

## Chapter 2

# Population

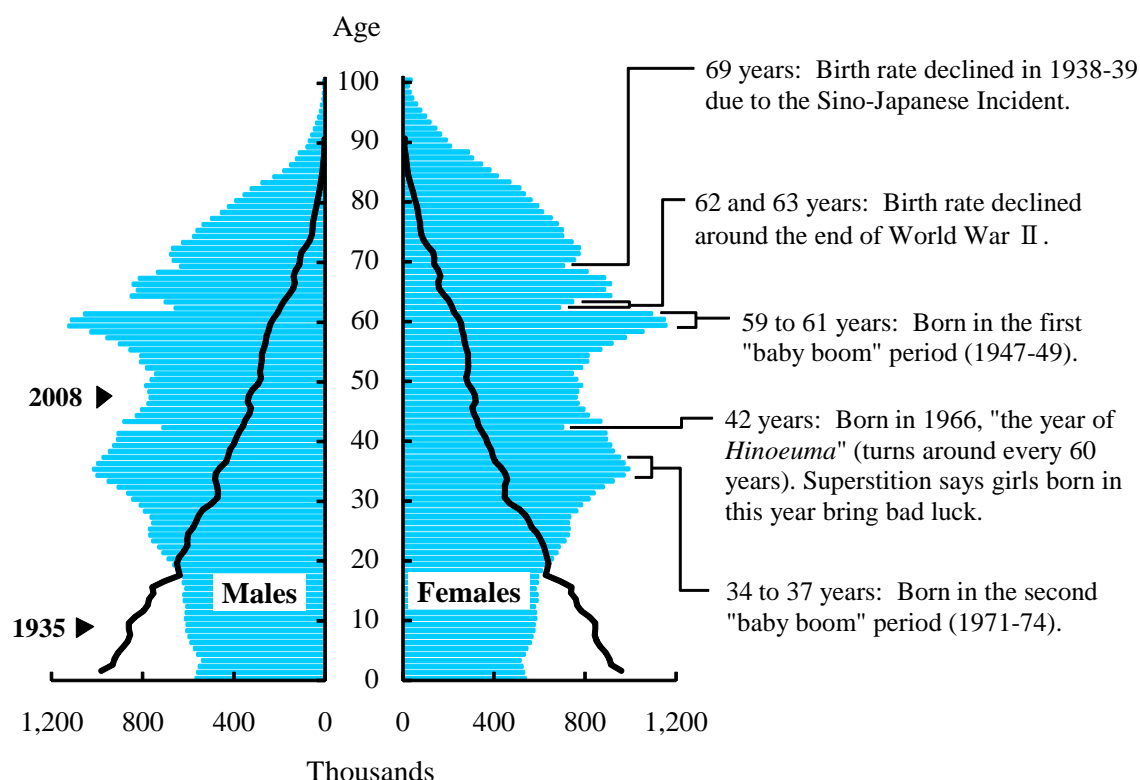


A children's *sumo* tournament held in Utsunomiya City, Tochigi Prefecture, in honor of the first *yokozuna* (grand champion *sumo* wrestler). As of October 1, 2008, the population 14 years and younger in Japan was 17.2 million, or 13.5% of the total population.

# 1. Total Population

Japan's 2008 total population was 127.69 million. This ranked tenth in the world and made up 1.9 percent of the world's total. Japan's population density measured 343 persons per square kilometer in 2005, ranking fifth among countries with a population of 10 million or more.

**Figure 2.1**  
**Population Pyramid**



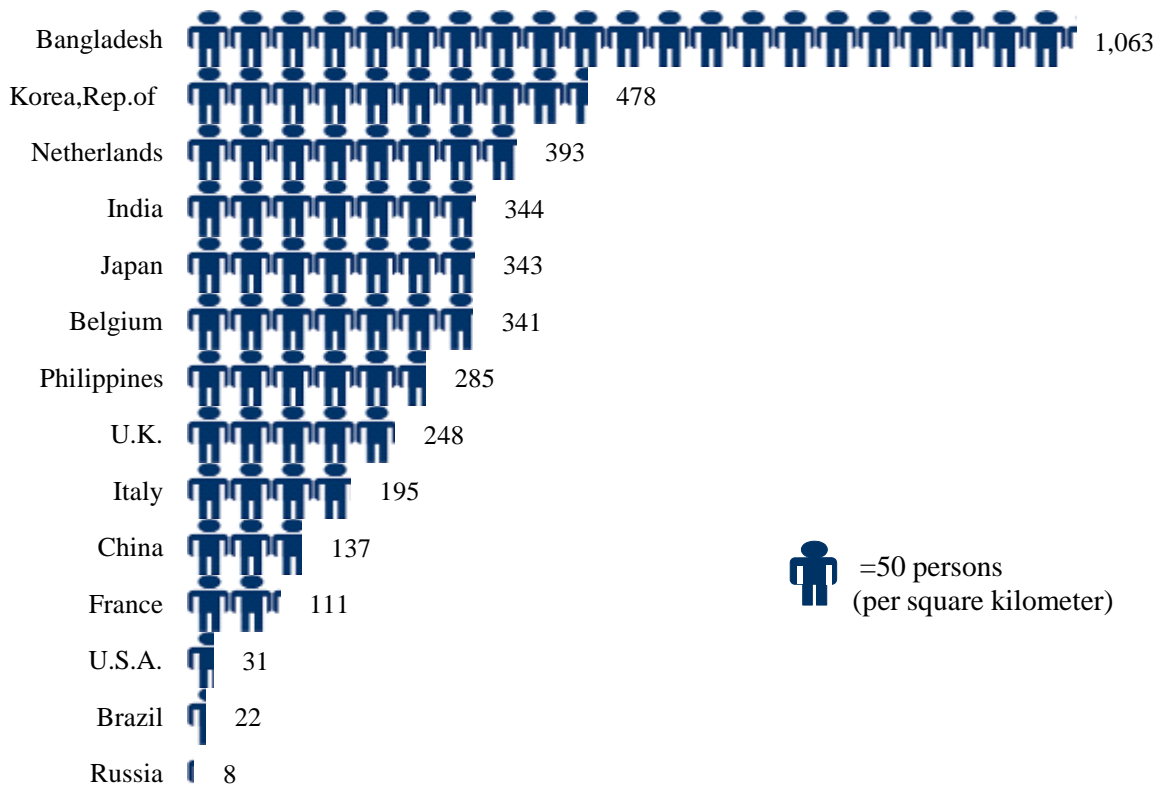
Source: Statistics Bureau, MIC.

**Table 2.1**  
**Countries with a Large Population (2008)**

		(Millions)	
Country	Population	Country	Population
World .....	6,750		
China .....	1,337	Pakistan .....	177
India .....	1,181	Bangladesh .....	160
U.S.A. ....	312	Nigeria .....	151
Indonesia .....	227	Russia .....	141
Brazil .....	192	Japan .....	128

Source: Statistics Bureau, MIC; United Nations.

**Figure 2.2**  
**Population Density by Country (2005)**



Source: Statistics Bureau, MIC; United Nations.

From the eighteenth century through the first half of the nineteenth century, Japan's population remained steady at about 30 million. However, following the Meiji Restoration in 1868, it began expanding in tandem with the drive to build a modern nation-state. In 1926, it reached 60 million, and in 1967, it surpassed the 100 million mark. However, Japan's population growth has slowed in more recent years, with the annual pace of population growth averaging about one percent from the 1960s through the 1970s. Since the 1980s, it has declined sharply. Japan's total population peaked at 127.84 million in December 2004. The 2005 Population Census showed the figure to be 127.77 million, declining from the previous year for the first time after World War II. The 2008 population estimate was 127.69 million, down by 79,000 from the year before.

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**Table 2.2**  
**Trends in Population**

Year	Population (1,000)		Age composition (%)			Average annual rate of increase (%)	Population density (per km <sup>2</sup> )
		Males	0 - 14 years	15 - 64	65 and over		
<b>As of Oct. 1 of each year</b> <sup>1)</sup>							
1872	34,806	17,666	...	...	...	...	91
1900	43,847	22,051	33.9	60.7	5.4	0.83	115
1910	49,184	24,650	36.0	58.8	5.2	1.16	129
1920	55,963	28,044	36.5	58.3	5.3	1.30	147
1930	64,450	32,390	36.6	58.7	4.8	1.42	169
1940	71,933	35,387	36.7	58.5	4.8	1.10	188
1950	84,115	41,241	35.4	59.6	4.9	1.58	226
1955	90,077	44,243	33.4	61.2	5.3	1.38	242
1960	94,302	46,300	30.2	64.1	5.7	0.92	253
1965	99,209	48,692	25.7	68.0	6.3	1.02	267
1970	104,665	51,369	24.0	68.9	7.1	1.08	281
1975	111,940	55,091	24.3	67.7	7.9	1.35	300
1980	117,060	57,594	23.5	67.3	9.1	0.90	314
1985	121,049	59,497	21.5	68.2	10.3	0.67	325
1990	123,611	60,697	18.2	69.5	12.0	0.42	332
1995	125,570	61,574	15.9	69.4	14.5	0.31	337
2000	126,926	62,111	14.6	67.9	17.3	0.21	340
2004	127,787	62,380	13.9	66.6	19.5	0.17	343
2005	127,768	62,349	13.7	65.8	20.1	-0.01	343
2006	127,770	62,330	13.6	65.5	20.8	0.00	343
2007	127,771	62,310	13.5	65.0	21.5	0.00	343
2008	127,692	62,251	13.5	64.5	22.1	-0.06	342
<b>Projection as of Dec. 2006</b>							
2010	127,176	61,868	13.0	63.9	23.1	-0.20	341
2020	122,735	59,284	10.8	60.0	29.2	-0.35	329
2030	115,224	55,279	9.7	58.5	31.8	-0.63	309
2040	105,695	50,467	9.3	54.2	36.5	-0.86	283
2050	95,152	45,320	8.6	51.8	39.6	-1.05	255

1) Figures for and before 1910 were as of January 1 of the respective years.

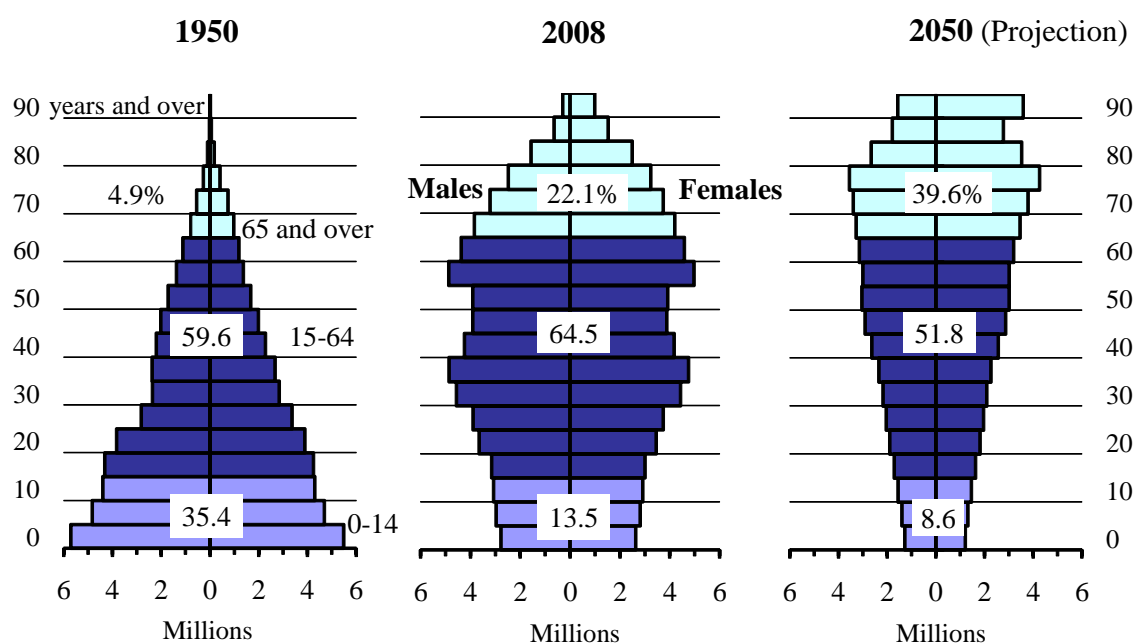
Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare.

## 2. Declining Birth Rate and Aging Population

The population pyramid of 1950 shows that Japan had a standard-shaped pyramid marked by a broad base. The shape of the pyramid, however, has changed dramatically as both the birth rate and death rate have declined. In 2008, the population of elderly citizens (65 years and over) was 28.22 million, constituting 22.1 percent of the total population and marking

record highs both in terms of number and percentage. The speed of aging of Japan's population is much faster than in advanced Western European countries or the U.S.A. Although the population of the elderly in Japan accounted for only 7.1 percent of the total population in 1970, 24 years later in 1994, it had almost doubled in scale to 14.1 percent. In other countries with an aged population, it took 61 years in Italy, 85 years in Sweden, and 115 years in France for the percentage of the elderly to increase from 7 percent to 14 percent of the population. These comparisons clearly highlight the rapid progress of demographic aging in Japan.

**Figure 2.3**  
**Changes in the Population Pyramid**



Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare.

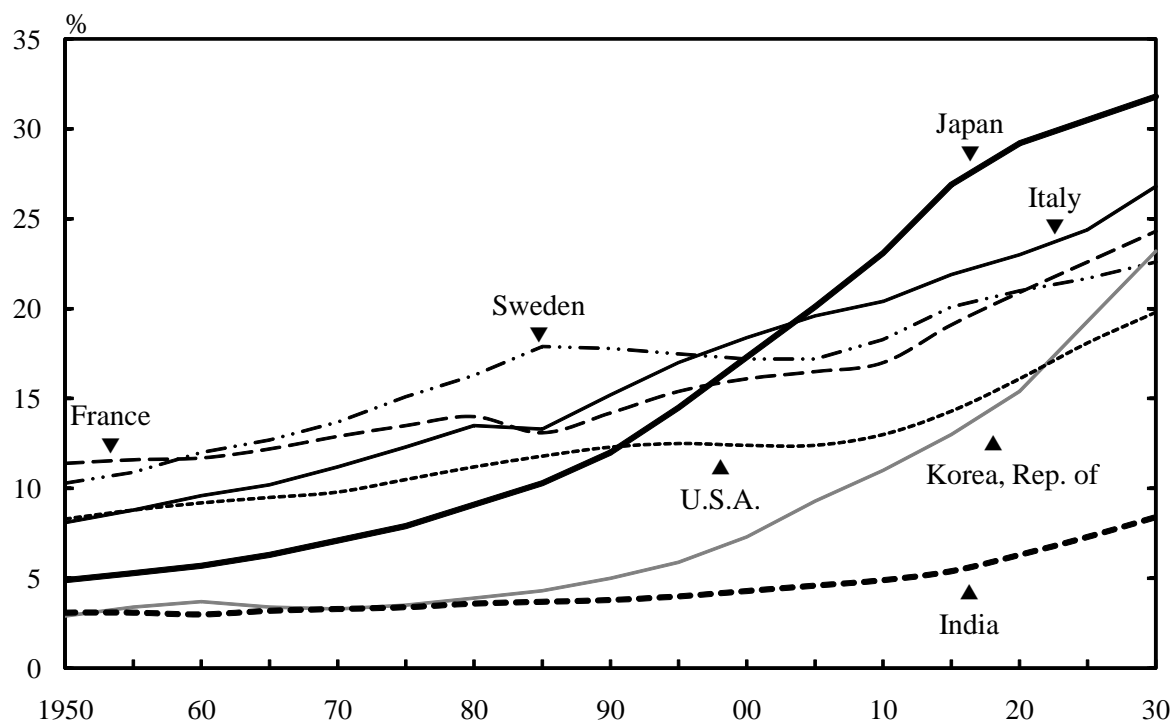
On the other hand, the percentage of the younger age population in Japan (0-14 years) has been shrinking since 1982. In 2008, the younger age population amounted to 17.18 million, accounting for 13.5 percent of the total population, the lowest level on record since the Population Estimates began. The working-age population (15-64 years) totaled 82.30 million, continuing its decline since 1996. In share terms, it accounted for 64.5 percent of the entire population. As a result, the ratio of the dependent population (the sum of the elderly and younger age population divided by the working-age population) was 55.2 percent. In terms of their proportion of the total population, the elderly have surpassed the younger age group since 1997.

**Table 2.3**  
**Age Structure of Population by Country**

Country	2005			2030 (projection)		
	0-14 years	15-64	65 and over	0-14 years	15-64	65 and over
	Japan .....	13.7	65.8	20.1	9.7	58.5
Germany .....	14.3	66.8	18.9	12.5	59.3	28.2
Italy .....	14.2	66.2	19.6	12.3	60.9	26.8
France .....	18.4	65.1	16.5	16.4	59.3	24.3
Switzerland .....	16.1	67.9	16.0	15.1	60.9	24.1
Korea, Rep. of .....	19.1	71.6	9.3	12.6	64.2	23.2
Canada .....	17.6	69.3	13.1	16.1	61.2	22.7
Sweden .....	17.4	65.4	17.2	17.0	60.3	22.6
U.K. ....	18.0	65.9	16.1	17.2	62.0	20.9
Australia .....	19.7	67.3	12.9	17.5	61.7	20.7
U.S.A. ....	20.8	66.8	12.4	18.0	62.3	19.8
China .....	22.0	70.4	7.6	16.9	67.2	15.9
Brazil .....	27.5	66.3	6.2	17.0	69.3	13.7
India .....	33.1	62.3	4.6	22.8	68.8	8.4

Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare; United Nations.

**Figure 2.4**  
**Proportion of Elderly Population by Country (Aged 65 years and over)**



Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare; United Nations.

### 3. Births and Deaths

Population growth in Japan had primarily been driven by natural increase, while social increase played only a minor part. In 2005, however, the natural increase rate (per 1,000 population) turned negative for the first time since 1899; the figure was -0.4 in 2008.

During the second baby boom between 1971 and 1973, the birth rate was at a level of 19 (per 1,000 population). Since the late 1970s, however, it continued to drop and eventually hit a record low of 8.4 in 2005. Having subsequently repeated an up-and-down pattern, the rate marked 8.7 in 2008, an increase from 8.6 marked in the previous year.

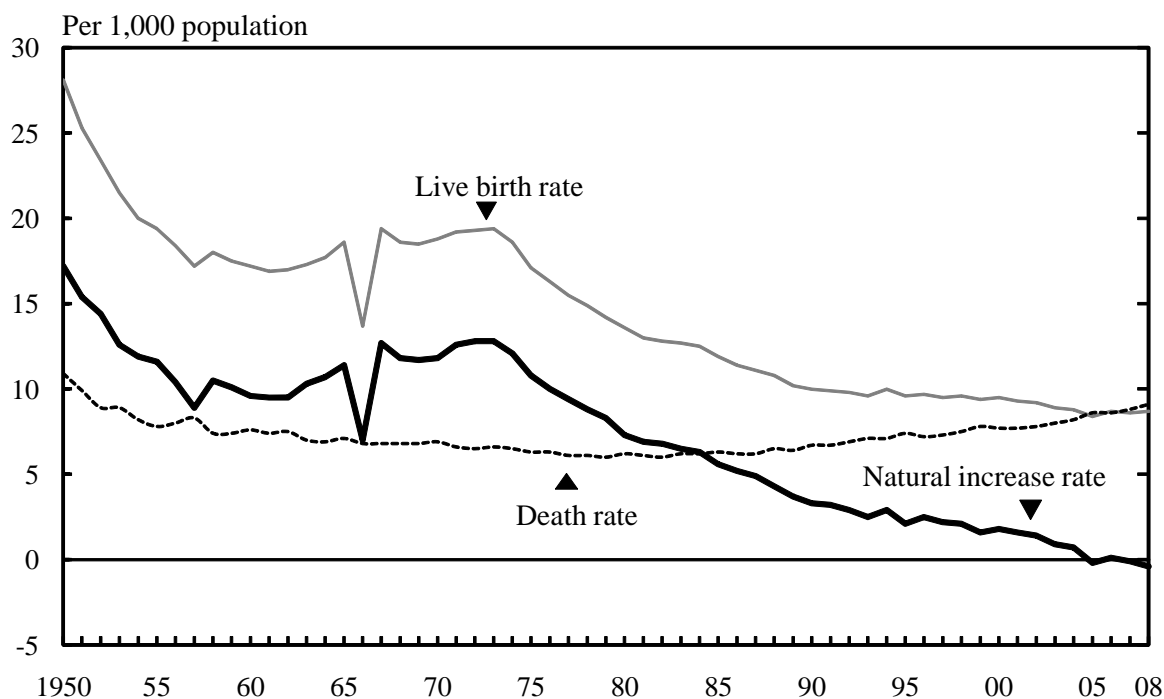
**Table 2.4**  
**Vital Statistics**

Year	Rates per 1,000 population <sup>1)</sup>				Total fertility rate <sup>2)</sup>	Life expectancy at birth (years)	
	Live births	Deaths	Infant mortality	Natural increase		Males	Females
1950	28.1	10.9	60.1	17.2	3.65	a) 59.57	a) 62.97
1955	19.4	7.8	39.8	11.6	2.37	63.60	67.75
1960	17.2	7.6	30.7	9.6	2.00	65.32	70.19
1965	18.6	7.1	18.5	11.4	2.14	67.74	72.92
1970	18.8	6.9	13.1	11.8	2.13	69.31	74.66
1975	17.1	6.3	10.0	10.8	1.91	71.73	76.89
1980	13.6	6.2	7.5	7.3	1.75	73.35	78.76
1985	11.9	6.3	5.5	5.6	1.76	74.78	80.48
1990	10.0	6.7	4.6	3.3	1.54	75.92	81.90
1995	9.6	7.4	4.3	2.1	1.42	76.38	82.85
2000	9.5	7.7	3.2	1.8	1.36	77.72	84.60
2005	8.4	8.6	2.8	-0.2	1.26	78.56	85.52
2006	8.7	8.6	2.6	0.1	1.32	79.00	85.81
2007	8.6	8.8	2.6	-0.1	1.34	79.19	85.99
2008	* 8.7	* 9.1	* 2.6	* -0.4	* 1.37	79.29	86.05

1) The infant mortality rate is per 1,000 live births. 2) The average number of children that would be born alive to a hypothetical cohort of women if, throughout their reproductive years, the age-specific fertility rates for the specified year remained unchanged. a) 1950-52 period.

Source: Ministry of Health, Labour and Welfare.

**Figure 2.5**  
**Natural Increase of Population**



Source: Ministry of Health, Labour and Welfare.

The general decline in birth rate may partly be attributable to the rising maternal age at childbirth. The average mothers' age at first childbirth rose from 25.6 in 1970 to 29.5 in 2008. The total fertility rate was on the downward trend after dipping below 2.00 in 1975. However, it rose in 2006 for the first time in six years and continued to go up to 1.37 in 2008, marking a rise for three consecutive years.

The death rate (per 1,000 population) was steady at 6.0 - 6.3 between 1975 and 1987. Since 1988, however, it has shown uptrend, reflecting the increased percentage of the elderly in the overall population. The death rate was 9.1 in 2008.

Average life expectancy in Japan climbed sharply after World War II, and is today at the highest level in the world. In 2008, life expectancy at birth was 86.05 years for women and 79.29 years for men.

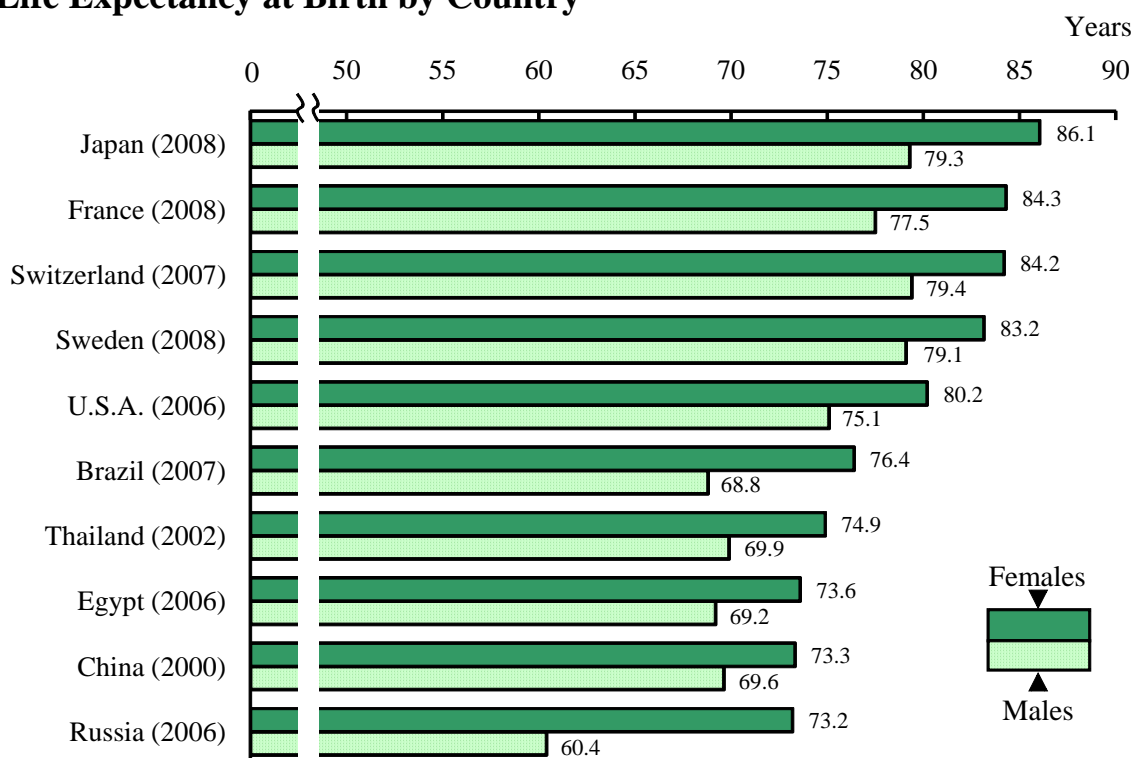
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**Table 2.5**  
**Changes of Mothers' Age at Childbirth**

Year	Number of babies (1,000)	Distribution of mothers' age (%)						Mean age bearing first child
		-19	20-24	25-29	30-34	35-39	40 and over	
1970	1,934	1.0	26.5	49.2	18.5	4.2	0.5	25.6
1975	1,901	0.8	25.2	53.4	16.8	3.3	0.5	25.7
1980	1,577	0.9	18.8	51.4	24.7	3.7	0.5	26.4
1985	1,432	1.2	17.3	47.7	26.6	6.5	0.6	26.7
1990	1,222	1.4	15.7	45.1	29.1	7.6	1.0	27.0
1995	1,187	1.4	16.3	41.5	31.3	8.4	1.1	27.5
2000	1,191	1.7	13.6	39.5	33.3	10.6	1.3	28.0
2005	1,063	1.6	12.1	31.9	38.1	14.4	1.9	29.1
2006	1,093	1.5	11.9	30.7	38.2	15.6	2.0	29.2
2007	1,090	1.4	11.6	29.7	37.9	17.1	2.3	29.4
2008 *	1,091	1.4	11.4	29.1	37.1	18.4	2.6	29.5

Source: Ministry of Health, Labour and Welfare.

**Figure 2.6**  
**Life Expectancy at Birth by Country**



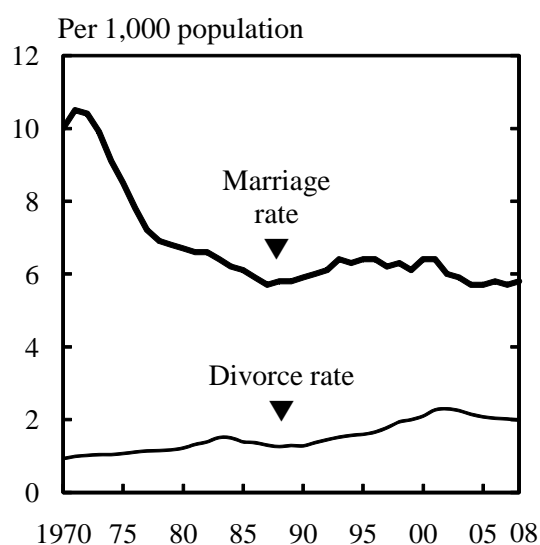
Source: Ministry of Health, Labour and Welfare.

## 4. Marriages and Divorces

The annual number of marriages in Japan exceeded one million in the early 1970s, which, coupled with the marriage rate (per 1,000 population) hovering over 10.0, showed an apparent marriage boom. However, both the number and rate started declining thereafter. They rose again in the late 1980s but have, though fluctuating repeatedly, essentially been unchanged in recent years. In 2008, 726,000 couples married and the marriage rate (per 1,000 population) was 5.8.

The mean age of first marriage was 30.2 for men and 28.5 for women in 2008, a rise by 1.7 years and 2.7 years, respectively, over the past twenty years. The declining marriage rate and rising marrying age in recent years as described above is one explanation for the dropping birth rate.

**Figure 2.7**  
Changes in Marriage Rate  
and Divorce Rate



Source: Ministry of Health, Labour and Welfare.

**Table 2.6**  
Mean Age of First Marriage

Year	Groom	Bride
1950	25.9	23.0
1955	26.6	23.8
1960	27.2	24.4
1965	27.2	24.5
1970	26.9	24.2
1975	27.0	24.7
1980	27.8	25.2
1985	28.2	25.5
1990	28.4	25.9
1995	28.5	26.3
2000	28.8	27.0
2005	29.8	28.0
2006	30.0	28.2
2007	30.1	28.3
2008 *	30.2	28.5

Source: Ministry of Health, Labour and Welfare.

In contrast, divorces have shown an upward trend since the 1960s, hitting a peak of 290,000 in 2002. Since then, both the number of divorces and the divorce rate have declined for six years straight. In 2008, the number of divorces totaled 251,000, and the divorce rate was 1.99 (per 1,000 population).

## 5. Households

### (1) Household Size and Household Composition

The Population Census shows that Japan had 49.06 million households in 2005. Of that total, 57.9 percent were nuclear-family households, and 29.5 percent were one-person households.

From the 1920s to the mid-1950s, the average number of household members remained at about five. However, reflecting the progressive decline in the birth rate through the 1960s, the size of household was down significantly in 1970, to 3.41 members. The size of household members continued to decline to 2.55 in 2005, principally due to the increase of one-person households and the conversion of households into nuclear families. Although the Japanese population has shifted into decline, the number of households is expected to continue to increase for some years to come, as the size of the average household will shrink further. The number of households is projected to peak in 2015 and then decrease thereafter.

**Table 2.7**  
**Households and Household Members**

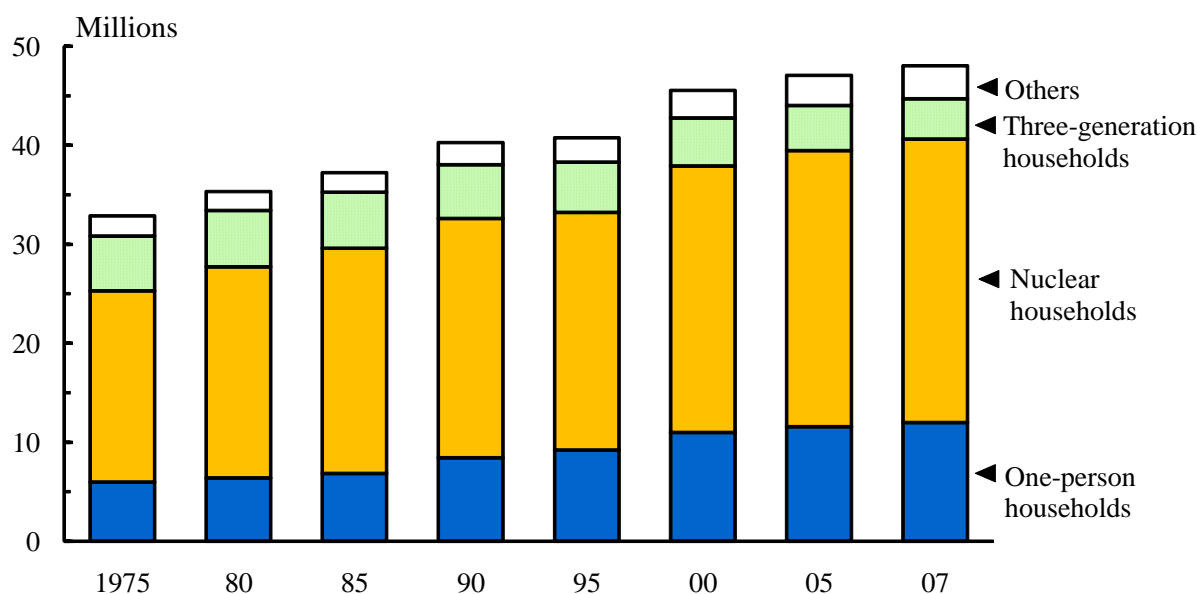
Year	Households (1,000)	Average annual rate of increase (%)	Household members (1,000)	Members per household	Population (1,000)	Average annual rate of increase (%)
1970	30,297	a) 3.00	103,351	3.41	104,665	1.08
1975	33,596	2.09	110,338	3.28	111,940	1.35
1980	35,824	1.29	115,451	3.22	117,060	0.90
1985	37,980	1.18	119,334	3.14	121,049	0.67
1990	40,670	1.38	121,545	2.99	123,611	0.42
1995	43,900	1.54	123,646	2.82	125,570	0.31
2000	46,782	1.28	124,725	2.67	126,926	0.21
2005	49,063	0.96	124,973	2.55	127,768	0.13

a) Annual rate of increase between 1960-1970.

Source: Statistics Bureau, MIC.

In terms of household composition, nuclear families accounted for the largest share of total households. One-person households have been on the rise since 1975.

**Figure 2.8**  
**Changes in Household Composition**



Source: Ministry of Health, Labour and Welfare.

## (2) Elderly Households

Elderly households (defined as households consisting of individuals aged 65 years or over, with or without unmarried dependents below the age of 18) numbered 1.09 million in 1975, representing 3.3 percent of the total households for that year. By comparison, there were 9.01 million elderly households in 2007, accounting for a sharply increased share of 18.8 percent. The number of one-person elderly households increased 7.1 times between 1975 and 2007: from 611,000 to 4.33 million. In 2007, three out of four one-person elderly households were women's. The number of households consisting only of wife and husband aged 65 years or over reached 4.39 million in 2007, about a tenfold increase over the figure in 1975.

**Table 2.8**  
**Trends in Elderly Households**

(Thousands)									
Type of households	1975	1980	1985	1990	1995 <sup>1)</sup>	2000	2005	2006	2007
All households .....	32,877	35,338	37,226	40,273	40,770	45,545	47,043	47,531	48,023
Elderly households .....	1,089	1,684	2,192	3,113	4,390	6,261	8,349	8,462	9,009
(percentage) .....	3.3	4.8	5.9	7.7	10.8	13.7	17.7	17.8	18.8
One-person households ....	611	910	1,131	1,613	2,199	3,079	4,069	4,102	4,326
Males .....	138	192	218	295	449	682	1,010	1,034	1,174
Females .....	473	718	913	1,318	1,751	2,398	3,059	3,068	3,153
Elderly couples .....	443	722	996	1,400	2,050	2,982	4,071	4,114	4,390
Other elderly households .....	36	52	65	100	141	199	209	245	292

1) Excluding Hyogo Prefecture where the survey was canceled because of the Great Hanshin Earthquake.

Source: Ministry of Health, Labour and Welfare.

## 6. Population Density and Regional Distribution

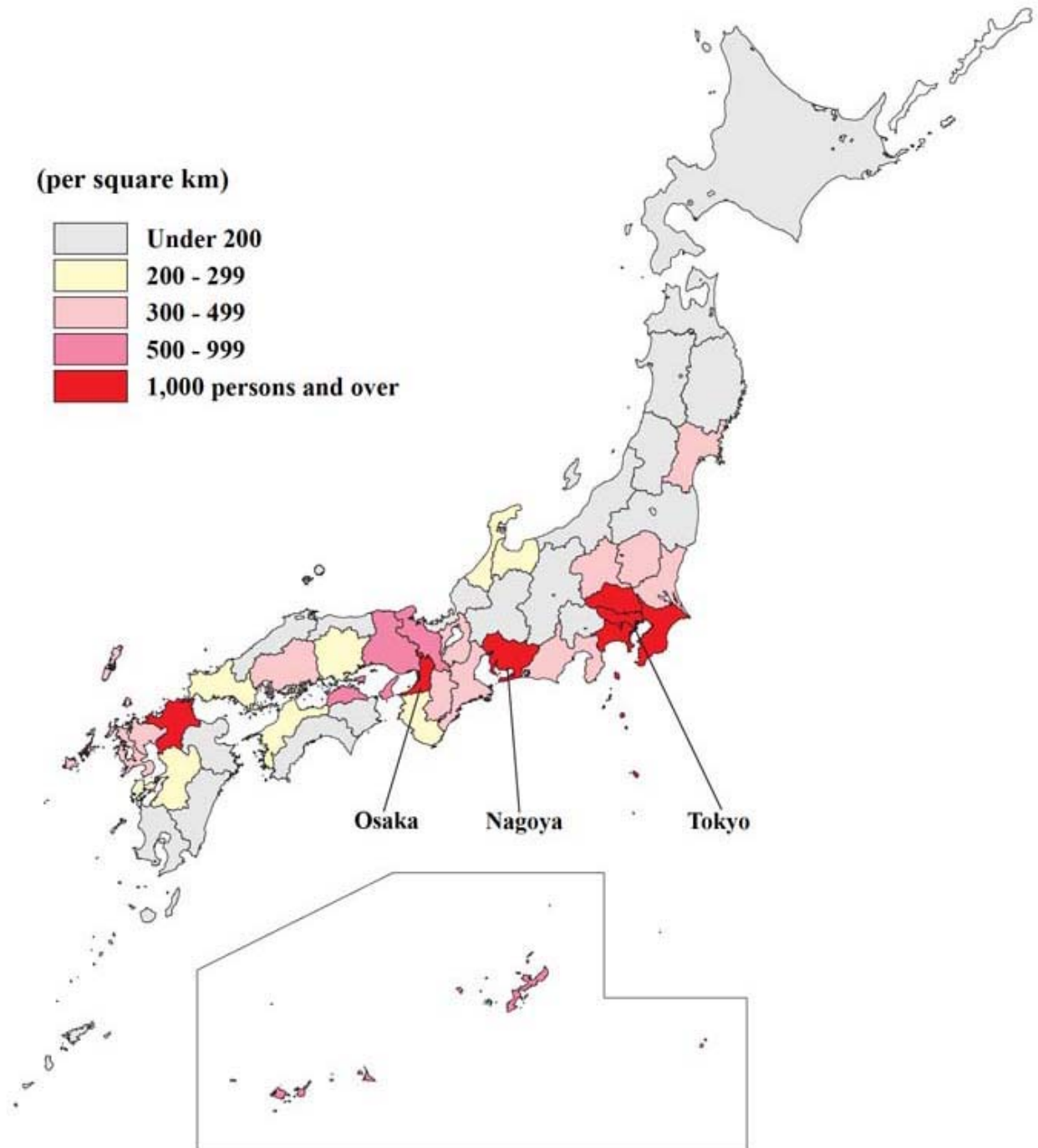
### (1) Population Density

In 2005, Tokyo had the largest population of 12.58 million among Japan's 47 prefectures, followed in decreasing order by the prefectures of Osaka, Kanagawa, Aichi, and Saitama. These five prefectures each had a population of seven million or more, and together accounted for 34.8 percent of the total Japanese population. The order of the five largest prefectures has not changed since 1985.

The population density in Tokyo was the highest among Japan's prefectures, at 5,751 persons per square kilometer. This was almost 17 times the national average (343 per square kilometer).

In 2005, there were 12 cities in Japan with a population of one million or more. Their total population topped 27 million, a figure equivalent to 21.8 percent of the national total. The largest single city was the 23 wards (*ku*) of central Tokyo, with 8.49 million citizens. It was followed in decreasing order by *Yokohama-shi* (3.58 million), *Osaka-shi* (2.63 million), and *Nagoya-shi* (2.22 million).

**Figure 2.9**  
**Population Density by Prefecture (2005)**



Source: Statistics Bureau, MIC.

**Table 2.9**  
**Population of Major Cities**

(Thousands)					
Cities	Population		Cities	Population	
	2000	2005		2000	2005
Tokyo <sup>1)</sup> .....	8,135	8,490	Kyoto- <i>shi</i> .....	1,468	1,475
Yokohama- <i>shi</i> .....	3,427	3,580	Fukuoka- <i>shi</i> .....	1,341	1,401
Osaka- <i>shi</i> .....	2,599	2,629	Kawasaki- <i>shi</i> .....	1,250	1,327
Nagoya- <i>shi</i> .....	2,172	2,215	Saitama- <i>shi</i> .....	-	1,176
Sapporo- <i>shi</i> .....	1,822	1,881	Hiroshima- <i>shi</i> .....	1,126	1,154
Kobe- <i>shi</i> .....	1,493	1,525	Sendai- <i>shi</i> .....	1,008	1,025

1) 23 wards (*ku*) of Tokyo-*to* .

Source: Statistics Bureau, MIC.

## (2) Population Distribution

The percentage of the urban population grew since the late 1950s. In 2005, 44.9 percent of the entire national population was concentrated within a 50-kilometer radius from the centers of the three largest cities of Tokyo, Osaka and Nagoya, respectively (together comprising 6.1 percent of Japan's total land area). Population density measured 4,158 persons per square kilometer in the Tokyo area, 2,094 in the Osaka area, and 1,204 in the Nagoya area.

**Table 2.10**  
**Population of Three Major Metropolitan Areas <sup>1)</sup>**

(Thousands)				
Areas	1980	1990	2000	2005
Japan .....	117,060	123,611	126,926	127,768
Tokyo metropolitan area .....	26,343	29,200	30,724	31,714
Osaka metropolitan area .....	15,422	16,210	16,567	16,663
Nagoya metropolitan area .....	7,828	8,432	8,852	9,046
Total of three major metropolitan areas .....	49,593	53,842	56,143	57,424
Percentage to the total population (%) .....	42.4	43.6	44.2	44.9

1) Areas within 50 kilometers radius from each municipal office.

Source: Statistics Bureau, MIC.