

DEMOGRAPHIC DYNAMICS IN JAPAN

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Keywords: Abortion, age at first marriage, age-specific first marriage probability, arranged marriage, baby boom, echo effect, bedridden elderly, cohabitation, demographic transition, epidemiological transition, familial support, female paid employment, fertility, fertility transition, free-market marriage, human habitation zone, internal migration, international labor migration, life expectancy, lifetime employment practice, mandatory retirement, marital fertility, marriage squeeze, mortality, new single concept, nuptiality, parasite single, population aging, premarital sex, replacement level, seniority wage system, systems of reemployment and employment prolonging, three-generational household, total dependency, universal marriage society, urbanization.

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Summary

This chapter discusses major demographic developments in postwar Japan. In the first half of this chapter, the following four topics are covered: fertility, mortality, urbanization, and international labor migration. In the second half of the chapter, the trends and prospects of Japan's population aging are examined. Due to the fertility decline of unprecedented rapidity and the remarkable mortality improvements, the age distribution of the Japanese population has been changing markedly over the past few decades. These age structural transformations are now generating a wide range of disruptions at both societal and familial levels. Using a long-term simulation model, some of these expected disruptions are quantitatively assessed.

1. Introduction

Japan was the first country outside the West to accomplish not only modern economic growth. At the close of World War II, the Japanese economy was in a severely crippled state, but its productive capacity had recovered to prewar levels by 1957. During the 1960s, Japan's real GDP grew at the phenomenal rate of 10 percent per annum. This

rapid economic growth was facilitated by such factors as the use of abundant, high-quality labor, the borrowing of technology from developed countries, and an international market favorable for promoting trade. Subsequent to the oil crisis of 1973, which triggered a series of efforts to restructure the Japanese economy, Japan's economic growth performance during the 1970s and 1980s became much less impressive than that for the 1960s. In the face of this major change in its growth performance, Japan's average annual real GDP growth rate for the 1980s was approximately 4 percent. Since the early 1990s, however, the Japanese economy has been in a serious prolonged recessionary phase, and the average annual growth rate of real GDP was only 1 percent during 1991-2000.

Parallel to these changes in economic growth performance, Japan has undergone extremely rapid demographic shifts over the past half-century. Among industrialized nations, its decline in fertility was both the earliest to occur in the postwar period and the greatest in magnitude, and its longevity improved at a spectacular rate, which is currently the highest in the world. As a result, Japan's aging process is proceeding at an unprecedentedly fast pace and is expected to accelerate in the early part of this century.

It should be stressed, however, that although there have been a number of government development policies and programs that have affected, either directly or indirectly, these rapid demographic developments, no "explicit" population policy has been enacted during the postwar period in Japan. It is also worth remarking that in hopes of preventing fertility from declining further, the Japanese government has been recently implementing a variety of new policies and programs which have been clearly pronatalistic in intent.

In the first half of this chapter, we will discuss changes in key demographic variables in postwar Japan. These variables include fertility, mortality, urbanization, internal migration, and international migration. The second half of this chapter will deal with the aging process of Japan's population and adjustment problems likely to arise at both micro and macro levels over the next few decades.

2. Fertility Transition and Nuptiality Change

In contrast to the Western countries, Japan's postwar baby boom was extremely short, lasting only for three years from 1947 to 1949. Following this short baby boom, Japan's fertility declined precipitously, as shown in Table 1. During the period 1947-1957, the total fertility rate (TFR) fell by more than half, from 4.54 to 2.04 children per woman. A fertility decline with such rapidity was unprecedented in the recorded history of mankind.

Although there were only minor fluctuations around the replacement level until the first oil crisis in 1973, TFR started to decline again, reaching 1.33 in 2001. Japan's current TFR is not as low as that of Italy (1.19 in 1999), or Spain (1.20 in 1999), but is considerably lower than that of other Western industrialized nations such as the United Kingdom (1.68 in 1999), France (1.77 in 1999), and the United States (2.13 in 2000).

In line with these changes in TFR, the birth cohort size has varied pronouncedly over time. During the baby boom period, there were, on the average, approximately 2.7 million births per year, but by 1957, the number of births had decreased to 1.6 million.

Year	Total fertility rate	Number of births (million)	Life expectancy at birth	
			males (years)	females (years)
1947	4.54	2.68	50.1	54.0
1948	4.40	2.68	55.6	59.4
1949	4.32	2.70	56.2	59.8
1950	3.65	2.34	58.0	61.5
1951	3.26	2.14	60.8	64.9
1952	2.98	2.01	61.9	65.5
1953	2.69	1.87	61.9	65.7
1954	2.48	1.77	63.4	67.7
1955	2.37	1.73	63.9	68.4
1956	2.22	1.67	63.6	67.5
1957	2.04	1.57	63.2	67.6
1958	2.11	1.65	65.0	69.6
1959	2.04	1.63	65.2	69.9
1960	2.00	1.61	65.4	70.3
1961	1.96	1.59	66.0	70.8
1962	1.98	1.62	66.2	71.2
1963	2.01	1.66	67.2	72.3
1964	2.05	1.72	67.7	72.9
1965	2.14	1.82	67.7	73.0
1966	1.58	1.36	68.4	73.6
1967	2.23	1.94	68.9	74.2
1968	2.13	1.87	69.1	74.3
1969	2.13	1.89	69.2	74.4
1970	2.14	1.93	69.3	74.7
1971	2.16	2.00	70.2	75.6
1972	2.14	2.04	70.5	75.9
1973	2.14	2.09	70.7	76.0
1974	2.05	2.03	71.2	76.3
1975	1.91	1.90	71.8	77.0
1976	1.85	1.83	72.2	77.4
1977	1.80	1.76	72.7	78.0
1978	1.79	1.71	73.0	78.3
1979	1.77	1.64	73.5	78.9
1980	1.75	1.58	73.3	78.7
1981	1.74	1.53	73.8	79.1
1982	1.77	1.52	74.2	79.7
1983	1.80	1.51	74.2	79.8
1984	1.81	1.49	74.5	80.2
1985	1.76	1.43	74.8	80.5
1986	1.72	1.38	75.2	80.9
1987	1.69	1.35	75.6	81.4
1988	1.66	1.31	75.5	81.3
1989	1.57	1.25	75.9	81.8
1990	1.54	1.22	75.9	81.8
1991	1.53	1.22	76.1	82.1
1992	1.50	1.21	76.1	82.2
1993	1.46	1.19	76.3	82.3
1994	1.50	1.24	76.6	83.0
1995	1.42	1.19	76.4	82.8
1996	1.43	1.21	77.0	83.6
1997	1.39	1.19	77.2	83.8
1998	1.38	1.20	77.2	84.0
1999	1.34	1.18	77.1	84.0
2000	1.36	1.19	77.7	84.6
2001	1.33	1.17	78.1	84.9

SOURCES: Statistics and Information Department, Ministry of Health, Labour and Welfare, Vital Statistics, and Abridged Life Table for Japan, various years.

Table 1. Change in fertility and mortality in postwar Japan, 1947-2001

In the early 1970s, however, despite the low fertility rate, the number of births increased to more than 2 million, caused by an “echo” effect of the baby boom cohorts. Since then, the number of births has continued on a downward trend, with 1.2 million births in 2001, less than one half of the annual total births recorded during the baby boom period.

In Japan, family size goals and actual family size achievements have become increasingly homogeneous over the last few decades, stabilizing at two to three children. Along with the process of such homogenization, the economic advantages of having children have been declining over time. Data collected from various rounds of the National Family Planning Survey conducted by the Population Problems Research Council of the Mainichi Newspapers indicate that the proportion of married Japanese women of childbearing age who expected to depend upon their children for a source of old-age security declined almost continuously from 65 percent in 1950 to 11 percent in 2000, as depicted in Figure 1. The tempo of this decline was fast in the 1950s and 1960s, and was precipitated by the establishment of a universal pension system in 1961. Apart from the diminished utility of having children, the cost of child rearing has been rising over time, primarily resulting from expanded educational enrollment for higher learning.

As a consequence of the decreased utility and the increased cost of having children, the average number of children born to a married couple fell rapidly from the late 1940s to the mid-1970s. In other words, reduced marital fertility was the main source of Japan’s reduction in fertility during this time period. The decline of marital fertility was facilitated by a wide prevalence of abortions and an increased use of contraception.

Subsequent to the enactment of the Eugenic Protection Law in 1948, between 1953 and 1961 the number of reported abortion cases was more than one million per year, but it has been on the downward trend over the past four decades. In contrast, the use of contraception has become increasingly important since the early 1960s. The proportion of married women below age 50 practicing contraception increased from 42 percent in 1961 to 56 percent in 2000.

In addition, although Japan had been for a long time the only industrialized country where the use of the contraceptive pill was not legalized, it was finally approved in 1999. Despite its legalization, the use of the contraceptive pill has remained at an extremely low level.

Since the early 1970s, the delay of marriage has been playing a principal role in accounting for the decline of fertility. The proportion of women married for the age group 25-29 decreased from 79 percent in 1975 to 47 percent 2000. Accordingly, the singulate mean age at first marriage for females rose from 24.5 to 28.6 years old during the same time period, making Japan one of the latest-marrying populations in the world.

The proportion never marrying, as measured by the lifetime celibacy rate, has been rising especially for men over the past two decades. It was only 2 percent in 1975 but had increased to 11 percent by 2000. For women, it grew only marginally from 4 to 6 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 each particular calendar year, increased from 5 to 20 percent--a far cry from the universal marriage society of earlier years.

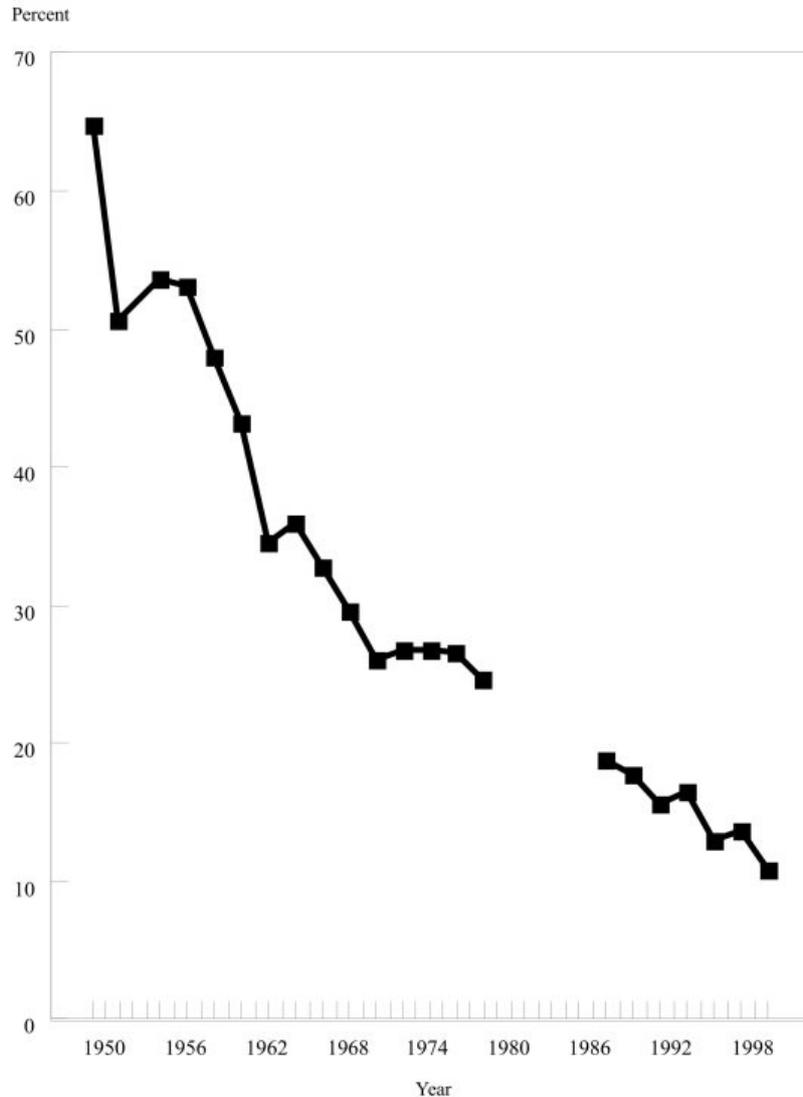


Figure 1. Proportion of married Japanese women of reproductive age who expected to depend on their own children for old age, 1950-2000

A marriage squeeze on men with respect to the availability of potential spouses is one of the factors contributing to the considerably greater rise in lifetime celibacy for men than for women. In addition, it is important to note that the rapid increase in both educational attainment and paid employment for women accounts largely for the dramatic change in marriage patterns in recent Japan. Enrollment rates for tertiary education have been rising remarkably, particularly for women, over the last few decades. In 1975, 32 percent of women at an eligible age were enrolled in a junior college or university, compared with 43 percent of men. By 2000, these figures had grown to 49 percent for both men and women.

Rising educational levels for 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 ratio of women's to men's hourly wage for full-time work for those below age 30 increased from 70 percent in 1970 to 89 percent in 2001.

Besides these socioeconomic factors, the phenomenon of single adults continuing to live with their parents is widely prevalent in contemporary Japan. These grown children are known as "parasite singles," because they tend not to contribute much to household expenses. Among single women aged 22 and over, excluding students, the proportion living with parents was fairly stable during the 1990s at 95 percent. In general, parasite singles can afford a carefree and prodigal single lifestyle.

This lifestyle is closely associated with the so-called "new single concept"--the idea of remaining single without considering marriage. Data gathered from surveys conducted in 1988 and 1993 show that the proportion of single women favoring the new single concept was 78 percent in 1988 and 76 percent in 1993. A multivariate analysis employing these survey data indicates that the proportion of the respondents who supported this newly emerging concept was substantially higher among those who are women, at relatively younger ages, having higher educations, working as paid employees, and living in urban areas.

It is important to note that these value shifts have occurred together with a secular rise in the incidence of free-market marriages in place of arranged marriages and a dramatic increase in premarital sex in the 1990s. The proportion of marriages arranged declined from 56 percent in 1960 to 7 percent in 1998. In 1987, only 9 percent of females attending a senior high school experienced sexual intercourse, but grew to 24 percent in 1999. In particular, the changes in adolescent sexual behavior is closely related to a more positive attitude toward cohabitation among young people. Micro-level data gathered in 1998 indicate that the proportion of single women who were cohabiting was only 4 percent at age 25-29 and 5 percent at 30-34. Nonetheless, more than three-quarters of single women were supportive of cohabitation. A statistical analysis has shown that the only significant variable was previous experience in sexual intercourse. This statistical analysis seems to suggest that the incidence of cohabitation may rise considerably in 21st-century Japan.

Despite the rapid increase in premarital sex among single women, out-of-wedlock childbearing has been relatively minor in Japan up to recent times, thus having generated no significant impact on fertility change. Only 1 percent of births in the 1990s occurred outside marriages, as opposed to 57 percent in the United States and 52 percent in Sweden.

In recent years, however, Japan's divorce rate has been rising considerably. Between 1960 and 1995, the total divorce rate for women increased from 81 to 203. Although more recent estimates of the total divorce rate are not yet available, recently released estimates of the crude divorce rate indicate that this rate increased from 1.60 to 2.10 per 1,000 population between 1995 and 2000. Japan's value of 2.10 exceeds the value of 1.98 for France in 1999 and is approaching the value of 2.29 for Germany in 1999. Obviously, the rising rate of divorce is another factor making marriages less attractive to Japanese women, signaling to women that marriage is increasingly less likely to provide them with long-term security. It also signals that a good job and good education are

necessary as a safeguard in the unfortunate event that marriage ends in divorce.

The delayed timing of marriage has contributed to reducing the completed family size. Up to the mid-1980s, a new home economics approach had provided a useful base for accounting for changes in marital fertility in Japan. In recent years, however, new home economics models have been failing to keep track of changes in marital fertility. Several models incorporating the timing of marriage explain Japan's fertility trends much more efficiently.

A series of national surveys conducted by the Mainichi Newspapers in the 1990s show that approximately 25 percent of married women of reproductive age stated that they are unable to have as many children as they would like. In hopes of boosting marital fertility, the Japanese government implemented a variety of programs in the 1990s. For instance, a childcare leave for working mothers was implemented in 1992. Another example is the Angel Plan, implemented in 1995, in which support for both child-rearing and work was provided. Subsequently, the New Angel Plan was established in 1999 to cope with the shortage of day-care services for preschoolers in major urban centers. Despite the implementation of these government policies and programs, fertility is still on a downward trend. Moreover, to evaluate the impact of these government policies and programs on actual fertility behavior, a specially-designed survey needs to be undertaken to generate data required for such purposes.

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Biographical Sketch

Dr. Naohiro Ogawa is deputy director of the Nihon University Population Research Institute in Tokyo and professor of economics at Nihon University, Tokyo. He received his master's degree and Ph.D. degree in economics at the University of Hawaii and has served on various committees of the International Union of the Scientific Study on Population (IUSSP), as member of the World Health Organization's Steering Committee on Human Reproduction, and as associate editor of the *Journal of Population Economics*. Dr. Ogawa is currently a member of the Council on the Social Security Program of the Government of Japan, member of the Committee on Population Age Structure and Public Policy, IUSSP, member of the Editorial Board of the *Journal of Pension Economics and Finance*, council member of the Population Association of Japan, and chairman of the Committee on International Exchange Program, Population Association of Japan.