.0	8.9	19.0
1965	25.73	67.98	6.29	47.1	37.9	9.2	24.4
1970	24.03	68.90	7.06	45.1	34.9	10.3	29.4
1975	24.32	67.72	7.92	47.6	35.9	11.7	32.6
1980	23.50	67.35	9.10	48.4	34.9	13.5	38.7
1982	22.96	67.48	9.56	48.2	34.0	14.2	41.6
1983	22.52	67.71	9.77	47.7	33.3	14.4	43.4
1984	22.04	68.01	9.94	47.0	32.4	14.6	45.1
1985	21.51	68.16	10.30	46.7	31.6	15.1	47.9
1986	20.90	68.52	10.58	45.9	30.5	15,4	50.6
1987	20.24	68.86	10.90	45.2	29.4	15.8	53.8
1988	19.53	69.24	11.23	44.4	28.2	16.2	57.5
1989	18.82	69.57	11.61	43.7	27.1	16.7	61.7
1990	18.24	69.69	12.08	43.5	26.2	17.3	66.2
1991	17.66	69.78	12.56	43.3	25.3	18.0	71.1
1992	17.17	69.78	13.05	43.3	24.6	18.7	76.0
1993	16.70	69.75	13.55	43.4	23.9	19.4	81.1
1994	16.33	69.61	14.06	43.7	23.5	20.2	86.1
1995	15.94	69.42	14.54	43.9	23.0	20.9	91.2
1996	15.64	69.25	15.11	44.4	22.6	21.8	96.6
1997	15.35	68.99	15.66	44.9	22.2	22.7	102.0
1998	15.07	68.72	16.21	45.5	21.9	23.6	107.6

Source: National Institute of Population and Social Security Research, Ministry of Health and Welfare *Latest Demographic Statistics, 1999,* Tokyo; Statistics Bureau, Management and Coordination Agency, *the 1995 Population Census,* Tokyo, 1997.

the well-known three major age categories–under 15, 15-64 and 65 + (See also **Figure 5**). Columns (5) to (7) show age-dependency ratios– total dependency (See also **Figure 6**), child-dependency and old-age dependency. The last column indicates a relatively new concept, that is, the ratio

Table 2. Future Trends in Population Structure, 1995-2100: Medium Variant

(percent)

Year	population composition by major groups			Age dependency ratio			Elderly-children ratio
	0-14	15-64	65+	Total	Children	Old-age	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1995	15.95	69.49	14.56	43.9	23.0	20.9	91.2
2000	14.66	68.10	17.24	46.8	21.5	25.3	117.6
2005	14.28	66.13	19.58	51.2	21.6	29.6	137.1
2010	14.35	63.61	22.04	57.2	22.6	34.6	153.6
2015	14.19	60.60	25.22	65.0	23.4	41.6	177.7
2020	13.69	59.46	26.85	68.2	23.0	45.2	196.2
2025	13.08	59.53	27.39	68.0	22.0	46.0	209.3
2030	12.70	59.33	27.97	68.6	21.4	47.1	220.2
2035	12.68	58.33	28.99	71.4	21.7	49.7	228.5
2040	12.91	56.14	30.95	78.1	23.0	55.1	239.8
2045	13.09	54.93	31.98	82.0	23.8	58.2	244.3
2050	13.07	54.63	32.29	83.0	23.9	59.1	247.0
2055	12.95	55.13	31.91	81.4	23.5	57.9	246.4
2060	12.93	56.03	31.03	78.5	23.1	55.4	240.0
2065	13.15	56.56	30.30	76.8	23.2	53.6	230.5
2070	13.51	56.53	30.00	76.9	23.9	53.0	221.8
2075	13.84	56.22	29.94	77.9	24.6	53.3	216.4
2080	14.02	55.99	29.98	78.6	25.0	53.5	213.9
2085	14.08	56.07	29.85	78.4	25.1	53.2	211.9
2090	14.16	56.34	29.50	77.5	25.1	52.4	208.3
2095	14.35	56.55	29.10	76.8	25.4	51.5	202.9
2100	14.65	56.54	28.81	76.9	25.9	51.0	196.7

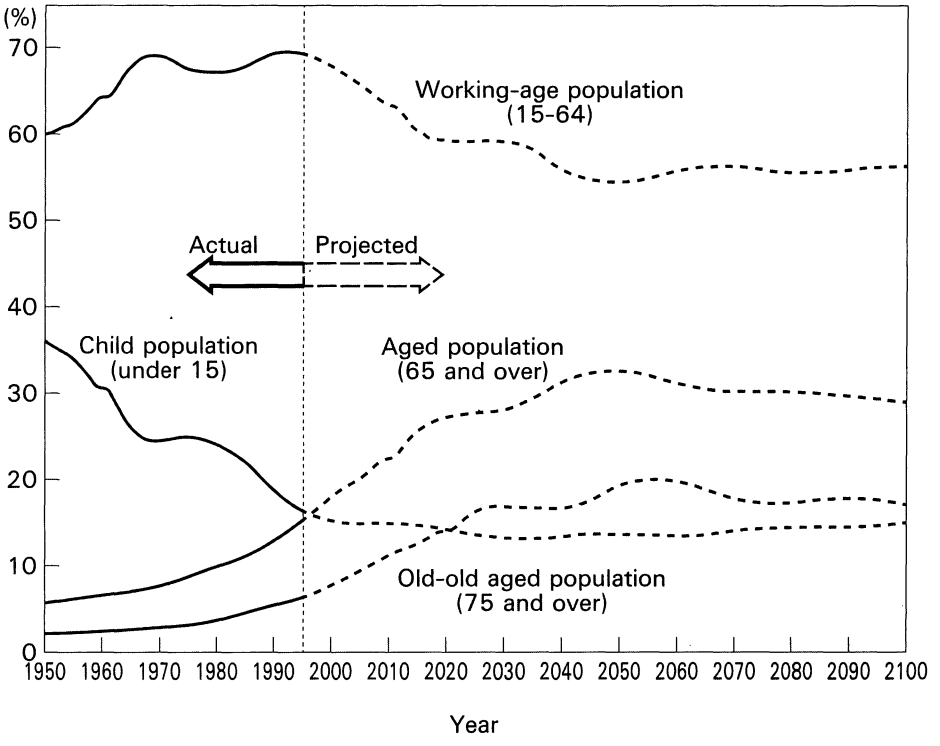
Source: National Institute of Population and Social Security Research, Ministry of Health and Welfare, *Population Projections for Japan: 1996-2100,* Tokyo, 1997.

of the elderly to chidren.

If the degree of ageing is expressed by the percentage of the total population which is 65 years and over, the Japanese age structure at present is hardly very "aged", since the percentage is approximately 17, not particularly higher than some of European countries such as Italy, Spain and Sweden where the corresponding proportions exceed 17 percent. However, according to the medium variant of the above-mentioned provisional population projections prepared by the National Institute of Population and Social Security Research in 1997, the future pace of ageing in Japan will be rapid and, by the year 2025, Japan's population aged 65 and over will be

Figure 5. Trends in Major Age Compositions

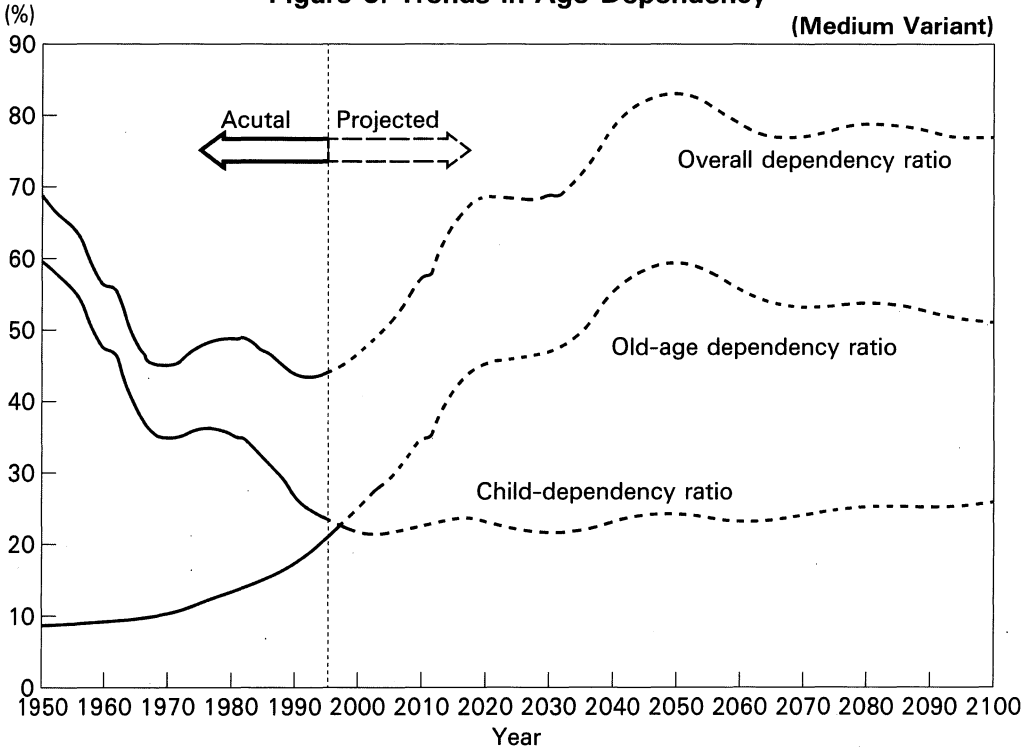
(Medium Variant)



27.4 percent. Since the recent United Nations projections as assessed in 1998 do not reveal any country with equivalently high ageing indicators in 2025, Japan would probably be the country which is most aged in the world in the first quarter of the twenty-first century. In this first quarter the mean age will continue to rise and will pass the mark of 47 years.

Again, according to the medium variant projections of the National Institute of Population and Social Security Research, the proportion of the aged will reach 32.3 percent, an astonishing figure, around the middle of the 21st century. If we look into the low variant projections which assume a farther decline in fertility and an eventual stabilization at 1.38 in terms of total fertility rate in the future, the proportion of the aged may rise even to the level 35.2 percent, that is to say, just an one-third of the total population would become the aged. Of course, there are some analytic projections for China on the assumption that their one-child policy would be maintained in the next century. According to such projections by Banister, the proportion of the aged in China currently being only 6 percent would become 41

Figure 6. Trends in Age Dependency



Note: The definitions of various dependency ratios are as follow:

$$\text{Dependency ratio} = \frac{\text{(Child pop.) + (Aged pop.)}}{\text{Working age pop.}}$$

$$\text{Child-dependency ratio} = \frac{\text{Child pop.}}{\text{Working age pop.}}$$

$$\text{Old-age dependency ratio} = \frac{\text{Aged pop.}}{\text{Working age pop.}}$$

percent of the total population, the percentage incomparably and even incomprehensively large (Banister, 1990). The future prospects of population ageing for Japan might not be as far-fetched as those for China, but their implications are immense and mind-boggling.

C. Old-age Dependency Ratio

Age-dependency ratio are the sum of two dependent population groups aged 0-14 and aged 65 years and over divided by the working age population, multiplied by 100. Working age population denotes the

population aged 15-64 who have the likelihood of being in the labour force under normal circumstances. In the present discussion of population ageing, the old-age dependency ratio is particularly relevant inasmuch as this indicator roughly quantifies the demographic weight of burden that the current working age population has to bear in order to support social security and medical expenses for the elderly. Notice that according to the pay-as-you-go system of social security, the incumbent labour force is the one who supports social and medical cost for the aged. The old-age dependency ratio may mean how many old persons have to be supported by 100 persons in working age.

According to Column (7) of **Table 1**, the trend in the proportion of the aged to the working-age population is shown from 1868 to 1998 (See also **Figure 6**). Until about 1965, the ratio was relatively small, at about 8 to 9. This means that there are 11 persons or more in working age per one old person. The burden that incumbent working population has to shoulder was relatively light in those years. After 1965, however, the ratio exceeded the level of 10 and has rapidly been increasing. By 1998, the ratio reached 23.6, that is to say, slightly more than four persons in working age per one old person. Certainly, the burden of support becomes heavier. Column (7) of **Table 2** shows the projected old-age dependency ratio for years 1995 to 2100. The figures shown here clearly indicate that the proportion of the elderly to the working-age population will increase very rapidly and to a quite substantial magnitude; In the year 2000 it would become 25.3 percent, that is to say, only less than four persons in working age have to bear one elderly person. By the year 2050, the ratio culminates to the level of 59.1 percent and this means that only two persons in working age have to shoulder one elderly person. Remember that until 1965, 11 or more persons in working age could be compared to one person in the elderly category. Now the ratio increases more than five times. An increase in old-age dependency ratio probably most dramatizes the imminently occurring impact of population ageing.

D. Elderly/children Ratio

As mentioned avove, one interesting indicator for showing the change in age-structure is the elderly/children ratio, which is the number of the elderly (population aged 65 and over) divided by the number of children(population under 15), multiplied by 100. In 1930-1950 the ratio was as low as 13, that is to say, there were relatively few elderly persons in

proportion to children. However, the elderly/children ratio has been increasing, and by 1986 it reached approximately 50 per 100 children. In 1997, it has already reached the mark level of 100 (see also **Figure 5**). In 1998 it has come to the level of 108. According to the projections prepared recently by the National Institute of Population and Social Security Research 1997, the ratio will increase further. Astonishing as it may seem, by the year 2050 it will soar to 247, that is to say, the population of the elderly will be nearly two and a half times as much as that of children.

There are few countries whose elderly/children ratio is more than 100 at the present time. Sweden, Germany and a few others show elderly / children ratios being close to 100 in 1995. Around 1986, when the elderly / children ratio was only 50, the Japanese started a kind of over-reacting to the rapidity of population ageing, as if their population has already turned grey. Hence, it is difficult to imagine how people would react to the situation where the population ageing is really in full swing. Japan is now entering an entirely new phase of demographic evolution, in which the elderly will outnumber children.

E. Rapidity of Population Ageing

As already mentioned, in Japan the term "population ageing" is not shibboleth but a household word, and there have been so much debates and speculations which have been going on. Why so? Some reasons may be attributable to the high educational standard in which Japanese people might exhibit their concerted interest in social changes, but it seems largely attributable to substantial reasons. That is the rapidity and swiftness of population ageing in Japan.

According to **Tables 1** and **2** as well as in **Figures 5** and **6**, the trends have already been clear. Before 1985 or so, though the issues of population ageing had already been debated hotly, the actual proceeding of population ageing was rather slow and the percentage of the population 65 years and over is hardly beyond 10 percent. However, after 1985, the momentum has been gathering and according to the population projections shown in **Table 2** and **Figure 5**, the population ageing is expected to proceed at an unprecedented speed and by the year 2025 the percentage of the elderly is projected to be more than 27 percent.

Table 3 shows international comparison of the speed of population ageing among seven industrialized countries with respect to the year attained or expected to attain the 7, 10 and 14 percent level in terms of the proportion

of the elderly. Particularly, the last column indicates number of years required to shift from 7 to 14 percent. As can be noted in this column, the rapidity of population ageing in Japan is very impressive. The number of years expected to spend for moving from 7 to 14 percent would take only 24 years in Japan and is distinctively shorter than any other selected developed countries. When the speed of ageing is rapid, its social and economic impacts are much greater than otherwise in the situation where the change takes place rather showly. Hence, people and society's response to those demographic changes must be more difficult in Japan, requiring swift adjustment to those changes and restructuring its institutional setup and infrastructure.

Why is the speed of population ageing so rapid in Japan? This point will be discussed in detail in the next section, but this is because the speed of fertility decline in the postwar years was so rapid in Japan. **Table 4** shows the trends of fertility in Japan. It is remarkable that crude birth rate which was 34.3 per 1000 population in 1947 had been halved to 17.2 in 1957, thereafter fertility never coming back to the level higher than 20 per 1000. In the recent years, it has been even below 10 per thousand. The almost unprecedented rapidity of birth rate decline and the continuity of very low fertility level are the principal causes for presenting Japan as a country of the most rapidly ageing population in the world.

Table 3. Speed of Population Ageing in Selected Developed Countries

Country	Years attaining the specified percentage of the aged among the total population			
	7%	10%	14%	Number of years required to shift from 7% to 14% in terms of proportion aged
Japan	1970	1985	1994	24
France	1864	1943	1979	115
Germany	1932	1942	1972	40
Sweden	1887	1948	1972	85
Switzerland	1931	1960	1982	51
United Kingdom	1929	1946	1976	47
U.S.A.	1942	1972	2013	71

Source: Before 1940: United Nations, *The Aging of Population and its Economicand Social Implications.* Population Studies, No.26, New York, 1956.
After 1940: United Nations, *The Sex and Age Distribution of World Population: 1998,* New York, 1999

Table 4. Trends in Births, Crude Birth Rate and Reproduction Rates: 1925-1995 (To bc continued)

Year	Number of births (1000)	Crude birth rate (‰)	Total fertility rate	Net reproduction rate
1925	2,086	34.9	5.11	1.56
1930	2,085	32.4	4.71	1.52
1937	2,181	30.9	4.36	1.49
1940	2,116	29.4	4.11	1.44
1947	2,679	34.3	4.54	1.72
1948	2,682	33.5	4.40	1.76
1949	2,697	33.0	4.32	1.75
1950	2,338	28.1	3.65	1.51
1951	2,138	25.3	3.26	1.39
1952	2,005	23.4	2.98	1.29
1953	1,868	21.5	2.69	1.18
1954	1,770	20.0	2.48	1.09
1955	1,731	19.4	2.37	1.06
1956	1,665	18.4	2.22	0.99
1957	1,567	17.2	2.04	0.92
1958	1,653	18.0	2.11	0.96
1959	1,626	17.5	2.04	0.94
1960	1,606	17.2	2.00	0.92
1961	1,589	16.9	1.96	0.91
1962	1,619	17.0	1.98	0.92
1963	1,660	17.3	2.00	0.94
1964	1,717	17.7	2.05	0.96
1965	1,824	18.6	2.14	1.01
1970	1,934	18.8	2.13	1.00
1971	2,001	19.2	2.16	1.02
1972	2,039	19.3	2.14	1.01
1973	2,092	19.4	2.14	1.01
1974	2,030	18.6	2.05	0.97
1975	1,901	17.1	1.91	0.91
1976	1,833	16.3	1.85	0.88
1977	1,755	15.5	1.80	0.86
1978	1,709	14.9	1.79	0.86
1979	1,643	14.2	1.77	0.84
1980	1,577	13.6	1.75	0.84
1981	1,529	13.0	1.74	0.83
1982	1,515	12.8	1.77	0.85
1983	1,509	12.7	1.80	0.86
1984	1,490	12.5	1.81	0.87

Table 4. (continued)

Year	Number of births (1000)	Crude birth rate (‰)	Total fertility rate	Net reproduction rate
1985	1,432	11.9	1.76	0.85
1986	1.383	11.4	1.72	0.83
1987	1,347	11.1	1.69	0.81
1988	1,314	10.8	1.66	0.80
1989	1,247	10.2	1.57	0.76
1990	1,228	10.0	1.54	0.74
1991	1,223	9.9	1.54	0.74
1992	1,209	9.8	1.50	0.72
1993	1,185	9.8	1.46	0.70
1994	1,238	10.0	1.50	0.72
1995	1,187	9.6	1.42	0.69
1996	1,207	9.7	1.43	0.69
1997	1,192	9.5	1.39	0.67
1998	1,203	9.6	1.38	0.67

Source: *Heisei 10-nen Jinko Dotai Tokei (Vital Statistics 1998, Japan)*, Vol.1, 2000

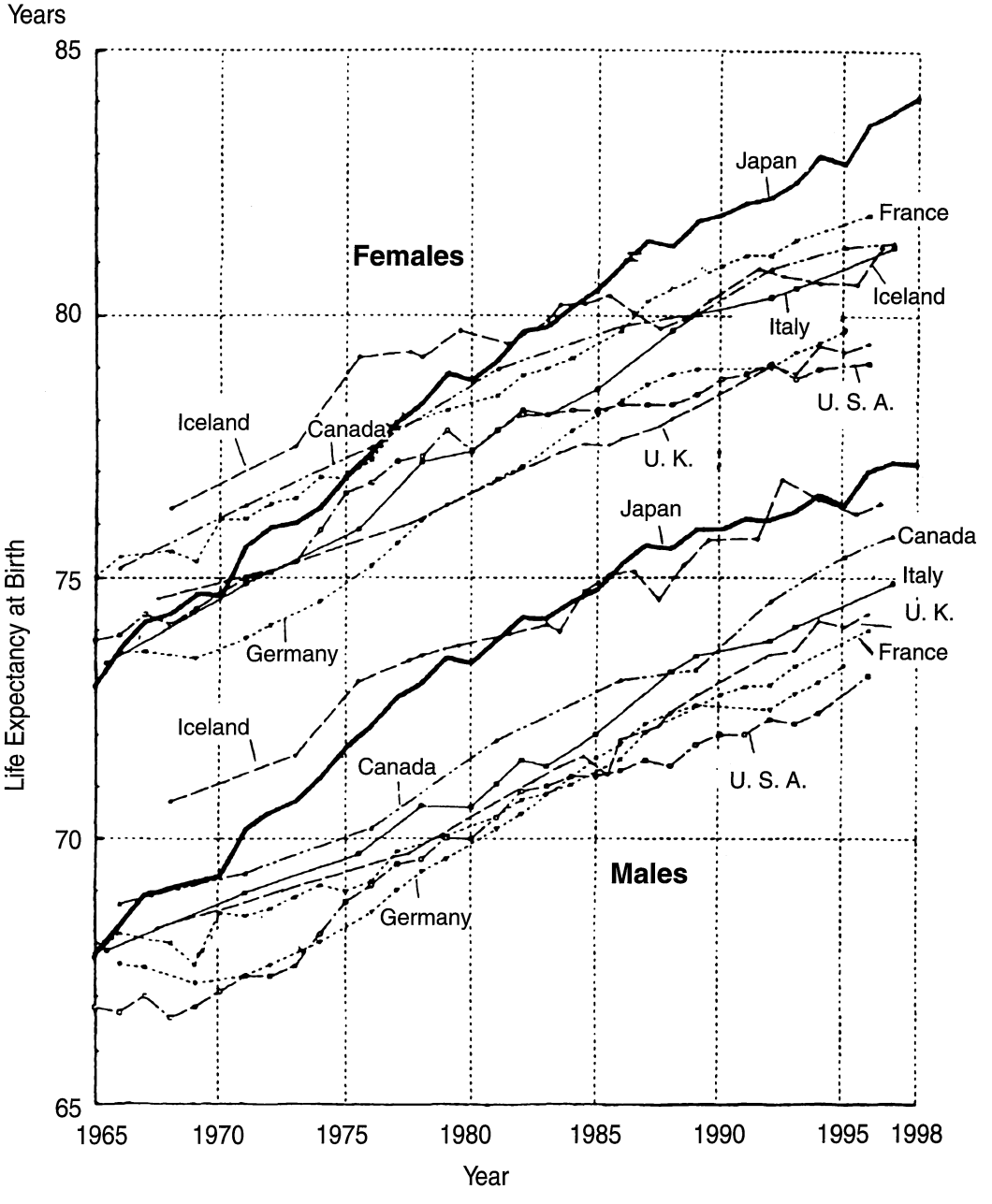
F. Causes of Population Ageing in Japan

What have then been the causes for such a rapid population ageing to take place in the future in Japan? Many people even in the journalism have made their off-the-cuff statement that recent prolongation of life expectancy is the cause for it. Indeed, as represented by **Figure 7**, the recent Japanese life expectancies for both males and females have already surpassed those of European countries such as Iceland and France which had been regarded among the highest life expectancy countries in the world. Although the above conventional view of cause of population ageing is true for Japan in the very recent years, but the fact of the matter is more complicated and the lengthening of life expectancy or mortality decline alone could not be the sole or principal factor explaining for such a substantial and rapid population ageing.

Calculations were made to decompose the difference between the percentages of the population aged 65 and over for Japan in two different years. The methodology of decomposition is Kitagawa's (1955). Some unique features of the present calculation of decomposition are that:

(a) The age data used are by single years; hence, efforts are made to take into account changes in the age pyramid caused by the past annual

Figure 7. Trends in Life Expectancy at Birth in Selected Advanced Countries : 1965 -1998



Source: United Nationd,1999. *Demographic Yearbook, 1997,* New York; Japan Ministry of Health and Welfare. 1999. *The 1998 Abridged Life Tables,* Tokyo.

fluctuations of births, deaths and overseas migration. The analysis by periods of five years may blur ups and downs of fertility and mortality for a country like Japan, thus rendering the conclusions crude and approximate;

(b) Various time spans are examined in order to analyze every possible combination of time periods;

(c) The rates obtained from forward and backward standardization are averaged so that the residual interaction term can be eliminated.

Table 5 shows the results of decomposition for various time periods 5-year, 10-year, 20-year, 30-year and 35-year.

In the analysis of five-year periods, apart from the effect of the initial age distribution, the effect of fertility was larger than the effect of mortality in the periods 1950-1955 and 1965-1970. The effect of the initial age distribution (Col. 7) is the effect of the previous age distribution, or the cohort effect. It is obvious that, where the baseline age distribution does not have a smooth profile and is characterized by bulges and troughs, such irregularities often determine a good portion of the proportion of the elderly. To be sure, however, that effect of population distribution may itself be attributable to previous histories of fertility and mortality.

Howerver, in the later years under analysis, nearing the year 1985, the effect of mortality becomes larger than that of fertility, again apart from the effect of the age distribution of the initial population. It is argued that, in the earlier half of the 35-year period between 1950 and 1985, the effect of fertility was definitely larger. In contrast to the common implications of the theory of stable population, however, population ageing (in terms of an increase in the proportion of the elderly 65 and over) has been promoted by a decline in overall mortality and consequently by the prolongation of life expectancy, even in the middle of demographic revolution. According to the conventional interpretation of the theory of stable population, fertility is the predominant force causing population ageing, while mortality decline generally has little effect or, at best, promotes population rejuvenation.

If a longer period is used to decompose the change in the percentage of the population aged 65 and over, the effect of fertility is always larger than that of mortality: see, for example, the 35-year time period between 1950 and 1985 in **Table 5**, where the effect of fertility was even larger than the effect of the initial age distribution.

Table 5. Changes in the Proportion of the Population in Japan Aged 65 and over, 1950-1985, for Different Time Periods.

Period (1)	Population aged 65+ at beginning of time period[a] (2)	Population aged 65+ at end of time period[a] (3)	Absolute change (4)	Effect of fertility (5)	Effect of mortality (6)	Effect of the initial age distribution (7)
5-year comparison						
1950-1955....	4.94	5.35	0.41	0.07	0.01	0.32
1955-1960....	5.32	5.69	0.37	0.01	0.01	0.35
1960-1965....	5.73	6.28	0.56	−0.04	0.07	0.53
1965-1970....	6.29	7.01	0.72	−0.12	0.02	0.83
1970-1975....	7.06	7.87	0.81	−0.01	0.04	0.78
1975-1980....	7.92	9.08	1.16	−0.02	0.08	1.09
1980-1985....	9.10	10.25	1.15	−0.05	0.09	1.11
10-year comparison						
1950-1960....	4.94	5.70	0.76	0.32	0.05	0.39
1955-1965....	5.32	6.24	0.93	0.06	0.11	0.76
1960-1970....	5.73	7.03	1.30	−0.06	0.28	1.09
1965-1975....	6.29	7.86	1.57	−0.26	0.28	1.54
1970-1980....	7.06	8.99	1.93	0.11	0.37	1.45
1975-1985....	7.92	10.22	2.30	0.01	0.42	1.88
20-year comparison						
1950-1970....	4.94	6.96	2.03	0.91	0.40	0.70
1955-1975....	5.32	7.82	2.51	0.17	0.75	1.59
1960-1980....	5.73	9.04	3.32	−0.05	1.24	2.13
1965-1985....	6.29	10.19	3.90	−0.36	1.40	2.87
30-year comparison						
1950-1980....	4.94	9.01	4.07	1.74	1.32	1.00
1955-1985....	5.32	10.18	4.86	0.52	2.04	2.30
35-year comparison						
1950-1985....	4.94	10.19	5.25	2.38	1.93	0.94

[a] Percentage.

NOTE: In Column 3, the value of the percentage of the aged population at the end of the comparison period is not necessarily the same as that of the actual population, although the percentage of the aged at the beginning of the period is always the same as that of the actual population. The difference is due to many types of errors: estimated survival ratios may not perfectly represent the real process of survivorship, even though life tables used were based on the actual vital statistics data; age-specific fertility rates used may not reflect the actual situation; there may be a negligible volume of international migration which was not considered in the estimates; and there may be errors in census-tabulated figures for both the beginnings and the ends of the periods and, likewise, there may be errors in vital statistics data on fertility and mortality.

Perhaps, in this moment, it is useful to refer to a chart showing changes in age-specific mortality for males and females separately. **Figure 8** indicates age-specific patterns of mortality for 1921-1925, 1960 and 1998, separately, over several decades. Notice that this chart is based on the semi-logarithmic graph. From this chart, some salient features may be pointed out.

(1) The decline in infant and child mortality from 1921-25 to 1998 is very significant.

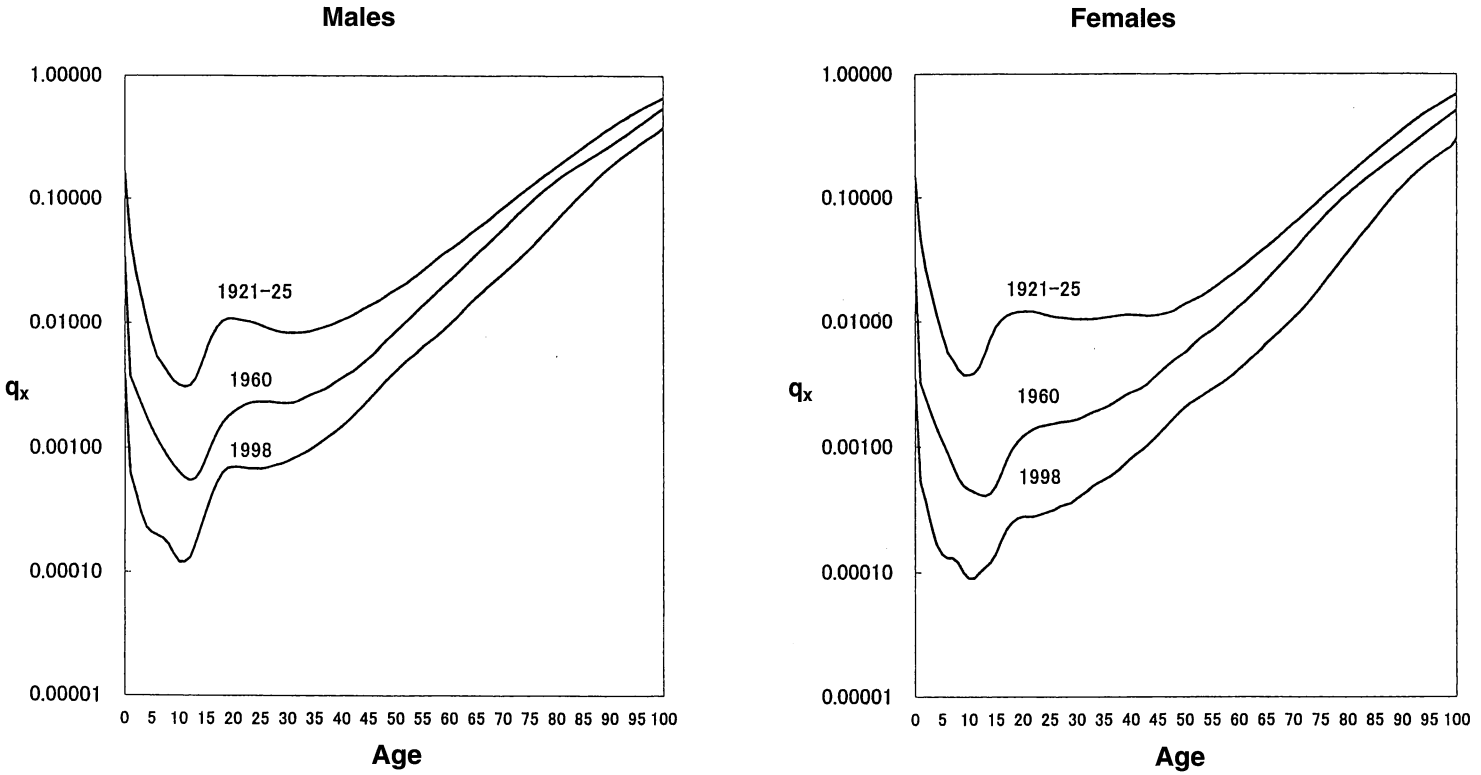
(2) What may be called "tuberculosis lump" appeared in 1921-25 at ages between 15 and 25 have virtually disappeared among females in 1990. The recurrence of a lump or bump around age 20 among males in 1998 should be considered to be caused by external cause of death, notably attributable to motor-bike accidents.

(3) On the other hand, however, the mortality improvements are not particularly phenomenal at advanced ages, though the nature of semi-logarithmic graph might disguise some appreciable changes.

These charts may suggest that increases in life expectancy occurred in the postwar years were largely attributable to the rapid declines in infant and child mortality. This pattern of trends is also observed widely in present-day developing countries since the mortality can be more easily reduced in the young age groups rather than in the elderly. Mortality in childhood is caused mainly by infectious and parasitic diseases which can be more easily controlled by the anti-biotics and modern medical technology. On the other hand, however, mortality in the old ages is not easily controlled even by modern medical technology since diseases characteristic of old-ages are of attritional and degenerative nature of human organs. Hence, if other things being equal, the remarkable reductions in mortality in the infancy and childhood have an immediate effect of expanding the bottom part of the population pyramid, thus youthening or rejuvenating population, rather than ageing population.

Table 6 indicates the rate of contribution of improvement in mortality in each age group to the lengthening life expectancy in Japan. According to these tables, for example between 1955 and 1960, much contribution has been noted among the young ages under 15 years toward an increase in the life expectancy. There about 65 percent are attributable to mortality reductions in this young age group. On the other hand, however, in recent years, say 1985-1990, the contribution in the improvement in infancy and childhood has become considerably outshined by the contributions in adult and old-age mortality. When the effect of mortality declines among the

Figure 8. Age Patterns of Mortality for the Years 1921-25, 1960 and 1998



Source: Japan Ministry of Health and Welfare, *The 18th Life Tables*, 1998;
Japan Ministry of Health and Welfare, *Abridge Life Table for 1998*, 2000.

Table 6. Contribution of Mortality Reduction in Each of Major Age Groups to the Increase in Life Expectancy, Japan: 1955-1990

Sex and period	Life expectancy (years) in			Contribution of mortality reduction in each age group (%)				
	Beginning of period	End of period	Difference	0-14	15-39	40-64	65-74	75+
Males								
1955-1960	63.597	65.318	1.722	64.6	26.5	16.3	0.1	−7.5
1960-1965	65.318	67.735	2.417	52.8	20.2	19.8	6.6	0.5
1965-1970	67.735	69.310	1.575	35.8	8.6	27.6	14.5	13.5
1970-1975	69.310	71.726	2.416	16.7	15.6	30.4	23.6	13.7
1975-1980	71.726	73.349	1.622	19.7	14.7	25.3	24.1	16.3
1980-1985	73.349	74.782	1.433	18.6	6.6	21.0	29.9	23.9
1985-1990	74.782	75.921	1.139	9.0	10.3	30.4	19.5	30.8
Females								
1955-1960	67.748	70.194	2.447	53.1	26.3	21.4	4.7	−5.5
1960-1965	70.194	72.921	2.727	45.3	20.2	21.6	11.0	1.9
1965-1970	72.921	74.656	1.735	28.2	11.2	24.0	16.6	20.0
1970-1975	74.656	76.889	2.233	14.1	10.3	29.5	23.9	22.2
1975-1980	76.889	78.765	1.875	13.4	10.1	24.7	22.7	29.2
1980-1985	78.765	80.482	1.717	10.8	4.8	18.5	24.8	41.1
1985-1990	80.482	81.904	1.422	6.8	4.5	19.6	20.9	48.2

Note: Data used in this series of calculation are based on the official life tables prepared by the Department of Statistical Information, Ministry of Health and Welfare. Calculations were made by Shigesato Takahashi, National Institute of Population and Social Security Research, Ministry of Health and Welfare.

elderly becomes more pronounced than among the youth population, then, it would be inevitable that the population ageing becomes an important political issue which demographers could not clearly envisage.

Table 7 (**a** and **b**) denotes a similar decompositional table in which the amount of contribution to an increase in life expectancy can be estimated by each cause of death group for Japan. From **Table 7**, it is evident that in the early period of the postwar era, say in 1955-70, the declines in mortality from infectious and parasitic diseases were most important causes of death, thus having played a role at least temporarily toward reducing population ageing. But in the more recent period, the declines in mortalilty from a non-infectious or degenerative type of diseases have become much more important in contributing to a lengthening of life expectancy. Hence, the lengthening of life expectancy itself lately joins in contributing to accelerate the population ageig in Japan which is principally caused by fertility decline.

Table 7-a. Quinquennial Changes in Life Expectancy and Percentage of Contribution Attributable to Change in Mortality from Each of 17 Causes of Death: Males

Life expectancy and cause of death	Period of observation						
	1955-60	1960-65	1965-70	1970-75	1975-80	1980-85	1985-90
a. Life expectancy at the beginning of period	63.597	65.318	67.735	69.310	71.726	73.349	74.782
b. Life expectancy at the end of period	65.318	67.735	69.310	71.726	73.349	74.782	75.921
c. Difference between a and b	1.722	2.417	1.575	2.416	1.622	1.433	1.139
All causes	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Tuberculosis	28.9	13.3	13.5	6.8	6.7	3.9	2.6
Malignant neoplasm	−7.6	−1.0	0.6	2.5	−5.4	2.3	−0.3
Diabetes	−0.5	−0.8	−1.5	0.1	1.7	0.8	1.2
Heart disease	−3.5	2.2	−1.4	5.2	−5.9	7.8	12.6
Hypertensive disease	−3.7	−0.4	3.7	1.8	5.8	4.5	5.3
Cerebrovascular disease	−10.3	−0.5	19.5	28.0	39.9	50.9	41.5
Pneumonia and bronchitis	2.5	18.1	11.5	4.8	6.5	−2.5	−7.7
Ulcer of stomach and duodenum	6.7	2.7	3.5	2.3	3.2	2.7	4.4
Gastro-enteritis	14.3	7.5	6.6	2.6	2.5	1.7	−1.3
Chronic liver disease and cirrhosis	−1.1	−0.3	−3.4	−1.0	1.2	3.9	5.2
Nephritis, nephrotic syndrome and nephrosis	5.3	2.9	3.7	3.0	−0.7	−0.9	0.3
Senility without indication of mental disease	11.4	4.6	9.0	5.8	3.0	5.6	9.7
Accidents and poisoning	−9.3	4.3	3.2	19.7	15.0	5.9	4.8
Suicide	9.7	7.4	1.2	−3.7	−0.2	−2.1	11.8
Other causes of death	57.3	30.1	30.4	22.1	26.6	15.5	9.9

Source: Calculated by Shigesato Takahashi, Institute of Population and Social Security Research, Ministry of Health and Welfare on the basis of various official mortality and demographic statistics, including Ministry of Health and Welfare, complete life tables, abridged life tables, vital statistics and the Statistics Bureau, Management and Coordination Agency, population census statistics reports and population estimates.

Table 7-b. Quinquennial Changes in Life Expectancy and Percentage of Contribution Attributable to Change in Mortality from Each of 17 Causes of Death: Females

Life expectancy and cause of death	Period of observation						
	1955-60	1960-65	1965-70	1970-75	1975-80	1980-85	1985-90
a. Life expectancy at the beginning of period	67.748	70.194	72.921	74.656	76.889	78.765	80.482
b. Life expectancy at the end of period	70.194	72.921	74.656	76.889	78.765	80.482	81.904
c. Difference between a and b	2.447	2.727	1.735	2.233	1.875	1.717	1.422
All causes	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Tuberculosis	21.7	10.8	8.8	4.5	3.4	1.4	1.0
Malignant neoplasm	−2.1	1.7	4.3	5.6	4.1	11.6	3.3
Diabetes	−0.6	−0.8	−1.5	0.3	1.9	1.1	1.6
Heart disease	−0.8	4.0	1.2	6.9	2.0	6.1	11.2
Hypertensive disease	−2.9	−0.7	2.9	1.7	6.4	5.1	7.7
Cerebrovascular disease	−2.3	4.4	18.2	25.1	33.4	42.9	41.6
Pneumonia and bronchitis	4.2	17.7	11.1	5.4	8.0	−0.6	−3.0
Ulcer of stomach and duodenum	2.1	1.5	1.2	1.0	1.2	0.9	2.8
Gastro-enteritis	12.6	9.4	6.9	3.4	3.6	2.1	0.7
Chronic liver disease and cirrhosis	0.4	0.7	−0.5	0.9	0.8	0.8	1.1
Nephritis, nephrotic syndrome and nephrosis	6.0	4.0	3.8	3.0	−0.9	−0.4	−0.1
Sinitity without indication of mental disease	13.3	7.0	15.4	13.0	5.7	10.3	19.2
Accidents and poisoning	−0.4	1.8	0.9	6.8	4.1	2.8	−0.1
Suicide	1.6	6.4	−0.4	−0.8	2.9	2.2	2.2
Other causes of death	47.2	31.8	27.6	23.3	23.5	13.8	11.7

Source: Calculated by Shigesato Takahashi, Institute of Population and Social Security Research, Ministry of Health and Welfare on the basis of various official mortality and demographic statistics, including Ministry of Health and Welfare, complete life tables, abridged life tables, vital statistics and the Statistics Bureau, Management and Coordination Agency, population census statistics reports and population estimates.

G. Fertility Decline and Its Determinants in Japan

It was already mentioned that fertility has declined to an unprecedentedly low level in recent years, much lower than the net replacement level. Since the fertility decline has been the most important determinant factor in causing the population ageing of Japan and since in recent years the issue of fertility decline has evoked great interest and concern among the government workers, industrialists as well as intellectuals, a few words must be devoted here to explain why the current Japanese fertility has precipitated to so low a level and how far the trend would continue in the near future.

On the basis of the vital statistics collected by the Ministry of Health and Welfare, the total fertility rate in Japan has been lower than the replacement level since 1974 (See **Table 4**). The recent movement is, however, unprecedented and beyond our previous experience and projections. In 1990, it went down to 1.53. In 1994 it went up slightly to 1.50, but in 1998 it was reduced to 1.38, the lowest ever recorded in Japan. Alarmed by this fertility plunge, many different groups of people, industrialists, parliamentarians or high ranking government officials expressed their concern and worries that the continuation of such a low rate would give enormous adverse impacts on the Japanese economy and society. According to one series of calculations tentatively prepared by the present author, if the current low total fertility were to continue and the same life expectancies as observed in 1990 were to be kept constant for future years, the population of Japan must get extinct in less than 1,000 years' time. Such a calculation is of course a kind of science fiction, but it has striked out some demographic implications. And even before such a tragic state of affairs would have ever come true, it has been argued strongly that Japan will inevitably face the exceedingly advanced population ageing or a very large percentage of the elderly which may amount to one-fourth or even to one-third of the total population in Japan. If such an extraordinary population ageing has ever come to the seashore of Japan, it has been argued that Japan would collapse under the heavy dependence burden of the elderly, whereas the segment of population in working-age, say 15 to 64 which currently comprises hefty 70 percent of the total population, would ineluctably be reduced in proportion and in absolute number, and hence it could no longer afford supporting a heavy burden of old-age dependency in the fields of public pension, medical services, nursery and care of the elderly people.

ln Japan the feminist movement has not been influential; labor force participation by married women, while increasing, has been lower than in the United States and Western European countries; the oral contraceptive has been banned for medical reasons; and the divorce rate is lower than in the West and is rising more slowly. Why, in spite of conditions such as these that presumably would tend to favor higher fertility, has the Japanese total fertility rate recently been between 1.3 and 1.4, well below replacement level?

Actually, there are good reasons for the current low fertility in Japan. It is in a large part a response to that country's resource-scarce environment. Today, the Japanese population, at some 126 million, numbers about half that of the United States in an area smaller than the state of California. Japan produces practically no oil and little iron ore, and it imports much agricultural produce from such countries as the United States, Canada, and Australia. A scarcity of resources relative to population has figured in Japanese history since the 1860s, when massive efforts to industrialize began.

Distinguishing Japan and the surrounding East Asian region from other parts of Asia is the pervasive and deeply rooted doctrine of Confucianism. The role of Confucianism in Japan is probably comparable to that of Protestantism in Europe at the dawn of industrialization, as depicted by Max Weber. Confucianism emphasizes the ethical value of hard work, asceticism, frugality, and regularity in the daily conduct of life.

What happens when the scarcity of resources and the ethic of hard work collide? The answer is fierce competition within the society. This has led to the emergence of a quasi-meritocracy with an overemphasis on educational attainment. This in turn has contributed to declining fertility. After World War II, Japanese fertility fell sharply. Between 1960 and 1974 the rate was relatively stable at a level slightly higher than replacement, but after 1974 it declined to its current unprecedentedly low level. (It is noteworthy that 1973 was the year of the "oil shock": the Arab oil embargo reinforced the psychological resource-scarcity syndrome in Japan.)

In a resource-scarce but advanced society, fierce competition permeates every corner of life. Rigorous entrance examinations for ranking universities and for large and prestigious corporations become common. Resource scarcity narrows the chances for a better quality of life. Demographic responses to such an environment are to delay marriage and reduce family size.

An attempt will be made to elaborate briefly on three features of

modern Japan that are relevant to the current fertility picture: the postponement of marriage in response to scarce resources and narrow life chances; tough entrance examinations for admission to high schools and universities; and the emergence of a mass-consumption culture.

1) Postponement of Marriage

Age at first marriage in Japan has become one of the highest, if not the highest, in the world. According to 1998 vital statistics, the mean age at first marriage was 28.6 years for males and 26.7 years for females. For females this represents a rise from a mean age of 23.0 years in 1950 and 25.2 years in 1980. Although the divorce rate is lower in Japan than in most of the Western countries, the very high age at first marriage effectively shortens the reproductive span of married couples. According to the 1995 census, the proportion of the population aged 20-24 who were currently married was only 12.2 percent for females and 6.2 percent for males. Even in the age group 25-29, the most reproductive age group, only 48.6 percent of females and 31.5 percent of males were currently married.

Since fecundability starts declining after age 30 and by age 35 is reduced to three-fourths of the full-capacity of fecundability level attained at ages 20-27, late entry into married life, in a setting inimical to premarital births, acts as a biological depressant to fertility. It keeps some Japanese couples from achieving their desired or expected fertility (Institute of Population Problems, 1993). According to the national fertility surveys in 1977, 1982, 1987, 1992 and 1997, Japanese couples expected to have 2.2 children on average the number being remarkably stable; in those years, however, observed yearly fertility was below replacement (Institute of Population Problems, 1988 and 1993; National Institute of Population and Social Security Research 1998).

Late marriage in Japan is due to the interplay of economic and social factors. Housing is extremely costly, and young men are not expected to marry until they are capable of maintaining new households without financial assistance from their parents. In addition, marriage in Japan is a very costly event: wedding ceremonies are elaborate and expensive; before the start of marriage the groom must make financial arrangements to set up a new home, and the bride must bring a dowry in kind if not in cash. Normally, a bride is expected to bring to the new home all the necessary furnishings-including major household appliances and furniture.

In recent years, it was said that particularly young women came to

disenchanted with marriage life or with expected image of marriage life that they paint. Partly because many women now work in contemporary Japan, the economic necessity to get married has been weakened, hence many females do not have to rely their life upon their husbands. Secondly the imbalanced sex ratio exists in young ages, say 18 to 35, particularly in urban areas, where men are more abundant in the unmarried population. Woman may enjoy her demographic advantages only waiting for a most eligible bachelor who has qualifications of three-high's, that is, taller, better-educated and more income than herself. It has been argued that this hypergamous trends let women postpone their marriages and even increase the percentages of unmarried women in their 30s and early 40s. Thirdly, it was also pointed out that the mechanisms of match-making leading to marriage (*miai kekkon*) have become weakened for various reasons: urbanization and accompanying increase in anonymity, lack of community tie, young people's individualistic attitude. Although the traditional system of *miai kekkon* or match-making marriage is ebbing, there is no alternative system replacing this century-old system.

2) Competitive Entrance Examinations

Another important factor conducive to low fertility in Japan is the exceedingly rigorous competition for admission to ranking schools such as the University of Tokyo. It is an ordeal not only for the applicants but also for their families. The advantages of success are great, the costs of failure severe. One lucky enough to gain acceptance to a prestigious school wears badge of honor for the rest of his life. A graduate of a ranking university is usually promoted faster than others and benefits professionally from membership in a network of alumni who hold key positions in government and business. Sometimes, prestigious corporations send notices of job openings only to ranking universities. Actually such universities do provide the highest quality education and training to their students. Those achieving exceptional marks in the highest ranked civil service examinations are usuauy graduates of law schools of top universities.

Japanese society is not a land of continuing opportunity for people who seek a good career or success in life. Once a young man or woman fails to pass an employment examination to enter government of a prestigious corporation as a career officer, he or she is not given another chance. In the government service, only career officers who enter their positions with topnotch test scores are permitted to become directors.

The ordeal of educational competition begins when young children start preparing for examinations in primary school and even in kindergarten. In order to get into a good university, one has to enter a good senior high school, and to get into a good senior high school, one has to enter a good junior high school, and so on. In Tokyo at 10:00 p.m. on Friday, suburban trains are filled with primary school pupils aged around 10 who are just returning from well-known juku (after-school cram sessions) located in the central district. Some of them are already asleep, but the strong ones are rehearsing what they have just been taught. To foreigners it is an eerie scene.

In a national sample survey conducted by the Office of the Prime Minister in 1985, about 80 percent of the approximately 10,000 respondents aged 20 years and over felt that the social hierarchy and professional mobility pivot around employees' academic careers, particularly the stature of the universities from which they graduated (Office of the Prime Minister, 1985). A graduate of an outstanding school like the University of Tokyo can not only get a good job in government or in a respectable large corporation, but can also reach a high step on the hierarchical ladder.

This characterization of the academic career-centered system of promotion and upward mobility in Japan still requires statistical substantiation, but an important point is that it is entirely consistent with public perception. Hence, it is natural for anyone with above-average intelligence and some career ambition to try to get a ticket for the super-express in his life course. Thus, severe and ruthless examinations become the style of life in Japan. Under such circumstances, children become financially and psychologically expensive. Once modern methods of family planning and abortion have become available to every household, no one wants a large family. In Japan the ideal number of children (the number the average couple would like to have if circumstances permitted) is three, but the expected family size is two. In the most recent national fertility survery conducted by the National Institute of Population and Social Security Research in 1997, one question asked why the couple did not attempt to have their ideal family size. The four most frequent answers from couples with wife aged 20-34 were as follows: (1) the cost of education is too high; (2) raising children requires a lot of money; (3) raising children imposes heavy physical and psychological burdens on the parents; (4) the presence of children is in conflict with women's employment (National Institute of Population and Social Security Research, 1998). The answers did not identify burdens from the strain of preparing for school entrance examinations since the questionnaire was not structured to ask such a

question, but the implication would be clear.

3) Advent of the Mass Consumption Society: Reinforcing the Fertility Decline

A major characteristic of Japan is its homogeneity in race, religion, language, and even social class. Once every few years leading newspapers in Japan, such as Asahi Newspapers, repeat a public opinion poll asking "to which social class according to the grouping of 'upper', 'middle', or 'lower' do you think you belong?" Each time, more than 80 percent of interviewees respond that they belong to the "middle" class.

It is well known that income differentials among Japanese workers are the smallest among the industrial market economies. Superimposed on Japan's small territory and its homogeneity in language, social class, taste, and life styles has been the Western-based mass consumption culture, involving universal television ownership and an enormous volume of advertisement of consumer goods and services in every household. Thus, every other home in the neighborhood and every other colleague at the office serves as the reference group of the "middle class". Japanese couples are confronted by innumerable "musts" that they need to buy to maintain their middle-class status and prestige. Already the two-child norm has become a household word in Japan. Under the circumstances, having more than two children has fallen totally out of fashion and having more than two adolescents at home strenuously preparing for examinations for admission to high schools and universities seems out of the question. In short, the low birth rate is a natural consequence of the social and economic conditions just described.

4) Increasing Dilemma between Women's Work and Bearing and Rearing Children: Women's Revenge

The recent precipitation in the fertility of Japan has sent a wave of shock through many groups of Japanese people, whether professional or laymen. Some critics have even come to interpret this phenomenon of unprecedented fertility decline as a revenge of women against the present male-oriented and male-dominated society and institution, the long fortressed and nurtured male chauvinistic system of society. The women's revenge might even be called as an anti-Machismo movement in East Asia. This is clearly related to the general trend among the Japanese women

towards gainful employment outside of home and may be in a line with what Kingsley Davis, a well-known social demographer, once called the greatest silent revolution in the twentieth century. Although women's labour force participation may be lower than many European countries and the United States and Canada, the rate has been increasing and furthermore women's school enrollment in colleges and universities is a record high.

As already mentioned, some industrialists and parliamentarians as well as high-ranking officials of the Government have come to worry about the current exceedingly low level of fertility and have been urging the Government to do something in order to thwart this current of low fertility. These groups of people have come to be seriously concerned that if the current low fertility would prevail in the future, the Japanese industries could not secure a full recruitment of young labour force fresh out of school and the Japanese economy would lose its vitality which has been a part and parcel of the strength in the thrust of Japanese economy. Furthermore, these people argue that the imminent population decline must shake up the very foundation of Japan's current prosperous economy and threaten the future economic growth. The increasing population ageing would create an acute shortage of young and docile segment of manpower and would entail in the decline in productivity and slump in saving rate. These people seriously consider that inasmuch as Japan lacks natural resources the only abundant are human resources with a high quality of education and hard-work ethics and such have been the panacea for Japan's miraculous economic achievement in the past. Without abundant manpower resources with a high level of education and aspiration, Japan must in the long run lose its advantageous position in the world economy.

On the other hand, however, some groups of women, notably those female intellectuals related to Japan's feminist movement have been arguing otherwise that it is a woman who bears and rears children and industrialists, parliamentarians and government officials cannot enforce pronatalist population policies and programmes upon the families without a full consent by women. The current unprecedented decline of fertility simply means the disenchantment of women with the current state and mode of family, marriage and reproduction which are male-dominant and often patriarchal. They argue that women are not a child-bearing machine and they are flatly opposed to the goverment officials and industrialists' views which they regard as rather short-sighted and unbalanced.

As already mentioned, in Japan and East Asia, Confucianism provides the people in this region with major moral and ethical code governing the

daily conduct of people. But, if there are any gaps in this outstanding moral system and philosophy, it is that sufficient attention has never been paid to women. In Confucianism's doctrine, there is no status of women in the family. In the Confucian regime, women have long been considered a kind of childbearing machine and domestic servant for men. Now in the 1990s women are making quiet and non-militant protest against men and against the long-established and-cherished East Asian version of Machismo. It is assumed that some of the consequences out of such women's revenge would be the postponement of marriage, non-marriage and nonbearing of children on the part of women, hence decline of fertility. Such a situation will continue unitl the day when men come to make a peace treaty with women, until the day when women's status has been elevated so as to become equal and equitable with men's, and until the day when women's work aspiration has been harmonized with their childbearing and rearing activities with full cooperation of men and with institutional support by the Government.

2. Population Ageing and Changes in the Family and Household

A. General Framework

The family or household is a single unit for many social and economic activities, including income maintenance, economic dependency, savings, fertility, migration, social welfare and social adjustment, etc. Very broadly speaking, the family or household has two different aspects in relation to the process of population ageing. First, the family itself undergoes its transformation by demographic changes through the ageing process. Secondly, the family as a small group serves as buffer to its members to lessen the social and economic impact of population ageing superimposed upon it as if from outside before reaching individual members. The present chapter deals mainly with the former aspect, but consideration is also given to the latter.

Population ageing has very important bearings on the changes in the number and structure of the family and household. Let us first discuss how much population ageing is attributed to determine the size of the family and household. Then, an attempt is made to look into the course of

transformation in which dynamics in population ageing affect the structure of the family and household. Here the term "structure" mainly means the composition of the household by family type and patterns of co-living of the elderly with their offsprings.

B. Change in the Size of Household

The recent demographic changes in Japan have been rapid and have made quite considerable effects upon the family size and structure. Obvious changes occur in the average size of household and family in Japan. **Table 8** represents trends in average household size for Japan.

Table 8. Trend in the Average Household Size for Japan: 1920-1995

Census year	Average size (persons)
1920	4.99
1925	4.98
1930	5.07
1935	5.13
1940	5.10
1947	4.92
1950	5.02
1955	4.97
1960	4.52
1965	4.08
1970	3.73
1975	3.28
1980	3.22
1985	3.14
1990	2.99
1995	2.84

Source: Statistics Bureau, Management and Coordination Agency, *Population Censuses.*
Note: Definitional changes have been introduced to the concept of "household"since the 1970 census.

It is apparent that the household size has shrunk down considerably in the long run during 65 years' time span, but some may wonder why the process of shrinkage in the household size has been so slow in comparison with the fertility decline occurred roughly at the same time. For example,

total fertility rate had substantially been reduced from 3.65 in 1950 to 2.00 in 1960. On the other hand, however, the average size of household diminished from 5.02 to 4.52 only by 0.50 in term of persons per household between the same years. By the same token, for the Republic of Korea, while total fertility rate was reduced from 4.47 to 3.33 between 1970 and 1975, the average household size shrinked from 5.2 to 5.1 only by 0.1 person per household. It seems that there always exist some kind of demographic lags, so that the process of reduction in household size does not necessarily follow the trend in decline in fertility in an immediate sequence. Part of explanation may be sought in the mortality reduction taking place at the same time, the mortality reduction which facilitates enlarging the household size in a completely opposite direction to the effect of fertility decline under the circumstances where fertility does not drop. The substantial reduction in child mortality occurring in the early cycle of demogaphic transition precisely means an increase in fertility in Japan. Between 1920 and 1935, the size of household increased appreciably and this phenomenon is principally attributable to a reflection of mortality improvement. In Singapore, by the same token, between 1957 and 1970, the household size increased sizably from 4.8 to 5.4 and this enlargement may at least partly be explained by mortality reduction.

Nevertheless, when demographic evolution proceeds, effects of fertility decline have been captured sooner or later in the household size and structure when the mortality decline has lost its momentum and the rise of life expectancy has hit the plateau. The diminution of household size has started out and then it precipitates. The average size of households for Japan was 2.84 in 1995 and will soon become 2.5 by 2020 according to the projections (National Institute of Population and Social Security Research, 1998).

According to a multiple regression analysis performed by the United Nations Population Division some years age (United Nations, 1969), the shrinkage of household size was mainly attributable to the reduction of fertility. This relationships may still be holding at present. However, the increasingly significant process of nuclearization or nucleation of the family due to mortality reduction, general rise in level of living, urbanization, industrialization, etc., would have also been fairly important for contributing to determine the average household size. This is again not a very recent one, but according to a decomposition study for Japan attributing to various factors the difference between average household sizes in different years, the effect of fertility decline explains 70 percent of the contraction in the

average household size from 1955 to 1965; 20 percent were attributed to internal migration and the remaining 10 percent attributed to the nuclear fission, which in turn presumably originated from economic and social factors, notably from the rise in per capita income, urbanization, enhancement in education, and the emergence of individualism, etc. (Kono, 1969).

C. Change in the Family Structure

When the size of household diminishes, so does the structure of the family change. For example, a recent article by Weinstein and others, (Weinstein *et al*, 1990) also signifies some trend of family nucleation and decline in the stem or joint type of families in Taiwan.

The overall picture is, however, not simple. As shown in **Table 9**, according to the census statistics on households by type, the proportion of nuclear family households has been relatively stable since 1975 without a sigh of significant increase, though the type of "other related households" which practically means that of three-generation families shows a very clear trend in decline. It can be argued that this trend of non-increase in proportion of nuclear families is partly due to the rapid fertility decline which in turn causes the decreased supply of married sons eligible for nuclear families, that is non-eldest sons, if the propensity for living with the married eldest son does not substantially decrease (Yi, 1986; Hiroshima, 1988). But anyway, it can imply the tenacity of the stem-family orientation in Japan like any country in East Asian Region. Even though there are strong currents flowing towards modernization and concomitantly industrialization and urbanization, the traditional cultural influences imbued with Confucianism and kin-orientation are so strong a force as to foster the way of life supporting an perpetuating the three-generation family mode. In the case of Japan, however, in reference to **Table 9**, substantial increase is noted for one-person households. If these one-person households are added to the nuclear-families, then what may be called "nuclear-family like" households demonstrate a clear trend of increase.

Table 9. Trends in Household Structure, by Family Type, Japan

(percent)

Year	The number of total private households (thousands)	One-person households	Nuclear family households				Other related households	Non-relative households
			Total	Husband and wife only	Husband, wife and children	One parent and children		
1960	22,231	16.1	53.0	7.3	38.2	7.5	30.5	0.3
1970	30,297	20.3	56.7	9.8	41.2	5.7	22.7	0.3
1975	33,596	19.5	59.5	11.6	42.5	5.4	20.8	0.2
1980	35,824	19.8	60.3	12.5	42.1	5.7	19.7	0.2
1985	37,980	20.8	60.0	13.7	40.0	6.3	19.0	0.2
1990	40,670	23.1	59.5	15.5	37.3	6.8	17.2	0.2
1995	43,900	25.6	58.7	17.4	34.2	7.1	15.4	0.3

Source: Statistics Bureau, Management and Coordination Agency, *Population Censuses.*

D. Three-generational Co-residentiality among the Elderly

Table 10 indicates the trends in structure of households by family type having at least one elderly person aged 65 and over. This table reveals a quite notable result since three-generation households show the largest share in percentage distribution though the proportion has long been declining. In this table, the trends are clear : (1) an increase in nuclear-family like households, including regular nuclear-family households and one-person households and (2) a gradual but fairly appreciable decline in the proportion of three-generation households.

Table 11 indicates the patterns of living arrangement among household members aged 60 and over in Japan 1995. This table presents unique data on living arrangement of the population aged 60 and over classified by five-year age group as to whether living alone, co-living with their spouses, co-living with their married children, etc. This type of data are not available by the census, but only by the sample survey by the Ministry of Health and Welfare. This table clearly shows the continuity and tenacity in the traditional mode of living arrangement in Japan. Even though the three-generation family households has steadily been declining in proportion, still 49 percent of the aged 60 years and over co-live with their children and 26 percent co-live with their married children. Furthermore, when they get older they tend to co-reside more numerously with their children, particularly with the married.

Again, the elderly coresidentiality with their children is still substantial in Japan even in late years. Nevertheless, its recent decline has been somewhat noticeable. For example, according to the 1995 survey, the percentage of elderly persons aged 60 years and over co-living with their children was 52.8%, but according to the 1998 survey, it has appreciably been reduced to 49.4%, the first time the figure having fallen below the 50% mark. On the other hand, however, it is very interesting to note that from 1995 to 1998, the percentage of the elderly aged 60 years and over co-living with unmarried children has slightly increased from 22.9 to 23.4%. For the age group 60-64 particularly, the figure has increased from 32.6 to 34.4%, not a negligible increase. This might be interpreted in such a way that their sons and daughters in marriageable ages are not getting married and establishing their own separate households elsewhere as much as and as fast as they used to be and that some of them still stay with their elderly parents.

According to the 1985 Family Life Course Survey conducted by the Institute of Population Problems (Family Life Course Survey, 1986), 52.5

Table 10. Trends in the Percentage Distribution of Households by Family Type Containing at Least One Elderly Person Aged 65 and Over. Japan. 1975-1998

(percent)

Year	Total households (thousands)	One-person households	Nuclear family households				Three-generation family households	Other types of households
			Total	Husband and wife only	Husband-wife and unmarried children	One parent and unmarried children		
1975	7,118	8.6	22.7	13.1	6.7	2.9	54.4	14.4
1980	8,495	10.7	26.7	16.2	6.7	2.8	50.1	12.5
1985	9,400	12.0	29.8	19.1	6.4	4.3	45.9	12.2
1986	9,769	13.1	29.3	18.2	6.6	4.5	44.8	12.7
1987	9,954	13.0	29.9	19.0	6.3	4.6	43.9	13.2
1988	10,225	13.7	31.5	20.0	6.7	4.8	41.7	13.1
1989	10,774	14.8	32.6	20.9	6.8	4.9	40.7	11.9
1990	10,816	14.9	33.2	21.4	11.8		39.5	12.4
1991	11,613	15.6	34.1	22.1	12.0		38.5	11.7
1992	11,884	15.7	34.9	22.8	12.1		36.6	12.8
1993	12,187	16.3	35.9	23.3	12.6		35.9	11.8
1994	12,853	16.4	36.4	24.0	12.4		34.9	12.2
1995	12,695	17.3	37.1	24.2	12.9		33.3	12.2
1996	13,593	17.4	38.6	25.0	13.6		31.8	12.2
1997	14,051	17.6	39.8	26.1	13.7		30.2	12.4
1998	14,822	18.4	40.4	26.7	13.7		29.7	11.6

Source: Department of Statistical Information, Ministry of Health and Welfare, *Kokumin Seikatsu Kiso Chosa no Gaikyo (Basic survey on People's Well-being)*, 1998, Tokyo, 1999.

Note: Before 1985, it was called Kosei Gyosei Kiso Chosa (Social Survey for Health and Welfare Administration).

Table 11. Percentage Distribution of the Household Members Aged 60 and Over by Five-Year Age Groups and Status of Co-living or Being Separated: Japan, 1998

(percent)

Age group	Total household members (thousands)	One-person households	Households of married couples, no co-living relatives	Co-living with their children			Households co-living with other relatives	Households co-living with non-relatives
				Total	Co-living with married children	Co-living with unmarried children		
60+	28,737	11.9	33.8	49.4	26.1	23.4	4.7	0.2
60−64	8,117	8.6	37.4	47.3	12.9	34.4	6.6	0.2
65−69	7,163	10.5	41.4	43.3	20.6	22.7	4.7	0.2
70−74	5,589	13.4	36.7	46.0	27.8	18.1	3.8	0.2
75−79	3,683	16.2	27.7	52.7	36.0	16.7	3.3	0.1
80+	4,185	15.0	15.1	66.0	49.9	16.2	3.6	0.3
70+	13,457	14.6	27.5	54.0	36.9	17.1	3.6	0.2

Source: Department of Statistical Information, Ministry of Health and Welfare, Kokumin Seikatsu Kiso Chosa *(Basic Survey on People's Well-being), 1998,* Tokyo, 2000.

percent of the total respondents numbering 7,708 expressed the view that if one could live in a three-generation household, he would feel happier. Then, 38.4 percent of them believed that the three-generational co-living should be a more natural and human way of living arrangement whereas only 25.2 percent of them believed that the nuclear family should be a more natural and human way of living arrangement (Institute of Population Problems, 1986). According to the recent attitudinal survey by the Management and Coordination Agency, 53.6 percent of the elderly aged 60 and over felt happier if they could live together with their children and grandchildren (Management and Coordination Agency, 1992).

However, the model of three-generational family as living arrangement particularly for the elderly may not be a perfect solution and the many problems arising from such a mode of living are already well documented. The conflict between mother and daughter-in-law is a classical one, and differences between generations are enormous in respect to taste of food, bio-rhythm, wake-up and sleeping time, susceptibility to different temperature, and more generally, way of thinking and behaving. Elderly suicide rates were reported higher among the three-generational settings rather than otherwise (Ueno, 1981). Yet, when the elderly get older and more frail or one of the elderly couple dies, then in many cases the remaining elderly person tends to give up living by himself or herself and bring their relatives in their home or join the relative's household.

In the Western as well as in the Eastern societies, many studies have pointed to the significant role that families play in caring for the elderly. Even though the society and the Government can prepare expenditure budgets to pay to the elderly a decent amount of social security installment and medical expenses, the role of the family in making a linkage between the Government and the elderly would never be lessened. While only a minority of the elderly routinely require help from others at any one time, where help is needed much of it is provided by family members, either inside or outside the household. Suppose that an old person gets physically and mentally weak and bedridden, the public assistance and institutional help together with the Government's financial aid may not be sufficient to support and maintain their decent life. In many cases the person providing support will be the spouse. However, as the support and care that required gradually become more extensive with increasing age, the more likely it is to be provided by other relatives, principally daughters or daughters-in-law. Such relatives play a role in sustaining the elderly and helping those who require assistance in preparing food, shopping, doing the laundry and

toileting.

Allan (1985) stresses in the advent of the aged society the family care increases in its cost, not only monetarily but also non-monetarily. First, the real costs of providing care can be very high. With increasing frailty, when survival chances increase in the elderly, health and medical services increase. The consequence is that the support they require fits less easily with all other activities family members normally expect to engage in. Gradually, the tending they need becomes far more demanding and time-consuming which is the equivalent of a full-time job. It becomes hard work especially for those who are themselves no longer young. Often the sons and daughters in their sixties take care of their parent in their eighties.

In this connection, it should be borne in mind that while caring for the elderly can make demands on all family members, the brunt of the burden is undoubtedly borne by women (Allan, 1985), often by daughters-in-law in Japan. In conclusion, the Japanese model above-mentioned did perhaps nicely work out when mortality was high in the middle and old ages and there were few survivors of the elderly in the stem family households. In that situation, if they survived, they were hale and strong and particularly very useful with knowledge and skills they had accumulated. But when the life expectancy has increased dramatically and there are many survivors, some of whom are infirm and bedridden, it is not sure at all how long the three-generational family household as an optional mode of living arrangement for the elderly can last and can support such onus. But, on the other hand, it is also not sure whether the present model of the West letting the elderly make their own living in the spirit of independence and self-reliance to the latest possible limit can still work nicely in the prospect of further prolongation of life expectancy in the advanced ages and increases in the age segments that is what may be called "ageing within the aged".

Summary and Discussion

The imminent arrival of aged society is recognized as inevitable in Japan, inasmuch as it is an accumulated result of long past demographic trends. Even a drastic increase in fertility which may often be of involuntary nature cannot evade a collision course of population with a forthcoming ageing society, characterized by old-age dependency and the state in which there are more elderly people than children. Certainly, the term "population ageing" has become a household word to an average citizen in Japan. Population ageing has been considered one of the most crucial demographic

and social issues facing contemporary Japan.

Contrary to the generally held notion that the prolongation of life expectancy brings about the process of population ageing, the established demographic theory teaches us that lowering fertility is the most important locomotive to reach population ageing. Usually, according to the experiences of recent demographic transition in both the developed and developing countries, increases in life expectancy have been brought up by sharp drops of mortality in infancy and childhood, rather than by mortality reductions in the middle and old-aged groups. Hence, assuming no fertility changes, an increase in life expectancy usually brings about population rejuvenation or population youthening. It is the fertility decline that changes the age profile of population. Fertility decline actually slices off the hefty population piece at the bottom of population pyramid, thus increasing proportion of the aged in the total population at the upper layers of the age profile. In recent years, however, the trend has changed slightly in such a way that mortality changes are more remarkable in the middle and elderly groups of population than in the childhood, hence mortality decline in general means to work out more directly in increasing the sheer percentage of the middle and elderly level of populations.

Many arguments have been made to the forthcoming exceedingly advanced population ageing in Japan where total fertility rate has not easily been on rise, and the population size in the future may become its incipient decline. The projected figures of future population structure do not give anybody a very rosy prospect of the future population trajectory in which the old-age dependency ratio would very definitely increase, elderly/children ratio would also increase very rapidly, while the working-age population who are the incumbent to support the social costs of the aged would definitely shrink in absolute number as well as in proportion. In view of this, one cannot help but think that the humankind is between Scylla and Charybdis in the whirlpooling strait of population, the former character symbolizing the over population and heavy youth-dependency due to high fertility and latter character indicating the ageing of population due to fertility decline and heavy old-age dependency.

What are we going to do in this context? What we must recognize is that the ageing society is a kind of invitable state of affairs derived from the process of demographic transition, the process of transformation of high birth rate and high death rate to low birth rate and low death rate. What we should do then is to prepare and formulate appropriate programmes in keeping abreast of and in being harmony with the imminent arrival of a

super-scaled ageing society. But, at the same time, we must reckon some good aspects of ageing society where the probabilities of surviving among the aged are very large, hence the investment on human resources would get the maximum returns. There are many substantial benefits to be accrued from the population ageing. It is envisaged that decrease would be seen not only in juvenile delinquency but also in general crime, violence, rape, vandalism, etc. It is also envisioned that automobile and motor-bike accidents would considerably be reduced and consequently the streets would regain tranquility and automobile insurance premium would appreciably be reduced. But let us discuss more fundamental issues relating to the demography and sociology of the nation.

There is, however, one aspect of social gains which population ageing brings to the society and its people — that is, a remarkable improvement of survivorship. Phenomenal increases in the life expectancies for males and females enable them to reach the adulthood (say, age 22 years) in the probability of 99 out of 100 births born at the same time and to complete their working life at age 65 years in the probability of 88 percent under the lowest mortality experience as seen in Japan. In the case of Japan, say, in 1935, only three-fourths of the babies born could reach adulthood and only 30 percent could attain the terminal age of working life (65 years). In Japan, the total cost of upbringing a new born baby to college graduation is now estimated approximately at US$300,000 according to the current Japanese price index and university fees until he gets a gainful job after graduation from the university. Suppose that approximately 1.5 million babies are born annually in Japan. If they have to go through the same mortality schedule as in 1935, approximately 370,000 persons would never reach age 22. Then, Japan as a whole would have lost US$111 billion since human investment of $300,000 per person could not produce any returns. There is one thing, however, one has to consider additionally–that many people die not just one day before reaching age 22; many die during the first year of life after birth long before reaching the age of college graduation, so that the nation actually does not waste $300,000 entirely for each premature death. Suppose the nation wastes only one tenth of $300,000 per young man on the average. Even on this assumption the nation would have saved, under the low mortality level as is being experienced now, about US$11 billion each year for each single-year cohort, which is not small money at all.

If that vein of calculation is extended to assess the number of person years gained throughout working ages and if their net contributions to the society are made possible by an increase in life expectancy (remember that

nowadays 88 out of 100 births survive to age 65 while only 30 had a chance of surviving in 1935), then such gains in human resources otherwise foregone by premature death would be tremendous. The gains thus accrued from the increase in life expectancy may compensate at least for a good portion of the increase in the Government's spending for bolstering the social security and medical care cost for the elderly.

At the same time, another cheer for the aged society is an expectation of abolishing century-old seniority system prevailing in Japan where the ascribed status such as sex, age, cohort, year of entrance, etc. rather than the merit of achievement and performance, determines status, reward and remuneration in social stratification.

By and large, the seniority system in social stratification has a raison d'être in a traditional broad-based population pyramid which is an outcome of high fertility and high mortality; as age increases, the next older population dwindles quickly. In such a broad-based, pyramid-shaped population, the old-age persons were of relative rarity and the chances were that only strong and wise ones survived. In a relatively slow-moving society without frequent technological innovation, skills and know-hows in productive work were cumulative and the knowledge and wisdom of old men who were scarce in number were very useful and instrumental for work, life and group solidarity. To be sure, along with the process of ageing, this bottom-wide, triangle-shaped population pyramid is transformed into a more rectangular-shaped age silhouette created by a decline in fertility and a decline in mortality in the middle-age and the elderly. In such a population, the old-aged persons are no longer rare and uncommon but plentiful and ubiquitous.

In the increasingly ageing society, the century-old social seniority system together with the patriarchal family or extended family system prevalent in Japan and elsewhere may be expected to crumble someday from the very demographic reasons along with the process of modernization, industrialization and urbanization, though it may still take a long time to take place.

It has been pointed out that many older people wish to continue working because they are still vigorous, want more money, want to establish self-reliance; and they need a sense of being wanted and a sense of being creative. But their wish to continue on working is seldom realized or seldom honoured; in fact, older people are shunned away from the productive work inasmuch as there is a stronghold of seniority system and value system in a traditional society in which ascription rather than achievement has been the criterion of selection, criterion of reward and punishment. This criterion is now under demographic pressure to change and it is a good thing.

References

Allan, Graham. 1985. *Family Life.* London: Basil Blackwell.

Banister, Judith. 1990. Implications of the Aging of China's Population. In *Changing Family Structure and Population Aging in China,* ed. Zeng Yi, Zhang Chunyuan and Peng Songjian. Beijing, China: Peking University Press.

Davis, Kingsley. 1984. Wives and Work: The Sex Role Revolution and its Consequences. *Population and Development Review,* Vol.10, No.3.

Hirosima, Kiyoshi. 1988. "Does very low fertility accelerate nuclearization? Kin availability of low fertility societies". Seminar on Theories of Family Change. IUSSP Committee on Family Demography and Life Cycle, Tokyo, 29 November-2 December 1988.

Institute of Population Problems, Ministry of Health and Welfare. 1983. *Showa 57-nen Dai 8-ji Shussanryoku Chosa (Eighth National Fertility Survey in 1982).* First Report: Nihon Jin no Kekkon to Shussan (Marriages and Births among the Japanese). Tokyo: Institute of Population Problems.

Institute of Population Problems, Ministry of Health and Welfare. 1986. *Showa 60-nendo Kazoku LIfe Course to Setaikozo Henka ni kansuru Jinkogakuteki Chosa* (Demographic Survey on Changes in the Family Life Course and Household Structure). Tokyo: Institute of Population Problems.

Institute of Population Problems, Ministry of Health and Welfare. 1988. *Showa 62-men Dai 9-ji Shussanryoku Chosa (Ninth National Fertility Survey in 1987).* First Report: Nihon Jin no Kekkon to Shussan (Marriages and Births among the Japanese). Tokyo: Institute of Population Problems.

Institute of Population Problems, Ministry of Health and Welfare. 1992. *Nihon no Shorai Suikei Jinko: Heisei 4-nen 9-gatSu Suikei (Population Projections for Japan).* Tokyo: Institute of Population Problems.

Institute of Population Problems, Ministry of Health and Welfare 1993. *Heisei 4-nen Dai-10kai Shussho Doko Kihon Chose; Dai-ichi Hokokusho: Nihonjin no Kekkon to Shussan (The Tenth Japanese National Fertility Surveg, Vol. I: Marriage and Fertility).* Tokyo, Institute of Population Problems.

Institute of Population Problems, Ministry of Health and Welfare. 1995. *Jinko Tokei Shiryoushu 1995 (Latest Demographic Statistics, 1995).* Tokyo: Institute of Population Problems.

Kitagawa, Evelyn. M. 1955. Components of a Difference between Two Rates. *Journal of American Statistical Association,* Vol.50 (December), pp. 1168-1174.

Kono, Shigemi, 1969. Changes in Household and Family Structure in Japan. *IUSSP International Population Conference*, London, 1969, Vol.3, pp. 2223-2233.

Kono, Shigemi, 1989. Population Structure. *Population Bulletin of the United Nations*, No.27. New York: United Nations. ST/ESA/SER.N/27.

Kono, Shigemi and Shigesato Takahashi. 1985. Mortality Trends in Japan: Why Has the Japanese Life Expectancy Kept on Increasing. Paper prepared for the International Population Conference, Florence, 1985, June 5-12, International Union for the Scientific Study of Population.

Management and Coordination Agency. 1992. *Rojin no Seikatsu to Ishiki (LIfe and Attitude of the Elderly).* A Report on International Comparative Report on People's Public Opinion, Tokyo.

National Institute of Population and Social Security Research, 1997. *Population Projections for Japan: 1996-2100.*

National Institute of Population and Social Security Research, 1997. *Latest Demographic Statistics,* 1997.

National Institute of Population and Social Security Research, 1998. *Dai 11-kai Shussho Doko Kihon Doko Kihonchosa (The Eleventh Japanese National Fertility Survey in 1997)*, Vol.1, Tokyo.

National Institute of Population and Social Security Research, 1998. *Nihon no Setaisu no Shorai Suikei (Projections of Households for Japan): 1995-2000.* Tokyo.

Office of the Prime Minister, Public Relations Office. 1985. *Public Opinion Survey on Education Issues* (Academic Career). February.

Statistics Bureau, Management and Coordination Agency. 1996. *Heisei 7-nen Kokuseichosa Chushitsu Sokuho Shukkei Kekka (Quick Report on One-percent Sample Tabulations of the 1995 Population Census).* Tokyo : Statistics Bureau.

Ueno, Masahiko, 1981. Suicide of the elderly. *Medical Journal of Nihon University* (Tokyo), Vol.40, No.10 (October) (in Japanese).

United Nations. 1956. *The Aging of Populations and its Economic and Social Implications.* New York: United Nations. Population Studies, No.26.

United Nations Population Division. 1969. Analysis and Projections of Households and Families. German Foundation for Developing Countries and Federal Statistical Office of Germany, *Population Data and Use of Computers with Special Reference to Population Research,* Berlin and Weesbaden.

United Nations, 1996. *World Population Prospects: The 1996 Revision.* Annex II&III.

Weinsten, Maxine, Te-Hsiung Sun, Ming-Cheng Chang and Ronald Freedman. 1990. Household Composition, Extended Kinship, and Reproduction in Taiwan: 1965-1985. *Population Studies*, Vol.44, No.2 (July), pp.217-239.

Zeng, Yi, 1986. Changes in Family Structure in China: A Simulation Study. *Population and Development Review.* Vol. 12, No.4 (December). pp.675-703.

PART II

Aging in Sub-national Populations

Atsushi OTOMO
Professor
Department of Studies
on Contemporary Society
Japan Women's University

1. Population Aging in Different Prefectures

Population aging is much more serious in remote sub-national areas, or local areas, than for the whole nation. According to the 1995 national population census returns, the prefecture of *Shimane*, locating in the western part of *Honshu* island, showed the highest (21.7%) in the percentage of the total population in the elderly ages of 65 and over, of which national average was 14.8 %, among 47 prefectures. Also, the prefecture of *Kochi*, in the southernmost part of *Shikoku* island, indicated the second highest (20.6 %). Also, *Yamagata* and *Akita*, the prefectures located at the northern part of *Honshu* island, as well as the prefecture of *Kagoshima* situating in the southernmost of *Kyushu* island indicated slightly less than 20 percent,

although the most remote island prefecture of *Okinawa* presented rather low percentage (11.7 %). On the other hand, prefectures constituting a part of a metropolitan area presented a rather low percentage in the population at the elderly ages. *Saitama*, *Kanagawa*, *Chiba* and *Tokyo*, those which prefectures constituted the *Tokyo* metropolitan area, showed 10 % to 13 %, whereas *Aichi* and *Osaka*, other metropolitan prefectures showed 11.9 % respectively. **(Table 1)**

According to the **Figure 1** presenting the prefectures with higher percentage of the total population in the ages of 65 and over than the national average in time-series, similar patterns may be observed from 1970 to 1990. Therefore, it can be said that discrepancy in the percentage of the total population in the elderly ages between 47 prefectures had been kept for the period of 1970 to 1990. However, in 1995, it was altered due to expansion of the areas, where the percentage of total population in the elderly exceeded the national average, to *Aomori* and *Hokkaido*, etc. **Figure 2**, depicting time serial change in the coefficients of variation for the percentage of the total population in the elderly ages, explains that such discrepancy was largest in 1970 and thereafter it had decreased. Therefore, it is known that population aging has expanded spatially in recent years.

Differences in the degree of population aging between 47 prefectures, are observed in other indices. Aged dependency ratio, or the ratio of the population at the ages of 65 and over against 100 persons at the ages of 15 to 64, as of 1995 recorded the highest for *Shimane* (35.0) among 47 prefectures. Following after *Shimane*, the remote rural prefectures of *Kochi*, *Kagoshima*, *Akita*, *Yamagata*, and *Tottori* showed higher than 30. On the other hand, the metropolitan prefectures of *Saitama*, *Kanagawa*, *Chiba*, *Tokyo*, *Aichi*, *Osaka* and *Nara*, and *Okinawa*, the most remote island prefecture, indicated lower than 20.0. Also, other metropolitan prefectures such as *Ibaraki*, *Tochigi*, *Gumma*, *Gifu*, *Mie*, *Shiga*, *Kyoto*, and *Hyogo* showed lower than 25, although the national average was 21.0. Therefore, much clearer pattern of discrepancy in the degree of population aging between metropolitan or urban prefectures and rural prefectures was observed in the aged dependency ratio than in the percentage of total population in the elderly ages as of 1995 **(Table 1)**.

Also, somewhat different aspect of pattern of discrepancy in the degree of population aging between 47 prefectures can be observed using the elderly-child ratio, or the ratio of the elderly population aged 65 and over against 100 children aged less than 15. In 1995 when the ratio showed 91.2 for the nation, 22 prefectures, including *Tokyo*, among 47 prefectures

Table 1. Indices of Aging by Prefectures, 1995

	Percent in Elderly	Aged Dependency	Elderly-child Ratio		Percent in Elderly	Aged Dependency	Elderly-child Ratio
Japan	**14.5**	**20.9**	**91.2**	Mie	16.1	24.0	97.9
Hokkaido	14.8	21.4	94.0	Shiga	14.1	20.7	78.5
Aomori	16.0	23.9	93.8	Kyoto	14.7	21.0	99.2
Iwate	18.0	27.6	106.8	Osaka	11.9	16.3	79.3
Miyagi	14.5	21.2	85.6	Hyogo	14.1	20.3	86.8
Akita	19.6	30.2	125.9	Nara	13.9	19.8	85.3
Yamagata	19.8	31.1	119.3	Wakayama	18.1	27.6	111.3
Fukushima	17.4	26.9	97.4	Tottori	19.3	30.3	112.3
Ibaraki	14.2	20.6	82.8	Shimane	21.7	35.0	132.1
Tochigi	14.8	21.7	86.4	Okayama	17.4	26.2	107.4
Gumma	15.6	23.0	95.0	Hiroshima	15.8	23.3	97.8
Saitama	10.1	13.7	62.5	Yamaguchi	19.0	29.0	123.0
Chiba	11.2	15.4	71.2	Tokushima	18.9	29.1	118.8
Tokyo	13.0	17.6	102.1	Kagawa	18.2	27.5	115.6
Kanagawa	11.0	14.9	73.7	Ehime	18.5	28.4	113.5
Niigata	18.3	28.0	111.9	Kochi	20.6	32.2	133.5
Toyama	17.9	26.8	118.4	Fukuoka	14.8	21.5	89.4
Ishikawa	16.2	23.9	100.6	Saga	17.8	27.8	98.1
Fukui	17.7	27.2	104.4	Nagasaki	17.7	27.5	98.6
Yamanashi	17.1	25.8	103.5	Kumamoto	18.3	28.5	106.1
Nagano	19.0	29.3	117.3	Oita	18.6	28.6	114.0
Gifu	15.3	22.5	92.7	Miyazaki	17.4	26.8	96.9
Shizuoka	14.8	21.6	89.4	Kagoshima	19.7	31.6	110.6
Aichi	11.9	16.6	73.1	Okinawa	11.7	17.6	52.8

Source: Japan Bureau of Statistics, 1995 Population Census of Japan

recorded higher than 100 in the elderly-child ratio. As no prefecture indicated 100 or higher in the ratio in 1990, the degree of population aging was intensified drastically and in wider spatial range during this five year period. Among 22 prefectures with higher than 100 in the ratio as of 1995, *Kochi* prefecture showed the highest (133.5). Following after *Kochi*, the prefectures of *Shimane*, *Akita*, *Yamaguchi*, *Yamagata*, *Tokushima*, *Toyama*, *Nagano* and *Kagawa* recorded higher than 115. Above all, it should be noted that *Tokyo* metropolitan prefecture presented 102 in the ratio (**Table 1**).

A sharp contrast in the age structures of population between metropolitan or urban prefecture and rural prefecture, observed in the population pyramids as of 1995 for *Saitama* prefecture with the lowest percentage for the elderly and for *Shimane* prefecture with the highest percentage, may depict in detail the difference in the degree of population aging (**Figures 3** and **4**).

Figure 1. Prefectures Presenting Percent in Elderly Which Exceeds National Average

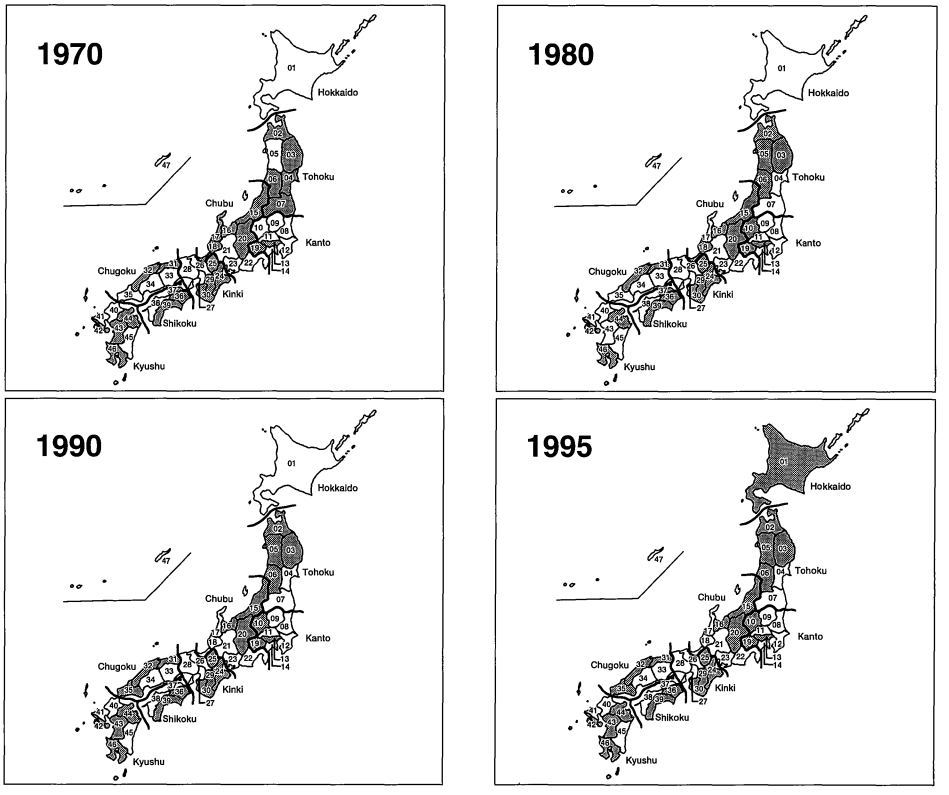


Figure 2. Time-serial Change of Coefficient of Variation for Percent in Elderly, 1950-1995

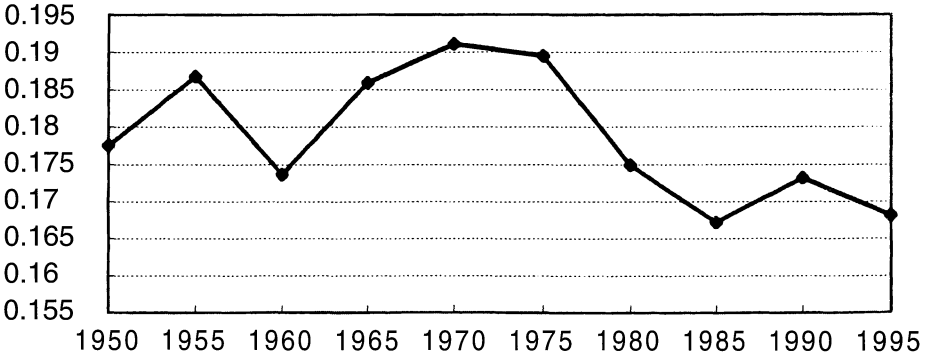


Figure 3. Population Pyramid of Shimane, 1955

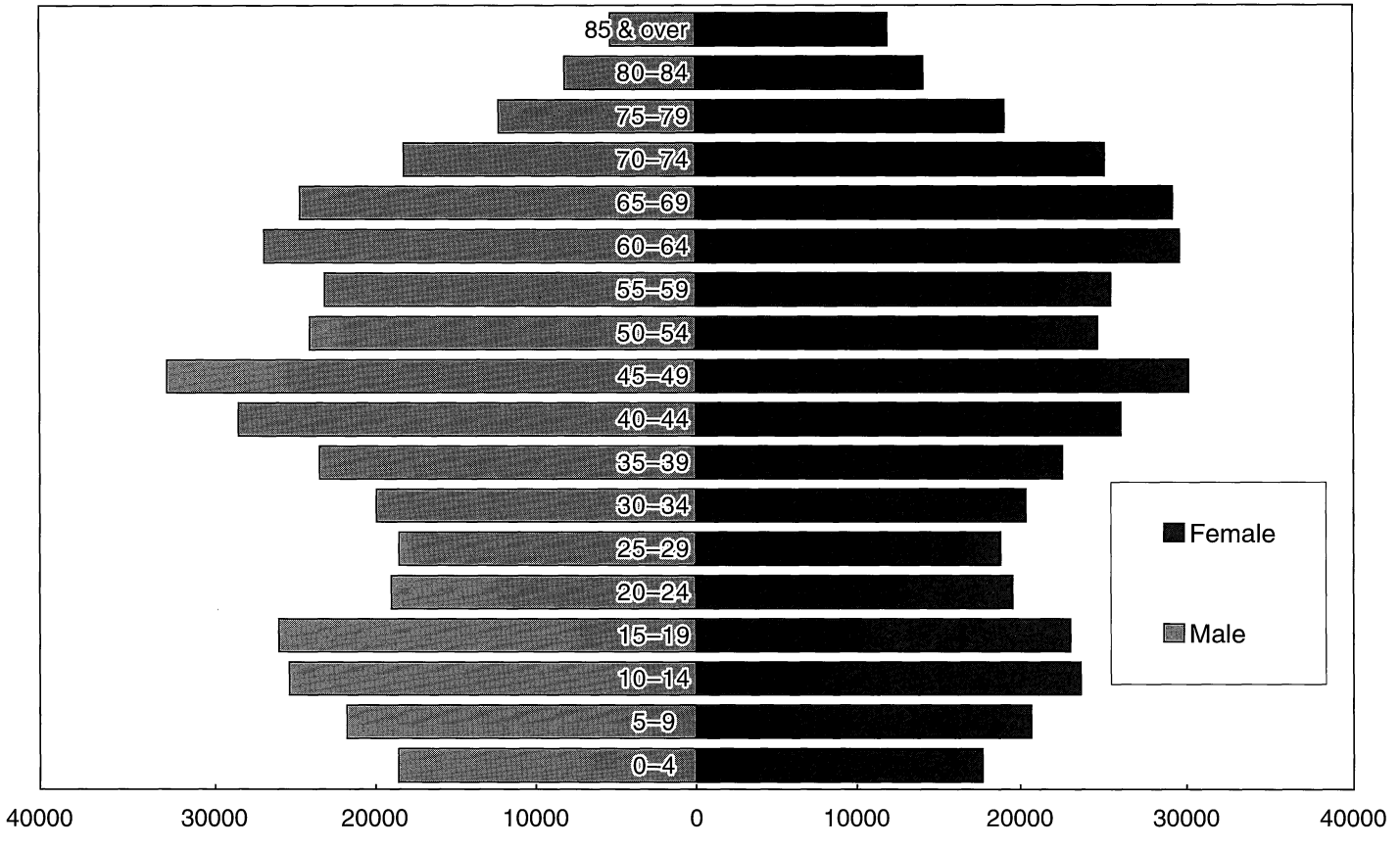
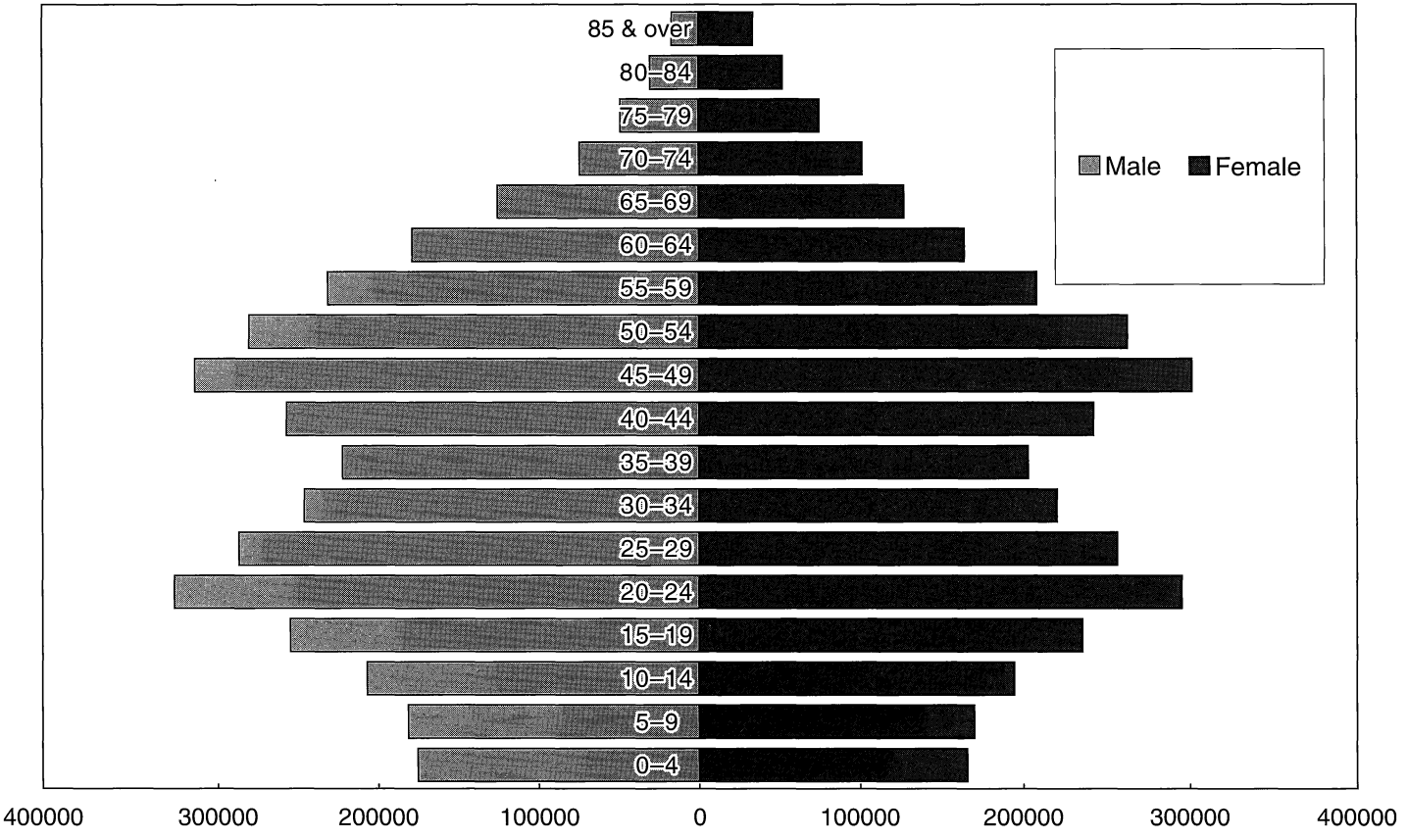


Figure 4. Population Pyramid of Saitama, 1955



2. Population Aging in Different Municipalities

Differences in the degree of population aging between the municipalities of *shi*, *machi* or *cho*, and *mura* or *son*, delineated within a prefecture, are much more distinguishable than those in prefectures (**Table 2**). Among 3,233 municipalities, 1,729 municipalities, accounting for 53.5 % of the total, indicated larger than 20.0 %, 245 municipalities accounting for 10.5 % showed larger than 30.0 %. Above all, *Towa-cho (machi)*, *Yamaguchi* prefecture presented the highest percentage of total population in the ages of 65 and over (47.4 %) in 1995 (**Table 3**). Excluding for *Towa-cho (machi)*, eight municipalities recorded larger than 40.0 % in the percentage (**Table 2**). On the other hand, 123 municipalities, or only 3.8 % of the total, indicated smaller than 10.0 %. Among those municipalities, *Urayasu-shi*, *Chiba* prefecture adjacent to *Tokyo* metropolitan prefecture showed the smallest percentage (5.7 %) (**Table 3**). Therefore, it is obvious that most of the municipalities experienced a remarkable extent of population aging in 1995. Distinct contrast in the age structures of populations between the eldest and

Table 2. Number of Shi, Machi, and Mura by Percent of Total Population in the Elderly at the Ages of 65 and over, 1995-2025, Japan

	1995	2000	2005	2010	2015	2020	2025
Total	3223	3223	3223	3223	3223	3223	3223
Under 10%	123	30	14	14	14	13	20
10-19%	1371	992	820	548	252	188	162
20-29%	1484	1615	1554	1667	1536	1274	1156
30-39%	236	520	707	826	1130	1266	1254
40-49%	9	73	121	154	258	400	505
50% and over	0	3	17	24	43	92	136
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 10%	3.8	0.9	0.4	0.4	0.4	0.4	0.6
10-19%	42.5	30.7	25.4	17.0	7.8	5.8	5.0
20-29%	46.0	50.0	48.1	51.6	47.5	39.4	35.8
30-39%	7.3	16.1	21.9	25.5	35.0	39.2	38.8
40-49%	0.3	2.3	3.7	4.8	8.0	12.4	15.6
50% and over	0.0	0.1	0.5	0.7	1.3	2.8	4.2

Source: Statistical Information Institute for Consulting and Analysis, Projections of Future Populations by Shi, Ku, Machi and Mura, 1997

Table 3. Highest 10 and Lowest 10 in the Percent of Total Population in the Elderly Aged 65 and Over, 1995.

Rank	Municipality	Population	Percent
	(Highest 10)		
1	Towa-cho(machi), Yamaguchi	5,775	47.4
2	Kiwa-cho(machi), Mie	1,810	44.3
3	Sekizen-mura, Ehime	1,009	44.2
4	Ashikawa-mura, Yamanashi	651	43.0
5	Hasumi-mura, Shimane	2,304	41.3
6	Hayakawa-cho(machi), Yamanashi	1,977	41.3
7	Ikegawa-cho(machi), Kochi	2,641	40.5
8	Oura-cho(machi), Kagoshima	3,236	39.9
9	Yanagitani-mura, Ehime	1,509	39.8
10	Ouoka-mura, Nagano	1,602	39.7
	(Lowest 10)		
1	Urayasu-shi, Chiba	123,654	5.7
2	Misato-shi, Saitama	133,600	6.5
3	Tsurugashima-shi, Saitama	66,208	6.8
4	Nagakute-cho(machi), Aichi	38,490	7.2
5	Ogasawara-mura, Tokyo	2,809	7.3
6	Yashio-shi, Saitama	75,322	7.4
7	Urasoe-shi, Okinawa	96,002	7.5
8	Shiroi-machi, Chiba	47,450	7.5
9	Oi-machi, Saitama	39,604	7.5
10	Toda-shi, Saitama	97,571	7.6

Source: Japan Bureau of Statistics, 1995 Population Census of Japan

the lowest municipalities (*Towa-cho* and *Urayasu-shi*) in the percentage in the elderly can be recognized in the **Figures 5** and **6**.

In Japan *shi* areas, or the areas consisting of *shi* municipalities are regarded nominally as urban areas, while *gun* areas, or those of *machi* or *cho* and *mura* or *son* municipalities are regarded as rural areas. In 1995, the percentage of total population in the elderly ages of 65 and over recorded 19.0 % for *gun* areas against 13.7 % for *shi* areas. The aged dependency ratio as of 1995 presented 29.6 for *gun* areas against 19.3 for *shi* areas. Also, the elderly-child ratio in the corresponding year showed 112.8 for *gun* areas against 87.2 for *shi* areas.

In addition, DIDs, or Densely Inhabited Districts delineated substantially as urban areas for statistical purpose, indicated 12.5 % of total population in the elderly ages, whereas non-DIDs, or the areas not included in DIDs, did 18.3 % in 1995. Also, the aged dependency ratio in the cor-

Figure 5. Population Pyramid of Towa-cho(machi), Yamaguchi, 1955

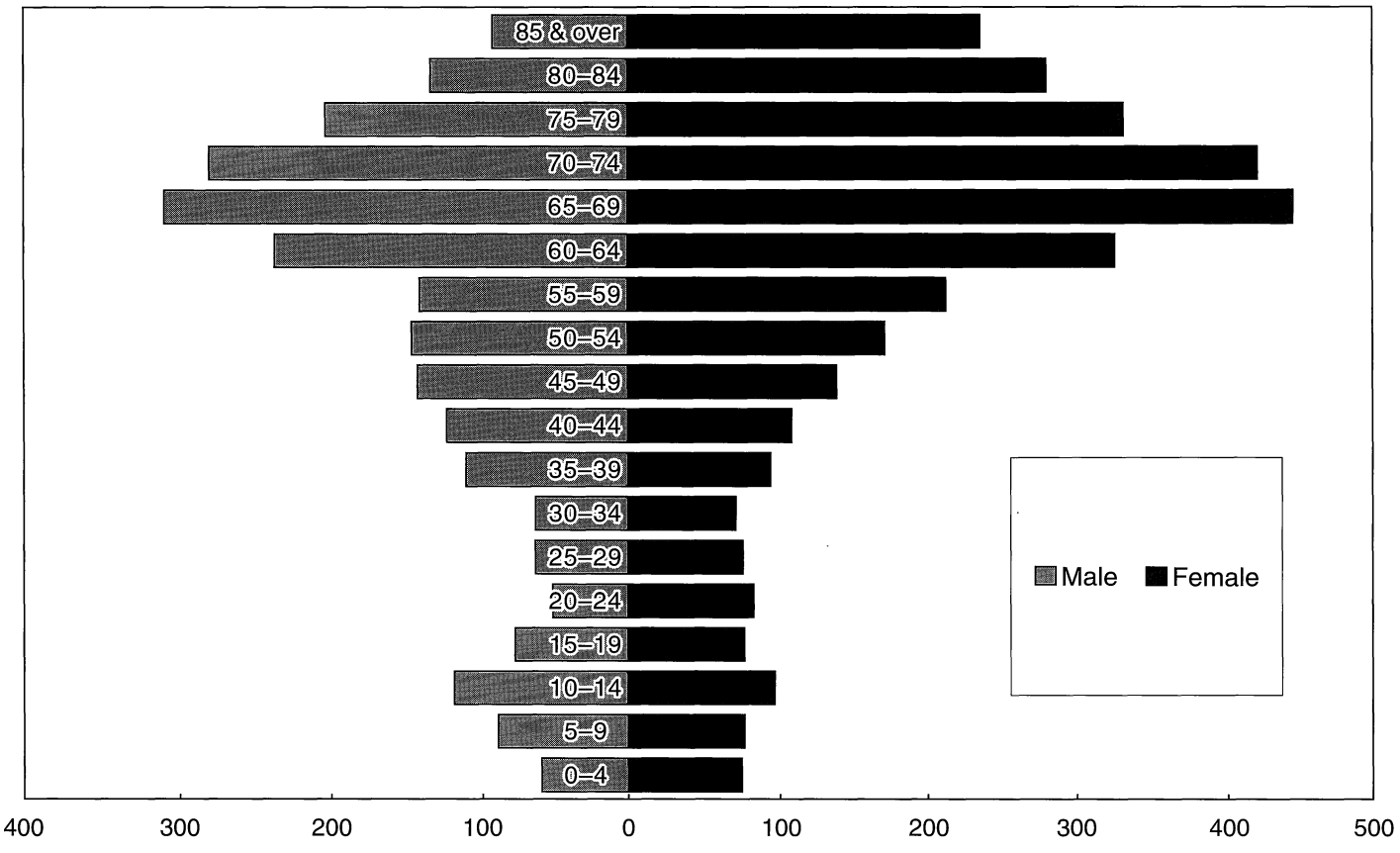
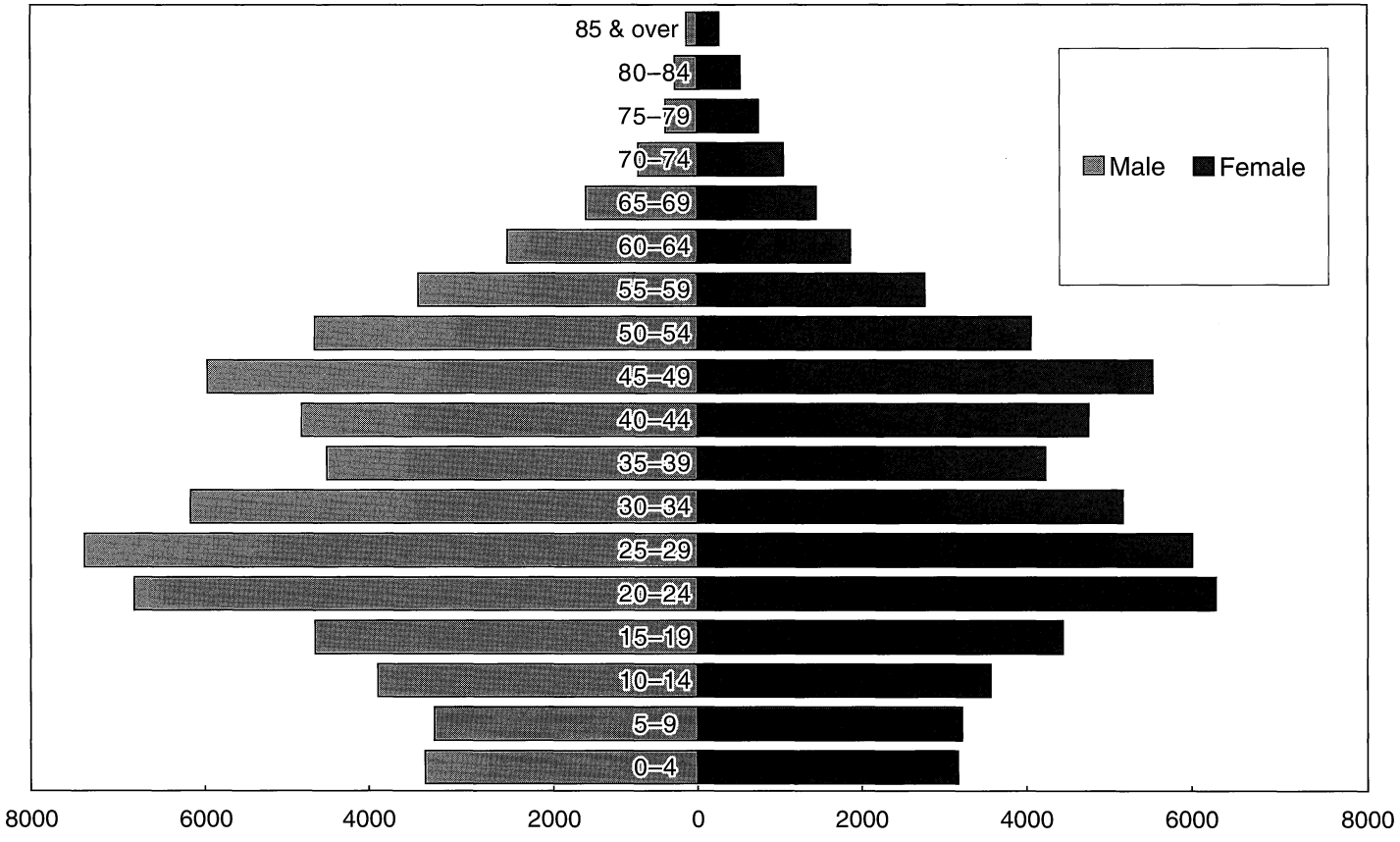


Figure 6. Population Pyramid of Urayasu-shi, Chiba, 1955



responding year presented 17.4 for DIDs and 28.1 for non-DIDs. On the other hand, the elderly-child ratio in the corresponding year showed 81.0 for DIDs and 108.6 for non-DIDs. From those findings described above, therefore, it is implied obviously that the degree of population aging is much more significant in rural areas than in urban areas.

Observing **Table 4**, it is known that the extent of population aging is almost anti-proportional to the size of municipality. According to the Table, the percentage of total population in the elderly ages of 65 and over as of 1990 recorded 21.8 % for the municipalities with less than 5,000 inhabitants and it decreased gradually with the increase of population size of municipality. And, it showed the lowest of 9.3 % for the municipalities with the population between 500,000 or more and less than 1,000,000, although it indicated a higher percentage (10.5 %) for the large cities, or the municipalities with more than 1,000,000 inhabitants.

Also, according to **Table 5** presenting the indices of population aging for 13 large cities, the percentage of total population in the elderly ages of 65 and over as of 1995 was the highest (15.8 %) for *Kitakyushu* while it was the lowest (9.4 %) for *Chiba*. Among 13 cities, only *Kitakyushu* showed higher percentage than the national average. The aged dependency ratio recorded more than 20 for *Kitakyushu* and *Kyoto*. However, the elderly-child ratio exceeded 100 for four cities of *Tokyo*, *Kyoto*, *Osaka* and *Kitakyushu*. Above all, it should be noted that it indicated 114 for *Tokyo*.

The fact that a little higher extent of population aging is recognized in the large cities having one million or more inhabitants than in the cities with the population of less than one million suggests another aspect of population aging in the large cities, which may be somehow different from the aspect in the smaller cities. **Table 6** may give one of the concrete implications for the suggestion described above. According to the Table, presenting the indices of population aging for each zones delineated by radii increasing at every 10 km from the metropolitan center, respectively for the metropolises of *Tokyo*, *Osaka* and *Nagoya*, it can be found that the degree of population aging is higher in the central part and in the remorter peripheral zones than in their intermediate zones within a metropolitan area.

Table 4. Indices of Aging by Population Size of Municipality, 1990

Population Size of Municipality	Percent in Elderly	Aged Dependency	Elderly-Child Ratio
	12.0	17.3	66.2
1000,000 or more	10.5	14.5	66.0
500,000-999,999	9.3	12.9	50.2
300,000-499,999	10.2	14.3	55.1
200,000-299,999	10.6	15.1	57.1
100,000-199,999	10.4	14.7	56.7
50,000- 99,999	11.5	16.7	60.2
40,000- 49,999	13.0	19.3	65.2
30,000- 39,999	13.3	19.8	68.8
20,000- 29,999	14.5	22.0	75.2
10,000- 19,999	16.1	24.9	85.2
5,000- 9,999	18.7	29.7	101.8
Less than 5,000	21.8	35.6	129.5

Source: Japan Bureau of Statistics, 1990 Population Census of Japan

Table 5. Indices of Aging for 13 Large Cities, 1995

Cities	Total Pop. (1000)	Percent in Elderly	Aged Dependency	Elderly—Child Ratio
Tokyo	7,968	13.8	18.6	114.4
Yokohama	3,307	11.0	14.9	74.2
Osaka	2,602	14.1	19.5	104.0
Nagoya	2,152	12.7	17.7	83.8
Sapporo	1,757	11.6	15.9	74.2
Kyoto	1,464	14.7	20.5	106.6
Kobe	1,424	13.5	19.1	86.3
Fukuoka	1,285	11.1	15.2	69.2
Kawasaki	1,203	10.0	13.3	69.3
Hiroshima	1,109	11.9	16.7	71.7
Kitakyushu	1,020	15.8	22.9	102.5
Sendai	971	10.8	14.8	66.1
Chiba	857	9.4	12.5	62.2

Source: Japan Bureau of Statistics, 1995 Population Census of Japan

Table 6. **Indices of Aging by Distance from Metropolitan Center, 1995**

	Percent in Elderly	Aged Dependency	Elderly-Child Ratio
Tokyo	**11.5**	**15.6**	**78.6**
0-10 km	15.3	20.8	139.7
10-20 km	11.4	15.2	83.6
20-30 km	9.9	13.2	65.7
30-40 km	10.2	13.7	66.3
40-50 km	11.6	16.0	73.3
50-60 km	12.7	18.0	74.8
60-70 km	15.5	22.8	93.9
Osaka	**12.6**	**17.5**	**82.0**
0-10 km	13.1	18.0	93.6
10-20 km	11.1	15.1	71.4
20-30 km	11.7	16.2	73.7
30-40 km	12.7	17.9	77.5
40-50 km	14.7	21.0	94.7
Nagoya	**12.3**	**17.3**	**75.1**
0-10 km	12.7	17.6	85.2
10-20 km	10.8	14.8	65.6
20-30 km	10.9	15.1	62.5
30-40 km	13.5	19.3	79.6
40-50 km	15.7	23.4	93.4

Source: Japan Bureau of Statistics, 1995 Population Census of Japan

3. Elderly Households in Different Prefectures

Population aging affects its household structure. As already mentioned, in keeping pace with extension of population aging, the household structure has changed as well as the number of the households with elderly has increased. In addition, differences in degree of population aging between prefectures have brought different aspects of household structure between prefectures. The percentage of total households in the elderly households, or the households with the elderly of 65 and over presented 29.1 % in 1995. Among 47 prefectures *Yamagata* indicated the highest (47.1 %). Including *Yamagata*, the prefectures of *Shimane*, *Akita*, *Tottori*, *Toyama*, *Fukui*, *Niigata* and *Saga*, those which are located along the coast of Japan Sea excluding *Saga*, presented larger than 40 %. On the other hand, *Tokyo* metropolitan prefecture showed the smallest (21.1 %). The prefectures

constituting metropolitan areas such as *Saitama*, *Chiba*, *Kanagawa*, *Aichi* and *Osaka*, including *Tokyo*, presented less than 25 % (**Table 7**) .

Classifying the elderly households into "one-person households", "nuclear-family households", "other relative households"and "non-relative households", the proportion of the number of other relative households, most of those which are three-generation households, among the elderly households showed 42.3 % for the nation in 1995. Between 47 prefectures, *Yamagata* presented the largest (65.1 %), while *Kagoshima* showed the proportion in the number of the one-person households, which showed 17.2 % for the nation in 1995, depicts similar pattern as in that of the nuclear-

Table 7. Household Composition by Family Status, 1995

Prefectures	% of General Households in Elderly Households	% of Elderly Households in Nuclear Family Households	% of Elderly Households in Other Households	% of Elderly Households in One-person Households	Prefectures	% of General Households in Elderly Households	% of Elderly Households in Nuclear Family Households	% of Elderly Households in Other Households	% of Elderly Households in One-person Households
Japan	**29.1**	**40.4**	**42.3**	**17.2**	Mie	34.9	35.0	49.6	15.3
Hokkaido	26.6	47.8	31.2	21.0	Shiga	32.7	30.1	58.4	11.4
Aomori	34.5	33.2	52.4	14.3	Kyoto	28.7	42.3	37.0	20.6
Iwate	38.7	32.1	55.8	12.0	Osaka	23.4	47.0	29.0	23.9
Miyagi	30.2	33.1	55.5	11.4	Hyogo	29.3	42.8	37.7	19.3
Akita	43.9	30.2	58.2	11.5	Nara	30.5	36.6	48.4	14.9
Yamagata	47.1	26.1	65.1	8.8	Wakayama	38.1	40.0	39.4	20.8
Fukushima	38.8	31.5	57.0	11.4	Tottori	42.9	30.7	54.9	14.3
Ibaraki	31.4	32.7	56.6	10.6	Shimane	45.7	33.4	51.2	15.3
Tochigi	32.6	32.1	56.8	11.0	Okayama	35.2	37.0	45.9	17.0
Gumma	33.2	37.4	49.6	12.8	Hiroshima	30.3	42.5	36.7	20.7
Saitama	21.2	42.7	44.7	12.5	Yamaguchi	36.2	43.1	35.2	21.6
Chiba	22.9	41.7	44.5	13.6	Tokushima	38.3	34.8	48.0	17.1
Tokyo	22.4	51.7	24.3	23.8	Kagawa	36.8	36.7	46.1	17.1
Kanagawa	21.1	49.6	33.3	16.9	Ehime	35.7	42.9	35.6	21.4
Niigata	41.0	30.3	59.8	9.9	Kochi	38.0	43.5	31.1	25.3
Toyama	41.4	28.1	61.5	10.4	Fukuoka	28.5	43.2	36.1	20.6
Ishikawa	33.9	31.0	55.4	13.5	Saga	40.1	32.9	52.7	14.4
Fukui	41.4	27.2	61.3	11.5	Nagasaki	35.6	42.0	36.5	21.4
Yamanashi	36.2	38.1	47.9	14.0	Kumamoto	37.2	37.8	44.4	17.7
Nagano	39.9	35.6	52.0	12.3	Oita	36.4	39.7	40.2	20.0
Gifu	35.1	30.5	58.2	11.2	Miyazaki	33.3	45.1	32.3	22.5
Shizuoka	32.0	33.6	54.9	11.4	Kagoshima	35.7	49.9	19.0	31.1
Aichi	24.9	37.3	48.1	14.5	Okinawa	25.1	46.4	32.8	20.6

Source: Japan Bureau of Statistics, 1995 Population Census of Japan

family households. That is, *Kagoshima* recorded the largest (31.1 %) while *Yamagata* presented the smallest (8.8 %). Following after *Kagoshima*, the metropolitan prefectures of *Osaka* and *Tokyo* as well as the remote rural prefectures located in southwestern part of Japan such as *Kochi*, *Miyazaki*, *Yamaguchi*, *Ehime* and *Nagasaki*, etc. including *Kagoshima*, indicated larger proportion of more than 20 %. On the other hand, those prefectures situating in the northeastern part including *Yamagata* and in the middle part (*Tokai* region) of *Honshu* island recorded smaller proportion **(Table 7)**.

4. Migration and Population Aging

Population aging in Japan has been brought due to low fertility and low mortality, as explained in the previous chapter. Analyzing the relationship between the degree of aging, or the percentage of total population in the elderly, and the degree of fertility, or total fertility rate, and that between the degree of aging and the degree of mortality, or female life expectancy at birth, among 47 prefectures being based on the data as of 1990, it was found that both of the relationships were not significant because the correlation coefficient was 0.46 for the former while it was -0.22 for the latter. On the contrary, it was recognized that correlation between the degree of aging and the degree of migration, or net migration rate for 1985-1990, was higher (0.64) than those for the correlations of aging with fertility and mortality. Therefore, it can be explained that the differences of population aging among sub-national areas such as prefectures and municipalities are caused mostly by migration.

Also, as seen in **Figures 7** and **8** showing age-specific migration rates for *Saitama*, the youngest prefecture, and for *Shimane* , the eldest prefecture in the degree of population aging, among 47 prefectures, the rates of not only inmigration but also outmigration by ages are depicted in the similar pattern showing the highest at the young adult ages of 20-24 or 25-29 and lower with increasing or decreasing age except for the elderly or the child ages, which present higher than for the former or the later ages. However, the inmigration rates are higher than the outmigration rates by each ages for *Saitama*, while the inmigration rates are lower than the outmigration rates by almost each ages for *Shimane* where the outmigration rate at the ages of 20-24 presents extremely high.

Those findings described above imply that the inmigration is larger

Table 8. Chief Reasons for Elderly Migration in Sapporo City, 1997

Chief Reason to Migrate	inmigrants	Outmigrants	Movers within City
Total	100.0	100.0	100.0
Job	7.2	8.4	2.2
Retirement	6.2	3.8	4.6
Housing	9.8	21.4	37.4
Separation from family	2.9	3.7	3.5
Widowed or divorced	6.1	3.7	2.4
Residing with family	21.3	22.1	6.1
Residing near family	15.0	9.6	5.4
Taking care of family	1.4	2.1	0.7
Being taken care	6.9	4.7	1.2
Entering nursery home	3.6	7.6	20.8
Illness	6.4	4.2	2.9
Hospitalization	3.4	1.2	2.6
Others[1)]	9.8	7.5	10.2

1) includes "no reply"
Source: JARC, Report on Elderly Migration Survey in Sapporo City

than the outmigration in the prefecture with younger age structure, while the outmigration is larger than the inmigration with the prefecture with older age structure. In particular, the differences between both migartions are very large at the young adult ages. From those implications mentioned above, it can be explained that the serious ageing phenomena in remote rural areas such as *Shimane*, *Kochi*, *Kagoshima* and *Yamagata*, etc. or in the central part of a large city or a metropolitan area such as *Tokyo*, *Osaka* or *Nagoya* were brought by heavy exodus of young adult population to urban or metropolitan prefectures or to the adjacent suburban areas.

In addition, another aspect of migration with relation to population aging should not be neglected. Observing precisely **Figure 8**, it can be known that the rates of both inmigration and outmigration declines sharply after the young adult ages but they tend to increase after the ages of 55-59 or around. Such tendency has been recognized throughout the nation since 1980 (Otomo, 1992). Particularly, it is distinguishable for a large city or for a metropolitan area such as *Tokyo*, *Osaka* or *Nagoya*. Such relatively high mobility of the elderly people may be explained mainly by the reasons of reunion of the elderly from a remote rural area invited to reside together with his or her family or of being taken care in a nursery home or a hospital, from the findings derived from the returns of the surveys taken by JARC (1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998 and 1999). **Table 8** presents the main reasons of the elderly migration derived from the returns

Figure 7. Migration Rates by Ages, for Shimane, 1985-1990

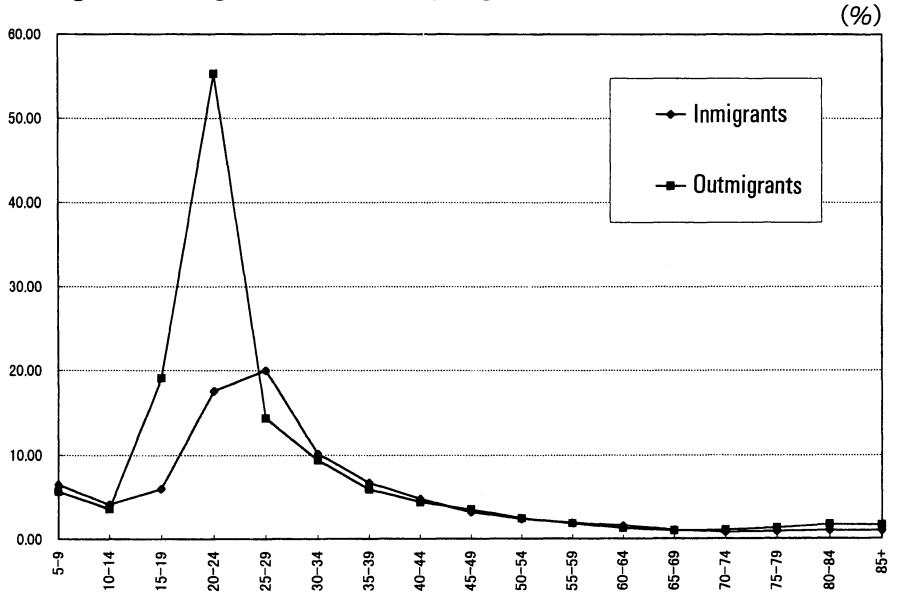
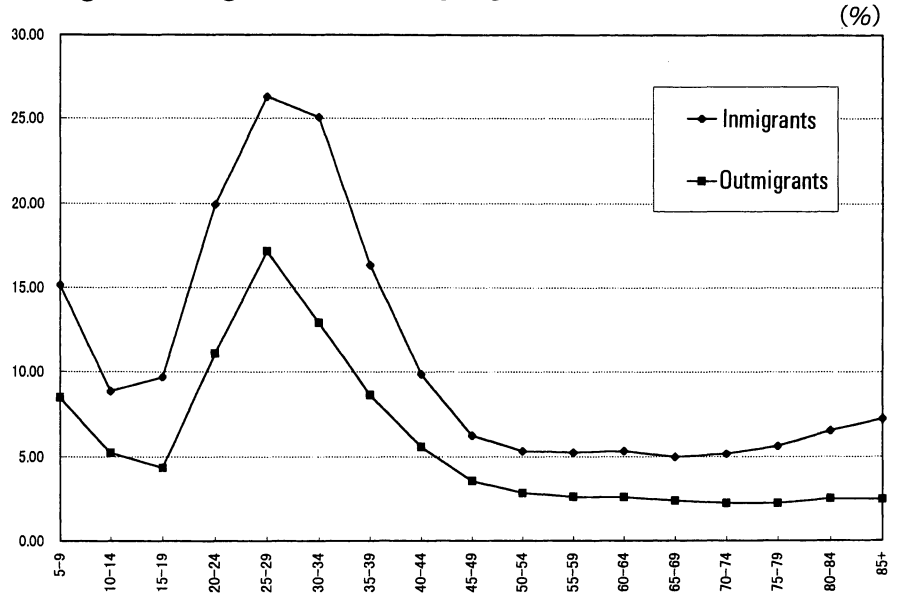


Figure 8. Migration Rates by Ages, for Saitama, 1985-1990



of the recent survey by JARC (1996) in *Chiba-city*, one of the leading suburban cities within *Tokyo* metropolitan area.

5. Future Trends of Population Aging in Sub-national Areas of Japan

According to the projections of future populations by prefectures made in 1997 by National Institute of Population and Social Security Research (**Table 9**), the percentage of total population in the elderly ages of 65 and over will exceed 20.0 % for all of 47 prefectures except for *Okinawa* in 2015 when it will present 25.2 % for the nation, under the assumption that the age-specific rates of fertility, mortality and net-migration for the period of 1990 to 1995 will not be unchanged for the future. Also, among 47 prefectures, *Yamaguchi*, where it was 22.3% in 1995, will indicate the highest (30.7 %), while *Okinaw*a ,where it was 13.9% in 1995, will record the lowest (19.1 %). In addition to *Yamaguchi*, the remote rural prefectures of *Kochi*, *Akita* and *Shimane* will record higher than 30.0 %, on the other hand the metropolitan or urban prefectures of *Shiga*, *Saitama*, *Miyagi*, *Ibaraki*, *Tochigi*, *Kanagawa*, *Yamanashi*, *Aichi*, *Fukuoka* and *Nara*, in addition to *Okinawa*, the most remote prefecture, will indicate lower than 25.0 % in 2015.

In 2020, all of 47 prefectures will exceed 20.0 % as *Okinawa* will present 21.7 % in the proportion. In 2025, when the nation will show 27.4 % in the elderly proportion, 14 prefectures, among those which *Akita* will record the highest (33.8 %), will present 30.0 % or larger. Under the assumption described above, the discrepancy in the degree of population aging, in terms of the proportion of the population at the ages of 65 and over, between 47 prefectures, will continue to decrease, because the coefficients of variation for the proportion will decrease in future every five year after 1995 (**Table 9**).

The projections of future populations by each municipalities (*shi*, *ku*, *machi* and *mura*) made by Statistical Information Institute for Consulting and Analysis (1997), under the assumption that the age-specific rates of fertility, mortality and net-migration for the period of 1990 to 1995 will be unchanged for the future, provides with the knowledge that 68 % of the all municipalities of *shi*, *machi* and *mura* in 2000 and 92 % of those in 2015 will present 20.0 % or larger in the percentage of total population in the

Table 9. Future Trends of the Percent of Total Population in the Elderly Aged 65 and Over, by Prefectures (To be continued)

(%)

Prefecture	2000	2005	2010	2015	2020	2025
Japan	**17.2**	**19.6**	**22.0**	**25.2**	**26.9**	**27.4**
Hokkaido	18.0	20.7	23.2	26.9	29.3	30.3
Aomori	19.5	22.1	24.0	27.2	29.7	31.0
Iwate	21.4	23.8	25.4	27.8	29.7	30.5
Miyagi	17.0	18.7	20.1	22.5	24.3	25.0
Akita	23.4	26.0	27.5	30.3	32.6	33.8
Yamagata	22.8	24.5	25.4	27.4	29.1	29.9
Fukushima	20.1	21.6	22.7	24.8	26.7	27.7
Ibaraki	16.2	18.0	20.2	23.2	25.2	25.9
Tochigi	16.9	18.5	20.4	23.4	25.6	26.4
Gumma	18.0	19.8	22.0	25.1	26.9	27.3
Saitama	12.5	15.4	18.8	22.3	23.9	24.2
Chiba	13.8	16.6	19.9	23.6	25.4	25.8
Tokyo	16.3	19.5	22.8	26.5	28.2	29.1
Kanagawa	13.7	16.6	19.9	23.4	25.0	25.5
Niigata	21.0	22.8	24.2	26.7	28.5	29.0
Toyama	20.6	22.5	24.8	28.5	30.0	30.3
Ishikawa	18.4	20.0	22.1	25.7	27.3	27.8
Fukui	20.3	22.0	23.7	26.5	28.0	28.7
Yamanashi	19.0	20.3	21.5	23.5	24.7	25.0
Nagano	21.2	22.5	24.0	26.0	26.9	27.0
Gifu	17.9	20.1	22.4	25.5	27.0	27.3
Shizuoka	17.6	20.0	22.7	25.9	27.7	28.5
Aichi	14.5	17.1	20.1	23.5	24.9	25.3
Mie	18.6	20.5	22.5	25.1	26.3	26.6
Shiga	15.9	17.2	18.8	21.4	22.5	22.8
Kyoto	17.3	19.6	22.4	26.1	27.4	27.5
Osaka	14.8	18.0	21.6	25.4	26.8	26.9
Hyogo	16.9	19.3	22.0	25.3	26.6	26.9
Nara	16.2	18.5	21.3	24.5	26.0	26.3
Wakayama	20.7	22.6	24.6	27.3	28.5	28.9
Tottori	21.9	23.4	24.6	27.1	28.8	29.6
Shimane	24.9	26.5	27.6	30.3	31.8	32.4
Okayama	20.0	21.7	23.8	26.8	27.9	28.2
Hiroshima	18.2	20.2	22.6	26.0	27.5	27.9
Yamaguchi	22.3	24.6	27.0	30.7	32.6	33.1

Tokushima	22.0	23.8	25.3	28.4	30.3	31.0
Kagawa	20.8	22.4	24.2	27.6	29.1	29.6
Ehime	21.4	23.4	25.3	28.6	30.6	31.4
Kochi	23.6	25.5	27.3	30.5	32.0	32.5
Fukuoka	17.2	19.2	21.1	24.1	25.8	26.3
Saga	20.2	21.7	22.8	25.1	27.1	28.1
Nagasaki	20.7	22.8	24.4	27.3	29.8	31.2
Kumamoto	21.1	22.9	24.1	26.5	28.5	29.4
Oita	21.6	23.6	25.3	28.3	30.3	31.1
Miyazaki	20.5	22.5	24.0	26.8	29.1	30.3
Kagoshima	22.6	24.2	24.9	26.9	28.9	30.2
Okinawa	13.9	16.1	17.1	19.1	21.7	23.3
Coefficient of Variation	0.1537	0.1288	0.1023	0.0916	0.0880	0.0896

Source: National Institute of Population and Social Security Research, Projections of Future Populations by Prefectures, 1997.

elderly aged 65 and over. Furthermore, according to this projections, more than a half of the all municipalities will record 30.0 % or larger in the proportion of the elderly in 2020. Although there were no municipalities having the percentage in the elderly of 50.0 % or larger in 1995, 136 municipalities will show 50.0 % or larger in the proportion of the elderly in 2025 **(Table 2)**.

Basing upon the population projections described above, all of the 13 large cities except for *Sendai* will present higher than 20 % in the proportion in the elderly in 2015, when *Kitakyushu*, *Tokyo*, *Kyoto* and *Osaka* will exceed the national level of aging (25 %). Thus, in some of large cities population aging will be further serious for the future **(Table 10)**.

Table 10. Future Trends of Percent of Total Population in Elderly for 13 Cities

(%)

Cities	1995	2005	2015	2025
Tokyo	13.8	19.9	26.8	29.4
Yokohama	11.0	16.7	23.3	25.5
Osaka	14.1	19.7	25.2	25.7
Nagoya	12.7	18.4	24.5	26.1
Sapporo	11.6	16.6	23.4	27.4
Kyoto	14.7	19.4	25.7	26.8
Kobe	13.5	17.7	22.6	23.8
Fukuoka	11.1	15.2	20.7	23.7
Kawasaki	10.0	14.8	20.5	22.5
Hiroshima	11.9	16.2	22.8	25.1
Kitakyushu	15.8	21.5	27.6	29.7
Sendai	10.8	14.5	19.0	21.1
Chiba	9.4	15.9	24.0	25.7

Source: Statistical Information Institute for Consulting and Analysis, Projections of Future Populations by Shi, Ku, Machi and Mura, 1997

References

Japan Aging Research Center, Report on *"Elderly Migration Surveys in Large Cities, Sendai and Kitakyushu"*, 1991 (in Japanese).

Japan Aging Research Center, Report on *"Elderly Migration Surveys in Large Cities, Yokohama and Nagoya"*, 1992 (in Japanese).

Japan Aging Research Center, Report on *"Elderly Migration Survey in Large City, Fukuoka"*, 1993 (in Japanese).

Japan Aging Research Center, Report on *"Comparative Analysis of Elderly Migration in Large Cities : Sendai, Kitakyushu, Yokohama, Nagoya and Fukuoka"*, 1994 (in Japanese).

Japan Aging Research Center, Report on *"Elderly Migration Surveys in Large Cities, Setagaya, Itabashi, Hachioji, and Tama"*, 1995 (in Japanese).

Japan Aging Research Center, Report on *"Elderly Migration Survey in Large City, Chiba"*, 1996 (in Japanese).

Japan Aging Research Center, Report on *"Elderly Migration Survey in Large City, Sapporo"*, 1997 (in Japanese).

Japan Aging Research Center, Report on *"Elderly Migration Survey in Large City, Chiba"*, 1998 (in Japanese).

Japan Aging Research Center, Report on *"Elderly Migration Survey in Large City, Ichikawa"*, 1999 (in Japanese).

Otomo, Atsushi, Elderly Migration and Population Redistribution in Japan, in *"Elderly Migration and Population Redistribution : A Comparative Study"* (ed. A. Rogers), Bell Haven Press, London, 1992.

PART III

Policy Options for Meeting the Challenge of an Aging Society: The Case of Japan

Naohiro OGAWA
Professor
College of Economics
and
Deputy Director
Population Research Institute
Nihon University

Introduction

Broadly speaking, the aging of a population refers to an increase in the proportion of the aged and a decrease in the proportion of the young (United Nations, 1956). As distinct from individual aging, however, the pattern of population aging is much more complex and less uniform. Although an individual always ages chronologically, human populations can either age or rejuvenate, subject to changes in fertility, mortality and migration.

In many industrialized countries, fertility rates are now below the level needed to ensure the eventual replacement of the population, and Japan is one of the salient examples. In comparison to other industrialized nations, however, Japan's fertility decline was both the earliest to occur in the postwar period and the greatest in magnitude. As a result, the aging process of the Japanese population has reached an unprecedented rapidity, and is expected to accelerate in the early part of the next century. Over the next 30 years, the population of Japan will become by far the eldest in the world

(Ichimura and Ogawa, 2000). Population growth will slow down and turn negative around the year 2007.

The prospects for imminent population decline and rapid population aging have recently raised considerable concern at all levels of Japanese society (Ogawa and Retherford, 1997). The government is concerned about the loss of economic dynamism and future difficulties of financing the social security system. Businesses are concerned about the shrinking numbers of consumers and a labor shortage that is likely to worsen because of the delayed effect of the fertility decline on the size of the labor force. And with only two, one or perhaps no children, adults worry about who will take care of them in their old age. Judging from the experience of some other industrialized nations, Japan's total fertility rate (TFR) could decline even further from its 1998 value of 1.38.

In recent years, the Japanese government has been implementing a series of new policies with a view to raising fertility (Retherford, Ogawa and Matsukura, 2000). These new policies include the Ministry of Labor's *One-year Child-rearing Leave* applicable to full-time working men and women, which began in 1992. Another new governmental measure is the *Angel Plan*, which was implemented in 1994. According to this plan, the child allowance scheme was modified, and the availability of day-care facilities has been improved gradually over the last several years. In addition to the central government, more than half of the local governments have already established a variety of programs to relieve child-rearing burdens on families.

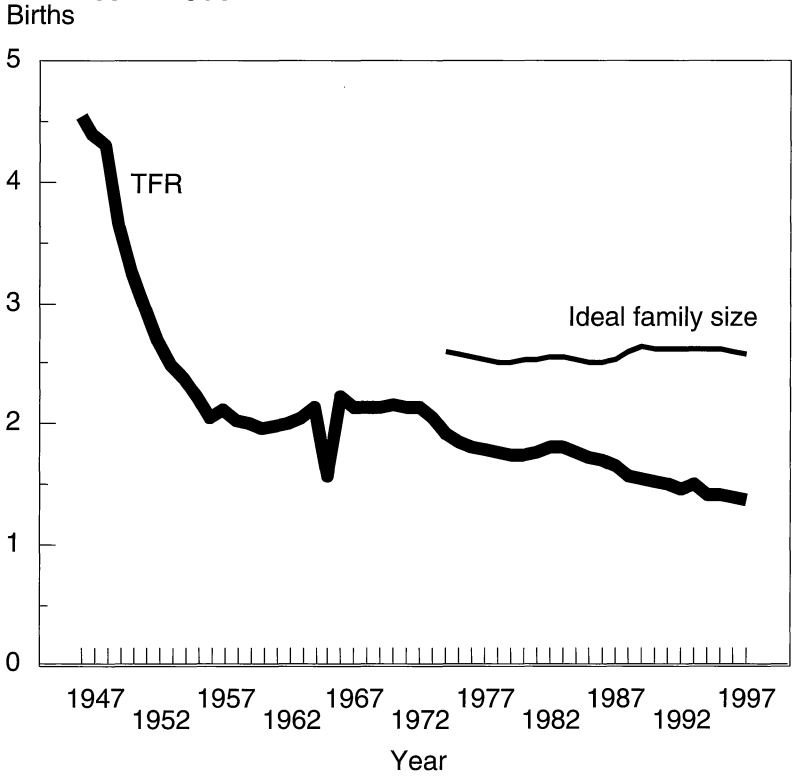
Will Japan's fertility rate fall even further to aggravate the aging process of its population? Is there likely to be a fertility resurgence in the future due to the implementation of the government's recent new policies and programs? What are other policy options facing Japan in the 21st century to cope with numerous problems arising from its rapidly aging population? These questions will be addressed in this paper, although there seem to be no definitive answers to them.

Moreover, some East Asian countries, as a consequence of rapid fertility declines over the past few decades, have become increasingly aware of various aging problems, which require more focused attention in the process of formulating their long-term development plans. Because Japan and most of these East Asian countries share similar cultural settings, the discussions to be developed in this paper are expected to have some relevance to policy-makers in other East Asian countries interested in combining the best of traditional and modern approaches in order to alleviate the seriousness of population aging.

1. Demographic Trends and the Changing Sources of Population Aging in Japan

The Japanese economy was in shambles at the close of World War II, but its growth performance has been phenomenal during the past few decades. No less spectacular, however, was the unprecedented rapidity with which Japan moved through the final stages of its demographic transition. Following the short post-war baby boom (1947-49), Japan's fertility fell dramatically, as displayed in **Figure 1**. Over the period 1947-57, TFR declined more than 50 percent from 4.54 to 2.04 children per woman.

Figure 1. Total fertility rate (TFR) and ideal family size, Japan, 1947-1998



Sources: TFRs obtained from Ministry of Health and Welfare, *Vital Statistics*. Average values of ideal family size for currently married women of reproductive age calculated from various rounds of the National Survey on Family Planning, Mainichi Newspapers of Japan.

Although there was little change until the first oil crisis in 1973, TFR, from that point on, again started to fall and, by 1998, it was down to 1.38. By the early 1990s, fertility was so low that the post-1973 decline was being referred to by some demographers as Japan's second demographic transition (Ogawa and Retherford, 1993a).

Furthermore, mortality improved remarkably from the late 1940s to the mid-1960s. In 1947, life expectancy at birth was 50.1 years for males and 54.0 years for females. In 1998, the corresponding figures were 77.2 years and 84.0 years, respectively. It should also be emphasized that although Japan had the lowest life expectancy among any of the OECD countries in 1960, Japan has now recorded the longest life expectancy among any of the OECD countries (Mason and Ogawa, 2000).

As a consequence of both dramatic declines of fertility and remarkable improvements of mortality, the population of Japan has been aging at an extremely fast rate over the past few decades. As presented in **Table 1**, the proportion of those aged 65 and over increased continuously from 4.9 percent in 1950 to 14.5 percent in 1995. In contrast, the proportion of those at ages 0-14 continued to fall from 35.4 percent in 1950 to 16.0 percent in 1995. As a result, the index of aging rose continuously from 13.9 in 1950 to 91.2 in 1995. It should also be noted in Table 1 that a substantial shrinkage of young population contributed to a lowering of total dependency until 1970. During the period 1970 to 1995, however, an increase in the relative size of the aged population began to play a dominant role in the determination of the level of total dependency. These changes in the relative proportion of the two age groups, old and young, have shifted the emphasis

Table 1. Age compositional shift of the Japanese population, 1950-1995

Year	Proportion 0-14 (%)	Proportion 65 and over (%)	Index of aging	Total dependency Ratio
1950	35.4	4.9	13.9	67.7
1955	33.4	5.3	15.9	63.3
1960	30.2	5.7	19.0	55.9
1965	25.7	6.3	24.4	47.1
1970	24.0	7.1	29.4	45.1
1975	24.3	7.9	32.6	47.6
1980	23.5	9.1	38.7	48.4
1985	21.5	10.3	47.9	46.7
1990	18.2	12.1	66.2	43.5
1995	15.9	14.5	91.2	43.9

Source: Statistics Bureau, Government of Japan, *Population Census of Japan*, various years.

from the quantitative question of how many dependents · to the qualitative one of what kind of dependents · the working age population has to support (Ogawa, 1986).

In a virtually closed population, such as Japan's, the aging of the population is induced solely by declines of fertility and mortality improvements. A projection-based analysis on the effects of these demographic changes in the index of aging shows that the fertility effect was approximately 10.5 times more dominant than the mortality effect over the period 1950 to 1970. It should be emphasized, however, that both fertility and mortality changes contributed to the aging process to a comparable extent during the subsequent 1970-95 period. Such increased importance of mortality improvements relative to fertility decline may be attributable to the fact that survivorship in older age groups has improved markedly in the past two decades due to the expanded coverage of the government medical care program as well as a higher standard of living. Moreover, this computational finding is consistent with the conclusion reached in other studies (United Nations, 1988) that the mortality effect on population aging becomes increasingly strong as the process of demographic transition and economic development proceeds.

2. Gender Specialization, Family Organization, and Value Shifts in Recent Japan

Assessments of Japan's changing demography inevitably focus on age structure. However, closely related issues of social organization are equally important (Mason and Ogawa, 2000). Two issues stand out as important: (1) changes in gender specialization and the economic roles of women, and (2) the place of the extended family in the lives of the elderly.

Changes in childbearing inevitably have implications for the roles of women. In traditional settings, women necessarily devoted a large portion of their adult lives to bearing and rearing children. But when women live longer and bear only two children or fewer, specialization along gender lines begins to disappear. Economic changes reinforce the demographic forces. Changes in the nature of economic production, for example, lead to increases in the returns of human capital. These changes lead to a rise in education among women, both absolutely and relative to men, and to a rise

in female labor force participation (Ogawa and Ermisch, 1996; Ogawa and Clark, 1995; Clark and Ogawa, 1992a).

A second important issue is the evolution of the family and its institutional role in an aging society. Confucian traditions in Japan heavily influence family obligations. Filial piety, the obligation of the son to the father, remains an important principle that guides many family relationships including living arrangements, lines of authority, and inheritance and intergenerational transfers.

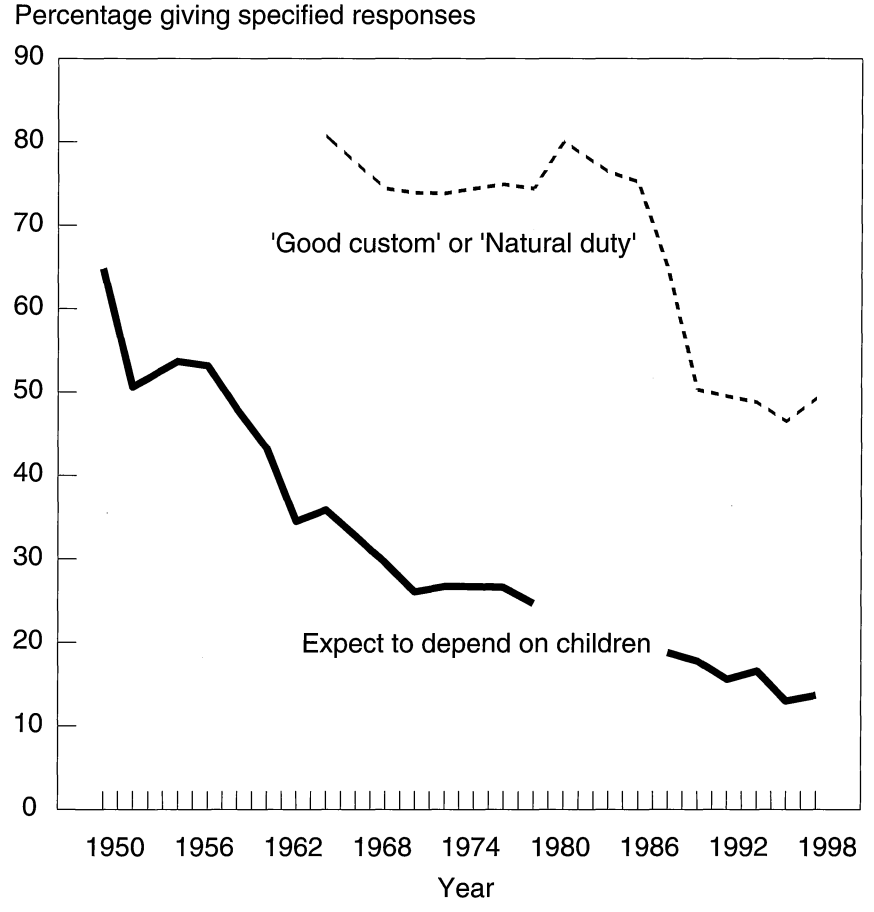
The development of modern institutions, e.g., public pension programs, financial institutions, and insurance plans, undermine the role of the family by providing alternative support mechanisms for the elderly. Demographic changes exert their own pressure. Because elderly persons are living so much longer and because prime age adults have few siblings, the personal and financial responsibilities have greatly increased for children, especially daughters-in-law, who provide support to their own elderly parents (Ogawa and Retherford, 1997).

Data on living arrangements suggest that the extended family continues to play an important role but one that is slowly eroding. The percentage of elderly males living with children declined from 72 percent in 1970 to 46 percent in 1995. The percentage of elderly women living with their children declined from 70 percent to 49 percent during the same period.

Other data show that the system of support for the elderly is undergoing fundamental change. The Management and Coordination Agency's data for Japan reports the proportion of elderly persons dependent on their children's income in 1981, 1986, 1991, and 1996. In 1996, 15 percent of the Japanese elderly aged 60 and over mention children as an income source, down from 30 percent in 1981. This no doubt reflects the rapid improvements in income of the elderly. Despite its declining trend, however, Japan's percentage for 1996 is still considerably higher than the corresponding value (3 percent) for Germany and the United States (Ogawa and Retherford, 1997).

Surveys indicate that young Japanese adults are increasingly likely to discount the family as an important support system on which they can rely in their old age. Remarkable documentation about shifting attitudes is provided by a survey of ever-married women under the age of 50 conducted by the Mainichi Newspaper. Since 1950, women have been asked periodically: "Are you planning to depend on your children in your old age (including adopted children)?" In 1950, 65 percent replied that they expected to depend on their children, as indicated in **Figure 2**. By 1998, only 13 percent responded that they expected to rely on their children

Figure 2. Norms and expectations about care of the elderly, Japan, 1950-1998



Source: Various rounds of the National Survey on Family Planning.

(Ogawa and Retherford, 1993; Retherford, Ogawa and Sakamoto, 1999).

Figure 2 also shows an interesting time-series change. Beginning in 1963, the questions about filial care for elderly parents were added to the survey conducted by the Mainichi Newspapers. The question asked was: "What is your opinion about children caring for their elderly parents?" The principal response categories were "good custom," "natural duty," "unavoidable" and "not a good custom." The first two response categories are considered to be supportive of the values and norms of filial piety. The proportion of respondents who chose the first two categories was fairly stable at around 75-80 percent between 1963 and 1986. In 1988, however, it

fell dramatically to approximately 50 percent, and has been falling continuously since then (Ogawa and Retherford, 1993b; Retherford, Ogawa and Sakamoto, 1999).

3. Japan's Future Aging Process and Its Uniqueness

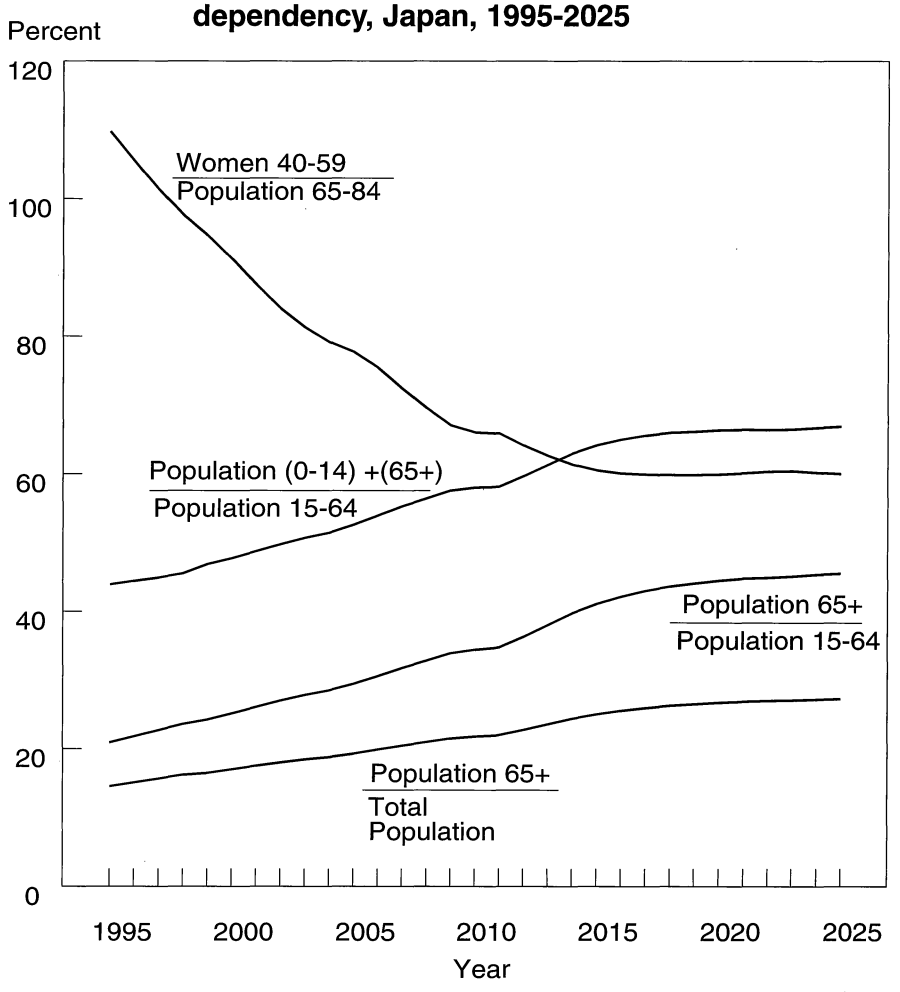
Japan's rapid population aging is projected to continue well into the next century (Ogawa, 1993; Ogawa and Retherford, 1997). Projections are based on a long-term macroeconomic- demographic-social security model developed by Nihon University's Population Research Institute (NUPRI) (Ogawa and Matsukura, 1995). Additional projections presented later in this paper are also based on this model.

As shown in **Figure 3**, the proportion aged 65 and over is projected to increase from 14.5 percent in 1995 to 27.3 percent in 2025---level considerably higher than projected for any other country. **Figure 3** shows not only that the overall dependency will increase dramatically between 1995 and 2025, but also that the nature of dependency will shift to a much higher degree of old-age dependency. Escalating old-age dependency will create severe problems of adjustment at both the family and societal levels. In addition, the familial support ratio, defined here as the female population aged 40-59 divided by the population of both sexes aged 65-84, is projected to drop from 109 percent in 1995 to 60 percent in 2025. The huge decline in the familial support ratio bears directly on the government's strategy of shifting costs of caring for the elderly back to families, among whom middle-aged women are the primary caregivers.

Compared with the situation in other countries, Japan's population aging is unique also in the high proportion of the "old old" (aged 75+) among the elderly. The significance of the "old old" is that they place an especially heavy burden on families and the health care system. The ratio of the population aged 75+ to the population aged 65+ is projected to increase from 40 to 57 percent between 1995 and 2025, again higher than projected for any other country. The population aged 85+, among whom senile dementia and bedridden cases are more common, is projected to grow even faster than the population 65-74 or the population aged 75-84.

The speed of population aging is also exceptionally high in Japan. The time required for the portion aged 65+ to double from 10 to 20 percent of the population is projected to be only 22 years in Japan, shorter than in any

Figure 3. Projected indicators of population aging and dependency, Japan, 1995-2025



Source: Calculated by the authors using the NUPRI long-term macroeconomic-demographic-social security model.

other country. Japan is projected to attain the 20 percent level in 2007, sooner than any other country. The year 2007 is also the date when Japan's population size is projected to reach its maximum before it starts to decline, and it is the year when the baby boom generation starts to retire. After 2007, Japanese development will enter "uncharted territory" and must look to its own policy-making creativity rather than the experience of other countries in dealing with the economic and social problems posed by the unprecedented aging of its population (Ogawa, 1998).

4. A Macroeconomic Scenario

The NUPRI model has also yielded a projection of a host of macroeconomic and social security-related variables over the period 1995-2025. The annual growth rate of real GNP is projected to slow down from 2.8 percent during 1995-2000 to 1.0 percent in the 2010s. One of the principal forces of such declining economic growth is related to the labor supply. It is the first time in modern Japanese history that the labor supply is expected to decrease after it reaches its peak in the year 2001. It should also be noted that hours worked per worker are projected to diminish by 6 percent during the next 30 years owing to a gradual rise in real wages. If the government's goal to shorten the average annual working hours per worker to 1,800 hours is successfully achieved in the near future, the total amount of effective labor supply will decrease at a faster rate than that computed from the model.

These projected results for the labor supply, however, may be affected appreciably by a number of factors not explicitly incorporated in the NUPRI model. One of these factors, for instance, is related to Japanese workers' attitudes toward their jobs. The age composition of the labor force will shift pronouncedly. In 1995, the ratio of the male labor force aged 15-24 to that aged 60 and over was roughly 0.8, but is projected to fall to 0.5 in 2009 when the baby boom cohorts reach age 60. This age structural transformation is prone to adversely affect the upward mobility of young workers due to the lack of higher posts, which may, in turn, erode a strong work ethic.

The other source of the decline of real GNP growth performance lies in the gradual fall in the saving rate, defined as [(personal savings + corporate savings + government savings) / (national income)]. The gross saving rate is projected to decrease substantially over time from 22 percent in 1995 to 8 percent in 2025. The expected rise in social security contributions as well as in household consumption resulting from population aging is primarily responsible for the fall in the saving rate; increased social security contributions lead to a rise in the wage bill, which will, in turn, reduce corporate savings; and the growth of retirees relative to workers depresses household savings, as is theoretically consistent with the framework of life cycle savings (Mason and Ogawa, 2000).

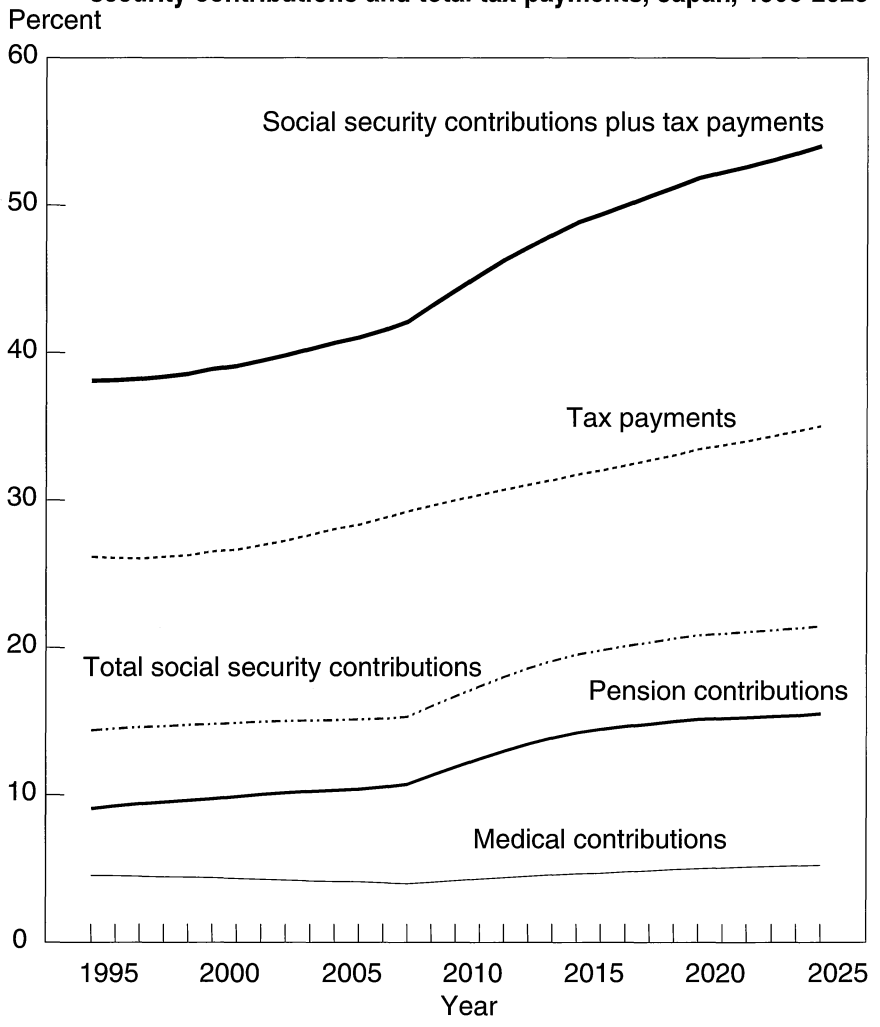
It is worth noting, however, that the above result for the saving rate may differ considerably, if the following three considerations are incorporated in

the model. First, Ando (1985) has suggested the possibility that further improvements of life expectancy may motivate Japanese workers to save more. Second, the extent to which the government's recent policy shift from exported-oriented growth to domestic consumption-fueled growth is implemented may lead to a lower saving rate. Third, although the low interest rate policy has been implemented by the monetary authorities in postwar Japan, it is likely to rise in the future as Japan's financial liquidity diminishes in the process of population aging. Then, higher interest rates in the domestic financial market will not only prevent a flight of capital abroad but also induce a return or inflow of capital from outside. Despite the declining saving rate, therefore, this shift of capital may facilitate favorable growth performance. These considerations, however, are not incorporated in the NUPRI model.

As Harada and Takada (1991) demonstrated, by using a simple simulation model, Japan's saving rate might change appreciably, depending upon the future direction of the social security programs. Because of rapid population aging, social security contributions and taxes are projected to increase dramatically over the period 1995-2025, as can be seen by inspecting **Figure 4**. These projected values have been computed under the assumption that the current structure of the social security system will continue. Between 1995 and 2025, the proportion of national income represented by social security contributions is projected to rise from 14 to 21 percent. This steep rise is accounted for almost entirely by the corresponding rise in the proportion of national income represented by pension contributions. The sum total of social security contributions and tax payments of all kinds is projected to rise from 41 to 56 percent of national income between 1995 and 2025. Three-quarters of this projected increase is accounted for by the rising cost of the social security system, mainly the pension component. These results from the NUPRI model are consistent with more recent projections prepared by the Japanese Economic Planning Agency and the Japanese Ministry of International Trade and Industry (Ogawa and Retherford, 1997).

The assumption that the current structure of the social security system will persist is unlikely to be borne out, however. Reacting to the projected level of taxes plus social security contributions exceeding 50 percent of national income, as shown in **Figure 4**, the government expressed in 1996 its intention to keep this burden below 45 percent in the future. Achievement of this goal will require radical changes in the structure of the social security system (Ogawa, 1998). In the process of making such changes, however, the

Figure 4. Projected percentages of national income represented by social security contributions and total tax payments, Japan, 1995-2025



Source: Calculated by the authors using the NUPRI long-term macroeconomic-demographic-social security model.

intergenerational equity issue is likely to arise in the public arena. To mitigate such intergenerational conflicts, long-term planning is essential, and revisions should be made well before the process of population aging accelerates in the early 21st century. It is also crucial for Japanese nationals to decide whether the current government plan for the social security system is acceptable (Clark and Ogawa, 1996). Are Japanese taxpayers willing to choose the high welfare/high cost scenario? Or, do they prefer the low

welfare/low cost scenario?

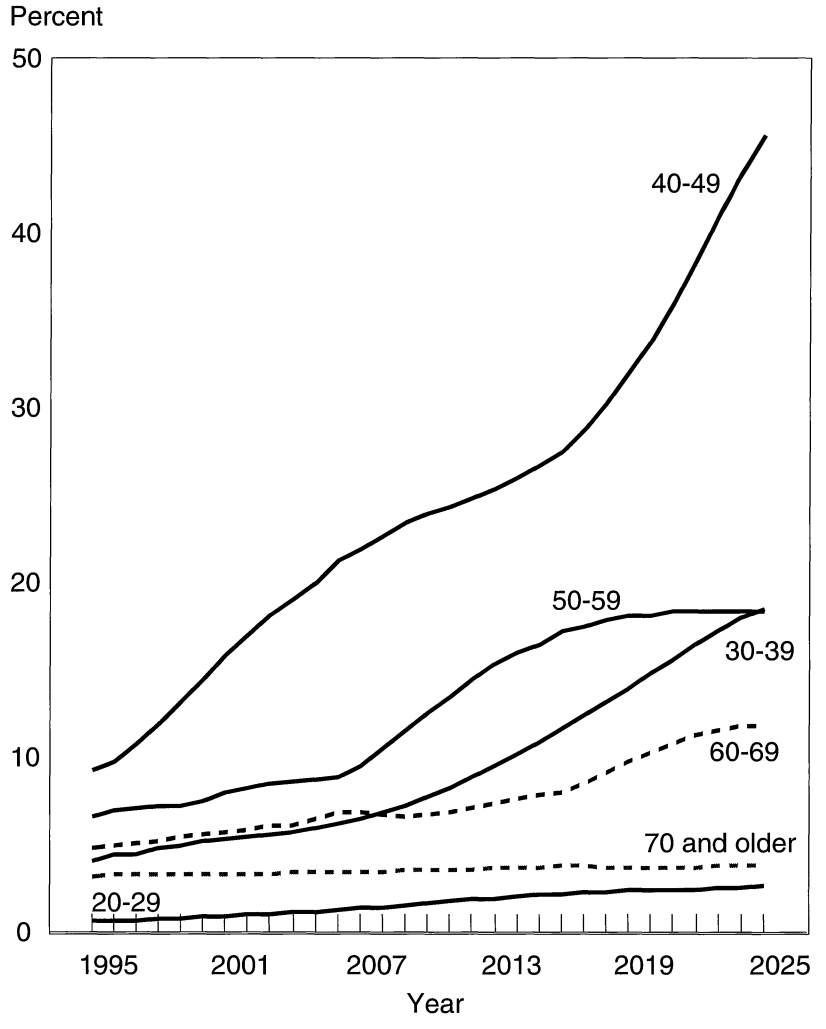
The choice between these alternative scenarios will clearly affect the extent to which families provide care for their elderly parents at home. As the aging process advances, elderly patients who require intensive nursing are expected to increase at an alarming rate. According to the NUPRI model, the number of those aged 65 and over who are bedridden or suffer from senile dementia has been estimated for the next 30 years, by assuming the age-sex-specific pattern of each type of patient to remain unchanged throughout the projected period. The number of bedridden patients, either at home or at medical institutions, will grow by 2.3 times, i.e., from 1.0 million in 1995 to 2.29 million in 2025. The total number of senile dementia cases will increase by 2.6 times from 1.25 to 3.22 million during the corresponding period.

A substantial proportion of these elderly patients has been and will be looked after at home by their adult children, particularly non-working middle-aged women. With this family support pattern borne in mind, we have projected the ratio of elderly patients at home to women at various ages outside the labor force. To facilitate this computation, it has been assumed that the current age-sex distribution of female caregivers at home will remain constant in the future.

The estimated results are shown in **Figure 5**. As can be seen by inspecting the graphical exposition, the ratios of the aged population at home suffering from senile dementia or being bedridden to women outside the labor force grow over time for all age groups. It can also be noted that although the differences in the ratios among these age groups are very small in the early years, they expand markedly over time. Furthermore, non-working women in their 40s consistently show the highest ratio throughout the projection period. Approximately one out of every 10 women aged 40-49 assumes responsibility for taking care of one infirm elderly person at home in 1995, but almost 50 percent of the non-working women of this age group are likely to provide in-home care to elderly patients in 2025.

The above computational results point to a dramatic rise in the burden placed upon middle-aged Japanese women providing in-home nursing care for the infirm elderly. These results are likely to change drastically, depending upon the future availability of public support services through social service programs such as the *Golden Plan* (a ten-year project to improve social services for the elderly and their families) implemented in 1990, its revised version called *New Golden Plan* and the long-term care insurance scheme implemented in 2000. The degree to which care for

Figure 5. Projected ratio of the elderly population who suffer from senile dementia or who are bedridden to nonworking women at various ages, Japan, 1995-2025



Source: Calculated by the authors using the NUPRI long-term macroeconomic-demographic-social security model.

elderly patients is internalized through Japan's traditional familial support network is also contingent upon the magnitude of the future demand for female labor, and upon the commitment of future cohorts of women to care at home for their elderly kin with serious infirmity or illness. In view of the financial constraints on the part of the government, the recent trend for

female paid employment (Ogawa and Clark, 1995; Ogawa and Ermisch, 1996; Ermisch and Ogawa, 1994), and the rapid filial normative shift as indicated in **Figure 2**, the financial and manpower outlook for providing care for infirm elderly in Japan is rather gloomy.

5. Marriage and Child-bearing: Sources of Uncertainty

Japan's future scenario presented in the foregoing sections can also vary considerably, depending on demographic change: (a) marriage and childbearing, (b) trends in life expectancy, and (c) immigration. In view of the fact that Japanese society has been concerned increasingly about its future fertility trend and that the government has been implementing new policies and programs to restore its fertility level, we will discuss, in this section, various uncertainties involved in the future fertility course, particularly from the standpoint of marriage and child-rearing.

Reduced marital fertility was the main source of Japan's fertility reduction during the 1950s. The decline of marital fertility was facilitated by the wide prevalence of abortions and the increased use of contraception (Hodge and Ogawa, 1991). Since the early 1970s, however, the delay of marriage has been playing a principal role in accounting for the decline of fertility (Ogawa and Retherford, 1993a). Over the period 1975-95, the mean age at marriage of single persons (or SMAM, calculated from age-specific proportions of single persons) increased from 27.6 to 30.7 years for men, and from 24.5 to 27.7 years for women, making Japan one of the latest-marrying populations in the world. During the same period, the proportion never marrying, as measured by the lifetime celibacy rate (calculated as the average of the proportions of single persons at ages 45-49 and 50- 54), rose especially for men. It was only 2 percent in 1975, but increased to 9 percent in 1995. For women, it grew only marginally from 4 to 5 percent during the corresponding period. Over the same time period, the proportion of women who will never marry calculated from age-specific first marriage probabilities pertaining to a particular calendar year, increased from 5 to 15 percent for women and from 6 to 22 percent for men---a far cry from the universal marriage society of earlier years (Retherford, Ogawa and Matsukura, 2000).

The considerably greater rise since 1975 in lifetime celibacy for men than for women suggests a marriage squeeze on men with respect to

availability of potential spouses. However, the squeeze was relatively brief and disappeared by the mid-1980s, thus contributing only marginally to the increases in SMAM and the lifetime celibacy rate. If the marriage squeeze is not the major factor, what does explain the dramatic rise in these marriage-related indicators?

Two socioeconomic variables known to influence age at marriage and the proportion never marrying are urbanization and educational attainment. From 1975 to 1995, the proportion of those residing in urban areas increased only to a slight extent from 76 to 78 percent. In contrast, the enrollment ratio for tertiary education recorded a remarkable increase particularly for women. In 1975, 32 percent of women of eligible age were enrolled in junior colleges or universities, compared with 43 percent for men. By 1995, these figures had risen to 43 percent for men and 48 percent for women, so that the enrollment ratio for women surpassed the ratio for men (Ministry of Education, 1998). Some of the recent empirical studies (Ermisch and Ogawa, 1994; Ogawa and Retherford 1993a; Retherford, Ogawa and Matsukura, 2000) have demonstrated, by using both macro and micro level data, that women's rising educational attainment is one of the main determinants driving recent marriage trends, and that urbanization is a relatively minor factor.

Female employment is another socioeconomic factor that exerts a strong influence on marriage. Rising educational levels of women, coupled with expanding job opportunities particularly in the service sector in the 1980s and 1990s, have been the main engine driving the expansion of female paid employment. Rising educational levels have led to higher wages, which have been shown to have a strong positive effect on the probability of a single Japanese woman working full-time. The effect of rising educational levels on women's full-time work is amplified in Japan, as in other industrialized nations, by the economic returns to tertiary education which are higher for women than for men (Clark and Ogawa, 1992a; Ogawa and Clark, 1995). The ratio of women's to men's hourly wage (including bonuses) for full-time work for those below age 30 increased from 70 percent in 1970 to 86 percent in 1995. The considerable rise in the ratio for younger persons occurred because of increasing gender equality not only in educational attainment, but also in job tenure as women married later and worked longer before resigning (if they did resign) to marry and start families.

Apart from these socioeconomic forces, the phenomenon of single adults continuing to live with their parents has become quite common in

contemporary Japan. These single adults have been termed as "parasite singles" because they appear as grown children who tend to not contribute much to household expenses (Retherford. Ogawa and Matsukura, 2000). Among single women aged 22 and over, excluding students, the proportion living with parents was fairly steady during the 1990s at 95 percent in 1990 and 94 percent in 1998.

Working as a single person while living with parents and not contributing much to household expenses means that most single persons in Japan can afford a care-free and spendthrift single life style. This life style is closely associated with the so-called "new single concept," which refers to the enjoyment of single life without the pressure of getting married. Surveys conducted in 1988 and 1993 indicate that the proportion of single women favoring the new single concept was 78 percent in 1988 and 76 percent in 1993. Among single men, this proportion was 59 percent in 1988 and 62 percent in 1993. A multivariate analysis using these survey data shows that single women residing in urban areas, working as paid employees and with high educational attainment are in favor of this concept (Retherford, Ogawa and Sakamoto, 1999).

These value shifts have occurred together with a secular rise in the incidence of "love matches" or "match-making" in place of arranged marriages and a dramatic increase in the prevalence of premarital sex in the 1990s. Particularly, the latter is closely related to a more positive attitude toward cohabitation. Micro-level data gathered in the 1998 round of the national survey conducted by the Mainichi Newspapers show that the proportion of single women who were cohabiting was only 4 percent at ages 25-29 and 5 percent at ages 30~34. However, more than 75 percent of single women supported the idea of cohabitation. A substantiated analysis has indicated that the only variable with a statistically significant effect was previous experience of sexual intercourse. This result seems to imply that the incidence of cohabitation may rise conspicuously in the years ahead for Japan.

The delayed timing of marriage has also contributed to reducing the completed family size. Up to the mid-1980s, a new home economics approach provided a useful base for accounting for changes in marital fertility in Japan (Ogawa and Mason, 1986). In the recent past, however, the new home economics models have failed to keep track of marital fertility change. Several models incorporating the timing of marriage explain Japan's marital fertility trends much more efficiently.

A series of the national surveys conducted by the Mainichi Newspapers

in the 1990s show that approximately 25 percent of married women of reproductive age stated that they could not have as many children as they wished to have. According to the data from the National Survey on Family Planning undertaken by the Mainichi Newspapers, the proportion of married women of reproductive age who mentioned the cost of education as one of the difficulties associated with rearing children increased from 42 percent in 1981 to 66 percent in 1996; the proportion of respondents who mentioned the psychological strain of educating and training children increased from 55 to 59 percent during the same time period; the proportion of married women who mentioned the difficulties of coping with child-rearing as well as working outside the home grew from 9 to 15 percent; the proportion of respondents who mentioned that it was difficult to provide food, clothing, and housing remained virtually constant; and the proportion of the respondents who mentioned the physical strain of rearing children rose from 6 to 10 percent.

In Japan, the examinations for entering the best schools (from elementary level and onward) are commonly seen by parents as the keys to successful career development for their children. The competition to enter the best schools involves considerable expense on private tutors and *jukus* (cram schools). In the early 1990s, one of the estimates showed that approximately 50 percent of the sixth graders and 60 percent of the ninth-graders were attending *jukus*.

It is plausible that if these difficulties in child-rearing are removed, Japan's fertility level may recover considerably. In hopes of boosting marital fertility, therefore, the Japanese government has been implementing a variety of new policies and programs over the past several years. In 1991, it promulgated a new policy on *Creating an Environment for Rearing Healthy Children.* As part of this policy, clearly pronatalistic in intent, the government increased its child allowances. Previously, the monthly allowance (subject to income levels) was 2,500 yen for the second child and 5,000 yen for each subsequent child, and the allowance lasted until the child entered primary school. Under the new policy, which went into effect in January 1992, the first child is also covered. The monthly allowance is 5,000 yen for each of the first two children and 10,000 yen for each subsequent child. However, the revised allowances are paid for only three years, a shorter time than previously. This policy will be revised further in June, 2000. Under this newly revised scheme, 5,000 yen will be paid for the first two children and 10,000 yen for each subsequent child when they are preschoolers. Still, despite these revisions, child allowances in Japan still

remain much less generous than those currently prevailing in a number of Western European countries and in Singapore.

The government also adopted a new policy that grants the option of up to one year of unpaid child-care leave for either the mother or father, effective as of April 1992. In 1995, this leave scheme was revised and expanded to allow each employee on child-care leave to receive 25 percent of his or her monthly salary. In addition, a new option for employees to take an unpaid leave for up to three months for the purpose of taking care of family members was introduced. The government anticipated that these new schemes would have a considerable impact on Japan's future fertility trend. However, only a limited proportion of the work force has taken advantage of the schemes, as the majority of employed persons face silent pressure to continue working without leave from their peers and supervisors in the work place. Moreover, to the extent that these new schemes induce more women to enter the labor force who might otherwise remain full-time housewives, the schemes also may have, as an unintended consequence, some fertility-reducing effects.

In 1994, the *Angel Plan* was established. Under this plan, comprehensive measures have been adopted. These measures include (a) providing support for both child-rearing and work, (b) providing support for child-rearing at home, (c) improving housing conditions and living environments, (d) making education less competitive, and (e) reducing child-rearing costs. One of the major programs, which have been implemented by the government, was to increase the number of day care centers and to extend their service hours. Despite these efforts by the government to improve the availability of day care centers, data from various rounds of the nation-wide survey on family planning conducted by the Mainichi Newspapers indicate that roughly 25 percent of married women of reproductive age with preschoolers used day care services in the 1990s. More importantly, among women not using day care services, almost two-thirds feel that they would prefer to care for their own children at home. These survey-based results indicate that the majority of Japanese mothers still attach prime importance to "mothering" and that the extension of service hours at day care facilities is unlikely to lead to an increase in mothers' purchases of day care services for preschoolers. Furthermore, in major urban centers, the supply of day care centers is insufficient, while there is a serious oversupply of day care centers in other areas. At present, a total of 32,000 preschoolers, mostly in major urban areas, are on the waiting list for admission to day care centers. To cope with the shortage of day care

services in major urban areas, the government has recently established the *New Angel Plan*, which is expected to expand the admission capacity. In addition, under this new plan, the provision of day care services for infants is expected to improve considerably. It should be noted, however, that the average running cost of public day care services for infants in Tokyo amounts to roughly 500,000 yen per month per infant, which is considerably higher than the average male worker's monthly salary!

The government has been formulating and implementing numerous policies and programs to boost fertility, but their effectiveness is open to question. As Boling (1997) notes, the government has been inconsistent in its actions in this area. On the one hand, it has acted to expand day care facilities (the *Angel Plan*) and parental leave with job-return rights (the *Child-care Leave Scheme*), and to reduce working hours in large companies with a view to relieving strains on families. On the other hand, the government has tried to cope with strains on the social security system, due to rapid population aging, by trying to shift costs of caring for the elderly back to families (Ogawa and Retherford, 1997), and it has done little to mitigate the "examination hell" that child-rearing currently entails. Considered as a whole, the government's actions so far appear to have resulted in little alleviation of the strains on mothers (especially working mothers) that contribute to the rising trends in the proportion choosing not to marry and to the declining trends in fertility. The picture that emerges from our analysis in this section is that the secular decline of fertility in Japan that resumed after 1973 is likely to continue.

6. Other Policy Options Facing Japan in the 21st Century

Apart from the promotion of various policy measures to raise fertility, what else can Japanese society do to retain its dynamism in the 21st century. Although both abundance of high-quality human resources and the high saving rate have been two principal driving forces of Japan's remarkable postwar growth performance, it is very likely, as described (above) by the model simulation scenario, that both forces will drastically change as the aging process advances over the next few decades. In addition, the borrowing of technologies from Western developed countries has also played a crucial role in placing the Japanese postwar economy on the high growth path, but Japan has now entered the stage where it has to develop its

own new technology, by allocating greater resources to research and development activities. Undoubtedly, these financial, manpower and technological constraints will pose formidable challenges to Japanese bureaucracy, businesses and households. What should be done to cope with these challenges?

Better Utilization of Aged Workers

The model simulation results show that the supply factors, particularly the labor supply, constitute a major bottleneck to sustaining economic growth. One of the ways to overcome this supply-constrained growth scenario is to facilitate a better utilization of elderly workers. Despite its declining trend, the labor force participation rate of Japanese older people still remains at a much higher level than the participation rates of older people in other industrialized nations. The aging of the Japanese population has reduced the number of young workers entering the labor force each year and increased the number of older workers attaining their firms' traditional retirement age of 60 or so. These changes are requiring significant alterations in the compensation and personnel policies of many firms. The aging of the Japanese population is also placing considerable stress on the government as it attempts to finance retirement and health care system for elderly people (Ogawa, 1993; Clark and Ogawa, 1996).

In response to the increased social security costs, the government recently raised the age of eligibility for social security benefits to age 65 (effective in the year 2013). The government also is attempting to encourage firms to raise the age of mandatory retirement through the provision of subsidies and other assistance. Firms have been reluctant to increase their retirement age across the board because of the higher costs associated with older workers. This dichotomy of public interest in higher retirement ages and private employers' interests in not increasing labor costs is clearly seen in Japan (Clark and Ogawa, 1996).

One of the principal obstacles to raising the mandatory retirement age is related to the seniority wage system practice. Another deterrent is related to the provision of lump-sum severance benefits that are a calculated according to the duration of an employee's service and his or her final earnings. Recently, in a number of cases, this lump-sum severance pay program has been revised substantially and has been incorporated into the pension benefits provided by employers.

In response to the aging of the labor force, many businesses, particularly large firms, have been gradually modifying the seniority-based

wage system by introducing ability-oriented elements (Clark and Ogawa, 1992b). A key factor is how quickly Japanese businesses can change their management strategy formed during the labor-surplus period, and replace the seniority-based wage structure with the ability-oriented remuneration system. Also, evidence gathered to date indicates that the government's various subsidy programs for facilitating the extension of the retirement age are not enough. To achieve the government's specific goals, it may be necessary to impose heavy penalties for noncompliance rather than to rely on persuasion to influence employers.

Raising Women's Labor Force Participation

Another labor-related policy option is to raise female participation in the labor force. The age-specific labor force participation rates of Japanese women still show an M-shaped pattern, although participation among middle-aged women has been rising in recent years primarily due to their advanced education, to the shortening of the reproductive span, and to a more modern life-style (Shimada and Higuchi, 1985; Ogawa and Clark, 1995; Ogawa and Ermisch, 1994, 1996). It should be stressed that slightly more than half of married women working as paid employees are part-time workers, and that this proportion has been growing at a rate faster than that of full-time workers since the late 1970s (Ogawa and Retherford, 1993a). This increased importance of part-time employment is related to the income tax rules i.e. a female spouse who earns more than one million yen a year must not only pay income tax but also lose her dependent status with regard to her spouse's income and social security arrangement. The removal of these tax rules is expected to lead to a further rise in the participation of middle-aged women in full-time paid employment. In addition, as discussed earlier, the recent series of governmental efforts—to formulate and implement new policies and programs to facilitate fertility increases and promote women's work attachment—need to be further strengthened, so as top enable a more flexible labor market for women in Japan.

Labor-Saving Technology and More Efficient Use of Young Workers

Japan's future shortage of young workers can be partially remedied by the development of labor-saving technology such as robots and automated production methods. At the same time, older workers should be encouraged to familiarize themselves with the use of microelectronics and related modern technology. To facilitate this process, part of the technical

development efforts should be directed toward simplifying the operation of production equipment so that elderly workers can easily use it. Also desirable is a better utilization of young workers. To promote technological innovations, a considerable proportion of these young workers with modern scientific knowledge should be effectively allocated to advanced technology-developing sectors, preferably through government incentive and disincentive schemes.

International Labor Migration

International labor migration, another policy option, is a recent phenomenon in Japan. At present, although the Japanese government allows businesses to export wealthy retired persons to various resort areas in several countries such as Australia and Canada (Martin, 1989), it prohibits business firms from importing labor except for those with highly-specialized skills such as foreign language teachers and professional athletes (Ogawa, Jones and Williamson, 1993). The proportion of foreign nationals in the Japanese labor force is the lowest percentage among the industrialized nations (Abella, 1989).

In June 1990, the Immigration Law was amended to tighten a further inflow of illegal foreign workers. Unlike the case of Singapore where non-national employees are penalized for working illegally, employers are penalized for permitting foreign employees to work for them. The maximum penalty faced by such employers, according to the revised provision, includes imprisonment up to three years or a fine of up to 2 million yen. One additional important feature of the 1990 amendments is that a quota-imposed training program was instituted. The total number of foreign trainees (who are actually unskilled workers) should not be more than five percent of the total number of employees working for each firm. Accordingly, firms with less than 20 workers are not allowed to have any foreign trainees.

It is often argued that one of the factors leading to Japan's prohibition foreign labor importation is a cultural one (Weiner, 1985). As Japanese society is remarkably homogeneous (Hodge and Ogawa, 1991), importing labor from foreign countries on a large scale may add a considerable degree of heterogeneity to Japanese society, thus disrupting its social system. However, a multivariate analysis of micro data gathered in one national survey undertaken in the late 1980s explained that the degree to which a Japanese society readily accepts foreign workers is dependent on how much the Japanese people living in that society have gained international exposure

through personal contacts and how much they purchase imported goods, in particular those from Asian NIEs (Ogawa, Jones and Williamson, 1993). This statistical result suggests that because the number of human contacts and the purchase of NIEs' products have been increasing rapidly in Japanese society since the early 1980s, if this trend continues, the proportion of the Japanese population in favor of labor migration from developing Asia likely will rise over time.

Caution should be exercised, however, with regard to Asia's potential for supplying labor to Japan. At the beginning of the 21st century when Japan's population aging process accelerates, some of the developing Asian countries where the tempo of fertility reduction is fast may not have enough labor surplus to export to Japan.

Direct Foreign Investment

The model simulation results show that the supply factors, particularly the labor supply, will constitute a major bottleneck to sustaining economic growth beginning from the mid-1990s. One of the ways to overcome this supply-constrained growth scenario is to shift a considerable amount of production to areas outside Japan by exporting capital to the sources of cheap labor. This policy option is, however, threatened by political instability in receiving countries, and the loss of Japanese comparative advantages as a result of Japan's transfer of technology and management skills to business leaders in the receiving countries.

Social Security Reform

A few policy areas seek to curb the escalating costs of the social security system. One policy area relates to a further reduction of social security benefit levels and coverage. In the realm of medical care services, cost-containment policies such as those involving the *diagnosis-related* group (DRG) approach, the acceptance of the euthanasia concept, and the recognition of brain deaths are conceivable options for Japan. To reduce the manpower and financial requirements for bedridden patients and those suffering from senile dementia, modern technology such as *telemedicine* (a computerized diagnostic system linking homes and hospitals) is now being used experimentally in selected areas. If these policies are to be implemented, however, they may lead to the loss of the human touch in medical care services as well as a shortening of the Japanese life expectancy, which will, in turn, affect Japan's future aging processes.

Increasing Wealth

In the recent past, Lee, Mason and Miller (1997) examined the impact of child-bearing, life expectancy, and age structure on the demand for wealth. Their simulation exercises have shown that the rapid transitions that have typified several East Asian countries produce large swings in aggregate saving rates and that the saving rate at the end of the transition will be higher than at the beginning. They have also suggested that in the process of the transition, the demand for wealth, as measured by the ratio of wealth/output, would converge to a higher level than we find today. Mason and Ogawa (2000) have tested the applicability of these theoretical considerations with respect to data from Japan's National Family Income and Expenditure Surveys for 1974 and 1994, and their preliminary results seem to be supportive of such possibilities.

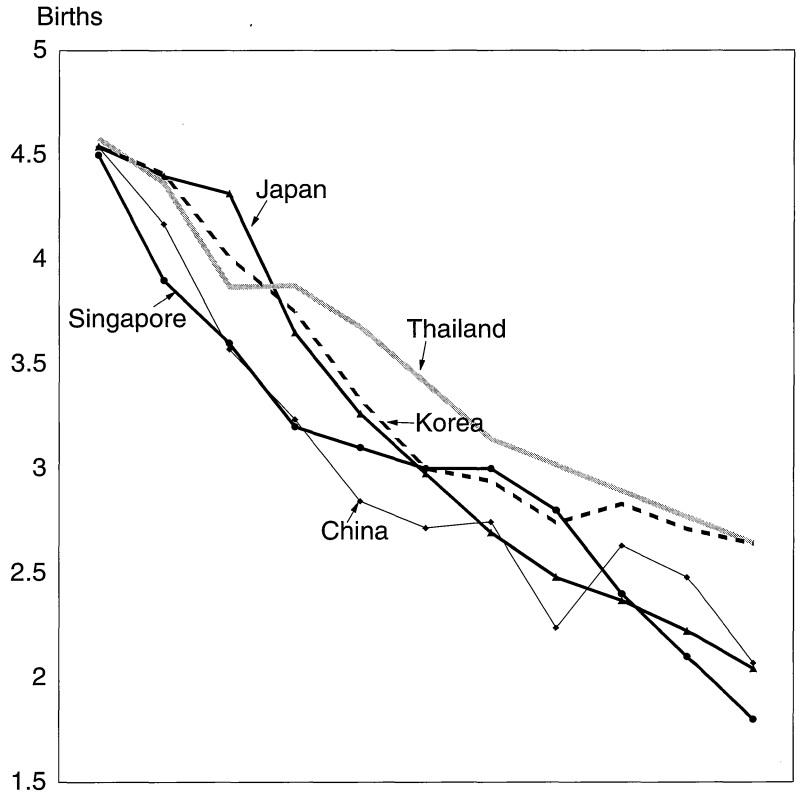
These findings suggest that although Japan's saving rate will fall over the next few decades, the demand for wealth is likely to rise for a considerable period of time in the next century. If this scenario is valid, Japan's future course varies considerably, depending on how the increasing wealth will be used.

7. Applicability of Japanese Experiences to Other East Asian Countries

Although the scope of this paper has been confined largely to the Japanese context, Japanese experiences of population aging and policy responses seem to be useful in formulating suitable policies in other East Asian countries currently undergoing rapid demographic transformations. **Figure 6** depicts the pattern of inter-temporal changes in TFR for five Asian countries over a ten-year period. By inspecting this graphical exposition, one can easily observe that all five countries underwent highly comparable fertility declines, although the time period selected for each country differs considerably.

Figure 7 shows the length of time required for each of these five populations to increase its proportion 65+ from 10 to 20 percent; all other Asian countries are expected to undergo a faster aging process than Japan. The data reported in **Figure 7** also suggest that as a forerunner of the fertility transition, Japan's population aging experience may be used for the other East Asian countries as a basis for formulating appropriate population aging policies. It should be noted, however, the point of economic

Figure 6. Changes in TFR for five Asian countries over selected time periods

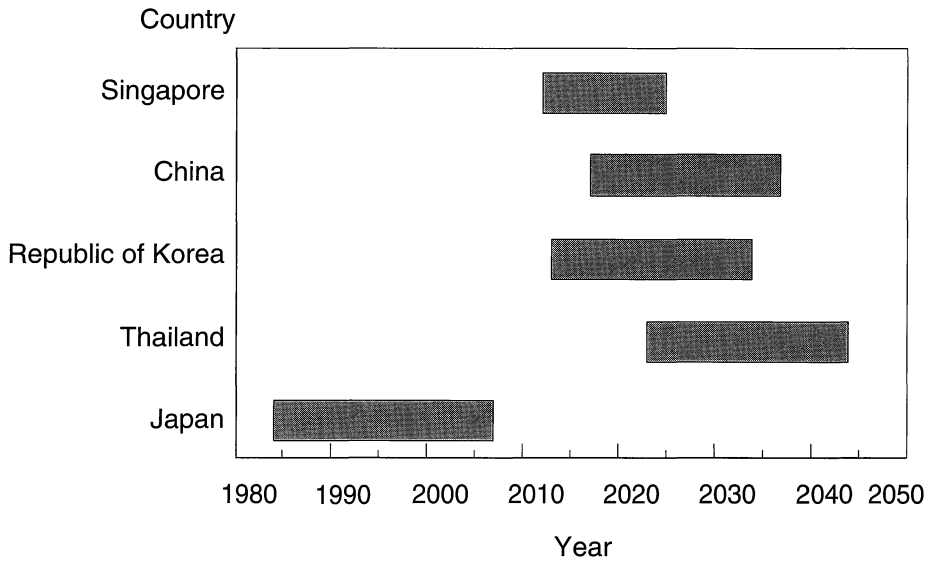


Japan	1947	1957
China	1973	1983
Republic of Korea	1971	1981
Singapore	1966	1976
Thailand	1973	1983

Sources: Ministry of Health and Welfare in Japan, *Vital Statistics*, various years; United Nations, *Demographic Yearbook*, various years; Population Planning Section, Ministry of Health, Singapore.

development at which the majority population of these counties becomes aged varies widely. The Republic of Korea, for example, will probably be just as urbanized and industrialized as Japan when its population becomes aged. However, societies in China and Thailand will become aged at considerably lower levels of urbanization and of the employment shift away from agriculture, than Japan did at comparable levels of aging.

Figure 7. Years required to increase the proportion 65+ from 10 to 20 percent in five Asian countries



Sources: The data for Japan are base on the NUPRI long-term macroeconomic-demographic-social security model. For other countries data have been obtained from United Nations, *World Population Prospects: The 1998 Revision,* 1999.

8. Concluding Remarks

In this paper, we have discussed Japan's unprecedented population aging processes and their adverse impacts on the socioeconomic system. Because the reduction of fertility is a principal demographic factor accelerating population aging in Japan, the government has been recently making strenuous efforts to implement a variety of policies and programs to remove or mitigate difficulties involved in child-rearing. However, to evaluate the impact of these government programs on actual fertility behavior is still premature and remains to be seen.

Apart from raising its fertility level, Japan has several other policy options to cope with its problems related to population aging. The desirability and feasibility of each of these policy options need to be carefully assessed before they are implemented. It should be borne in mind that some of these policies require a considerable amount of time before they show their effects. However, because the problems arising from the unprecedented aging of the Japanese population are quite imminent, there is no time to waste.

References

Abella, Manolo. 1989. "Japan: short on labour, big on aid," unpublished manuscript, ILO Regional Office for Asia and the Pacific.

Ando, Albert. 1985. "The savings of Japanese households: a micro study based on data from the National Survey of Family Income and Expenditure, 1974 and 1979," manuscript, University of Pennsylvania.

Boling, Patricia. 1998. "Family policy in Japan," *Journal of Social Policy* 27: 173-190.

Clark, Robert L., and Naohiro Ogawa. 1992a. "Employment tenure and earnings profiles in Japan and the United States: Comment," *American Economic Review* 82: 336-345.

Clark, Robert L., and Naohiro Ogawa. 1992b. "Mandatory retirement and earnings profiles in Japan," *Industrial and Labor Relations Review* 45: 336-345.

Clark, Robert L., and Naohiro Ogawa. 1996. "Public attitudes and concerns about population aging in Japan," *Aging and the Society* 16, part 4: 443-465.

Ermisch, John F., and Naohiro Ogawa. 1994. "Age at motherhood in Japan," *Journal Population Economics* 7: 393-420.

Harada, Yutaka, and Seiji Takada. 1991. "Chochiku, shihon chikuseki to koreika shakai (Savings, capital accumulation, and an aging society)," *Discussion Paper Series,* No. 1. Tokyo: Institute for Posts and Telecommunications Policy.

Hodge, William R., and Naohiro Ogawa. 1991. *Fertility Change in Contemporary Japan.* Chicago: University of Chicago Press.

Ichimura, Shinichi, and Naohiro Ogawa. 2000. "Policies to meet the challenge of an aging societies with declining fertility: Japan and other East Asian countries," paper presented at the 2000 Annual Meeting of the Population Association of America, Los Angeles.

Lee, Ronald, Andrew Mason and Timothy Miller. 1997. "Saving, wealth, and the demographic transition in East Asia," paper presented at the Conference on Population and Asian Economic Miracle held at the East-West Center Population Program, Honolulu.

Martin, Linda G. 1989. "The Graying of Japan," *Population Bulletin* 44: 1-42.

Mason, Andrew, and Naohiro Ogawa. 2000 forthcoming. "Population, labor force, saving and Japan's future," in *Japan's New Economy: Continuity and Change in the Twenty-First Century,* M. Bloomström, B. Gangnes and S. La Croix (eds.), Oxford: Oxford University Press.

Ogawa, Naohiro. 1986. "Consequences of mortality change on ageing," *Consequences of Mortality Trends and Differentials*, United Nations Population Studies no. 95, chapter 16: 175-184.

Ogawa, Naohiro. 1993. "Impact of changes in population and household structure upon the allocation of medical resources in Japan," *Japan and the World Economy* 5: 137-156.

Ogawa, Naohiro. *1998.* "Socioeconomic consequences of population aging in Japan," *Aging in Japan 1998,* Japan Aging Research Center, pp. 75-107.

Ogawa, Naohiro, and Robert L. Clark. 1995. "Earnings patterns of Japanese women: 1976-1988," *Economic Development and Cultural Change* 43: 293-313.

Ogawa, Naohiro, and John F. Ermisch. 1994. " Women's career development and divorce risk in Japan," *Labour* 8 : 193-219.

Ogawa, Naohiro, and John F. Ermisch. 1996. "Family structure, home time demands, and the employment patterns of Japanese married women," *Journal of Labor Economics* 14: 677-702.

Ogawa, Naohiro, Gavin Jones, and Jeffrey Williamson (eds.). 1993. *Human Resources in Development along the Asia-Pacific Rim.* Singapore:

Oxford University Press.

Ogawa, Naohiro, and Andrew Mason. 1986. "An economic analysis of recent fertility in Japan: an application of the Butz-Ward model," *Journal of Population Studies* no.9: 5-14.

Ogawa, Naohiro, and Rikiya Matsukura. 1995. "Population change, development and women's role and status in Japan," *Asian Population Studies Series* no. 133: 1- 91.

Ogawa, Naohiro, and Robert D. Retherford. 1993a. "The Resumption of Fertility Decline in Japan: 1973-92," *Population and Development Review* 19: 703-741.

Ogawa, Naohiro, and Robert D. Retherford. 1993b. "Care of the elderly in Japan: changing norms and expectations," *Journal of Marriage and the Family* 55: 585-597.

Ogawa, Naohiro, and Robert D. Retherford. 1997. "Shifting costs of caring for the elderly back to families in Japan, " *Population Development Review* 23: 59-94.

Retherford, Robert D., Naohiro Ogawa and Satomi Sakamoto. 1999. "Values and fertility change in Japan," in *Dynamics of Values in Fertility Change*, R. Leete (ed.), Oxford: Oxford University Press, pp. 121-147.

Retherford, Robert D., Naohiro Ogawa and Rikiya Matsukura. 2000. "Late marriage and less marriage in Japan," unpublished manuscript.

Shimada, Haruo, and Yoshio Higuchi. 1985. "An analysis of trends in female labor force participation in Japan," *Journal of Labor Economics* 3: 355-374.

United Nations. 1988. "Global trends and prospects of ageing population structures," *Economic and Social Implications of Population Aging*, United Nations, New York, pp. 43-97.

Weiner, Myron. 1985. "An international migration and international relations," *Population and Development Review* 11: 441-56.

PART IV
Social Security, Health Care, and Social Services for the Elderly in Japan

Daisaku MAEDA
Professor
Japan Lutheran College

Introduction

In the preceding three parts of this booklet, the demographic, social, and economic backgrounds of problems of the elderly have been described in detail. In this part, the author would like to focus his attention on the development and present conditions of social security, health, medical, and social services for the elderly in Japan.

1. Brief History of the Societal Efforts for the Welfare of the Elderly in Japan before the Meiji Restoration

Societal efforts for the welfare of the elderly in Japan can be traced back to charitable work by Buddhist temples in older times. These provided relief to impoverished older persons without family to support and care for them. Since in ancient times Buddhism was in effect the national religion in Japan, it might be said that at that time the state was providing relief to poor elderly persons.

In feudal times, however, societal efforts for relief almost disappeared because of incessant wars between feudal lords throughout Japan.

The Age of Civil Wars came to an end when Japan was unified once again by the Tokugawa regime approximately four hundred years ago. The Tokugawa regime promoted, among other things, mutual assistance between relatives as well as neighbors. At the same time it gave protection and encouragement to Confucianism, Buddhism, and Shintoism (Japanese folk religion with a basic philosophy of ancestor worship) in order to maintain social order. Thus, filial piety, respect for the elderly, and ancestor worship became the basic moral laws of Japanese society.

Owing to the peace and prosperity of the Tokugawa era, many Buddhist temples were engaged in charity as one of the most important parts of their activities. Needless to say, older persons were the main recipients, as the Tokugawa regime placed a special emphasis on the virtue of respect for the elderly. It should be pointed out, however, that relief was neither the responsibility of the central regime nor of the local feudal lords. In other words, in the Tokugawa era, relief was essentially charity to be performed by Buddhist temples or charitable individual persons, though some feudal lords immortalized their names with their sincere relief efforts.

A. From the Meiji Restoration in 1868 to the End of the Second World War

In 1874, the new Meiji government issued the famous administrative order called "Jutsukyu Kisoku" (Relief Order of 1874), which stipulated that an elderly sick person of 70 or more who had no relatives to support him/her could be given public relief. Other recipients of public relief were orphans

and severely impaired persons. It should also be pointed out that the amount of money given as relief was very small, being only sufficient to maintain a bare existence. Furthermore, this order did not cover any indoor relief. Thus, indoor relief to poor children and older persons had to be provided by private charity organizations or individuals. What the government did was only to give these almshouses a partial grant that covered only a very small proportion of actual expenses. This severe Relief Order was kept in effect for more than 60 years until 1932, when a new public relief law (Kyugohoh) was put into practice. The number of almshouses at that time was only 66, and the number of older persons living in these almshouses was only 2,753 throughout Japan.

The new public relief law (Kyugohoh) which was enacted in 1929 and put into practice in 1932 stipulated that the national government should take the responsibility of relief for the poor. Eligibility for relief was eased a little in comparison with the previous order (Jutsukyu Kisoku), though it was still very limited from the standpoint of modern social welfare philosophy. This law lowered the age limit for relief from 70 to 65. In addition, indoor relief was approved as a legitimate form of providing assistance. As a result, the number of older persons institutionalized increased to 4,295 in 1940. That is, the number of such older persons was nearly doubled in the nine years between 1931 and 1940. The number of relief institutions was, however, still seriously short of the actual needs. Therefore, many older beggars could be seen wandering here and there throughout Japan, while a huge amount of money was ungrudgingly spent for the expansion of military forces.

Japan's entrance into the Second World War in 1941 caused a devastating effect on the lives of Japanese people, especially on the lives of older persons without children on whom to depend, of orphans, and of the disabled. Because of the shortages of food, clothing, and above all, money allocated to the services for these persons, the death rate among the institutionalized, especially that of older persons, was extremely high. Such miserable conditions continued till the end of the Second World War in 1945.

B. From Military State to Welfare State

The defeat of Japan in the Second World War caused a thorough eradication of prewar ultra-nationalism and militarism. Instead, peace, democracy, human rights, and social welfare became the nation's goal. Just one year after the end of the Second World War, Kyugohoh (the old public relief law) was abolished, and a completely new public assistance law (the

Livelihood Protection Law) was enacted in accordance with modern social welfare philosophy, though it did not recognize the legal right of people to ask for the provision of public assistance. Five years later, in 1950, the old Livelihood Protection Law was abolished, and the new Livelihood Protection Law was enacted. This is the present Japanese public assistance law, which recognizes the legal right of people to ask for the provision of assistance, and the right of appeal to upper administrative office and also to the court, when the applicant thinks that the decision of the local welfare office is not adequate in light of his/her needs. Owing to this law, the living conditions of poor older persons were significantly improved. One of the most significant effects of the new law was that the previously common sight of elderly beggars essentially disappeared.

In addition to the public assistance law, two important laws were stipulated between 1945 and 1950. The first was the Child Welfare Law of 1947 and the second was the Law for the Welfare of Handicapped Persons of 1949.

Another important step for the construction of the welfare state was the establishment of public pension programs to secure a minimum income after retirement. Actually the first step in this direction, though very limited in its scope, was taken in 1941, before the end of the Second World War, in the form of a law for the establishment of a public pension insurance for persons employed in mining, manufacturing, and other important firms. Three years later in 1944, one year before the end of the Second World War, this Law was revised so as to expand its coverage. The main goals of the 1941 and 1944 laws were to raise the morale of the employees of key industries, and thereby contribute to the national effort to win a victory in the War. It is to be noted, however, that this law also aimed at collecting money in the form of insurance contributions to finance the huge military expenses needed to continue the war. Whatever its goals may have been, the 1941 Law was the predecessor of the present National Retirement Pension Insurance Program for the Employees of Private Firms (Kosei Nenkin Hoken). In 1954, almost a decade after the end of the Second World War, the 1944 Law was revised so as to cover almost all employees working for private enterprises, including those which have only a very small number of employees.

In contrast with the public pension program for employed persons, the one for self-employed persons was established much later than the former, as will be discussed later in this paper.

C. Social Change and Its Impact on the Lives of the Elderly after the Mid-1950's

Japan underwent a rapid economic development and urbanization from the mid-1950's. The impact of this change was so profound that it is sometimes referred to as "the second industrial revolution." In 1955 the proportion of the population engaged in agriculture was approximately 41 percent. This proportion was reduced to approximately 9 percent in 1985. Rapid industrialization and urbanization greatly affected the lives of Japanese older persons through a number of changes in the social and economic structure of Japan. I shall discuss some of the important ones below.

a) Impact of Demographic Change

As discussed in Part I of this booklet, because of improvements in the general standard of living as well as in medical sciences, the number of very old persons aged 80 years or more, has been increasing significantly. The growth of the "old old" means an increase in the demand for various forms of care services. This increased demand is accelerated by the decreased capability of family caregivers, because the more advanced age of dependent older parents means that the age of their caretaking children has also risen. In many cases, the children themselves are already old and their own health is not adequate to provide needed care.

b) Migration of Younger Persons from Rural to Urban Areas

The reduction in the agricultural population means that there was a great migration from rural to urban industrialized areas. As a result, even in rural areas, the proportion of older persons living alone or only with a spouse increased significantly, though the proportion of such older persons in rural areas is still much lower than in urban areas.

c) Influence of the Dispersion of Industrial Areas

In addition to the great migration of the younger generation from rural to urban areas, due to a dispersion of industrial areas caused by the development of the manufacturing industry, a large number of young people were forced to move to other industrial areas to find jobs. Thus, persons who were born and raised in urban locations often have found it difficult to obtain a job in the same urban area where their older parents live. As a result, in urban areas, too, the proportion of older persons living alone or only with their spouse has increased.

d) Increase in Geographic Mobility

Industrialization has brought about much higher geographical mobility of working people in general. In industrialized societies, people change their jobs much more frequently than before. Even when they remain in the same firm, employees are often forced to move to other industrial areas for various reasons. In such cases, aging parents tend to prefer to remain at the original residence rather than move to an unknown place with the child's family in order to continue to live together. Besides, in Japan's industrialized areas, housing for workers is, generally speaking, not spacious enough for two or three generations to live together.

e) Increase of Working Middle-aged Women

Another conspicuous change is the growing number of working women. Because of the shortage in the male workforce, many married, middle-aged women who were once the most dependable caregivers of dependent older parents are now working outside their homes. In addition, the number of married women who are engaged in full-time professional jobs has been increasing significantly. These women seldom quit their jobs to take care of their aging parents as those with part-time and/or unskilled jobs frequently do.

f) Awakening of the Sense of Selfhood

The awakening of a sense of selfhood among the general public aroused by higher education, higher living standards, and the cultural influence of western industrialized countries has also played a very important role with regard to the change in living arrangements of the elderly in Japan. For example, these days an increasing number of both older and younger generations prefer to live separately from each other just for the sake of personal independence and freedom.

g) Decrease in the Number of Children

The number of children in Japan has decreased rapidly since 1950. As a result, persons with fewer children are now gradually entering the aged population. Obviously, when old people have fewer children, their chances of depending on them are reduced. This factor will make the need for services for old people, both community and institutional, more acute in the near future.

D. Realization of Universal Coverage of Public Pension Insurance and Public Sickness Insurance

The rapid and profound social changes discussed above drew people's attention to the need for a realization of universal public pension insurance and sickness insurance programs. When Japan's rapid economic development started in the middle of the 1950's, public pension insurance only covered employed persons. This held true as well for the case of public sickness insurance. The public sickness insurance program for the self-employed of 1938 was not compulsory. Therefore, quite a large number of local governments did not put this program into practice.

Universal coverage of public sickness insurance was realized by the National Health Insurance Law for Self-employed Persons (Kokumin Kenkouhoken-hoh) which was enacted in 1958 and fully put into practice in 1961. In the same year, universal public pension coverage was also realized by the National Pension Insurance Law for Self-employed Persons (Kokumin Nenkin-hoh) which was enacted in 1959 and put into practice in 1961 (refer to **Appendix B**).

E. Development of Public Services for the Elderly after 1960

Around the year 1960, Japan managed to succeed in meeting the basic needs of her citizens. At the same time, she finished constructing the basic legislative and administrative framework needed for protecting and promoting basic human rights, i.e., the Livelihood Protection Law (1950), Child Welfare Law (1947), the Law for the Welfare of the Handicapped Persons (1949), universal coverage of public sickness insurance (1961), and universal coverage of public pension insurance (1961).

Thus, Japan began to pay more attention to the social and humanistic aspects of the lives of the people, and started to develop various public services to meet such needs, including the needs of the elderly for health, social, cultural, and recreational services. It should be noted, however, that the efforts of the national government for the development of public services for the elderly before the 1980's were designed to catch up with those of the other industrialized countries of Western Europe and North America. Except for several minor services, Japan followed the paths which other industrialized countries had trailblazed for the promotion of the wellbeing of the elderly. Therefore, let me touch very briefly on those developments which seem important in light of the purpose of this booklet.

a) Enactment of the Law for the Welfare of the Elderly

In 1963, the national government enacted the Law for the Welfare of the Elderly. This law has two characteristics. First, it is a basic law which stipulates several basic principles to which all the other laws as well as governmental and voluntary actions related to the life of the elderly should conform. At the same time, it is a law which regulates the welfare services for the elderly, including institutional services, community care services, free health-check services, health promotion services, educational services, recreational services, and the like. When this law was enacted, it did not start any new program; in other words, this law was only a compilation of existing services at that time. However, it seems to me that the very existence of this law ultimately played a very important role in the development of various public health and welfare service for the elderly.

b) Tax Deduction Program

The income tax deduction program for those persons supporting parents aged 70 and over was started in 1972, and a similar deduction program for local income tax was started in the following year, 1973. The purpose of tax deduction programs is to stimulate and promote traditional family support and care of aging parents, especially those who are frail and impaired, in their own homes.

c) Development of Old People's Clubs

When the national government enacted the Law for the Welfare of the Elderly in 1963, the legislature requested that local governments should make every possible effort to provide needed help to old people's clubs and other organizations that are working for the well-being of the elderly. Along with the enactment of this law, the national government started the national subsidy program for the establishment and operational expenses of old people's clubs. At present (March 30, 1998), there are approximately 134,000 such old people's clubs throughout Japan, and about 8,869,000 -- approximately 32 percent of the older population aged 60 and over -- are members.

d) National Support for the Establishment of Community Centers for the Elderly

In 1963, the national government started the national subsidy program for the establishment of community welfare centers for the elderly. These centers are multi-purpose senior citizens' centers designed to provide

counseling, health, rehabilitational, cultural, and recreational services for the elderly. These centers also play an important educational role. They frequently hold a so-called "old people's college," which is a series of lectures for senior citizens. In addition, a substantial part of their usual programs is educational rather than merely recreational.

e) National Support for Elderly Education Program

The Ministry of Education started the national support for elderly education program in 1973, and now adult education courses for senior citizens are conducted at least once a year in almost all local communities.

F. Developments after 1980

(1) Policy Statement on the "Society of Longevity"

The proportion of the elderly in Japan exceeded 9 percent in the year 1980. Since then, although the level of aging was still low compared to other industrialized countries, the impact of population aging became increasingly clear not only to those who were directly engaged in work for the elderly, but also to the leaders of various areas of Japanese society. In addition, many people also became aware that Japan was to become the most aged country in the world within 40 years, when the proportion of the elderly in this country will be far higher than the present percentage in the Scandinavian countries.

Thus, in the early 1980's, many national government bodies appointed advisory councils and instructed them to investigate policies to be adopted to prepare for the rapidly approaching highly aged society. Among them, the most important was the establishment of the Sub-Cabinet on Aging Society by the national government. In 1985, the national government decided to establish a special Sub-Cabinet to deal with policies to be adopted for the coming "Society of Longevity." In the following year, 1986, a policy statement on the national long-term program to cope with the "society of longevity"' was adopted by the Cabinet. The Cabinet also decided that progress of the national long-term program should subsequently be evaluated regularly.

From the viewpoint of social gerontologists who are well-informed on social policies for the elderly in the advanced countries of Western Europe and North America, the contents of this policy statement are not very new. Moreover, the goals are described in very abstract terms. Therefore, I shall refrain from citing any sections of the policy statement in this paper. It

should be stressed, however, that in spite of the lack of substantiality in its contents, the statement played a very important role in the development of social policies for the elderly in Japan. Actually, even before its formal adoption, or while it was in the process of formation, it exerted a strong impact on the policies of various national government bodies.

(2) Enactment of the Fundamental Law on Policies for Aging Society

In November 1995, approximately ten years after the promulgation of the policy statement on the society of longevity, the Fundamental Law on Policies for Aging Society was enacted by the National Diet. The purpose of this law is to establish a more solid and powerful basis for national policies and programs for the aging society than the policy statement of 1986. This was only a kind of administrative guideline set by the national government, though actually it exerted a much stronger impact than expected.

In accordance with the law, in July 1996, the national Cabinet adopted the new policy statement on aging society which is to replace the former one on society of longevity promulgated ten years earlier (refer to **Appendix A**). Because the new policy statement is also written in abstract terms, and its contents are not very new for social gerontologists in industrialized countries, I shall again refrain from citing any parts of the statement.

(3) Programs Started since 1980

a) Enactment of the Law for Health and Medical Services for the Elderly

In 1982, the Law for Health and Medical Services for the Elderly was enacted by the National Diet and put into practice early in 1983. This law was based on the chapter on health and medical services of the Law for the Welfare of the Elderly of 1963. It should be emphasized that the previous programs were substantially enlarged in many respects. One of the most significant revisions was the lowering of the age limit for health checks and preventive services; namely, the age limit was lowered from 60 to 40. According to the law, every local government is required to give health check services regularly to all citizens aged 40 and over (for uterine and breast cancer, those aged 30 and over are covered). The health check services are given for only a moderate fee or free of charge. This law intends to improve the health of our senior citizens in the next century.

b) Renovation of the Public Pension System

In 1985, Japan's public pension system was completely renovated. The main purpose of this renovation was to restructure public pension programs so that they can function well even at the peak of the aging of our society, which will come around the year 2020. For this purpose, among others, the level of the retirement benefits was considerably lowered, though serious consideration was given to the interests of those who were already receiving retirement benefits. In light of the much longer average life span of women, necessary revisions were implemented.

c) National Subsidy Program for the Establishment of Health Care Facilities

In 1988, the national government started a national subsidy program for the establishment of health care facilities for the elderly (rojin hoken shisetsu). The purpose of such institutions is to provide long-term institutional care for the elderly who are suffering from chronic diseases and need intensive care, but do not need hospitalization. Prior to this, because of the lack of public home-care services and because of lenient public sickness insurance regulations regarding long-term hospitalization, many of them had been hospitalized for long periods. Needless to say, this represented nothing but a waste of society's financial and manpower resources. Another purpose of these institutions is to improve the services to such patients by caring for them in places that are more adequate than nursing homes. In Japan, the nursing home is not a health care institution, and the health and medical care provided in Japanese nursing homes is therefore limited. The new health care facility for the elderly (rojin hoken shisetsu) is to fill the gap between hospitals and nursing homes. Actually, however, the most important aim of this program is to accelerate the development of long-term care institutions by utilizing the public sickness insurance fund. Previously, nursing homes were established and run with money from general revenues. As it is almost always difficult to expand general revenues, the development of nursing home service in Japan has not kept pace with the rapidly expanding needs for long-term institutional care of the elderly. Many social gerontologists specializing in long-term care of the elderly suggest that, in industrialized societies, the number of beds for long-term institutional care should be at least 4 percent of the population aged 65 and over, even when home care and domiciliary services are well developed. This means that at the peak of population aging, i.e., around the year 2020, Japan will have to have approximately 1,200,000 such beds. It seems to me that without the

establishment of this new type of long-term care institution utilizing the money of the public sickness insurance programs, realization of this goal will be almost impossible.

d) National Sheltered Housing Program

In light of the predicted sharp increase in the number of the elderly living alone or aged couples living by themselves, it is quite clear that a special type of housing whose structure and facilities are specially designed to accommodate frail and/or impaired elderly should be developed, so that such older persons may continue to live independently in the community. If we fail to supply such housing in sufficient quantities, the demand for institutional care services will unnecessarily expand, a trend which will be much more costly for society than providing such housing for the elderly. Assisting people to be as independent as possible is clearly one of the most important goals for all human services. However, due to the serious shortage of public housing for middle-aged wage earners, our government has hardly been able to spare any funds for public housing program for the elderly. In 1988 our national government finally decided to start the national sheltered housing program for the elderly.

I hope that this important program will develop fast enough, so that in the future the elderly may not unnecessarily be institutionalized only because they cannot find adequate housing in which to live independently.

e) National Registration System of Trained Careworkers

In 1988 the National Registration System of Trained Careworkers was put into practice, and the first national examination was held in early 1989. The aim of this system is to improve the quality of careworkers, and thereby secure better services for frail and impaired persons living in the community and also in various types of institutions.

Another reason why our national government started this program was to make preparations for the anticipated growth of private care service agencies. Until recently, the national government was reluctant to do anything for the development of care services by for-profit agencies. However, partially because of the slow development and inefficiency of the homehelp service provided by local governments, the national government changed its attitude.

In Japan most homehelpers are full-time employees of local governments or local social welfare councils which are entrusted with the administration of this service by local governments. In other industrialized

countries a substantial proportion of homehelp services is provided by part-time workers. However, due to the law on government employees and also due to pressure from the Union of the Local Government Employees, it is very difficult for local governments to hire part-time homehelpers. This is one of the reasons why our homehelp service has been inefficient and its development very slow. Thus, the national government revised the regulations on the homehelp service system, so that local governments may purchase these services from for-profit agencies. Without the registration system of trained careworkers referred to above, it would be very difficult for the government to control the quality of service provided by for-profit agencies. I should think that the registration system of trained careworkers will also make a great contribution to the improvement of the quality of care services provided by public bodies and not-for-profit agencies in the community and in institutional settings.

G. Recent Trends

(1) Ten-year Gold Plan for the Development of Health and Welfare Services for the Elderly

At the beginning of 1990, the "Ten-year Gold Plan for the Development of Health and Welfare Services for the Elderly" was promulgated by the national government. According to this plan, the pace of the development of various public services for the elderly was to be greatly accelerated (**Table 1**).

Table 1. Gold Plan of 1990 and New Gold Plan of 1994: Goals for 1999

	Gold Plan of 1990	G.P. of 1994
1) In-home service		
Home helpers (persons)	100,000	170,000
Short-term stay service (beds)	50,000	60,000
Day service centers (places)	10,000	17,000
Home care support centers (places)	10,000	10,000
Visiting nurse stations (places)	–	5,000
2) Institutional services		
Nursing homes for the elderly (beds)	240,000	290,000
Health care facilities for the elderly (persons)	280,000	280,000
Care houses (A new type of Home for the Elderly with Moderate Charge) (persons)	100,000	100,000
Multi-purpose senior centers in depopulated Area (places)	400	400

However, as the Gold Plan of 1990 was significantly revised in 1994 and a new plan was promulgated in1999, the details of the Plan will be given later in this paper in the explanation of the so-called "Gold Plan 21," the newest version of Gold Plan.

The reason why the plan was promulgated was the increasingly obvious gap between the pace of the aging of the Japanese society and that of the development of various social policies of the elderly. In order to cope with the predicted gap between the supply and demand, the national government planned to introduce a new "consumption tax." To persuade the public of the necessity of the new tax, the national government created a long-term plan to cope with the coming aging society and disclosed this along with the necessary huge projected amounts of money -- which could only be raised with the new tax system.

(2) Restructuring of the Administration of Health and Welfare Services for the Elderly

In the year 1990 we witnessed another significant development: a fundamental restructuring of the public health and welfare services for the elderly implemented through the revision of the Law for the Welfare of the Elderly, the Law for the Health and Medical Services for the Elderly and several related laws and orders. The crux of the restructuring can be summarized in the following two points.

a) Decentralization First, by the revision of the Law for the Welfare of the Elderly, the authority to decide the admission of an older person into a home for the aged or nursing home was transferred from the prefectural government to the local government. With this change, the local governments have come to assume all the responsibilities for public health and welfare services for the elderly, from long-term institutional care to preventive, promotive, and recreational services. As a result, there has been better coordination among the various care services in regard to both the maximum quality of life and efficiency.

b) Long-term Planning As a result of the revision of the two basic laws, all local governments were required to make a long-term plan for the development of health and welfare services for the elderly, including institutional care services, community care services, preventive, promotive, and recreational services. Before the end of fiscal year 1993, all the local governments had completed these long-term plans.

(3) Growing Concern in "Care Security" and Expansion of Goals of the Ten-year Gold Plan

The most conspicuous trend after 1990 with regard to social security and health and social services is the growing concern of people regarding the need for so-called "kaigo hosho" (care security) in the coming highly aged society. "Care security" means a social service system by which all the needs for the care of older persons, including both institutional care and home care, are provided for publicly, regardless of income. In March, 1994, "the Advisory Group on the Welfare Vision in the Coming Highly Aging Society" presented its report to the Minister of Health and Welfare. This report proposed, among other things, the construction of a comprehensive public care service system. It also pointed out that the goals set by the 1990 Gold Plan mentioned above were not satisfactory in light of the predicted future growth of the care needs of older persons.

In September, 1994, the National Advisory Council to the Prime Minister on Social Security disclosed a second report on the "Future Image of the Social Security System." Among other things, the report stressed the pressing need for the construction of a comprehensive public care system as an integral part of our social security system and proposed establishing a public long-term care insurance program as soon as possible.

In response to growing concern over the construction of a public care service system, the national government took two important actions. One was the expansion of the goals of 1990 Ten-year Gold Plan (the New Gold Plan) in 1994. This revision placed an emphasis on the development of community care services, as shown in **Table 1**. The target year of the plan was the same as the original plan, i.e., 1999. Except for the goal of "Care Houses," all the other goals of the New Gold Plan of 1994 were successfully attained in the target year 1999, as is shown in **Table 2**. In order to catch up with the continuing rapid increase in the aging population, the Ministry of Health and Welfare promulgated a new long-term plan - Gold Plan 21 -- in 1999 (refer to **Table 2**), which will be discussed later more in detail.

The other action of the national government was the setup of a special task force for the development of a comprehensive public care service within the Ministry of Health and Welfare. Its ensuing development will be discussed in the following section.

(4) Planning and Implementation of Public Long Term Care Insurance

In June, 1996, the Ministry of Health and Welfare finished its first draft

of the Public Long Term Care Insurance and presented it to the National Advisory Council on the Health and Welfare Services for the Elderly. After a long, patient negotiation with a number of related government advisory councils, political parties, and representatives of local governments, the Ministry of Health and Welfare finalized its draft in November 1996, and presented it to the National Diet. The draft was finally approved by the National Diet in December 1997.

The Public Long Term Care Insurance System has been implemented as of April 1, 2000. It covers both community care and institutional care services for older and middle-aged persons aged 40 and over. In the case of middle-aged persons between 40 and 64, however, the insurance only covers the care services to those who suffer from such age-related illnesses as stroke, or senile dementia.

Contributions to the program are collected from persons aged 40 and over. This means that retired older persons also are obliged to contribute.[1]

The new long-term care insurance is to be financed with insurance contributions (1/2) and general revenue (1/2). Therefore, in order to cope with the predicted significant increase in the amount of general revenue arising from this system and other related expenditures in the coming highly aging society, the national government raised the rate of the consumption tax from 3 percent to 5 percent from April, 1997.

While the draft of the act was in the process of discussions within the related government advisory councils and public bodies, and later in the process of deliberations at the National Diet, one heard quite a number of opinions, both pro and con, through the media. It seemed, however, that a great majority of Japanese people were in favor of the introduction of the public long-term care insurance. It is expected that the new program will greatly raise the level of Japan's health and welfare services for the elderly.

As for the contents of the new Public Long Term Care Insurance, please refer to the outline of the program in "Attachment I" at the end of Part IV.

---

[1] Only several months before the start of the system, in accordance with the request of the ruling parties, the national government decided not to collect the contributions of older persons 65+ for the first 6 months, and to reduce this to 1/2 for another 12 months from the start of the system. The reduced income of the insurers (local governments) are to be made up by a special subsidy from the national government.

(5) Promulgation of "Gold Plan 21" a New Long Term Plan for the Development of the Care Services for the Elderly

As it became clear that the targets of the New Gold Plan for the fiscal year 1999 would essentially be achieved (except for the goal for Care Houses -- a new type of home for the elderly with moderate charge), a new plan, "Gold Plan 21" was promulgated in 1999 (refer to **Table 2**). It was promulgated for almost the same reasons as those of 1990 and 1994. It is to be pointed out, however, that this time the need for new plan was more acute, because with the creation of the Public Long Term Care Insurance, the demand for various elderly care services will increase at a faster rate than previously. In Table 2, the goals of the new "Gold Plan 21" are shown in comparison with the goals of the plan of 1994. As the table shows, the development of various elderly care services is to be accelerated further in the new plan.

Here, let me briefly explain the numerical goals of the Gold Plan 21. They are to be reached before the end of fiscal year 2004.

1. The number of homehelpers will be increased from 178,500 (1999) to 350,000. When the goal is reached, the ratio between homehelpers and the population aged 65 and over will be 1:69.7. It is said that in Sweden this ratio is roughly 1:50. This means that Japan's level will become

Table 2. The Status Quo* in 1999 and the 2004 Goals of Gold Plan 21(1999)

	The Status Quo* in 1999	(1999 Goals of 1994 Plan)**	2004 Goals of G.P.21
1) In-home service			
Home helpers (persons)	178,500	(170,000)	350,000
Short-term stay service (beds)	63,000	(60,000)	96,000
Day service centers (places)	17,150	(17,000)	26,000
Home care support centers (places)	10,000	(10,000)	10,000
Visiting nurse stations (places)	5,000	(5,000)	9,900
2) Institutional services			
Nursing homes for the elderly (beds)	300,000	(290,000)	360,000
Health care facilities for the elderly (persons)	280,000	(280,000)	297,000
Group homes for the demented elderly(places)	—	—	3,200
Care houses (A new type of Home for the Elderly with Moderate Charge) (persons)	83,400	(100,000)	105,000
Multi-purpose senior centers in depopulated Area (places)	600	(400)	1,800

*The figures for Status Quo are the one in the Budget for the fiscal year 1999 of the national goverment.
**The figures in parenthesis are the goals of 1994 New Gold Plan.

much closer to that of Sweden than before (in 1999 it was estimated to be 1:127:6). It is to be noted, however, that the figures for Japan include a large number of part-timers. Therefore the actual gap between Japan and Sweden is considerably wider than it appears when we merely compare the statistics.

2. The number of day service centers will be increased from 17,150 (1999) to 26,000. When this goal is reached, Japan will have one such center for every 938 older persons aged 65 and over, or a typical medium-sized city of 100,000 will have approximately 20 such centers.
3. The number of beds for short-term stay service (respite care service) will be increased from 60,000 (1999) to 96,000. It is believed that when the goal is reached, at least the acute needs for this service will be met.
4. The number of visiting nurse stations will be increased from 5,000 (1999) to 9,900, i.e., an almost two-fold increase. When this goal is reached, Japan will have a visiting nurse station for every 2,460 older persons, or a typical medium-sized city of 100,000 will have approximately 8 such stations.
5. The number of beds for long-term institutional care will be increased from 570,000 (1999) to 657,000. This means that when the goal is attained in 2004, the proportion of institutionalized older persons among those aged 65 and over will be 2.7 percent, almost the same as in 1999. Due to the rapid increase in the older population, the Gold Plan 21 will not be able to improve this proportion, which is much smaller compared with countries in Western Europe and North America. It is said that the average proportion among these countries is approximately 5 percent. Parenthetically speaking, however, the average length of stay of older persons in hospitals in Japan is much longer than in other advanced countries. Thus, the actual gap between the needs and the available resources in the year 2004 will be considerably narrower than a purely numerical comparison would indicate.
6. The number of group homes for demented older persons will be increased to 3,200 in 2004. This goal was not included in the former plan. The number of such homes in 1999 was negligible.

(6) Complete Renovation of Adult Guardianship System

Along with the implementation of the public long-term care insurance program a completely new adult guardianship system was put into practice on April 1, 2000. The basic reasons why the new system was introduced was that, under the new public long-term care insurance program, the users

are expected to decide themselves what kind of services they want to use, albeit below the ceiling set by the assessment of the needs for care services. In addition, they are also required not only to decide the frequencies of such services but also to select the service-providers among several registered agencies. It was feared that for demented older insurees or for insurees with a low level of mental ability because of advanced age -- the number of such persons is believed to increase significantly in a highly aged society -- such a decision or selection would be very difficult or even impossible. In addition, in many cases their spouses are also very old and more or less demented or at a low level of mental ability. Besides, in many cases relatives who are expected to play the role of proxy do not cohabit or reside nearby due to the rapidly changing living arrangements of Japanese older persons. In the course of the planning and preparation of the Public Long Term Care Insurance, it became quite clear that such older persons need to have someone to select or decide in their stead. As a result, preparations for the complete renovation of an adult guardianship system were started along with that of the Public Long Term Care Insurance.

It is to be noted, however, that the renovation was not only for demented older persons. Other important targets include intellectually disabled persons and seriously mentally ill patients. They will also be in greater danger of abuse, because increasingly greater numbers of them will not have parents to protect them due to the prolonged average life expectancy of these persons.

Detailed information about the Japanese new adult guardianship system is presented in "Attachment II" at the end of Part IV.

2. The Present Japanese Social Security Programs, Health Care, and Social Services for the Elderly

The previous section on the historical development of Japan's social policies for the elderly may present readers with some difficulties in gaining a clear grasp of the total structure and the present level of Japan's efforts for the welfare of our senior citizens. Therefore, this chapter aims to provide a clear-cut outline of Japan's contemporary social policies and programs for the elderly. In so doing, some explanations may unavoidably restate those given in the previous section.

A. Public Pension Insurance Programs

Roughly speaking, Japan has two tiers of public pension insurance programs by which all adult Japanese people are covered. The first tier is the National Pension Insurance Program (Kokumin Nenkin). This program is the basis of the total Japanese public pension system. The second tier consists of the following three kinds of pension insurance programs: the first is the National Pension Insurance Program for the Employees in Private Firms (Kosei Nenkin); the second is a group of pension insurance programs for the employees of governmental bodies and related agencies; and the third is a group of minor pension insurance programs for special groups of employees, such as teachers employed by private schools, sailors, and the like. In addition, there is a non-mandatory public pension insurance program for the self-employed. The universal coverage of public pension insurance is realized by these mutually independent programs which have been established separately but work cooperatively.

B. Public Sickness Insurance Programs

The structure of public sickness insurance programs is somewhat similar to that of the public pension insurance program. That is, we have several mutually independent programs. The first is the National Health Insurance Program for Self-employed Persons (Kokumin Kenko Hoken). The second is the one for those who are employed by private firms (Kenko Hoken). The third is the one for those who are employed by governmental bodies and related agencies. In addition, there are a number of minor programs for special groups of employees such as the teachers employed by private schools, sailors, and others mentioned above. By these mutually independent programs, a universal coverage of public sickness insurance is realized.

C. Medical Service

For those aged 70 and over, a special arrangement has been made to reduce the charge for medical services provided by public sickness insurance. Our public sickness insurance covers 80% of hospital charges and 70% of the outpatient service of an older person when he/she is a dependent of the insured. For retired older persons who do not have income other than public pensions, however, these charges (20-30%) are sometimes difficult to bear. To cope with this problem, the Law for Health and Medical Services for the elderly of 1982 stipulates that the elderly aged 70 and over are required to pay only a small fixed amount of the charge. In some regions,

such as Tokyo, the age limit has been lowered to 65. Thus, it can safely be said that in Japan, adequate medical services are available to all senior citizens regardless of the amount of income.

D. Health Check Service

The Law for Health and Medical Services for the Elderly of 1982 requires all local governments to have a health check service for their citizens aged 40 and over, which is free of charge or with only moderate fees. For uterine and breast cancer examinations, the age limit has been lowered to 30 years of age. All important medical examinations are included in the program. In general, local governments provide health check services annually for older persons aged 60 and over. For middle-aged persons between 40-59, most of the local governments provide health check services about once every five years. Incidentally, all enterprises employing a certain number of persons (including not-for-profit agencies) are required to provide annual health check services for their employees. Therefore, generally speaking, the local governments only provide their health check services to self-employed persons and unemployed persons, including housewives of the employed.

E. Long Term Care

In principle, long-term care is to be provided by two kinds of institutions -- nursing homes for the elderly and health care facilities for the elderly. Due to the serious shortage of beds in these long-term care institutions, a special type of hospital or hospital ward also provides long-term care for the elderly.

a) Nursing Homes for the Elderly

The nursing home for the elderly ("tokubetsu yogo rojin hohmu" in Japanese; literally translated, it means "special nursing home for the elderly") is a long-term care institution which belongs to the category of welfare institutions. Those who want to use this institution should apply to the local government to assess their physical and/or mental conditions. If the result of the assessment shows that the level of his/her physical and/or mental impairment is above a certain level, he/she is qualified to use the service of a nursing home utilizing the Public Long Term Care Insurance. Older patients are only required to pay 10% co-payment and costs for meals. However, because of the serious shortage of nursing homes, especially in the large metropolitan areas of Tokyo, Yokohama, Nagoya, Osaka, and others,

in many cases the applicants have to wait for a long time before being actually admitted.

The costs for the construction of nursing homes for the elderly are jointly born by the State (1/2), Prefectural Government (l/4), and the establisher (l/4).

At present (March 31, 2000) there are approximately 300,000 nursing home beds throughout Japan. As is shown in Table 2, the number of nursing home beds is to be increased to 360,000 before the end of fiscal year 2004 by the Gold Plan 21.

b) Health Care Facilities for the Elderly

Health care facilities for the elderly are long-term care institutions designed as halfway houses between hospitals and the community. The procedure to utilize the service of this institution is exactly the same as that for a nursing home.

At present (May 31, 2000), there are approximately 280,000 beds in health care facilities throughout Japan. The Gold Plan 21 intends to increase them to 297,000 by the end of fiscal year 2004. The expected increase is only 17,000 beds, which is a significantly smaller growth compared with the planned development of homehelp services and other community care services.

c) Long Term Care Beds in Geriatric Hospitals

As has been pointed out above, because of the shortage of long-term care beds in nursing homes or health care facilities for the elderly, quite a number of seriously impaired older persons are hospitalized for a long time without any real need for such hospitalization. The accurate number of such older persons is unknown. The only information available is the number of beds in so-called geriatric hospitals ("rojin byoin"), which was approximately 160,000 in May, 1998.

F. Homes for the Aged

Homes for the Aged are for frail or slightly impaired older persons who are functionally independent in daily living activities but in need of a meal service and a slight domiciliary service. There are two types of homes for the aged. One is called "yogo rojin hohmu" (if literally translated, it means a "nursing home for the elderly") that has its origin in public assistance institutions for the aged. (Hereafter in this paper, this type of home for the aged will be referred to as "an ordinary home for the elderly.") The other is

called "keihi rojin hohmu"' (if literally translated, it means a "home for the elderly with moderate charge."). Incidentally, in one type of "keihi rojin hohmu'' (Type B), meal services are not provided.

To enter an ordinary home for the elderly, one is requested to apply to the welfare bureau of the local government. On the other hand, to enter a home for the elderly with moderate charge, one can apply directly to the home. The most important difference between the two is that an ordinary home for the elderly can be used by those older persons who have no income or only a very small income and cannot bear any fees. The expenses needed to run this type of home for the aged are borne jointly by the national government (1/2), the prefectural government (1/4), and the local government (1/4). The client as well as the relative who is legally responsible to support and care for the client are charged in accordance with the fee scale set by the Ministry of Health and Welfare. The administrative definition of the responsible relative is, however, very lenient. The amount of charge is decided according to the amount of income, and, incidentally, the calculation method of the amount of charge is very complicated. It can safely be said that, generally speaking, the amount of charge imposed on the responsible relative is significantly less than the amount of money he/she has to bear when he/she supports and care the client at his/her own home.

In case of a home for the elderly with moderate fee, the living cost should be borne by the residents themselves. In addition, the homes require the residents to bear the administrative costs, though the amount to be actually paid is decided in accordance with the amount of income of the residents.[2]

The remaining amount of administrative expenditures of the homes for the elderly with moderate charge is jointly borne by the national government (1/3) and the prefectural government (2/3).

The cost for construction of an ordinary home for the elderly and a home for the elderly with moderate fee are borne jointly by the national government (1/2), the prefectural government (1/4), and the establisher (1/4).

These days, the buildings and facilities of ordinary homes for the elderly (originally they were public assistance institutions) have been greatly improved. There is still, however, a significant gap in the physical facilities

[2] In case of Type B homes for the elderly with moderate charge, however, the residents are required to bear 100% of administrative cost.

of these two types of home for the aged, though there is not an essential difference in their services.

At present (October 1, 1997), there are approximately 67,000 beds in ordinary homes for the elderly (including homes for older persons with visual or auditory disabilities). The current number of beds in homes for the elderly with moderate charge is approximately 41,000 (October 1, 1997). Most homes of the elderly with moderate charge have a long waiting list, probably because of the shortage of sheltered housing for the elderly in Japan.

G. Retirement Homes

In addition to the publicly supported homes for the aged discussed in the previous section, there are a number of "yuryo rojin hohmu" (if literally translated, "home for the elderly with charge"). Most of these homes provide so-called "lifelong care." Thus, even if residents become severely impaired, the home provides needed nursing care as long as the residents wish. Incidentally, the nursing care service provided by this type of home is covered by the Public Long Term Care Insurance. They are established and run without any public grant or subsidy, the only public support being a low-interest loan program. Therefore, their charges are very expensive, and only those who belong to the upper-income class can afford to enter. At present (October 1, 1997) there are approximately 280 such homes throughout Japan with approximately 30,100 older residents.

H. Day and Home-delivery Services

a) Homehelp Service

At present (March 31, 2000), there are approximately 178,500 homehelpers for the elderly throughout Japan. (In addition, there are approximately 32,800 homehelpers for handicapped persons.) As discussed in the previous part of this paper, the national government is placing a special emphasis on the rapid development of this service, and before the end of fiscal year 2004, the number of homehelpers for the elderly will be increased to 350,000. This service is covered by the Public Long Term Care Insurance. Therefore, those who are assessed as in need of this service can utilize it by paying only the 10% co-payment.

b) Visiting Nurse Service

Visiting nurse service is now developing very rapidly in Japan. At present (March 31, 2000), there are approximately 5000 visiting nurse

stations throughout Japan. As mentioned earlier in this paper, the number of the stations will be increased to 9,900 before the end of fiscal year 2004. This service is covered by the Public Long Term Care Insurance. Therefore, the insurees whose level of impairment is assessed as above a certain level are entitled to use this service by paying only 10% co-payment.

c) Day Service for Frail and Impaired Elderly

Day service for the frail and impaired elderly is also developing very rapidly in Japan. At the end of fiscal year 1999, there were approximately 17,150 day service centers throughout Japan. The number of the centers will be increased to 26,000 before the end of fiscal year 2004, as mentioned previously. Day service centers are obliged to provide transportation service for their users. Some of the day service centers are also providing such home-delivery services as visiting bathing services, meals-on-wheels, and laundry services. These services (except for meal services) are covered by the Public Long Term Care Insurance. Therefore, the insurees whose level of impairment is assessed as above certain level can use these services by paying 10% co-payment.

d) Short-term Stay Service (Respite Care)

Short-term stay services are provided mainly in nursing homes and health care facilities for the elderly. There are also institutions providing only short-term stay services, but the number of such institutions is quite limited. At the end of fiscal year 1999, there were approximately 63,000 beds for short-term stay service throughout Japan. This service is also covered by the Public Long Term Care Insurance. Thus the insurees whose level of impairment is assessed as above certain level can use this service by paying 10% co-payment.

e) Home Care Support Centers

The purpose of the home care support center is to give advice to family caregivers, to provide information on home care, and to refer cases to an appropriate social agency when necessary. Some centers have a showroom of equipment and supplies for home care. According to the national standard, each center should have at lease one social worker and one trained nurse. All the centers receive telephone calls 24 hours a day. At the end of fiscal year 1999, there were approximately 10,000 such centers throughout Japan.

f) Provision of Technical Aids for Home Care

This program is subsidized by the national government. Utilizing this subsidy, all local governments are offering this service. The program covers most of the important technical aids for home care, including specially equipped beds, special mattress, air-pads for the prevention of bedsores, toilet chairs, special automated urinals, fire alarms, automated fire-extinguishers, emergency alarm systems, a set of special transmitters and receivers for the loitering demented elderly, wheelchairs, special telephone equipment, and so forth. At present, sixteen kinds of equipment are provided by this program. Many of these technical aids are to be provided by the Public Long Term Care Insurance.

I. Educational and Recreational Services

a) Educational Service

As mentioned earlier in this paper, with the subsidy from the Ministry of Education, all local governments have a variety of educational services for their senior citizens. In general, they are provided as a part of the adult education program. Some prefectural governments as well as local governments have special programs and/or facilities for this service. Among them, Inamino-Gakuen (the Inamino School for Senior Citizens) of Hyogo Prefecture in the western part of Japan is very famous for its excellent programs and good facilities.

b) Community Welfare Centers for the Elderly

The main function of community welfare centers for the elderly is to provide recreational and educational services for the elderly. Most of them have a room and facilities for rehabilitation training. Most of them also have a free public bath. In addition, many centers provide counseling service. At present (October 1, 1997) there are approximately 2,230 such centers throughout Japan. The construction of these institutions is subsidized by the national government.

In addition to the community welfare centers for the elderly, there are quite a number of small-scale neighborhood welfare centers for the elderly ("rojin ikoino ie" -- literally translated, "rest and relaxation house for the elderly"). They are serving as places for older persons to visit together and enjoy various recreational activities. At present (October 1, 1997) there are approximately 4,550 such centers throughout Japan. When the local governments construct these houses, they can obtain low-interest loans from

the national government.

c) Old People's Clubs

Information on old people's clubs has already been given in a previous part of this paper. Therefore, please refer to p. 112.

J. Programs to Provide Opportunities to be Engaged in Gainful Occupations

Generally speaking, Japanese older persons, especially male older persons, want to continue to work as long as possible, in order to live a meaningful life as well as to have extra income. To meet these needs, the following services are provided through a national subsidy.

a) Information Center for the Development of Vocational Ability of Older Persons (Koreisha Nouryoku Kaihatsu Jouhou Sentah)

The main purpose of this kind of center is to find adequate jobs for unemployed older persons. It also serves as an information and advice center on various issues and problems of older persons. At present (March 30, 1998) there are 91 such centers throughout Japan.

b) Silver Human Resources Centers

The purpose of the silver human resources centers is to find opportunities for light, part-time gainful work for older persons. It is to be noted that this center is to be run by a not-for-profit organization of retired older persons themselves. This is a national subsidized program of the Ministry of Labor. Most cities with a population over 100,000 have these centers now.

K. Other Programs

a) Tax deductions

Please refer to Section 1.

b) Telephone Reassurance Service

This service is popular in Japan, though it is not supported by the national government. In most cases, the service is provided by volunteers, even when it is run by local governments.

c) Services for Improvements, Additions, or Remodeling of Houses for the Elderly

Recently, this kind of service has been growing rapidly, as the Public Long Term Care Insurance provides a limited amount of grant for certain kinds of improvement for a house in which the insuree currently lives. The upper limit of this grant is 200,000 yen (U.S.$1852).

d) Meal Services

In Japan, a daily meal service is provided by only a very small number of local governments or voluntary organizations. Moreover, almost all of these programs are still in an experimental stage. The reason why this service has not developed in Japan is that almost always such frail and/or impaired older persons who need daily meal service live with their children or are institutionalized. This is due to the underdevelopment of homehelp and other essential community care services. As a result, such frail and/or impaired older persons as those who need daily meal service cannot live independently in the community.

e) Sheltered Housing

Sheltered housing for the elderly was started in 1988, as reported earlier in this paper. Unfortunately it is not yet very well developed in Japan. The fundamental reason is that the national government is still placing a great emphasis on investment for the construction of roads, harbors, and other basic public works. Compared with these public works, public housing, including those for the elderly, receives minor attention from the Ministry of Construction.

Epilogue

With the start of the new Public Long Term Care Insurance and the new adult guardianship system, Japan has opened the door to a new era of care services for the elderly. The former in particular is expected to create a revolutionary impact on traditional value systems which so far have been placing the primary responsibility to care for aging parents on children, however difficult this may be. Let me explain it more in detail. In short, even at present, ordinary Japanese middle-aged people usually think that children should take care of their aging parents *by all means*. Thus even today, not a small number of middle-aged professional women -- such as veteran school teachers, quit their jobs to take care of their own or their husband's aging parents. In the future, however, ordinary Japanese people will change their attitude, and place the primary responsibility on the public long-term care insurance program. This is because, in the insurance system, the insured can naturally demand the insurer to provide the contracted benefits as a right whether or not the insured has children to depend upon as a caregiver. Thus, the obligation of children toward the care of aging parents will become much lighter than at present. The expected role of children, especially that of the daughters-in-law, will be to provide auxiliary care voluntarily when the services provided by the insurance do not seem sufficient for maintaining the life of aging parents at a decent level.

It seems to me that the public long-term care insurance will give a finishing touch to the democratization and modernization of Japan that started half a century ago amidst the miserable social and economic conditions resulting from the tragic Second World War against universal human values, freedom, democracy, and the equality of all citizens.

<Attachment I>

The Outline of the New Public Long-term Care Insurance Program

(using the exchange rate at the middle of May, 2000: $1.00=¥108.)

1. Time of Start: April 1, 2000

2. Insurer:

Local Autonomy(Municipality). City, Township, Village, and Ku of Tokyo

3. Insuree:

Japanese citizens aged 40 and over

(1) Type I Insuree: Those who are aged 65 and over

(2) Type II Insuree: Those who are aged between 40 and 64

4. Benefits:

*Care and domiciliary services to the insuree who is in need of long-term institutional or home care services or domiciliary services.

*In case of Type II Insuree the program only covers the care service needs or domiciliary service needs caused by such age-related diseases as stroke and Alzheimer's Disease.

5. Insurance Premiums:

A. Type I Insuree

(1) In principle, the amount of insurance fee is to be decided taking the amount of income into consideration.

(2) The amount of insurance fee is to be decided in accordance with the level of services available in the community.

(3) The insurance fee of those whose amount of public pension is above a certain level is to be deducted when a public pension is paid. Those whose amount of public pension is less than a certain level are required to pay individually to the insurer (local government).

B. Type II Insuree

(1) The amount of insurance fee varies according to the kind of public medical care insurance held by the insuree.

(2) The Type II Insuree is to pay the insurance fee along with the insurance fee for public medical care insurance.

(3) The amount of insurance fee varies according to the amount of

income in case of the employed. The payment of fee is to be shared between the employed and the employer at the ratio of one to one.

(4) The amount of insurance fee of the self-employed varies according to the amount of income and assets. The national government pays the local government the same amount of contribution as that of the insuree.

6. Estimated Average Amount of Insurance Fee

According to the estimation by the Ministry of Health and Welfare (July 1999), the average amount of the insurance fee for Type I Insuree would be approximately 2,885 yen a month (approximately US$26.7). The highest would be 6,204 yen, an the lowest would be 1409 yen, with the ratio between the highest and the lowest being 4.4 to 1.0.

7. Procedures and Contents of Services

(1) When the insuree wants to use the services of the Public Long-term Care Insurance, he/she should apply to the insurer (local government) for the assessment of his/her needs for care and/or domiciliary services. A designated home care service agency (public, not-for-profit, or for-profit) and an institutional care service agency can act as proxy for the insuree.

(2) Once the local government's assessment committee determines that the applicant is in need of the services of Long-term Care Insurance, the cost of services used after the date of application is to be covered by the Insurance.

(3) Assessments are to be done regularly (every six months) after the beginning of the service. Whenever the insuree thinks that his/her physical/mental conditions have worsened (or improved), he/she can ask the local government to reassess his/her needs.

(4) As soon as the application is approved, a care plan should be made either by the insuree oneself or by a licensed care-manager with the informed consent of the insuree. The care plan is to be made in accordance with the approved Degree of Care Needs described in Item 5 below.

(5) The insurer (local government) is to pay for a care plan made by a caremanager. The care plan made by the insuree oneself or a licensed caremanager is to be presented to the insurer (local government). The insurer will pay the cost of services to the designated home care service agency according to these care plans presented prior to the start of services.

(6) The amount of money to be used for the insuree who only needs

domiciliary service will approximately be 64,000 yen a month (approximately US$593).

(7) For the insuree who needs care service in addition to domiciliary service, there are five degrees of care needs. The amount of money to be used for the insuree whose degree of care needs is assessed as the lowest (the 1st degree) will be approximately 170,000 yen a month (approximately US$1,574). It will be approximately 368,000 yen a month (US$3,407) for the highest degree (the 5th degree) of care needs.

(8) The amount of money to be used for the insuree whose care needs are so severe as to be in need of institutional care will be approximately 325,000 yen (US$3,009) a month on average for care in a nursing home, 354,000 yen (US$3,277) a month on average for care in a health care facility for the elderly (rojin hoken shisetsu), and 431,000 yen (US$3,991) a month on average for care in a long-term care geriatric hospital.

The institutional care needs will also be measured with a five level scale, by which the amount of money for each individual patient will be decided. In case of a nursing home, 325,000 yen a month will be the average amount of payment per patient a nursing home receives from the insurer (local government).

8. The services to be covered by Long-term Care Insurance are as follows:

a) For those who need care services

<Community care services>

*home care service (including domiciliary services)
*visiting bathing service
*visiting nurse service
*visiting rehabilitation service
*utilization of the services of rehabilitation center
*physician's or dentist's call on
*utilization of the services of day care center
*short-term stay service
*group home service for the demented
*care services at the retirement home
*rental service or purchase of technical aids
(This benefit is to be given in addition to the amount of money described above)
*costs for improvement of housing

(This benefit is to be given in addition to the amount of money described above)

<Institutional care service>

*care service in a nursing home

*care service in a health care facilities for the elderly

*care services in a long-term care geriatric hospital

b) For those who need only domiciliary services

*Only domiciliary care service is provided.

*Institutional care is not to be provided.

9. Co-payment

The insuree is required to pay 10 percent of the cost of services in the case of community care services. When he/she is institutionalized, he/she is also required to pay the cost of meals in addition to 10 percent co-payment. In case the amount of income is smaller than a certain level, the amount of co-payment will be reduced. For those who cannot pay, the co-payment and/or cost of meals will be covered by public assistance.

<Attachment II>

Outline of the New Adult Guardianship System

Japanese adult guardianship system before the renovation in 2000

Before the renovation in 2000, because of the negative connotations of the Japanese legal terms, "kin-chisansha" (the incompetent) and "jun-kin-chisansha" (the quasi-incompetent)[3], for the two kinds of clients, they were almost always applied to those who were incompetent or quasi-incompetent *in the management of their property.*

In addition, the previous Japanese adult guardianship system had several serious drawbacks compared with those that have been recently renovated in several Western European countries. First, a "kohkennin" (guardian) for (total) incompetence as well as a "hosanin" (curator)[4] for quasi-incompetence were to be selected and nominated by the court from among close relatives, with the first priority on the spouse. In the highly aged society, however, in many cases the spouse is also very old and does not have a degree of mental ability sound enough to act as such. When other relatives, for example, a child, is nominated, it is not always sure that he/she will do the best in the interests of his/her demented parent. Actually, under the old system there were many cases where a child nominated as a guardian or curator used his/her parents' property only for his/her advantage, neglecting the interests of the parents as well as other children.

Second, under the old system, the court could nominate only one guardian or curator. Besides, it was believed that a legal person was not allowed to become a guardian or a curator, though there was no such article in the Civil Code. In many cases, however, it was difficult for the court to find a single person who was able to play a role of a guardian or curator satisfactorily.

Third, under the old system, once a person was declared as being *incompetent,* the result was total, i.e., he or she lost all legal capacity and a guardian (kohkennin) was mandated to take over all the legal authority to

---

[3] If literally translated, they mean "those who are forbidden by the court to do any legal transactions" and "those whose conditions are close to kin-chisansha."

[4] If literally translated, this word means "an assisting person."

make decisions on his/her behalf. It is to be noted, however, that, as mentioned before, for those who were *quasi-incompetent* (jun-kinchisan-sha), a curator (hosanin) was nominated by the Family Court. In this case, the quasi-incompetent did not lose all his/her legal capacity. Unlike the case of (total) incompetence, the quasi-incompetent only had to obtain the consent of the curator for the nine acts that were specified in the Civil Code.

Fourth, there was no legal system for a person to nominate a guardian or curator voluntarily while he/she was still sufficiently mentally sound. The only way to have a guardian or curator nominated was to apply to the court. In addition, it took quite a long period of time - at least 6 months - and a large amount of money - more than US $5000 - to have a person diagnosed by the psychiatrists nominated by the court as being (totally) incompetent or quasi-incompetent.

In short, the previous Japanese adult guardianship system was simple, but because of its simplicity and strictness in the due process it had a number of serious drawbacks as an adult guardianship system in a highly aging society.

Outline of the new Japanese guardianship system

Introduction of a new type of guardianship - voluntary nomination of a guardian

One of the most important points of the renovation in 2000 was the creation of a new type of adult guardianship system in which anyone can nominate a guardian for oneself voluntarily while he/she is still mentally sound. In order to place it in the whole structure of adult guardianship system, "The Law for Voluntary Nomination of Adult Guardian" was enacted by the Diet along with the revision of the Civil Code. The new law stipulates that voluntary nomination should be made in a written contract made by a notary public ("kohshohnin" in Japanese) in the form of a notarial deed ("kohsei-shohsho" in Japanese) and registered according to the procedures stipulated by the newly enacted "Adult Guardianship Registration Act."

This type of guardian is named "nin-i-kohkennin" (voluntarily nominated guardian). In the case of voluntary nomination, a legal person --- including for-profit organizations -- can become a guardian. It is to be noted that, in this type of adult guardianship system, when a client who voluntarily nominated a guardian and registered the contract to "adult guardianship registration system" (please refer to Item 6 of the following section) proves to be more incompetent than the level stipulated by the regulations of the

law, the Family Court may nominate a "nin-i-kohken kantokunin" (supervisor to voluntarily nominated guardian) in accordance with the request of a client him/herself, a spouse, a close relative, a voluntarily nominated guardian, or a public prosecutor. The legal effect of the contract for the voluntary nomination of an adult guardian comes into force at the time when the court nominates a supervisor to a voluntarily nominated guardian ("nin-i-koken kantokunin" in Japanese).

Improvement and extension of traditional court-designating adult guardianship system

1. The terms, "kin-chisansha" (those who are incompetent in the management of their property) and "jun-kin-chisansha" (those who are quasi-incompetent in the management of their property), were deleted from the Civil Code so as to make the purpose of the renovated adult guardianship system clearer. Instead, the new terms "kohken seido" (guardianship system) and "hosa seido" (curatorship system) were introduced. As for the latter, please refer to Item 3 below.
2. In the previous system, when one was declared by the Family Court as "(totally) incompetent in the management of their property," the result was total and he/she lost all legal capacity. Under the new system, even the (totally) incompetent may keep the capacity to decide such acts for oneself as related to one's daily living, such as the purchase of daily necessities.
3. In place of the former system of quasi-incompetence (jun-kin-chisan), the "hosa seido" (curatorship system) was introduced. When one is declared as being quasi-incompetent, one partially loses legal capacity. That is, only with regard to the nine acts stipulated in the law, does one have to obtain the agreement of the curator. It is to be noted that the Family Court may judge that one also needs to obtain the agreement of one's curator with regard to acts other than stipulated by the Civil Code. Although the name of this partial incompetence system has been changed, the contents are roughly the same as before.
4. Under the previous guardianship and curatorship systems, the law stipulated that when a husband or a wife is declared as being incompetent, the spouse should become automatically a guardian or curator. Under the new systems, however, the Family Court may select any person (including a legal person) as a guardian, curator, or helper (for this term, please refer to Item 5 below.), taking into consideration the specific situations of the case. In addition, the court may nominate more than one person (including a legal person) as

guardians, curators, or helpers.)

5. In addition to the guardianship and curatorship systems, a new type of adult guardianship is stipulated in the new system. This is called the "hojo seido" (literally translated as "help system."). The target of this newly added system is those whose level of incompetence is less than that of quasi-incompetence. That is, this system is for those who suffer from mild senile dementia, intellectual disability, or mental disability, and thereby lack a sufficient level of mental ability as a normal adult. For these persons, the Family Court may select and nominate "hojonin" (literally translated as "helper.") in accordance with the application of a client himself/herself, a spouse, a close relative, a guardian, a supervisor of a guardian, a curator, a supervisor of curator, or a public prosecutor. In this case, the court may not start the process of selection and nomination of "helpers" without the informed consent of the client. Under this system the client has to obtain the agreement of a "helper" when he/she performs the act (or acts) designated by the court with the informed consent of the client. The court, however, may only designate such act (acts) among the nine acts explained in the previous part of this section.
6. Under the old system, the declaration of incompetence and quasi-incompetence was to be written down in the family register ("koseki" in Japanese). This is one of the reasons why the old adult guardianship system was abhorred and seldom utilized. Therefore, under the new system, a special registration procedure ("seinen-kohken touki seido", literally translated as "adult guardianship registration system") was created.
7. Under the new system, the sphere of responsibility of a guardian, curator, or helper is enlarged so as to make them responsible to give necessary attention to the client's mental and physical health and the conditions of his/her daily living. They are also obliged to see to it that the clients receive adequate care and assistance. In the previous system they were only responsible for the management of the client's property and the arrangements of care services when he/she suffered from illness. To be more concrete, under the new system, a guardian, curator, or helper is obliged to give as much attention as possible, so that the client may receive adequate health and medical care, live in a decent dwelling, enter or leave a social welfare institution when necessary, receive needed care services at his/her home, be given a chance to receive adequate education, and be given needed

rehabilitation services when necessary. Under the old system, however, a guardian or a curator was only obliged to pay adequate attention when the client suffered from illness so as to recover safely within his/her financial ability. Therefore, the Japanese new guardianship system can be said to belong to a care-taker type, though it is not so positive and radical in this direction as the new German system.

8. Finally, in relation to the newly introduced Public Long Term Care Insurance, the mayor of the local government is given authority to ask the court to select and nominate a guardian, or curator, or helper, when they find a person who does not seem to have sufficient mental ability to properly utilize the services of the insurance. This is because the Public Long Term Care Insurance requires even demented older insurees not only to decide for themselves the kind of services they want to use and to what extent, but also to select the service-providers among several registered agencies.

APPENDIX

A. General Principles Concerning Measures for the Aging Society

B. Chronology of Aging Japan

APPENDIX A

General Principles Concerning Measures for the Aging Society

— July 1996 —

Table of Contents

Part 1 Objectives and Basic Concepts

1. Objectives in Drawing Up General Principles

Japan is facing rapid population aging. This, together with the undulating changes in our economic societies, has an extensive influence on the people.

In the beginning of the 21st century, Japan expects to become a genuine aging society. In order to build, without delay, an affluent society full of solidarity and vitality where each and every one can feel that they are happy to live long and are in perfect harmony with one another, it is vital to promote sound development of the economy as well as stable improvement of people's living conditions. This can be accomplished by continuously reviewing socio-economic systems so that they meet the needs of the new society, support the independence of individuals and the role of families, maintain and promote the vitality of the people, and assure peaceful living by appropriately combining self-support with mutual and public support.

To help achieve this goal, general principles, which the government should implement, have been drawn up as a basic and comprehensive policy for the aging society in accordance with the provisions in Article 6 of the Basic Law on Measures for the Aging Society (Law 129, 1995, hereafter referred to as the "Law.")

2. Basic Concepts

In principle, measures for the aging society should be implemented with the goal of building the following society as prescribed in Article 2 of the Law:

1) A fair and energetic society where people can be ensured that they have the opportunity of participating in diverse social activities or working throughout their lives.
2) A society where people are respected as important members throughout their lives and where local communities are formed based on the spirit of independence and solidarity.
3) An affluent society where people can live peacefully and with fulfillment throughout their lives.

In order to achieve these basic principles, it is vital to implement measures for an aging society under a system in which all members of the society can help and support one another. This can be achieved through mutual exchange and cooperation among all members of the society, such as the national government, local governments, corporations, local communities, families, individuals and volunteers, as well as their active involvement in achieving this goal.

To facilitate such efforts, the governmental measures for the aging society have been drawn up based on the fundamental concepts described below and will be implemented across various sectors, such as working and income, health and welfare, learning and social involvement, living environments, and promoting research.

(1) Emphasis on the independence, participation and choices of the elderly

Considering the diversity of the elderly, they will be supported so that they can live peaceful lives independently and conditions will be improved so that they can actively participate in diverse social activities by utilizing their experience and abilities as important member of the aging society. In addition, private service providers will be utilized in providing services, so that the elderly can independently choose their life-styles based on their own values. Consideration will also be given to diversity of choice by actively utilizing private insurance for extra benefits, while publicly assuring the provision of fundamental benefits.

(2) Systematic implementation of measures throughout people's lives

Systematic implementation of measures for the aging society will be promoted by effectively combining various measures. In other words, the measures will be implemented effectively to meet the needs of individuals at various stages of life, from infants to the elderly and will focus on the independence of individuals and the role of families.

(3) Respect for regional autonomy

Necessary environments will be developed to promote regional autonomy and effective measures, such as the utilization of existing facilities

and community development will be taken, considering the degree of aging and socio-economic conditions in the region, urban and rural areas alike.

(4) Effective implementation of the measures

An increase in people's future burdens will be mitigated as much as possible and a fair and appropriate sharing of burdens among different generations can be achieved by optimally utilizing social resources, including the private sector, and effectively developing and implementing measures for the aging society.

(5) Cooperation among the administrative bodies concerned

In order to promote measures for the aging society effectively and comprehensively, current measures will be subject to stringent reviews, thorough coordination among the measures will be carried out and close cooperation among the administrative bodies concerned will be promoted.

(6) Use of technology concerning medical care, welfare, information and communication

The research, development and utilization of technology concerning medical care, welfare, information and communication will be promoted so that the results can be also enjoyed by the elderly.

In addition, as basic conditions for promoting measures for the aging society, efforts will be made to achieve sustainable economic development by maintaining stable price levels and promoting creative technology research and development activities and reforms, while promoting balanced development of national land through infrastructure developments, focusing on improving the quality of the life of people.

Part 2 Basic Measures by Sector

1. Working and Income

In response to the aging working population as we approach the 21st century, employment and working environments will be improved to achieve sustainable economic development and allow working people to show their abilities to the fullest up to the old age, thereby rejuvenating the aging society.

Considering the elderly's positive will to work, continuous employment up to the age of 65 will be promoted with the aim of allowing the elderly to work regularly until they are 65 if they wish, utilizing the knowledge, experience and abilities which they have acquired over many years. In addition, diverse opportunities will be provided so that the elderly can find jobs, depending on their will and abilities.

Various measures will be promoted, such as professional ability development, working hour reduction, further assurance of equal employment opportunities and labor conditions, and the propagation of child-care leave and care leave for the elderly, so that working people can exhibit their abilities throughout their professional careers while they are coping with their profession, family, and community life.

The income of the elderly after their retirement will be mainly secured by public pensions, which are based on social solidarity among the people, properly combining corporate pensions, retirement allowances, personal pensions and assets, which are based on company and personal efforts.

(1) Securing employment and working opportunities for the elderly

a. Promoting continuous employment until the age of 65

Employment and working environments for the elderly will be improved, centering on continuous employment until the age of 65.

With respect to the retirement system at the age of 60, which serves as the basis of continuous employment until the age of 65, companies that have not implemented this system will be urgently instructed to do so as soon as possible before April 1998 when the system becomes compulsory.

In order to promote continuous employment until the age of 65, the

introduction of post-retirement continuous employment systems will be encouraged and directed. Consultation and assistance concerning fair wages and personnel management will also be promoted. Furthermore, various subsidies concerning the employment of the elderly will be utilized.

For those elderly people whose wages have declined considerably since they were 60 years old, allowances for continuous employment of the elderly, which is part of employment insurance, will be utilized to respond to their will to work.

Considering physical and psychological changes associated with aging, efforts will be made to prevent industrial accidents and improve workers' health and working environments.

b. Securing diverse employment and working opportunities

As people get older, health and physical strength condition differs among individuals and their needs for working diversify. It is, therefore, necessary to provide diverse working opportunities while maintaining close cooperation among the parties concerned.

To help the unemployed elderly find new jobs, labor demand and supply coordinating functions of public employment security offices will be enhanced by promoting professional ability development, exploiting job offers, providing employment information and implementing reemployment assistance measures. Reemployment assistance programs offered for retired people by private organizations will also be promoted.

In addition, to help the elderly work at their own discretion, the special exemption system for labor dispatch programs concerning the elderly will be implemented appropriately and labor dispatch programs, which will be carried out by the Center for the Utilization of the Professional Experience for the Elderly, will be promoted.

Furthermore, in order to provide temporary and short-term employment opportunities after retirement on a regional basis, silver human resource center programs will be enhanced, including the expansion of target areas.

So that working people can prepare for their lives when they get old or after retirement, assistance programs, such as information services, provided by private organizations, etc. will also be promoted.

(2) Helping working people exhibit their abilities throughout their lives

a. Ability development over long professional careers

To help working people exhibit their professional abilities over a long

time, support for company education and training and individuals' voluntary efforts to develop professional abilities will be promoted by providing diverse information and consulting services, and utilizing lifelong ability development allowances. Vocational training offered at public professional ability development centers will also be promoted.

b. Realizing a comfortable vocational life

Shifting to the 40-hour week system, which is scheduled to be carried out on a full scale from April 1997, will be facilitated. Working hours will continue to be reduced positively to achieve and maintain total annual working hours of 1,800 by popularizing the five-day workweek system, encouraging annual paid vacation and reducing overtime work. This will in turn contribute to harmonizing professional careers with family and community life as well as maintaining and expanding employment opportunities.

Additionally, refreshing vacations will be encouraged and health care for working people will be promoted through health improvement programs implemented at workplace levels.

c. Helping women exhibit their abilities in terms of employment and working

To help women exhibit their abilities in terms of employment and working, further efforts will be made to assure equal opportunities and labor conditions. In addition, referral services and vocational training that meet the needs of women will be promoted and women's involvement in the sectors of agriculture, forestry and fishery will be facilitated.

d. Promoting measures to help working people cope with both professional careers and family life

Measures to help working people cope with both their professional careers and family life will be promoted comprehensively and systematically.

Employment and working environment will be improved so that working people can cope with both their jobs and child-care and care for the elderly by creating an atmosphere where it is easy to take leave for nursing and elderly care and return to work, or continue to work while caring children and the elderly alike. The popularization of the child-care leave system will continue to be promoted and the early introduction of care-leave for the elderly systems, the implementation of which will become compulsory in April 1999, will be encouraged.

e. Creating an environment where diverse ways of working are available

The creation of an environment where diverse ways of working, such as part-time and temporary employment, can be chosen will be facilitated and the development and popularization of ways to work far away from company offices, utilizing communication technology, will be encouraged.

(3) Stable operation of the public pension systems

With regard to the public pension system, appropriate benefit levels, as well as employment levels, will be maintained so that public pensions will continue to play a core role in assuring incomes for the elderly. In view of the reforms that took place in 1985 and 1994, measures, such as balancing the benefits and burdens, will be taken to assure long-term stable operation of the public pension system. Since the public pension system requires intergenerational support, consideration will be given so that excessive burdens will not be exerted on future generations. In addition, to stabilize and justify the system in response to the changes in employment structures and the maturity of the system, the reorganization of the public pension system will be facilitated.

(4) Support for securing incomes for the elderly through self-help

a. Stable operation of corporate pension system

Since corporate pension systems complement the public pension system, it is vital to ensure their stable operation even under harsh economic conditions. The Employee's Pension Fund System, which serves as the core of corporate pension systems, will be subject to drastic reviews. Additionally, deregulation, etc. will continue to be considered so that the fund will be used more efficiently.

Furthermore, consideration will be given to the need for the review of qualified retirement allowance systems.

b. Improving retirement allowance systems reflecting the needs of the aging society

Consideration will be given to desirable company retirement allowance systems to cope with an increase in retired people and labor shifts due to changes in industrial structures.

In addition, the introduction of external reserve systems will be encouraged. Consideration will also be given to developing measures to

secure the payment of retirement allowances as part of the retirement allowance preservation measures. Moreover, the popularization and improvement of retirement allowance systems among small and medium-sized enterprises will be pursued.

c. Promoting asset accumulation, etc. for the elderly

To help the elderly live better-off lives, the development of financial products with the aim of stabilizing incomes of the elderly and self-help asset accumulation through the improvement of various financial services will be promoted. Further support will be provided to help working people systematically accumulate their assets while they work regularly and their employers are making efforts to support this.

In addition, to facilitate self-help by people in response to their needs for more affluent and peaceful lives when they become old, the popularization and utilization of personal pensions and the National Pension Fund will be promoted by improving over-the-counter consultation services, etc.

Furthermore, to help the elderly to utilize their assets, consideration will be given to the reverse mortgage system in which loans will be provided for the elderly on the security of their own houses. Moreover, as part of the effort to help the elderly manage their assets, systems to protect the rights of the senile dementia elderly will be developed.

2. Health and Welfare

Lifelong comprehensive health improvement will be promoted in order to help people improve their health while they are still young and maintain their health when they get old or when they get ill, in their daily life, as well as helping them live a peaceful and fulfilling life, enjoy longevity.

With respect to health, medical and welfare services, a system, in which someone who needs support can easily be provided with services necessary for their independence, will be established by steadily implementing the "New Gold Plan" which was drawn up in 1994, following the review of the "Ten-Year Strategy to Promote Health Care and Welfare for the Elderly."

In addition, a system will be established, in which medical care will be provided. With regard to long-term care services, a mechanism, with which necessary financial resources can be secured toward the future based on the principle of solidarity between the elderly and working people, will be established through extensive understanding and cooperation among the

people. When establishing such a system or mechanism, it is important to ensure the consistency in the overall social security systems.

In order to provide a variety of services, help provided by private enterprises will be used. To do so, it is vital to ensure that services will be provided based on the users' choice.

To construct an aging society, it is of paramount importance to cope with the decline the of fertility. In consequence, comprehensive and intentional measures to support child care will be promoted.

(1) Comprehensive promotion of health improvement

a. Promoting lifelong health improvement

Through the dissemination of health-related information, lifelong improvement through well-balanced nutrition, exercise and recreation will be promoted. People should become aware of their health, thereby improving their health, preventing diseases and encouraging early diagnosis and detection of illness. Moreover, eating habits which contribute to health improvement will also be encouraged.

With respect to health improvement for the people in the prime of their lives or in their old age, a system, in which regional health services will be provided at municipal levels with the support of prefectural governments, will be developed, which will be complemented and enhanced by the use of private services and communication technology.

b. DeveIoping health improvement facilities

In order to facilitate lifelong health improvement, necessary facilities, including regional health facilities, will be developed so that sick people can improve their health in a friendly environment.

(2) Enhancing health, medical and welfare services

a. Improving regional systems to provide comprehensive services

In order to meet the needs of the elderly while coordinating systems and using private service providers, certain systems will be developed so that user-oriented services can be provided in areas where residents feel most familiar, such as their municipalities.

b. Improving in-home services

In view of the importance of homes/families in living and psychological

terms, in-home services will be improved so that the elderly can live at their own homes or in their communities as long as they want even when they require care.

To support such elderly people and families, home help, short-stay and day services and home-visit nursing programs will be improved. In addition, the development of in-home care support centers will be promoted.

With regard to home help services, 24-hour service systems, including holidays, will be established.

Furthermore, comprehensive in-home health and medical care will be promoted through the enhancement of the functions of family doctors, in-home terminal care and day-care.

c. Improving facility services

Facility services will be enhanced to allow the elderly to receive appropriate services when they have difficulty to live in their own homes.

To achieve this, the development of special nursing homes for the elderly, health services facilities for the elderly to provide medical and living services, living welfare centers for the elderly in depopulated areas, and care houses (moderate-fee homes for the elderly) where the elderly can continue self-supported lives, utilizing wheelchairs and other essentials will be promoted. In addition, recuperation bedrooms with complete recuperation environments and care services will be developed.

While considering original functions of such facilities, existing facilities will be effectively used, including combined development with other public facilities and conversion of medical facilities.

d. Implementing comprehensive support measures for the independence of the elderly who need assistance

In order to positively support the independence of the elderly by preventing them from being in bedridden conditions that require personal assistance, regional rehabilitation systems will be enhanced and comprehensive measures, such as health care programs to prevent cerebral apoplexy, fractures and hypofunction due to aging, will be implemented.

e. Implementing comprehensive measures for senile dementia

With respect to senile dementia, consultation and information services will be promoted through the development of senile dementia treatment centers. Moreover, senile dementia prevention and early detection/treatment systems will be upgraded by providing trained qualified personnel for treating dementia.

In addition, to improve medical and care systems, day service centers and group homes for the senile elderly will be developed and institutionalized. The development of medical care and recuperation wards and health service facilities specializing in the treatment of dementia will be facilitated.

(3) Implementing comprehensive support measures to improve long-term care foundations

a. Promoting measures to train and secure staff to care for the elderly

In order to train and secure staff to care who have the responsibility of providing care services for the elderly, such as staff to care of social welfare facilities, nurses and home helpers, measures will be taken to improve training systems, including training centers, better qualifications, and working environments.

In addition, labor demand and supply coordination between public employment security offices and the private sectors will be enhanced.

Moreover, volunteer activities concerning welfare for the elderly will be highly promoted.

b. Popularizing technical aids

In order to encourage appropriate use of technical aids, practical health care training and dissemination centers will be developed to provide opportunities for equipment display and consultation. The popularization of technical aids will also be promoted through donation and lease programs. Furthermore, support systems will be developed for technical aids manufacturers and dealers to ensure provision of technical aids.

c. Comprehensive development of user-friendly service provision systems

To allow residents to seek for advice and obtain necessary information about care in areas to which they are familiar, specific measures, centering on in-home care support centers, will be taken. Care management systems will also be enhanced to properly understand the needs for care and link them to necessary services.

(4) Service costs

a. Medical expenses

In order to provide appropriate medical care suitable for the aging

society, comprehensive measures, including drastic reform of medical insurance systems and the improvement of medical care provision systems, will be implemented on a medium to long-term basis. This will facilitate the optimization of medical expenses including medical care expenditure for the elderly and justify intergenerational burdens and a balance between benefits and burdens within and among different insurance systems.

b. Securing long-term care expenses through social solidarity

In order to establish a mechanism, with which necessary financial resources can be secured toward the future based on the principle of solidarity between the elderly and working people through extensive understanding and cooperation among the people, positive efforts will be made to establish a new long-term care system for the elderly, incorporating adequate public money and social insurance systems.

(5) Utilizing private service providers

To meet the increasing and diversifying demand for health and welfare services as well as to provide such services more efficiently, private service providers will be used, regulations on care service providers will be eased, measures to foster private service providers, including loan systems, will be taken with the aim of expanding long-term care related markets and employment.

In order to ensure service quality, service evaluation systems will be established.

(6) Promoting comprehensive measures to support child care

To help create an environment where people can raise their children, comprehensive measures to support child care, such as the improvement of child care services and mother-and-child health and medical care systems, will be implemented systematically. In doing so, five-year programs, such as emergency child care services, will be put into practice and sound development of private child care services will be provided through market mechanisms.

3. Learning and Social Involvement

In an aging society where people's values increasingly diversify, it is vital to provide people with opportunities to seek fulfillment in their mind and daily life and continuously learn new knowledge and technology. It is our aim to create a lifelong learning system in which people can freely choose their learning opportunities and their efforts can be appropriately

evaluated.

In addition, to help the elderly have something to live for as important members of the society, their social involvement, including volunteer activities, should be facilitated and environments in which the elderly can make the most of their free time and live fulfilling lives should be developed.

Furthermore, since volunteer activities help the elderly to achieve their own goals, participate in local communities, contribute to enhancing community welfare and promote a spirit of social solidarity and mutual support, social foundations need to be developed so that anyone can freely participate in volunteer activities while their own initiatives are respected.

(1) Creating a lifelong learning system

a. Improving systems and foundations to promote lifelong learning

With the aim of creating a lifelong learning system and achieving structured improvements in learning opportunities, a comprehensive system to promote lifelong learning will be developed, in cooperation with the public and private bodies concerned, such as social educational facilities and institutions of higher education. Symposiums and conferences will be organized to ensure regional cooperation. Master plans that are necessary for comprehensive implementation will also be developed.

In addition, to strengthen the foundation of providing lifelong learning opportunities, lifelong learning will be propagated, information and consultation services will be improved, instructors will be trained and learning results will be appropriately evaluated.

b. Ensuring diverse learning opportunities at school

At institutions of higher education, such as colleges and universities, to provide adults with advanced and practical learning opportunities, efforts will be made to implement special enrollment systems for adults, establish night graduate schools, offer day and night courses, and expand through the country the University of the Air.

Moreover, school functions and facilities will be opened to the public for open seminars for local residents and the utilization of unused classrooms for social education.

c. Providing diverse learning opportunities

In order to meet people's diversifying and demanding need for learning

and provide diverse lifelong learning opportunities, social education at community centers, libraries and museums, cultural activities at art museums, and sports will be promoted, while ensuring the sound development of private service providers and utilizing communication networks.

d. Supporting working people's learning activities

To develop a system in which working people can study while leaving their workplace for some time, paid-vacation systems for education and training will be popularized and measures will be developed to directly support individual workers who try to improve their professional abilities on their own initiative.

(2) Promoting social involvement

a. Promoting involvement of the elderly in social activities

In order to build energetic local communities as well as to help the elderly play an active role in them with something to live for, the elderly's involvement in social activities will be facilitated.

To achieve this goal, opportunities will be provided for the elderly and young generations to promote mutual exchange, and voluntary activities of the elderly will be supported. Moreover, the social involvement of the elderly will be propagated, information and consulting services will be improved and instructors will be trained.

In addition, to help utilize the elderly's abilities overseas with the advance of international exchange, systems will be developed so that expertise and skills of the elderly and retired people can be utilized for overseas technical cooperation and so on.

Furthermore, to help the elderly live fulfilling lives through recreation, sightseeing and hobbies, leisure facilities for the elderly will be improved, existing facilities will be utilized, availability information will be provided and broadcasts with subtitles will be upgraded.

b. Improving the basis of volunteer activities

The basis of volunteer activities will be improved in effective cooperation with the regional bodies concerned.

To do so, volunteer bases will be secured, volunteer activities will be propagated, information, consultation, registration and referral systems will be developed, introductory seminars and hands-on programs will be organized, and volunteer leaders and coordinators will be trained. Extensive

educational opportunities concerning volunteering and welfare will also be provided.

In addition, the social appreciation of volunteer activities will be promoted and measures will be taken to facilitate the introduction of volunteer vacation systems and support corporate philanthropy.

4. Living Environment

Since houses serve as the basis of peoples' living, housing environments will be improved so that people can choose their houses based on their life plans, thereby ensuring lifelong, stable and comfortable residential lives. To achieve this goal, housing standards will be improved, the rationalization of housing production will be promoted and housing styles will be diversified so that people can live with or neighbor to their parents. In conjunction with welfare measures, moreover, the provision of houses equipped with life-support systems that allow self-support or care for the elderly will be promoted.

To ensure safe and smooth activities of the elderly, public transportation systems, sidewalks and public buildings will be made barrier-free, and comprehensive measures will be taken to facilitate community development that takes the elderly into consideration.

In addition, measures will be taken to protect the elderly from traffic accidents, crimes and disasters so that they can live with peace of mind.

Furthermore, considering the status and socio-economic features of the aging society, living environments will be developed to create comfortable urban atmospheres by the use of water and green, and energized agriculture, forestry and fishery villages.

(1) Ensuring stable and comfortable housing

a. Promoting the provision of high-quality houses

To provide high-quality houses which serve as the basis of a stable and comfortable life, efforts will be made so that half of the households nationwide can achieve the target housing standards by FY 2000 and half of the households in all major cities can achieve the same goal as soon as possible after that. In particular, measures will be taken to ensure that there will be no more households that are below the minimum housing standards, focusing on apartment residents in major cities.

To achieve this goal, support will be provided for young people to

acquire or improve their own houses. With respect to apartments, support systems will be implemented to facilitate the supply of high quality private and public apartments.

In addition, housing production, distribution systems and consumer consultation services will be improved.

b. Diversifying housing styles

The construction and extension of houses will be facilitated by the use of loan systems to allow people to live with their parents in their own homes.

Moreover, public rented house or apartments will be supplied, giving priority to households with the elderly as well as meeting the needs for living together with, neighboring and group homes which do not involve blood relations.

c. Developing houses for self-support and care

Through the propagation of the Design Guidelines for the Aging Society and loan systems, the construction and renovation of houses suitable for self-support and care for the elderly will be provided. In particular, new public rented house or apartments will be constructed in accordance with certain specifications, giving consideration to the functional deterioration associated with aging.

In addition, by coordinating housing and welfare measures, the supply of residential buildings which are equipped with daily assistance and care systems for the elderly, and the development of housing complexes with life-support systems will be promoted.

(2) Community development for the elderly

Community development for the elderly will be promoted to help the elderly move easily in barrier-free living spaces.

Public transportation systems will be made barrier-free by installing elevators in traffic terminals, such as train stations and airports, and facilities and vehicles will be improved to ensure the convenience of the elderly. Continuous walking space will be secured by widening sidewalks. Road traffic will also be improved so that the elderly can drive or go out with peace of mind.

In addition, buildings that are open to the general public, such as hospitals and theaters, will be made barrier-free. Governmental facilities that provide over-the-counter services will be converted to meet specifications

focusing on the convenience of the elderly.

Furthermore, in conjunction with welfare measures, welfare and medical facilities will be systematically located in urban areas, together with the development of parks and other infrastructures. In rural areas, sites for welfare and medical facilities, together with farms and other facilities, will be developed.

(3) Protecting the elderly from traffic accidents, crimes and disasters

In cooperation with the bodies concerned and local residents, an environment, where the elderly, especially those who live alone or are handicapped, can live peacefully, will be developed.

Measures, such as offering traffic safety seminars and developing traffic safety facilities for the elderly, will be taken to prevent the elderly from being involved in traffic accidents, as well as to protect the elderly from crimes, dangers associated with wandering due to dementia, human right infringements, and vicious traders. Moreover, disaster measures will be strengthened to protect the elderly who are vulnerable to disasters.

(4) Developing comfortable and energized living environments

To create comfortable urban environments, urban park development, roadside tree planting and public access-oriented waterfront development will be promoted.

In addition, to revitalize rural villages, measures will be taken to allow the elderly to exhibit their abilities in production activities, help their successors become established and improve living environments, taking regional features into consideration so that they can live with peace of mind.

5. Promoting Research

The research, development and use of technology greatly contributes to resolving issues associated with aging societies. Research activities that help realize an affluent and active aging society, such as research into diseases peculiar to the elderly and technical aids, and the development of foundations will be promoted.

(1) Promoting a variety of research activities

a. Research into diseases peculiar to the elderly

Research into diseases peculiar to the elderly, such as dementia and osteoporosis, as well as adult diseases, such as cerebral apoplexy, will be

promoted. Research into disease prevention, and medical and care for the elderly, as well as basic research into aging will also be facilitated.

b. Research and development of technical aids

In order to support the independence of the elderly and reduce care burdens, research and development of technical aids and medical equipment for the elderly will be promoted.

c. Research and development of safe and easy-to-use household articles

The research and development of household articles, foundations for living and safe and easy-to-use systems for the elderly will be promoted.

d. Research and development of communication technology

The research and development of new communication technology, including both hardware and software technology, to be used for working, health and medical care, welfare, learning, social involvement, and living environments for the elderly, will be promoted.

(2) Improving the basis of research activities

a. Improving systems to facilitate research activities

Systems to facilitate research, such as longevity science research institutes and support institutions, will be enhanced.

In addition, to facilitate research and development, a database on physical characteristics of the elderly will be developed and a technical aids evaluation system will be established, thereby standardizing technical aids for the elderly. Moreover, research will be made more efficient by creating a research information network.

b. Personnel development

Professional researchers will be trained, and research and personnel exchange will be encouraged.

International collaboration, such as joint research and information and personnel exchange, will also be promoted.

Chronology of Aging Japan

Demographic and Social Trends	Government Policies
1945 End of World War II	
	1946 The New Constitution is enacted
	1958 The National Health Insurance Law for Self-employed Persons and The National Pension Insurance Low for Self-employed Persons are enacted
	1959 The National Pension Insurance Law for Self-employed Persons is enacted
Era of 70-year-long Life (Longevity Society)	
1960 Share of Aged Population: 5.7%	
Life Expectancy at Birth: Male 65.3, Female 70.2	
	1961 The National Health Insurance Law for Self-employed Persons and The National Pension Insurance Law for Self-employed Persons are practiced (An Era of Universal Coverage of Public Pension and Public Sickness Insurance begins)
	1963 The Law for the Welfare of the Elderly is enacted
	1964 Trends of raising mandatory retirement age
	1966 National holiday "Respect-for-the Aged Day (Keirou-no-hi)" is proclaimed
	1966 The Foundation of Retirement Pension for Employees is established
	1969 The Program "No Charge for the Old-age Medical Care" starts in Tokyo
Aging Society Begins	
1970 Share of Aged Population: 7.1%	
1972 The Best Seller, *Mental Dementia Person (Koukotuno-hito)* is recorded	
1973 Oil Crisis	1973 The Law for the Welfare of the Elderly is revised (Free medical care for the elderly aged 70 and over is practiced at national level)
1973 Designated Sheet for the Elderly called "Silver Sheets"on public transportation	1973 The Policy Office for the Aged is established at the Prime Minister's Office
	1973 The Public Pension System is revised
	1973 Local Tax Deduction Program for the Aged starts
	1973 The National Support for Elderly Education Program starts
	1975 The Union for the Retired Workers is established
1980 Share of Aged Population: 9.1%	
1980 Life Expectancy at Birth: Male 73.35, Female 78.76	

Chronology of Aging Japan (continued)

Demographic and Social Trends	Government Policies
198l Number of Householdshead by aged person: 2,424,000 which is double over the past 10 years	
	1982 The Law for the Health and Medical Services for the Elderly is enacted (Partial reinstatement of medical charges for the aged)
1984 Life Expectancy at Birth: Male 74.20, Female 79.78 (World Longest Level of Life Expectancy at Birth)	
	1985 Mandatory retirement system for national government workers at age 60 is introduced
1985 Female life expectancy at birth reaches 80 years	1985 The National Pension Insurance Law is revised (Public pension system is completely renovated)
	1986 The Cabinet decides on Guidelines on Policy for a Society of Longevity (Chojusyakai-taisaku-taikou)
	1986 Health Care Facilities for the Elderly is established
	1987 The National Registration System of Trained Care-workers starts
	1988 The National Sheltered Housing Program for the Elderly starts
1989 TFR: 1.57	1989 The Silver Mark System for the elderly care business is introduced
1990 Share of Aged Population: 12.0%	1990 Ten-year Strategy for the Promotion of the Health and Welfare Services for the Aged ("Gold Plan") is implemented
1990 "Bubble Economy" collapses	1990 Eight Laws Related to Social Welfare are revised (Commitment of Social welfare services to municipality)
	1991 The Law for the Health and Medical Services for the Elderly is revised
1992 Number of Dependent Elderly: 836,000 persons, 16% of those are bedridden persons	1992 The Visiting Nurse Services starts
	1993 All Municipality drafts the Plan for Elderly Health and Welfare
	1993 The Law for Persons with Disabilities is enacted
Aged Society Begins	
1994 Share of Aged Population. 14.1% TFR: 1.43	1994 Future Image of the Social Security System (The Vision for Welfare toward the 21st Century) is formulated

Chronology of Aging Japan (continued)

Demographic and Social Trends	Government Policies
	1994 The Gold Plan is revised ("New Gold Plan")
	1994 Angel Plan (Guideline for the Support of Child Care) is formulated
	1995 The Law for the Child Care and Elderly Care Leave is enacted
	1995 The Basic Law on Measures for the Aging Society is enacted
	1995 The Government Action Plan for Persons with Disabilities is formulated (A Seven-Year Nomalization Strategy)
	1996 The Cabinet decides on General Principles Concerning Measures for the Aging Society (Koureisyakai-taisaku-taikou) The establishement of a new social insurance scheme for the elderly care is under consideration
1997 Share of Aged Polulation: 15.7 % TFR: 1.39	1997 Public Long-term Care Insurance Act (kaigohoken-hoan) is enacted
1999 International Year of Older Persons 1999 Share of Aged Population 16.7% Life expectancy at birth: male 77.16, female 84.01	1998 Specific Non-Profit Activities Promotion Law (NPO-ho) is enforced Japan NGO Council on Ageing (JANCA) is established
	1999 The Basic Law for a Gender-equal Society is enforoced
2000 TFR: 1.34	2000 Public Long-term Care Insurance Act (kaigohoken-ho) is enforced Adult Guardianship System starts

JAPAN AGING RESERACH CENTER(JARC)

Diamond Plaza Bldg.,
25 Ichiban-cho Chiyoda-ku, Tokyo 102-0082, Japan
Phone:+ 81 3 3265-2343

PRINTED IN JAPAN