

Paper

Socio-economic Factors Leading to Aging and Depopulation in Japan

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Abstract

Japanese society is rapidly aging as a result of a continuously low birth rate and an increasingly longer life expectancy. This article addresses some of the socioeconomic factors which may have contributed to the present trends of low fertility and rapid population aging.

Key words and phrases

aging, fertility, mortality, industrialization, modernization

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Introduction

Low fertility and aging may be the greatest challenges facing Japan today. Since 1975 the total fertility rate - the average number of children born to a woman between the ages of 15 and 49- has remained below population replacement level of 2.08. At the same time, the mid 1970s witnessed a sharp increase in the mean age of the population. Social, or population, aging is a direct result of prolonged low fertility combined with an increasingly longer average life expectancy and, in Japan, is occurring at an alarming rate.

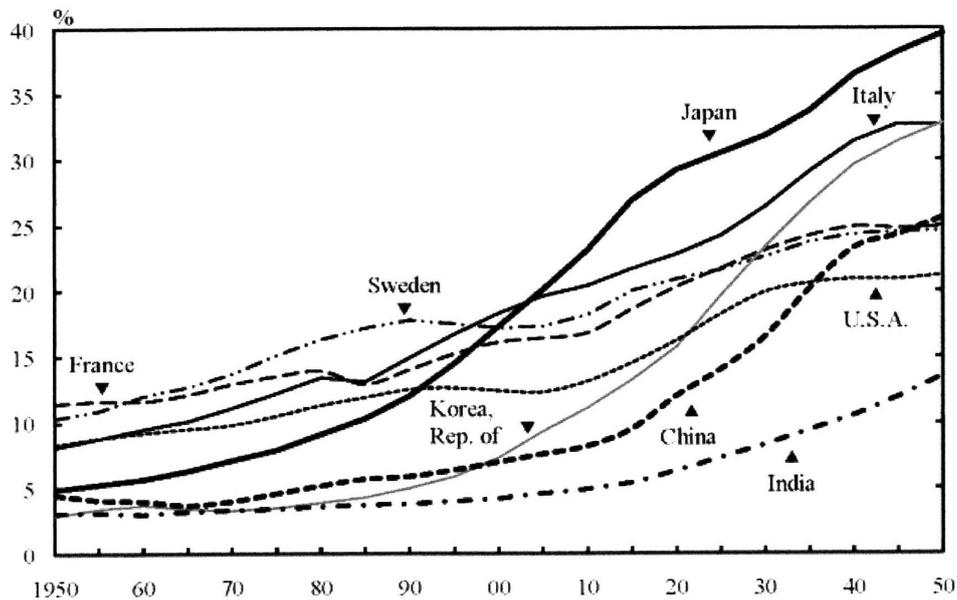
Japan is not the only country facing population aging as it is a common feature of the developed world. Most western nations experienced baby booms, fast-paced industrialization and economic growth in the years after World War 2. Population aging can be a result of industrialization, urbanization and modernization, and brings changes in values, social trends, economic activity, and family structure, while presenting many challenges for the countries affected (Coulmas 2007). Campbell states, "Advances in public health and medical science have increased longevity so the absolute number of old people grows. Rising income and opportunity lead to lower birthrates so the proportional growth of the old-age population is still faster" (Campbell 1992: 6). Global aging has been called "A timebomb. A burden on society. As big a threat as

climate change,” and the World Health Organization expects the world’s population of those 60 and over to reach 2 billion by 2050 (Birmingham 2010: 14). European countries, particularly Germany and Italy, are rapidly aging, and South Korea, Singapore and China are expecting to face aging challenges in the near future (W. P. P 2008). What is unique about Japan is the unprecedented rapid pace of population aging (see Figure 1). Between 1960 and 1990, the number of elderly tripled and the elderly percentage of the population doubled from 6 to 12 percent and is expected to double again by 2020 (Campbell & Ikegami 1999). In just 24 years, from 1970 to 1994, the country transformed from an “aging society” with a population of those 65 and over accounting for 7% of the total, to an “aged society” with the portion doubling to 14%. In comparison, it took France 115 years, Sweden 85 years, Italy 61 years, and the UK 47 years, respectively, for their elderly populations to double. Japan has surpassed the mark of 21% elderly making it a “hyper-aged” society and their numbers have reached 22.7% as of April 2010 (Coulmas 2007, Haub 2010, Nagano & Mori 2010). Other aging nations are progressing slower because they tend to have slightly higher birth rates, shorter average life expectancies, and, unlike Japan, a steady flow of immigrants that tend to be more fertile than the indigenous population.

Reaching the rank of the world’s oldest population is admirable, and indicative of a successful society. The facts indicate that in virtually all categories the Japanese are the healthiest people on earth as the average life expectancy at birth ranks third at 82.12, after the tiny mini-states of Macau and Andorra, popular havens for wealthy retirees (Colby 2004). Furthermore, many elderly tend to be financially well-off, spend their twilight years more comfortably than their parents would have thought possible, and remain physically fit for many years after retirement (Coulmas 2007).

The trends of low fertility and longer life expectancy were the result of various interrelated socioeconomic factors. Factors deterring fertility, which have become established over the last half century, include: rapid industrialization, change in family structure, economic growth, changing values, and economic recession. All of these factors have served as cause and catalyst and have led to a downward trend in child-birth (Coulmas 2007). At the upper end of the population model, medical advances in the last 60 years have led to lower infant mortality and longer life expectancy. All of these fertility and mortality factors have, in combination, contributed to the rapid pace

Figure 1 Proportion of elderly population by country (aged 65 years and over)



(Statistics Bureau 2008)

at which society is aging.

1.0 Setting the stage for a hyper-aged society

Population aging is connected to the trends of people living longer, getting married later and having fewer children (Coulmas 2007). There is no singular reason or simple explanation for these trends, or Japan's demographic shift over the last century. Rather, the socio-economic factors involved are myriad, each contributing to change in various ways, in varying degrees, at different periods. Declining fertility and population aging is a characteristic of an industrialized, wealthy, and advanced society, and Japan is no exception. Improved public health and medical practices have increased longevity and the absolute number of elderly. Urbanization and structural shifts in the economy such as increased manufacturing and services and decreased agriculture contribute to modernization, rising incomes and improved quality of life and lead to lower birthrates, which raises the proportion of elderly still (Campbell 1992). At the same time more women participating in gainful employment leads to later marriage, higher divorce rates, more people who never marry, and family planning. All of these factors work toward fewer births (Coulmas 2007).

Table 1 Trends in population

| Year | Population (1,000) | | Age composition (%) | | | Average annual rate of increase (%) | Population density (per km ²) |
|-----------------------------------------------|--------------------|--------|---------------------|-------|-------------|-------------------------------------|-------------------------------------------|
| | | Males | 0-14 years | 15-64 | 65 and over | | |
| As of Oct. 1 of each year¹⁾ | | | | | | | |
| 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 |
| 2005 | 127,768 | 62,349 | 13.7 | 65.8 | 20.1 | 0.13 | 343 |
| 2010* | 128,056 | 62,501 | 13.2 | 63.7 | 23.1 | 0.05 | 343 |
| Projection as of Dec. 2006 | | | | | | | |
| 2020 | 122,735 | 59,284 | 10.8 | 60.0 | 29.2 | -0.42 | 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.

(Statistics Bureau 2008)

This chapter is an overview of Japan's modernization and industrialization from the Meiji restoration to reaching the rank of the world's second largest economy. It summarizes the demographic trends of high fertility, high mortality, and rapid population growth, followed by the trends of low fertility, low mortality and aging. These shifting trends, in turn, set the stage for today's hyper-aged, depopulating society.

1.1 Industrialization, fertility, and population

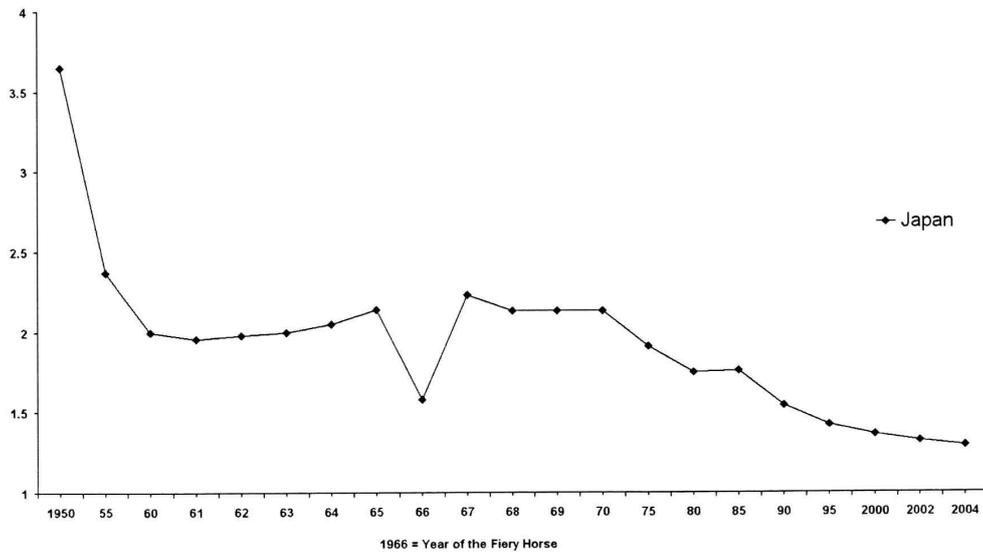
After the Meiji restoration in 1868, Japan began to rapidly industrialize in an effort catch up with the west. Until that time, the population remained steady at just over 30 million. As the country got on a fast track to building a modern nation-state, the population began to grow at a rate of 1 to 2% per year and by 1926, it reached 60 million,

and by 1950, 83 million (Statistics Bureau 2008; Ogawa & Matsukura 2005) (See Table 1). During the first half of the 20th century families with 4 to 6 children were not uncommon, which contributed to a population that grew steadily, and maintained an extremely young mean age—from 1920 to 1950, the average age was just 26 (Oe 2006; Coulmas 2007). Between 1900 and 1950, the percentage of youth aged 0-14 was 30%, and between 1910 and 1940, this group was at or above 36%, while only 5% of the population was 65 and over. Therefore, population growth may be attributed primarily to high fertility.

1.2 Fertility decreases

During the first half of the 20th century the modernization process seemed to propel population growth. The fertility rate remained well above replacement level until 1950, with the exception of two low periods: 1938-1939, due to the Sino-Japanese incident, and in 1946 after Japan's World War 2 surrender, which recorded just 1.5 million life births (Statistics Bureau 2008). In the 1930s, the government encouraged women to have many children under the slogan *umeyo, fuyaseyo* (Let's give birth! Let's increase!) and during the war, with high imperialistic hopes, a family size of at least five children per couple was promoted, the legal marriage age was lowered, and contraception was banned (Ogino 2006). In 1946, the year after Japan's defeat, fertility fell drastically, but rebounded the following year as post-war peace brought the post-war baby-boom. The fertility rate in 1947 was 4.54, with 70% more life births than in 1946 (Statistics Bureau 2008). During this 1947-to-1949 baby-boom, the nation's population increased by 5% in that three year period. In reaction to the baby-boom, the government reversed its policy claiming that since 40% of national land was lost in the war, it could not support a population of more than 80 million. Supply shortages, and the return of troops from overseas were additional concerns, and controlling population growth was thought necessary simply to sustain satisfactory living conditions. In 1948, the Eugenic Protection Law, which recognized abortion for "economic reasons", and shortly after, a Drug Law change, which made contraceptives more readily available, significantly curbed reproduction (Muramatsu 2002). The 1950 birthrate was 3.65, and from this point forward the fertility rate would begin a seemingly irreversible decline (See Figure 2).

Figure 2 Japan's birth rate, 1950-2004. The downward spike indicates a dramatic decline in the year of the Fiery Horse, 1966.



(Coulmas 2007: 8)

Japan was the first non-western country to experience fertility decline after World War 2, and this drop was more dramatic than in other industrialized nations. The fertility of a large population had never before decreased so rapidly in any other country. Between 1947 and 1957, the fertility rate dropped by more than half, from 4.54 to 2.04 and continued at around replacement level until 1974. The only exception was 1966, which recorded a fertility rate of 1.58. This was the year of the Fiery Horse in the Chinese zodiac, which claimed that “girls born in that year bring destruction to their husbands” (Coulmas 2007: 7). Fertility figures from 1971 to 1974 showed a significant increase due to the “echo-boomers”-children of the original post-war baby boom. While a birthrate of about 2.08 sustains a population, fertility dropped below 2.00 in 1975 and has remained below 2.00 since then (Statistics Bureau 2008). With 2,670,000 live births in 1974, the number fell gradually to 1,760,000 in 2002, with no foreseeable reversal in the trend. The “1.57 Shock” came in 1989 when fertility fell below the 1966 figure, but without a Chinese zodiac to blame. The birth rate reached 1.28 in 2004, and hit the all-time low of 1.26 in 2005. There was a slight increase from 2006 to 2008 recording 1.29, 1.34 and 1.37, respectively, as more women in their 30s gave birth. Two thousand and nine remained the same at 1.37, but 2010 saw a slight increase to 1.39 (Statistics Bureau 2008).

Table 2 Demographic change: the increase of the older segment of the population.

| Year | Total population | Population (in 1,000) | | | | | | Average age |
|-------|------------------|-----------------------|------|--------|------|--------|------|-------------|
| | | 0-14 | % | 15-64 | % | 65+ | % | |
| 1920 | 55,963 | 20,416 | 36.5 | 32,605 | 58.3 | 2,941 | 5.3 | 26.7 |
| 1925 | 59,737 | 21,924 | 36.7 | 34,792 | 58.2 | 3,021 | 5.1 | 26.5 |
| 1930 | 64,450 | 23,579 | 36.6 | 37,807 | 58.7 | 3,064 | 4.8 | 26.3 |
| 1935 | 69,254 | 25,545 | 36.9 | 40,484 | 58.5 | 3,225 | 4.7 | 26.3 |
| 1940 | 73,075 | 26,369 | 36.1 | 43,252 | 59.2 | 3,454 | 4.7 | 26.6 |
| 1945 | 71,998 | 26,477 | 36.8 | 41,821 | 58.1 | 3,700 | 5.1 | 26.8 |
| 1950 | 84,115 | 29,786 | 35.4 | 50,168 | 59.6 | 4,155 | 4.9 | 26.6 |
| 1955 | 90,077 | 30,123 | 33.4 | 55,167 | 61.2 | 4,786 | 5.3 | 27.6 |
| 1960 | 94,302 | 28,434 | 30.2 | 60,469 | 64.1 | 5,398 | 5.7 | 29.0 |
| 1965 | 99,209 | 25,529 | 25.7 | 67,444 | 68.0 | 6,236 | 6.3 | 30.3 |
| 1970 | 104,665 | 25,153 | 24.0 | 72,119 | 68.9 | 7,393 | 7.1 | 31.5 |
| 1975 | 111,940 | 27,221 | 24.3 | 75,807 | 67.7 | 8,865 | 7.9 | 32.5 |
| 1980 | 117,060 | 27,507 | 23.5 | 78,835 | 67.3 | 10,647 | 9.1 | 33.9 |
| 1985 | 121,049 | 26,033 | 21.5 | 82,506 | 68.2 | 12,468 | 10.3 | 35.7 |
| 1990 | 123,611 | 22,486 | 18.2 | 85,904 | 69.5 | 14,895 | 12.0 | 37.6 |
| 1995 | 125,570 | 20,014 | 15.9 | 87,165 | 69.4 | 18,261 | 14.5 | 39.6 |
| 2000 | 126,926 | 18,505 | 14.6 | 86,380 | 68.1 | 22,041 | 17.4 | 41.4 |
| 2005 | 127,708 | 17,727 | 13.9 | 84,590 | 66.2 | 25,392 | 19.9 | 43.1 |
| 2040* | 109,338 | 12,017 | 11.0 | 60,990 | 55.8 | 36,332 | 33.2 | 50.4 |

*estimate

(Sekizawa 2008)

1.3 Mortality decreases

The average life expectancy for the generation before the war was extremely short. In 1935, for example, men lived an average of 47 years and women 50 years (Asian-Info. org 2000). Immediately after the war, however, due to improvements in medical practices, people began living longer and the infant mortality rate-or infant deaths per 1,000 births in a year-fell drastically (Coulmas 2007). These trends significantly increased the average life expectancy at birth. As industrialization expanded, job opportunities and household structural changes drew more of the population to urban ar-

Table 3 Japan's changing demographic structure.

| <i>Age</i> | <i>1950</i> | <i>1975</i> | <i>2000</i> | <i>2030</i> |
|------------|-------------|-------------|-------------|-------------|
| 0–14 | 35.40% | 24.30% | 14.60% | 11.90% |
| 15–64 | 68.20% | 67.80% | 59.60% | 57.80% |
| 65– | 4.90% | 7.90% | 17.20% | 30.40% |

(United Nations 2003)

as which led to fewer births. However, even though the birthrate fell, increasing longevity of the people and decreasing infant mortality held off depopulation. In 1950, the number of births was almost triple the number of deaths, and births remained more than double the number of deaths until 1975 (Statistics Bureau 2008). At a glance, this seems to imply a continuous fertility boom, but in reality, it signifies increased longevity and lower infant mortality as a result of improvements in medical practice. When fertility began to drop below population-replacement level in 1975, the average life expectancy continued to increase, resulting in a steep climb in the mean age of the population. From 1920 to 1950 the average age of the population remained at around 26 years, but by 1960 it was 29, by 1970, 31.5 and by 2005, 43.1 and by 2040 the average age is predicted to be 50.4 (Sekizawa 2008) (See Table 2). As for the percentage of elderly, the speed and scale of their increase is unprecedented. Those 65 and older doubled from 6% in 1960 to 12% in 1990, and their numbers are expected to more than double again to 25% by 2020 (Campbell & Ikegami 1999) (See Table 3).

Life expectancy at birth increased dramatically from 59.57 (men) and 62.97 (women) in 1950, to 65.32 (men) and 70.19 (women) in 1960, and to 69.31 (men) and 74.66 (women) in 1970 (Statistics Bureau 2008). By 2009, life expectancy had reached 79.59 for men and 86.44 for women, an average of 82.6 years, compared to the world average of 67.2 (Indexmundi 2010) (See Table 4 below).

Finally, in the early 1960s, there were just 150 centenarians, but 40 years later, in 2000, their numbers had increased to 25,000. Presently, the number has risen to an estimated 40,000 (Economist 2010) (See Figure 3).

Table 4 Life expectancy at birth (years)

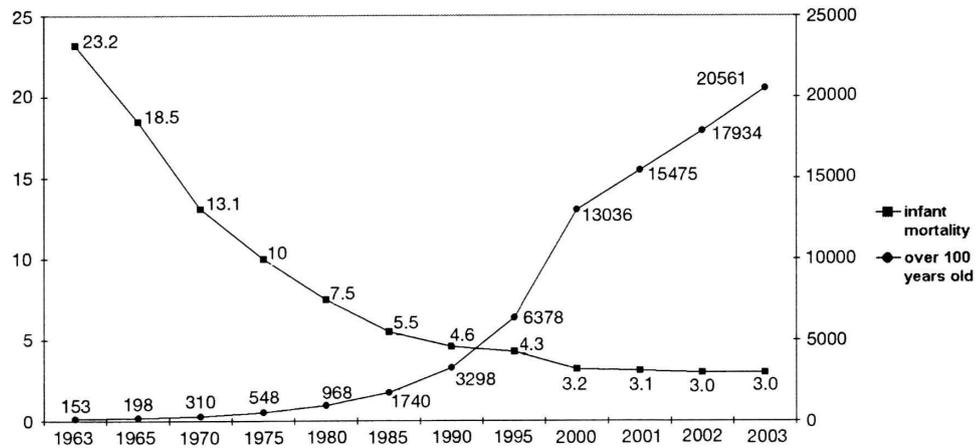
| Year | Males | Females |
|------|-------|---------|
| 1950 | 59.57 | 62.97 |
| 1955 | 63.60 | 67.75 |
| 1960 | 65.32 | 70.19 |
| 1965 | 67.74 | 72.92 |
| 1970 | 69.31 | 74.66 |
| 1975 | 71.73 | 76.89 |
| 1980 | 73.35 | 78.76 |
| 1985 | 74.78 | 80.48 |
| 1990 | 75.92 | 81.90 |
| 1995 | 76.38 | 82.85 |
| 2000 | 77.72 | 84.60 |
| 2005 | 78.56 | 85.52 |
| 2007 | 79.19 | 85.99 |
| 2008 | 79.29 | 86.05 |
| 2009 | 79.59 | 86.44 |

(Statistics Bureau 2008)

1.4 Nuclear family

Until Japan began to rapidly industrialize in 1868, the family household (*ie*) system, rather than the nuclear family, was the dominant structure of the Japanese family home. The *ie* was concerned with preserving family continuity and was a center of activity for the extended family. The *ie* maintained traditional customs, such as marriage arrangements and eldest sons were given inheritance preference in exchange for carrying on as head of the *ie* (Coulmas 2007). The *ie* was often the center of family businesses for industries such as farming and manufacturing, and in the predominantly rural areas, families tended to produce many children to meet work demands, and to ensure the preservation of the family *ie* for future generations. The *ie* system is more prevalent in rural areas, but its customs pervade society in many forms, such as the expectation of the wife of the first-born son to care for her mother-in-law. In some ways, the *ie* concept has been projected onto corporate life in modern Japan, such as the relentless devotion that many Japanese have to their companies ahead of their own family. Just two generations after the Meiji Restoration, however, the *ie*, as the dominant family model, began to unravel as a result of the nation's rapid industrialization and migration to urban areas, and was being replaced by the nuclear family. Furthermore, after many major cities were heavily bombed during the war, large-scale housing re-

Figure 3 Infant mortality and number of centenarians.



(Coulmas 2007:108)

construction in the 1950s and 1960 of dormitory-style apartment complexes and single-family-sized houses were designed with the basic family unit in mind rather than the multi-generational *ie*. (Zeilenziger 2006). The trend away from the *ie* was further reinforced after the war when legal reforms were made, which provided equal inheritance by all children (Coulmas 2007).

Next, we will discuss some of the socioeconomic factors which may have affected fertility decline.

2.0 Socioeconomic factors affecting fertility decline

Fertility remained high for the first half of the 20th century as Japan underwent rapid modernization. Then, in reaction to the post war baby boom from 1947 to 1949, and in expectation of massive postwar repatriation, governmental concerns over supply shortages led to a change of course. In 1947, the government began to encourage the use of contraception and in 1948, the Diet passed the Eugenics Protection Law permitting abortions in cases where the mother's life or health was in danger. The following year, the law was revised to include "economic" reasons. As a result of these policy changes, over 700,000 abortions were carried out in the first year the law was in effect, and the number increased steadily until 1955 (Tipton 2008). The trend of nuclear family households continued and was accelerated by postwar housing reconstruction, in the form of smaller suburban apartment complexes and tiny or shared

houses (Zeilenziger 2006). In the 1950s, as the economy strengthened, and a large percentage of workers shifted from agriculture to industry, the emergence of a new middle class of *sarariman* (salary man, or businessman) came to symbolize the desired life, and society as a whole began to enjoy a higher standard of living. Education was becoming increasingly necessary to attain high social status, and mothers took primary responsibility for children's academics (Tipton 2008). These trends characterized Japan's modernization and quest for a higher living standard and encouraged a family planning model that resulted in lower birthrates. Fertility rates would fluctuate at around replacement level until 1974, before starting a gradual decline.

2.1 Later marriage and childbirth

In the mid-1980s single women over the age of 25 were nicknamed "Christmas cakes" (*kurisumasu keki*), a reference to the reduced demand for Christmas cakes still on the shelf after December 25th. This derogatory labeling of single women emerged because between 1955 and 1975 the mean marriage age for women was 24.5. However, this figure began to climb in the mid-1970s and continued on an upward trend as the average age of marriage for women by 2009 was 28.6, surpassing the age at which fertility begins to decrease (Statistics Bureau 2008). The obvious implication is that later marriage age cuts into a woman's reproductive years, and drives the age at which the first child is born up, and number of births per woman down. The average age for bearing the first child went from 25.6 in 1970 to 29.7 in 2009 (Statistics Bureau 2008) (See Table 5).

Masahiro Yamada, a Chuo University professor specializing in family studies, argues that a large portion of singles are not in a romantic relationship and as much as 80% of singles over 30 do not have a partner (Interview with Fukue & Daimon 2010). In 2000, 54% of women aged 25-29 had never married, double that of 1980. And by 2005, 59% of women ages 25-29, and one-third of women ages 30-34 had never been married (Haub 2010).

The proportion of childless women at 30 has been on the rise since the 1950s as 18% in 1953, 30% in 1961, and 40% in 1967, of 30-year-old women were childless. Women who had not had children by age 40 represented 10.2% of those born in 1953, and 22.3% of those born in 1964. The Ministry of Health and Welfare found that 50.

Table 5 Average age of first marriage, 1950-2004

| 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 |
| 2008 | 30.2 | 28.5 |
| 2009 | 30.4 | 28.6 |
| 2010 * | 30.5 | 28.8 |

(Statistics Bureau 2008)

3% of women born during the 1971 to 1974 echo boom had not given birth by age 30. These figures clearly indicate that more women are having children at a later age, or not at all (Japan Times 2006) (See Table 6).

2.2 Employment trends

Increasing numbers of women entering the workforce is a likely reason for later marriage age. In the high growth period of the 1960s, consumer demand and employment opportunity drew many women into paid employment and post-secondary education (Tipton 2008). Young families aspired to higher living standards such home ownership and modern furnishings that made life more convenient. Parents began to invest more in children's education to give them a competitive edge for university entrance and a promising career. Paid employment was a good opportunity for many wives to supplement their husband's income and raise their family's status and quality of life. As women increasingly entered the workforce, their lifetime employment participation came to embody an "M-curve" (See Figure 4).

The first hump in women's labor force participation indicates their time as regular full-time workers in their early twenties before marriage, followed by a dip signifying

Table 6 Changes of mothers' age at childbirth

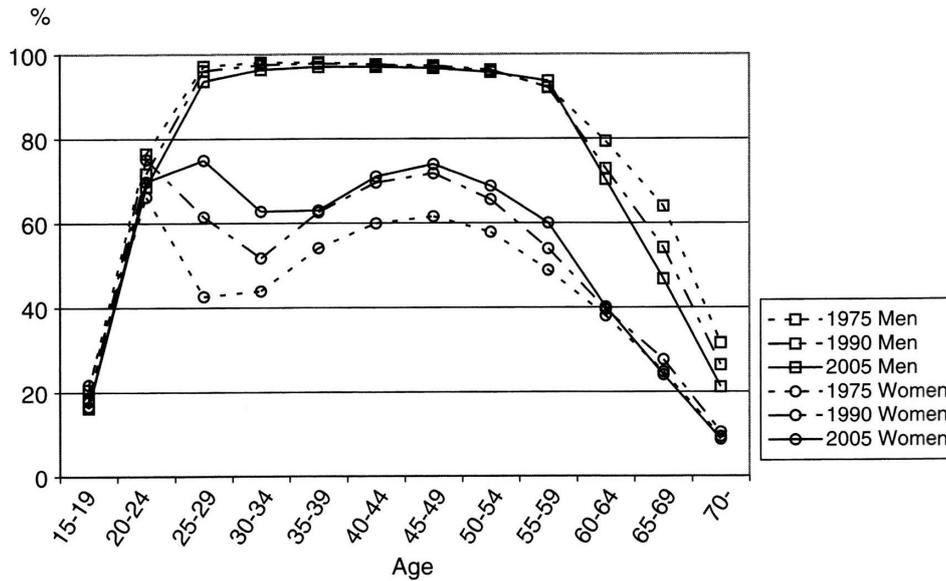
| Year | Number of babies (1,000) | Distribution of mothers' age (%) | | | | | | Mean age bearing first child |
|--------|--------------------------------|----------------------------------|-------|-------|-------|-------|----------------|------------------------------------|
| | | -19 | 20-24 | 25-29 | 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 |
| 2008 | 1,091 | 1.4 | 11.4 | 29.1 | 37.1 | 18.4 | 2.6 | 29.5 |
| 2009 | 1,070 | 1.4 | 10.9 | 28.8 | 36.4 | 19.6 | 2.9 | 29.7 |
| 2010 * | 1,071 | 1.3 | 10.4 | 28.6 | 35.9 | 20.5 | 3.3 | 29.9 |

(Statistics Bureau 2008)

time off to have children. The second hump represents a return to work when their children start school, never to fully recover again. Anticipating greater labor demand associated with the high growth of the 1960s and 70s, the government encouraged married women to work. The proportion of married women returning to work when their children started school steadily rose during the 1970s and 80s motivated in large part by higher lifestyle expectations and children's education expenses. In addition to this financial burden, the social expectation of women to maintain the home and assume child-rearing responsibilities remained. The result was that women refused to have more babies, despite government pleas, culminating in the "1.57 shock" of 1989—the all-time low birthrate (Tipton 2008). In recent years the, M curve has flattened out, indicating that women are marrying later, delaying having children, or not marrying in exchange for a career or independence. Also, the social pressure for women in their mid to late 20s to marry—as implied by the *kurisumasu keki* stigma—has substantially decreased.

Financial demands of children have dramatically increased with Japan's economic rise, such as daycare and educational expenses such as cram schools. As women's workforce participation continues to increase to help cover these expenses, as well as those of the luxuries associated with a modern lifestyle, bearing more than one or two children has, for many women, become too costly and a poor investment of their time and energy. Also, the fact that social mores have been slow to change has not been

Figure 4 Labor force participation of men and women.



(Tipton 2008:196)

helpful. Women have traditionally shouldered the family responsibilities of child-care and domestic elderly care, regardless of how many hours they work, while husbands tend to devote long hours to the company. Women still face inequality in employment, the underlying reason being the continued expectation of women's role as domestic-oriented, making their employment outside the home merely supplemental (Tipton 2008). There still seems to be the pervasive assumption that once a couple is married, the husband is the primary breadwinner. In 2007, 44.8% of 3,118 respondents said the husband should work and his wife should be a housewife (Fukue & Daimon, 2010). In the same year, for double-income households, Japanese men contributed only 12.5% of housework and childrearing hours, compared to 37-40% in the U. S., Sweden, Australia and Norway (Cabinet Office 2007).

2.3 Social factors

There are significant social trends which have contributed to delayed marriage and subsequent childbirth which were touched on above. These trends reflect changing attitudes toward gender roles in society and in marital relationships. These changing attitudes have influenced lifestyle choices and have led to a larger single population, delayed marriage, and lower fertility. These social trends have occurred in tandem

with, and are intricately related to, women's increased participation in the workforce. This shift in values may be a reaction to difficulties women have faced in a social system that expects them to have children and remain the primary caretaker of the home, yet denies them equality in a workforce that desperately needs them.

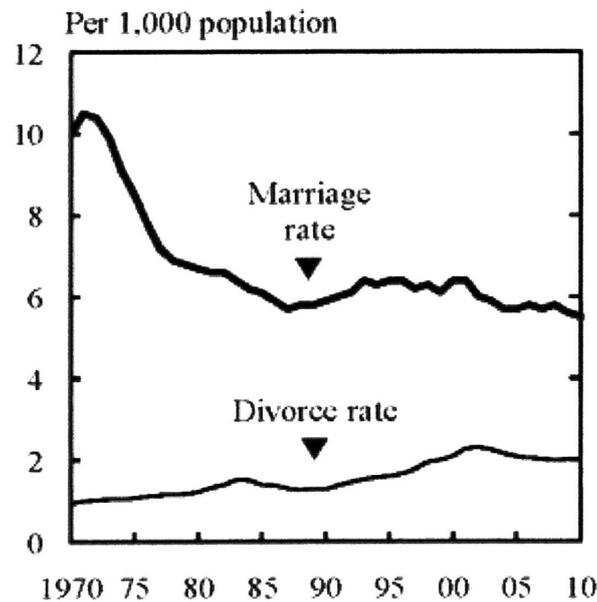
2.3.1 Marriage trends

The tradition of arranged marriages (*omiai*) being gradually replaced by love marriages may be a significant trend connected to later marriage. In 1966, arranged marriages were more numerous than love marriages and as late as 1982 three in ten marriages were *omiai*. However, by 2002, love marriages accounted for 89% of all marriages (Zeilenziger 2006). As arranged marriages have decreased, so have the total number of marriages. At the same time, there has been a gradual increase in the average age of first marriage, Japan's single population, and the percentage of life-long unmarried (See Figures 5 & 6).

2.3.2 Behavioral trends

Beginning in the high growth period, and particularly in the 1980s, many singles did not pursue the notion of marriage. They chose instead to live with their parents and pursue their career, or take part-time work, which would allow them the freedom of pursuing recreational interests. This lifestyle allowed them to live for the moment without the responsibilities and obligations associated with marriage and family. In 1999, Yamada coined the term "parasite single" (*parasaito*), referring to 60% of single men, and 80% of single women between the ages of 24 and 30, who continue to live with their parents (Yamada 1999). *Parasaito* denotes singles that shop excessively, travel abroad, and lead a lifestyle characterized by the pursuit of self-interests rather than settling down, marrying, and starting a family. An estimated that 2.5 million women aged 25 to 39 currently live with their parents, nearly 20% of all women in this age group (Zielenziger 2006). Since the start of the high growth period, most girls took full-time jobs until marriage. Though most of these jobs were clerical such as "office ladies", and were relatively low pay, it provided young women with generous disposable incomes considering they were somewhat dependent on their parents. During the 1980s, expenditures of single women under 30 rose 15.8%, while that of single

Figure 5 Changes in marriage rate and divorce rate.

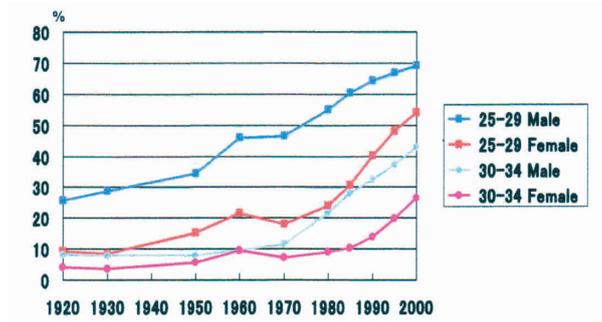


(Statistics Bureau 2008)

men increased only 2% (Tipton 2008). The parasite single phenomenon embodies a rejection of traditions such as arranged marriages and the notion that women are expected to give up their careers and be resigned to the home after getting married or having children. This implicit rejection of marriage as a matter of course, however, should not imply an abandonment of companionship with the opposite sex or sexual activity as in 2000, more than two-thirds of women aged 25 to 34 who had a regular sexual partner still lived with their parents (Iwasawa 2000).

There have also been patterns of behavioral disorders produced by Japan's modern society such as the junkie (*otaku*) and the socially withdrawn (*hikikomori*). The *otaku* gained widespread recognition in the late 1980s and came to represent a legitimate sub-culture of individuals who tend to spend a lot of time by themselves and occupied with obsessions with forms of popular culture such as comics (*manga*) (Tipton 2008). Though reclusive, these individuals are not antisocial as they typically communicate with others of shared interests, if not in person, at least online. The *hikikomori*, on the other hand, tend to avoid social interaction. Saito, who coined the term in a 1998, estimates there are around 1 million young singles nationwide which fit this description (Saito 1998). Zeilenziger (2006) observes that these individuals shut them-

Figure 6 Trends in the proportion of Japanese singles by sex: 1920-2000.



(Oe 2006)

selves away by closing their blinds, taping their windows shut, and refusing to leave their bedroom for months or years at a time. Yamada states that the *parasito* and *hikikomori* have come to symbolize the “social and psychological deadlock” confronting modern day Japan (Interview in Zeilenziger 2006: 176).

2.3.3 Marriage barriers

The trend away from *omiai* to the social acceptance and prevalence of love marriages in the past 30 years is consistent with the steady increase in the number of life-long singles. When marriage as a matter of course based on an age-appropriate social arrangement is no longer taken for granted, there are going to be a substantial number of singles who are not interested in the prospect of marriage on the one hand, or who have difficulty finding a suitable partner on the other. When mutual love is a precondition of marriage there is an increased possibility that a suitable partner will not easily be found. Furthermore, as singleness has become more common, the social stigma formerly attached to it is decreasing, which reinforces the tendency (Coulmas 2007). According to Takahashi (et al. 1997), the trend away from matchmaking may be a major factor in Japan’s population crisis. The newer, freer system of choosing one’s own marriage partner has created more competition to find a suitable partner. As the numbers of those considered unappealing or unwilling to take the risks involved in dating and courtship increases, so does the marriage age and the single population. The trends of *parasaito* and *hikikomori* imply that many singles are not even considering the prospect of marriage—at least at a young age. But even when singles are waiting for the right partner, it can be difficult to find a suitable match without proper social net-

works and leisure time that brings them into comfortable interaction with the opposite sex.

2.3.4 Attitudinal trends

In the past few decades there have been significant changes in attitudes about marriage which have delayed or deterred marriage. The trend away from *omiai* to love marriage seems to indicate changing expectations about the marriage relationship and what defines an attractive mate. There also seems to be a mismatch between certain qualities that men and women hope to find in a partner. In the 1990s, studies of young university and working women showed that they hoped to marry, yet they yearned for romantic love and a husband with whom they could share common interests. Women rejected loveless relationships and a marriage that seem little more than a contract that would keep them in the home. Young men's attitudes, however, remained rather conservative. They tended to seek an obedient wife who would take care of the home and rejected a reversal in the courtship process where women become the chooser rather than the chosen (Tipton 2008). As women have made progress in gender equality at work, and have taken on more professional roles, this progression may have increased their tendency to remain single. This tendency may imply a disinterest in the prospect of marriage for the sake of pursuing her profession, or it may imply that women of high professional status are found to be a less attractive choice as a spouse. It was recently found that 12% of female university graduates over 50 who live in Tokyo had never married and it is these women, in particular, who tend to want a "liberated" husband who will share in the household duties and burdens of child-raising to allow both of them to work outside the home. By contrast, the largest group of never-married males is those whose education did not go beyond junior high, and these men tend to desire traditional housewives (Zeilenziger 2006).

2.4 Economic factors

In recent years, recurring recession, job insecurity, and a pessimistic future outlook may have further complicated the above barriers to marriage and subsequent fertility. A U. S. newspaper recently observed that two decades of deflation seems to have had a deep impact on the Japanese, breeding generational tensions and a culture

of pessimism, fatalism and reduced expectations; and that Japan has created an entire generation of youth who seem to have given up on the possibility of enjoying the job stability or rising living standards that their parents experienced (Fackler 2010). This pessimistic outlook, attributed to the rapid rise in the proportion of temporarily employed and part-timers, is likely a factor affecting marriage trends. In 2002, the Ministry of Health, Labor and Welfare found that 40% of regularly employed males aged 20-34 were married, compared to only 10% of those without full-time jobs (Coulmas 2007). In the 1980s and 90s parasite singles tended to live with their parents out of choice, to suit their own lifestyle choice. These young singles preferred to devote time and energy to hobbies and interests, and chose this lifestyle to enjoy the personal freedom. However, in recent years, rather than staying at home out of choice, many youth are staying with parents due to financial constraint and carrying on part-time or temporary work as a “*furi-ta*”. *Furi-ta* is a hybrid word that combines the English “free” and the German “*arbeiter*” or worker, and implies a lifestyle that is radically different from a system of lifetime employment (Smith 2010). One report claims that 70% of *furi-ta*-s would like to be regular employees, but they accept non-fulltime positions because that is all that is available in this period of recession (‘Nihon no ronten’ henshubu, 2005). Many would like to settle into full-time company employment, marry, and start a family. However, without stable employment and financial security many cannot afford to live independently, much less contemplate marriage. The remaining 30% of *furi-ta*-s, who do not aspire to regular employment may lack the ambition and motivation to move beyond part-time work, or are more attracted to the freedom to move between jobs over the rigidity of a full-time contract and stable income. Many youth reject idea of following in their fathers’ footsteps, slavishly devoting their life to a company, which is associated with a life of stress and servitude (Tipton 2008). Some young men who reject their fathers’ macho work ethic are referred to as “herbivores” or “grass-eaters” implying that they are rather uncompetitive and unambitious in terms of career advancement. Ushikubo (2008) claims that over 60% of all Japanese men aged 20-34 are “grass-eaters” which has created a mismatch between men and women that is responsible for a decline in marriage, births and even sex. Yamada (2001) argues that *furi-ta*-s who with no children, ambition, or vocational skills may become a significant social problem, as they contribute to the falling birth-

rate and fall short in terms of responsible social insurance contributions.

Similar to the contradicting attitudes and expectations between men and women about the marriage relationship, there exist incongruities in expectations concerning financial and social status. It is not uncommon for a young woman who was raised in a middle-class home to be looking for a partner who has the job security and salary-earning potential of their father under the life-time employment system. Women whose father is well-off tend to not seek someone who might lower their standard of living. Though she may be a *furi-ta*-, she probably does not want to marry a male counterpart, but someone with a stable job and steady income, much like the traditional family of the high-growth middle-class society she grew up in. However, in today's economic climate, of those men who find full-time employment right after university graduation, most do not enjoy the rapid promotion, benefits and salary increases of their predecessors. This is an example of how attitudes toward marriage and expectations of gender roles do not change as rapidly as actual social conditions (Coulmas 2007). Yamada argues:

Women stay with their parents until a financially stable man comes along. Male temp workers or those on low incomes tend to give up the notions of getting married. It isn't that single women want to be housewives, but they hope to marry someone with a high income so they can choose whatever job they like.

(Interview in Fukue & Daimon 2010)

Miura (2005) reports that 63.8% of single women want their future husband to earn at least 6 million yen (approx. \$60,000) per year; yet in today's economy a large portion of men aged 25-34 cannot meet this expectation. Furthermore, up to one-third of men in this age group are believed to be non-full-time employees because many companies have shed the traditional lifetime employment system, since government legislation abolished restrictions on flexible hiring (Smith 2010). This temporary system has affected those in their 20s and 30s the most, with the low pay, uncertainty, and pessimistic outlook affecting marriage patterns and subsequent childbirth.

Summary

This paper has been an attempt to demonstrate some of the factors which may have led to the trends of low-fertility and population aging, two pressing challenges facing modern Japanese society. The formation of Japan's present demographic structure began over a century ago. The country's aggressive modernization and industrialization from the Meiji restoration through the first half of the twentieth century was coupled with trends of high fertility, high mortality, and rapid population growth. After a short post-war baby boom, the birthrate became more controlled, dropping to around replacement level, where it remained steady for the next two decades. The post-war mortality rate, on the other hand, decreased significantly as medical improvements led to a rise in average life expectancy and a drop in infant mortality. The population continued to grow, but it also began to rapidly age. In 1975, fertility dropped to below replacement-level, and has remained below 2.0 ever since. In correlation, the average age of the population began a sharp incline.

The post-war era commenced various socioeconomic changes that resulted in fewer children being born. These trends gained momentum with Japan's continued urbanization in the fifties and sixties and high economic growth in the seventies and eighties. Prosperity led to the "bubble economy" but was followed a deflating economy and a 20-year period of recurring recession. These socioeconomic developments have had a profoundly deep influence on people's values, attitudes, behaviors, lifestyles, and ambitions, which have affected relationships, marriage and fertility.

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