Shifting Costs of Caring for the Elderly Back to Families in Japan: Will It Work?

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Over the next 30 years Japan's population will become by far the oldest in the world. Primarily because of earlier rapid declines in fertility and mortality, the percentage who are elderly (defined here as age 65 and older) will rise to unprecedented levels. The pace of Japan's population aging has been accelerating for 60 years and is now proceeding very rapidly.

Population aging has already imposed considerable financial pressures on the social security system, and these pressures will increase greatly in the coming years. The government is very concerned about this problem and is trying to shift some of the costs of the social security system back to families. In pursuing this strategy, the government views Japan's pattern of coresidence of adult children and elderly parents as a unique asset that can be mobilized to effect such a shift. But fundamental economic and social changes and associated changes in values are eroding the capacity of the Japanese family to care for elderly parents. To shed light on the question of whether the government's strategy will work, we examine both the evolution of the social security system and the transformation of the Japanese family.

Characteristics of aging societies

In many respects the aging of the Japanese population, the growth of its social security system, and the transformation of the family are typical of what occurs in any population that experiences economic and social development and consequent demographic transition from high to low birth and death rates. The aging that occurs as a consequence of demographic transition is reflected in a rising old-age dependency ratio of elderly to work-
ing-age population that is a major contributor to the pressures to shift some of the burden of caring for the elderly from families to government, businesses, unions, and other institutions, as well as to the elderly themselves through personal savings for old age (Davis and Combs 1950; Cowgill and Holmes 1972).

Other reasons for the shift toward these alternative sources of old-age support are bound up with the transformation of peasant-agrarian economies into urban-industrial economies (Davis and Combs 1950; Ogawa and Retherford 1993; Retherford, Ogawa, and Sakamoto 1996). In peasant-agrarian economies, production tends to be family-based and unspecialized, and father and son tend to have the same occupation, usually farming. Parental authority over children is reinforced by the parents' longer experience and greater expertise in their shared work. Under these circumstances coresidence of parents and adult children, extending to care of elderly parents by adult children, makes both economic and social sense.

In urban-industrial economies, on the other hand, production is not family-based, occupations are specialized, and fathers and sons tend to work in different occupations. Workers compete in a labor market that treats them as individuals instead of as family members. The individualism fostered by the labor market tends to diffuse into other areas of life, including the legal system and kinship and family relations. The legal rights of individuals are strengthened, and the legal authority of household heads over other household members is weakened. Parental authority of elderly parents over adult children retains a kinship basis but loses most of its economic and legal support. Parental authority is further weakened by the greater individualism of young wives, who are increasingly likely to achieve a measure of economic independence through paid employment outside the home.

The weakening of parental authority over adult children increases the potential for intergenerational conflict within the family. Further contributing to the potential for conflict are differences in style and outlook stemming from the growing tendency of parents and adult children to move in different occupational and social spheres. These changing circumstances of family life create new desires among both elderly parents and adult children to maintain "intimacy at a distance" by residing in separate households. At the same time, these desires become increasingly attainable as incomes rise and modern communication and transportation systems develop. Emergent values of privacy and intergenerational independence specify that elderly parents should not unduly interfere in or impose on the lives of their adult children and their nuclear families. Increased geographic mobility and consequent physical separation of elderly parents and adult children also contribute to the growth of "intimacy at a distance." The economic and social underpinnings of coresidential arrangements for
caring for elderly parents are thus weakened, and the incidence of coresidence declines. In mature urban-industrial societies, nuclear families are the dominant household type.

The elderly still have needs for support and care that must be met. An intergenerational consensus arises that government should shoulder a substantial part of the burden of supporting and caring for the elderly. Social security systems are established, and private pension plans, insurance, and savings for old age also become more prevalent. These new institutions and behaviors reinforce the fundamental changes in values that are already underway. Expectations of old-age support from children weaken, as do filial values and norms of caring for elderly parents. Contributing to the erosion of these filial values and norms is the increasing prevalence of female employment outside the home, which increases women's opportunity costs of staying home to care for elderly parents who are in need of such care.

The forces driving the growth of the social security system are so strong that the costs of the system tend to escalate. These escalating costs reflect not only increases in benefits at the individual level but also increases in the proportion of the population who receive benefits, as a consequence of population aging, extension of benefits to groups not previously covered, and maturation of the social security system. Another contributing factor is the growth of expensive medical technology and the increasing sophistication and cost of health delivery systems, which may cause the medical costs of the elderly to increase even faster than pension costs.

The escalating of social security costs ultimately results in government efforts to rein in those costs. These efforts tend to be modest, because the system serves the needs of the young as well as the old and is generally popular. Moreover, the growing political influence of the elderly, resulting from increases in their relative number and in their educational levels and political sophistication, tends to thwart efforts to reduce benefits.

Having outlined this general pattern of population aging and its consequences for family and society, we focus on the example of Japan.

Rapid and extreme population aging in Japan

We begin by examining the speed and extent of population aging in Japan. Subsequent sections cover financial pressures on Japan's social security system, government attempts to shift some of the costs of caring for the elderly back to families, and the declining capacity of the Japanese family to care for the elderly.

Japan's population is aging rapidly because of earlier rapid declines in fertility and mortality. Between 1947 and 1957, following a brief postwar baby boom, total fertility fell by more than half, from 4.54 to 2.04 children
per woman. It remained fairly constant at about 2 children per woman until the oil crisis of 1973, after which fertility resumed its decline, reaching 1.42 in 1995. Between 1948 and 1995 life expectancy at birth rose from 56 to 76 years for males and from 59 to 83 years for females. Life expectancy at age 65—which bears directly on length of retirement—rose from 10 to 16 years for males and from 12 to 21 years for females. The 1995 values of life expectancy at birth were the highest of any country in the world.

Japan’s rapid population aging is projected to continue well into the next century (Ogawa 1993, 1996; Japan Aging Research Center 1996). Figure 1 shows trends in several commonly used measures of population aging and dependency, with actual trends until 1995 and projected trends until 2025. 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 article are also based on this model.

As shown in Figure 1, the proportion of the population aged 65 and older increased from 5 percent in 1920 to 15 percent in 1995, and is projected to increase to 27 percent in 2025—a level considerably higher than projected for any other country. The overall dependency ratio, defined as the sum of young and old (0–19 plus 65 and older) divided by the working-age population (aged 20–64), decreased from 106 percent in 1920 to a low of 60 percent in 1995 and is projected to increase steeply to 82 percent in the year 2025. The old-age dependency ratio, defined as the population aged 65+ divided by the working-age population aged 20–64, increased from 11 to 24 percent between 1920 and 1995 and is projected to reach 50 percent in 2025. The familial support ratio, defined here as the female population aged 40–59 divided by the population of both sexes aged 65–84, fluctuated between 170 and 190 percent between 1920 and 1960, then declined to 109 percent in 1995, and is projected to plummet to 60 percent in 2025.

Figure 1 indicates not only that 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. The figure also shows that Japan’s presently favorable position regarding overall dependency will deteriorate rapidly over the next three decades. Escalating old-age dependency will create severe problems of adjustment at both the family and societal levels. The huge drop 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 especially heavy burdens 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
Figure 1  Actual and projected indicators of population aging and dependency, Japan 1920-2025


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 aged 65-74 or the population aged 75-84.

The speed of population aging is also exceptionally high in Japan. The time required for the proportion 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 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 Japan's development will enter uncharted territory and must look to its own policy creativity rather than the experience of other countries in dealing with the economic and social problems posed by the unprecedented aging of its population.

Because of rural-to-urban migration, in which young adults predominate, population aging tends to be even more extreme in rural prefectures than in the country as a whole. For example, in 1995 the proportion of the population aged 65+ ranged from 10 percent in Saitama prefecture, adjacent to Tokyo, to 22 percent in Shimane prefecture, located in a rural agricultural area known for its high rates of outmigration to Osaka and Tokyo. These prefectoral differences reflect a considerable spatial separation of the generations that poses additional obstacles to mutual aid within families.

Financial pressures on the social security system

Japan's social security system has grown remarkably during recent decades. Between 1965 and 1994 social security benefits increased from 6 to 16 percent of national income (Social Insurance Agency 1997). Contributions to social security increased somewhat less than did benefits, from 5 to 13 percent of national income. The growing difference between benefits and contributions has been compensated by general tax revenues.

Japan's social security system encompasses both old-age pension schemes and medical plans, as well as unemployment compensation and other smaller programs. The share of social security expenditures accounted for by the two main components has changed substantially over time. Pension benefits and medical benefits respectively accounted for 22 and 57 percent of total social security expenditures in 1965, and 51 and 38 percent of such expenditures in 1994 (Social Insurance Agency 1997). The major shift toward pension benefits has occurred mainly because of population aging, maturation of the pension system, and major changes in medical plans intended to rein in escalating health costs. Another reason is that pension benefits are more directly affected by population aging than are medical benefits, inasmuch as medical benefits are provided to the entire population regardless of age.

Pension schemes

Public pension schemes were initially established for specific occupational groups, with some groups covered earlier than others. Of the six public pension schemes, two, the Employees' Pension Scheme (EPS) and the National Pension Scheme (NPS), cover approximately 90 percent of the work
force. The remaining 10 percent, comprising various categories of public-sector workers, belong to four Mutual Aid Association Schemes (MAAS). The EPS was established in 1941, while the NPS was established in 1961 to cover workers not already covered by the other public pension schemes. Thus 1961 marks the onset of universal pension coverage for workers in Japan. Because some schemes were started later than others, the six pension schemes are at different levels of maturation.

A major difference between the EPS and the NPS is that paid employees working for a firm with at least five regular workers belong to the EPS, whereas farmers, other self-employed workers, employees of small firms with fewer than five regular workers, and certain other categories (including foreigners) belong to the NPS. The two schemes also differ in levels and methods of contribution. In the EPS in 1995, 17 percent of a worker’s wage or salary (up to a salary cap) was contributed to the government, evenly split between employee and employer. In the NPS, the government collects a flat contribution from members, most of whom are self-employed. In 1995 this contribution was 11,700 yen (about US$106) per month. Because of lower contributions, benefits paid to NPS recipients are considerably lower than those paid by the EPS. In both schemes, benefits have been automatically linked to changes in the consumer price index since 1973.

Major pension reforms were implemented in 1986. The concept of a basic pension was introduced as a step toward integrating the six pension schemes. Since 1986, all members of the six public pension schemes have been required to enroll in the NPS. Operationally, however, they still contribute to their separate schemes. An NPS retiree receives only a basic pension, while a retiree belonging to any of the other schemes receives both a basic pension from the NPS and an earnings-related supplement from his or her own scheme.

A primary objective of the reforms was to strengthen the financial foundation of the NPS, which since 1986 has been subsidized by the other five schemes. Prior to the reforms, the NPS had a rapidly growing number of retirees receiving benefits, primarily because the NPS already had at its inception a large pool of older self-employed workers who were at or close to retirement and who contributed little or nothing in premiums before retiring. A second objective was to reduce future pension benefits in order to lower future contribution rates and government subsidies, both of which were projected to escalate rapidly because of rapid population aging and maturation of the pension system. After a second set of minor reforms to the pension system in 1994, the government projected that the contribution rate for the EPS would have to rise from 17 to 30 percent of wages (excluding bonuses) between 1995 and 2025. The level of 30 percent, though still very high, is lower than the 35 percent projected before the 1994 reforms.
A third objective of the 1986 reforms was to establish women’s pensions. Since the reforms, employees’ spouses, who formerly could participate in the NPS on a voluntary basis, have compulsory coverage. If an employee’s wife becomes handicapped or is disabled, she receives benefits. Even in case of divorce, both the employee and the former spouse receive basic pension benefits. A fourth objective was to eliminate inequalities in the six public pension schemes over the next 20 years. One such inequality is inter-scheme differences in pensionable age. For male and female members enrolled in the NPS, the pensionable age is 65 years. Members belonging to other schemes can receive earnings-related benefits from age 60 for men and age 55 for women, although the basic pension received through the NPS is delayed until age 65. The 1994 reforms mandate the elimination of inter-scheme differences in pensionable age by the year 2013, by which time the legal pensionable age will have gradually risen to 65 for everyone. An unresolved problem, once the pensionable age reaches 65, is that many firms currently require employees to retire at or before age 60, implying an intervening period with no income from either the former employer or the social security system.

When Japanese pension schemes were initially established, they were organized on the principle of reserve financing. According to this principle, individuals receive benefits based on their earlier contributions to the system, just as in private pension schemes. As the social security system has evolved, however, reserves have been insufficient to cover current benefit payouts and have required the government to shift to pay-as-you-go financing via subsidies from general tax revenues. Further contributing to this shift was the price inflation after the oil shock of 1973, which lowered the value of accumulated reserve funds at the same time as cost-of-living indexing caused benefits to increase sharply. The NPS is currently operating almost entirely on a pay-as-you-go basis.

Japan is not alone in having to shift from reserve financing to pay-as-you-go financing of its social security system. Many other countries have followed the same route. The reasons for the shift are similar in all cases. The most important reason is that as incomes and living standards rise, the benefits originally envisaged are no longer considered adequate and are raised by the government. Typically, price inflation is another factor prompting upward adjustments in benefits. Benefits then exceed contributions, and governments either have to raise contribution rates, bail out the system from general tax revenues, or, more typically, both.

During the early stages of a social security system, the discrepancy between contributions and benefit payouts does not arise, because no one has contributed for very long, so that contributors vastly outnumber beneficiaries at any given time and reserve funds increase. As the system matures, the proportion of retirees receiving pension benefits increases, and
the average pension benefit also increases as the average number of years of pre-retirement contributions lengthens. Japan’s social security system is rapidly approaching maturity.

Unlike reserve financing, where each generation finances its own future benefits, pay-as-you-go financing is directly affected by the age composition of the population (Keyfitz 1985). As the population becomes older, the pensions of a proportionately growing population of retirees must be paid for by a proportionately shrinking population of taxpayers of working age. Takayama (1991) has calculated that, for persons currently enrolled in the EPS, the benefit–contribution ratio (lifetime benefits divided by lifetime contributions adjusted for inflation) will decline from 4.34 for the 1925–29 birth cohort to 1.04 for the 1960–64 birth cohort. In view of such calculations, it appears inevitable that intergenerational equity considerations will become an increasingly divisive social issue as population aging accelerates in Japan during the next three decades.

**Medical plans**

The second major component of social security benefits is medical benefits. Five main plans exist, and coverage by one or another of them has been universal since 1961. The Association-managed Health Insurance Plan (AHIP), the Government-managed Health Insurance Plan (GHIP), and the National Health Insurance Plan (NHIP) are the three largest plans, and together they cover 87 percent of the population. Employees of large enterprises are enrolled in AHIP, and employees of small- or medium-sized businesses are enrolled in GHIP. Persons not covered by other plans are enrolled in NHIP. The age structure of members is older in NHIP than in the other plans, primarily because a large proportion of NHIP members are self-employed small-business owners and farmers.

In 1996 the medical plan premium was 8 percent of a worker’s earnings (up to an earnings cap) for both AHIP and GHIP (Health Insurance Association 1996). The premium is split between employee and employer, and the government provides small subsidies to cover administrative and management costs. In the case of NHIP, a premium is collected from each household, the size of the premium depending on the enrollee’s annual income and assets.

Because of NHIP’s lower premium rates and older age composition, its financial foundation is weak and has required heavy government subsidies. To ease the financial burden on the government, the other four medical plans for employees have been required to make contributions to NHIP since 1984. As a consequence, the financial status of AHIP, which has the youngest age composition, has been deteriorating rapidly (Health Insurance Association 1996). Various proposals to integrate the five plans into a unified plan are under discussion.
Over the period 1965–79, total medical care expenditures grew at an annual rate of 18 percent in nominal terms. Over the period 1980–87, this growth rate fell to 6 percent (Social Insurance Agency 1997). The drop occurred because of the imposition of tighter government controls on the price of medical services, and because of the abolition of the free medical service program for persons aged 70 and older, which was in effect between 1973 and 1983. Since 1984, all insured persons have been required to make copayments amounting to 10–30 percent of their medical care costs, depending on the plan and type of service. At present the government is considering substantial increases in these copayments (Japan Times 1996). Between 1965 and 1982 the proportion of national income allocated to medical care rose from 3 to 6 percent, but has remained close to 6 percent since 1982 (Social Insurance Agency 1997; Ikegami and Campbell 1995).

Because population aging will accelerate during the coming decades, it is anticipated that hospitalization will be the main source of increase in public medical expenditure. To mitigate this growth, the government’s 1987 White Paper on Health and Welfare recommended that some of the responsibility for caring for elderly patients be shifted from hospitals to family caregivers, who are usually middle-aged women. To facilitate the transfer, the government has been strengthening its “Golden Plan,” which was established in 1990 to provide in-home care for the elderly. The Golden Plan is discussed in more detail later in this article.

Despite rising social security contributions and an unpopular new sales tax intended to pay for some of the difference between contributions and benefit payouts, slightly more than half of the Japanese people prefer a high-cost, high-welfare system over a low-cost, low-welfare system. This response pattern, as indicated in a series of opinion surveys, has changed little over the last decade or so (Economic Planning Agency 1991; Mainichi Newspapers Opinion Survey Department 1992; Clark and Ogawa 1996b).

The public’s attitude could change as social security contributions and taxes continue to rise. Figure 2 shows past and projected proportions of national income represented by social security contributions and total tax payments, under the assumption that the current structure of the social security system will persist. Between 1993 and 2025 the proportion of national income represented by social security contributions is projected to rise from 13 to 21 percent. This steep rise is accounted for almost entirely by a 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 40 to 56 percent of national income between 1993 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 Economic Plan-
Figure 2  Actual and projected percentages of national income represented by social security contributions and total tax payments, Japan 1970–2025


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, Prime Minister Hashimoto recently announced his
government's 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.

**Government attempts to shift costs back to families**

The steeply rising burden of taxes plus social security contributions is the most important reason why the government is seeking to shift some of the burden of caring for the elderly back to families and to the elderly themselves. A related reason is the intergenerational inequities in benefit–contribution ratios, mentioned earlier.

To facilitate a shift of some responsibilities back to families, the government in 1990 launched a ten-year project called the Golden Plan to improve social services for the elderly and their families (Japan Aging Research Center 1996). Part of the Golden Plan involves improvements in institutional care, mainly nursing homes. In Japan the level of access to institutional care for the elderly is at present comparatively low. Only 2 percent of the elderly are institutionalized, compared with proportions in other developed countries that range from 4 percent in Germany to 9 percent in Sweden (Gibson 1992). The latest revision of the Golden Plan calls for expanding nursing home capacity by some 80 percent, from 160,000 to 290,000 patients, between 1989 and the year 2000. But the main thrust of the Golden Plan is to improve services for the elderly who live at home, by strengthening three types of services: home-helpers, short-term-stay facilities, and day-care centers. Although these services existed before the advent of the Golden Plan, they were not widely available.

Although home-help services have existed in Japan for almost three decades, their availability is much lower in Japan than in other developed countries (Maeda and Shimizu 1992). For example, in the early 1990s the number of home-helpers per 100,000 elderly persons aged 65+ was 5,669 in Sweden, 3,522 in Denmark, 1,161 in France, and 665 in the United Kingdom, compared with only 360 in Japan (Economic Planning Agency 1994).

On the other hand, short-term-stay services for the bedridden elderly are relatively well developed by international standards, although still in short supply. Under this program, an elderly person who is bedridden or in need of constant care may stay up to one week per month in a nursing home, in order to provide respite to the caregiver. Nursing homes generally allocate some of their beds for these short-term stays.

Day-care centers, which provide not only respite to caregivers but also rehabilitation services to enable elderly persons to become more independent in their daily living, have been expanding rapidly. In 1989, there were 1,080 day-care centers, and the current plan is to expand this number to
17,000 by the year 2000. By that year, the plan calls for both short-term-stay services and day-care services in all communities, comprising some 3,400 cities, towns, and villages throughout the country. At present, families pay either nothing or only nominal fees for the various Golden Plan services, which are heavily subsidized by both the national and local governments. Fees vary by locality, income level, and type and provider of service.

If the government's targets are achieved as planned, these services will contribute significantly to improving levels of care accorded to the elderly, alleviating the burden placed on family caregivers. Even so, demand for Golden Plan services is expected to keep ahead of the expansion of supply (Maeda 1994, 1996). An indirect indication of this shortfall is that the level of services planned for 2000 will be lower than the current level of such services in many Western European countries. For example, if Japan's services for the bedridden elderly were to increase to per capita spending levels prevailing in Sweden, the government of Japan would have to allocate about 1 percent of GNP or ¥8 trillion (about $70 billion) in fiscal year 2000 (Nishimura 1990), compared with the less than ¥2 trillion currently budgeted annually for fiscal years 1995–99 (Ministry of Health and Welfare 1995b).

The government is also expanding the number of intermediate nursing homes, which serve as way-stations between hospital and home, in order to reduce pressure on hospitals, which currently provide considerable long-term care for the elderly at a high cost to the government. The average length of stay in hospitals and other inpatient institutions is appreciably longer in Japan than in other industrialized countries. It was 45 days for Japan in 1990 (Health and Welfare Statistics Association 1994), compared with only 10 days for the United States in 1983, 13 days for France in 1987, 20 days for Sweden in 1987, and 35 days for the Netherlands in 1987 (OECD 1990). As would be expected, length of hospitalization among the elderly is longer than these average figures indicate. For example, in Japan the average length of hospitalization for persons aged 65 and older was 79 days in 1990 and 71 days in 1993 (Health and Welfare Statistics Association 1994, 1996).

A reason Japanese elderly have such lengthy stays in hospitals is the structure of copayments under the social security system's medical plans. At present, copayments for intermediate-care nursing homes are ¥60,000 (about $520) per month, compared with ¥39,000 for hospitals, despite the fact that the costs to the government are much higher for hospitals (Ministry of Health and Welfare 1995a). Raising copayments for hospital care appears to offer considerable potential for reining in hospital costs as the availability of intermediate-care nursing facilities increases.

The government is considering a new scheme to provide home nursing services for the elderly, modeled after a program recently implemented
in Germany. According to the 1994 and 1995 rounds of the National Survey on Aging, about 90 percent of respondents aged 20 and older favor establishment of such a scheme (Mainichi Newspapers Opinion Survey Department 1995). The financing of the scheme is problematic, however, and still under discussion.

The declining capacity of the Japanese family to care for the elderly

Changes in the ability of the elderly to care for themselves

It is instructive to look at changes in the ability of the elderly to care for themselves. As the earlier discussion of the social security system indicated, the financial ability of the elderly to support themselves has improved considerably over time. The proportion receiving public pension benefits among elderly Japanese respondents aged 60 and older increased from 65 to 84 percent between 1981 and 1996 (Management and Coordination Agency 1996). In 1994, average annual per capita pension benefits paid out under the EPS scheme amounted to 43 percent of yearly earnings (including bonuses) of the average worker. This replacement rate is similar to rates in other developed countries (Clark 1991). For example, in 1993 the replacement rate was 56 percent in Sweden, 48 percent in the United States, 43 percent in the United Kingdom, and 30 percent in Germany (Ministry of Health and Welfare 1996). Primarily as a result of the rapid growth of pension benefits, elderly Japanese have been enjoying the fastest income gains of any age group in recent years (Preston and Kono 1988; Kono 1991).

Over the period 1981–96, the proportion of the elderly aged 60 and older who reported that their primary income source was their pension increased from 35 to 57 percent, and the proportion who reported that work was their primary income source declined from 31 to 22 percent (Management and Coordination Agency 1996). The figure of 22 percent is still high by international standards, mainly because of the comparatively brief existence of Japan’s social security system and also because of the comparatively large size of Japan’s agricultural and small-business sector (Ogawa and Clark 1993; Clark and Ogawa 1996a). Results from the 1996 round of the International Comparative Survey of the Elderly, shown in Table 1, indicate that the Japanese elderly rely on public pensions to about the same extent as the elderly in the United States, but to a lesser extent than the elderly in Germany.

Table 1 also shows that private pensions are a small component of old-age income in Japan, where private pension plans are new and rapidly growing but still comparatively undeveloped. Assets are infrequently mentioned as an income source by the elderly in Japan, as well as in Germany;
TABLE 1  Income sources for the elderly aged 60 and older in Japan, United States, and Germany, 1996

<table>
<thead>
<tr>
<th>Specific income source</th>
<th>Percent mentioning specific income source</th>
<th>Percent responding that specific source is main source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Japan (81%)</td>
<td>United States (19%)</td>
</tr>
<tr>
<td>Work</td>
<td>35 (22%)</td>
<td>26 (16%)</td>
</tr>
<tr>
<td>Public pensions</td>
<td>84 (57%)</td>
<td>83 (56%)</td>
</tr>
<tr>
<td>Private pensions</td>
<td>8 (2%)</td>
<td>33 (13%)</td>
</tr>
<tr>
<td>Savings</td>
<td>21 (2%)</td>
<td>24 (2%)</td>
</tr>
<tr>
<td>Assets</td>
<td>11 (3%)</td>
<td>34 (9%)</td>
</tr>
<tr>
<td>Children</td>
<td>15 (4%)</td>
<td>3 (0%)</td>
</tr>
<tr>
<td>Public assistance</td>
<td>1 (0%)</td>
<td>2 (0%)</td>
</tr>
<tr>
<td>Other</td>
<td>4 (2%)</td>
<td>7 (2%)</td>
</tr>
<tr>
<td>No answer</td>
<td>0 (8%)</td>
<td>2 (4%)</td>
</tr>
</tbody>
</table>

NOTE: Results are based on self-reports. For income in general (first three columns), respondents often indicated more than one specific source, so that percentages add to more than 100 down columns. For main income source (last three columns), the percentages for particular income sources add to 100 within rounding error. The distinction between savings and assets is not clearcut, but most Japanese view savings as money in savings accounts.


income from assets is more important in the United States. Surprisingly, only 15 percent of the Japanese elderly mention children as an income source, down from 30 percent in 1981. This no doubt reflects the rapid improvements in income of the elderly. It is also surprising, in view of Japan’s comparatively high savings rate, that the proportion of the elderly who mention savings as an income source is no higher in Japan than in the United States or Germany. This may occur because the savings of the Japanese elderly are tied up in home ownership to a greater extent than in the other two countries. Home ownership rates are high among the Japanese elderly, and, as discussed later, in recent years the Japanese elderly have tended to transfer home ownership in return for services from coresiding children.

Overall, the results indicate that the financial burden of the elderly on their children has been declining over time.

Another aspect of the ability of the elderly to care for themselves is their health. Liu et al. (1995) distinguish between disability and functional independence in performing various activities of daily living. They applied increment-decrement life table methodology to data from a national sample of Japanese elderly persons in 1987 with follow-up in 1991. By means of multistate life tables, they partitioned life expectancy at age 60 for persons of both sexes combined into duration spent in functional independence and duration spent in disability. They found that an older person at age 60 could expect to live 18.7 years (81 percent) in functional independence
and 4.4 years (19 percent) in disability in his or her remaining lifetime. At older ages, the percentage lived in functional independence was progressively lower, as expected.

Tsuji et al. (1995) undertook a similar study based on more limited data from the Sendai Longitudinal Study of Aging, conducted in 1988 with follow-up in 1991. Findings were reported for men and women separately. At age 65, life expectancy in functional independence was found to be 14.7 years for men and 17.7 years for women. Overall life expectancy at age 65 was 16.1 years for men and 20.4 years for women, implying that the proportion of total life expectancy spent in functional independence was 91 percent for men and 87 percent for women. Thus the percentage expected to be spent in functional independence was somewhat higher in the Sendai study than in Liu et al.'s national study, which was conducted over the same period.

Unfortunately, estimates of functionally independent life expectancy are not available for other years, so we cannot look at trends in this measure. However, it may be inferred from estimates by Liu et al. and Tsuji et al. that between 80 and 90 percent of the years the average Japanese is expected to live beyond age 60 or 65 are years during which the elderly do not pose a major health care burden on either their families or the government.

Findings from the 1996 round of the International Comparative Survey of the Elderly also reveal that 88 percent of the Japanese elderly consider themselves either "healthy" or "not perfectly healthy but not sick either," as compared with 90 percent for the United States and for Germany (Management and Coordination Agency 1996). Despite their subjective nature, these self-reports by the Japanese elderly respondents are consistent with estimates by Liu et al. and Tsuji et al. of the percentage of life expectancy lived in functional independence. The findings also indicate that the health status of the Japanese elderly is similar to that of the elderly in other industrialized countries.

In intact elderly couples, spouses can care for each other to a considerable extent. The distribution of the elderly population by marital status therefore influences the extent to which the elderly population as a whole can take care of itself. Table 2 shows that the proportion currently married among the elderly increased substantially between 1960 and 1995, among both men and women. The proportion widowed declined correspondingly. These changes reflect improvements in joint survivorship of spouses as mortality continues to fall.

Among the elderly, the proportion widowed rises rapidly with age for both men and women, but more rapidly for women. In 1995 the proportion widowed was 6 percent for males and 26 percent for females at ages 65–69, compared with 41 percent for males and 90 percent for females at ages 85 and older. Sex differentials in mortality and in ages at marriage
and remarriage account for these sex differentials in the proportion widowed (Mason, Ogawa, and Fukui 1992; Mason et al. 1996).

As in other Asian countries, there is still some sense in Japanese society that a widow should remain loyal to her deceased husband (Martin 1989). This value is more prevalent among older women than among younger women, who are more open-minded about remarriage. In the 1988 Family Survey, approximately half of women in their 20s and 30s expressed a favorable attitude toward their own remarriage, if widowed in old age, as opposed to 9 percent of women aged 60 and older. Thus values and attitudes are changing in a direction that will increase the frequency of widow remarriage, which in turn will increase the capacity of the elderly population as a whole to care for itself.

Changes in coresidence patterns

Table 3 shows how coresidence patterns among the elderly have been changing over time. Between 1972 and 1995, the proportion of elderly households (i.e., those containing one or more persons aged 65+) containing three-generation families declined from 56 to 33 percent, and the proportion with an elderly couple living with one or more unmarried children rose slightly from 11 to 13 percent. The proportion containing only an elderly couple increased from 11 to 24 percent, and the proportion containing an elderly person living alone increased from 8 to 17 percent. This picture is consistent with the increases in the proportion married among the
elderly, discussed earlier. On the other hand, the increase in the proportion of one-person households occurred despite declines in the proportion widowed, and reflects an increased propensity of widowed persons who do not remarry to live alone.

Although the prevalence of coresidence has declined substantially in Japan, it is still quite high by international standards. According to the 1990 round of the International Comparative Survey of the Elderly, the proportion of the elderly aged 60 and older living in three-generation households was 1 percent in the United Kingdom and the United States, 3 percent in Germany, and 32 percent in Japan. Figure 3 provides additional international comparisons of the proportion of the elderly aged 65 and older who are living with children, including but not limited to children in three-generation arrangements. The trend in this proportion is downward for all developed countries shown in the figure. The prevalence of coresidence is higher in Japan than in the other countries, but it is declining at a rate similar to rates observed elsewhere.

The Japanese government views the persistence of coresident households as a unique asset that can be tapped to offset the adverse effects of population aging (Ministry of Health and Welfare 1978, 1987). The trend in coresidence is downward, however, and what seems to be persistence may actually reflect a lag in adjustment caused by the rapidity of underlying economic and social change (Retherford, Ogawa, and Sakamoto 1996). If so, coresidence will continue to decline, and the government’s view of the coresident household as a unique asset will prove to be illusory.

It is useful to examine the determinants of coresidence, since they may shed further light on future trends. Table 4 presents results of a logistic regression analysis of the determinants of coresidence, with elderly persons aged 65 and older as the units of analysis. Most earlier studies have been based on adult children as the units of analysis (e.g., Martin and Tsuya 1991). Two measures of coresidence are examined coresidence in a three-

<table>
<thead>
<tr>
<th>Year</th>
<th>One person</th>
<th>Couple only</th>
<th>Couple and unmarried children</th>
<th>Three generations</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>8</td>
<td>11</td>
<td>11</td>
<td>56</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td>1975</td>
<td>9</td>
<td>13</td>
<td>10</td>
<td>54</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td>1980</td>
<td>11</td>
<td>16</td>
<td>11</td>
<td>50</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td>1985</td>
<td>12</td>
<td>19</td>
<td>11</td>
<td>46</td>
<td>12</td>
<td>100</td>
</tr>
<tr>
<td>1990</td>
<td>15</td>
<td>21</td>
<td>12</td>
<td>40</td>
<td>12</td>
<td>100</td>
</tr>
<tr>
<td>1995</td>
<td>17</td>
<td>24</td>
<td>13</td>
<td>33</td>
<td>12</td>
<td>100</td>
</tr>
</tbody>
</table>

SOURCE: Basic Survey on the National Life, various rounds (Ministry of Health and Welfare, various years).
FIGURE 3  Percent of elderly aged 65 and older who coreside with children, Japan and other industrialized countries 1950–89


generation household and coresidence with children in general (including but not limited to three-generation households). Men and women respondents are considered separately. Thus the table is based on four underlying logistic regressions. Results are presented in the form of predicted values of the response variable for each category of a given predictor variable, with other predictor variables in the table held constant at their mean values in the sample.
### TABLE 4  Predicted percentages of men and women aged 65 and older who coreside with children, by selected predictor variables: Japan 1993–94

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Men Coreidence in a three-generation household</th>
<th>Men Coreidence with children</th>
<th>Women Coreidence in a three-generation household</th>
<th>Women Coreidence with children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65–74</td>
<td>18*</td>
<td>52</td>
<td>25*</td>
<td>50</td>
</tr>
<tr>
<td>75 and older†</td>
<td>25</td>
<td>48</td>
<td>33</td>
<td>56</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently married</td>
<td>20</td>
<td>50</td>
<td>24**</td>
<td>50</td>
</tr>
<tr>
<td>Not currently married†</td>
<td>25</td>
<td>63</td>
<td>34</td>
<td>55</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior high school or less‡</td>
<td>24</td>
<td>56</td>
<td>30</td>
<td>56</td>
</tr>
<tr>
<td>Senior high school</td>
<td>21</td>
<td>49</td>
<td>26</td>
<td>48</td>
</tr>
<tr>
<td>Junior college or university</td>
<td>12**</td>
<td>41**</td>
<td>11**</td>
<td>31**</td>
</tr>
<tr>
<td>Current residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>18*</td>
<td>49</td>
<td>24*</td>
<td>50</td>
</tr>
<tr>
<td>Rural†</td>
<td>25</td>
<td>54</td>
<td>33</td>
<td>54</td>
</tr>
<tr>
<td>Predicted percentage coresiding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed percentage coresiding</td>
<td>20</td>
<td>51</td>
<td>27</td>
<td>51</td>
</tr>
<tr>
<td>Sample N</td>
<td>640</td>
<td>640</td>
<td>577</td>
<td>577</td>
</tr>
</tbody>
</table>

NOTES: In the second and fourth columns, coresidence with children includes coresidence in three-generation households, as well as any other kind of coresidence with one or more adult children. Separate logistic regressions were calculated for coresidence in three-generation households and coresidence with children. In the list of predictor variables a dagger (†) indicates a reference category specified by a dummy variable. An asterisk after a number indicates that the underlying logistic regression coefficient differs significantly from zero at the 5 percent level; i.e., .01 < p ≤ .05. Two asterisks after a number indicate p ≤ .01. Percentages are adjusted by multiple classification analysis (see Retherford and Choe 1993). The predicted percentage coresiding is calculated by setting all predictor variables at their mean values in the underlying logistic regression equation. SOURCE: Calculated from pooled data from the 1993 and 1994 rounds of the National Opinion Survey on Female Labor, Rearing of Infants, and the Care for the Elderly.

The predicted percentage of the elderly coresiding tends to increase with age, but the effect of age is statistically significant only for three-generation coresidence. The effect is small and nonsignificant for coresidence with children in general. Being currently married decreases the likelihood of coresidence, but the effect is significant only for three-generation coresidence by women. Having a college or university education substantially lowers the likelihood of coresidence. Current residence in an urban area reduces the likelihood of coresidence, but the effect is significant only for three-generation coresidence. Inasmuch as proportions married, educational levels, and urbanization are rising among the elderly, the effects
of the predictor variables on coresidence suggest that the prevalence of coresidence will continue to decline.

Coresidence can also be examined from the point of view of adult children. Since coresidence of married adult children with parents often begins at marriage, it is useful to look first at trends in coresidence immediately after marriage. Figure 4 shows trends in coresidence after marriage for successive marriage cohorts defined by year of marriage. The propor-

FIGURE 4 Percent of currently married women aged 16–49 who coresided with parents immediately after marriage, by year of marriage, Japan 1955–94

SOURCE: Calculated from pooled data from various rounds of the National Survey on Family Planning. Plotted values are three-year moving averages.
tion of newly married couples living with parents declined from 65 to 26 percent between 1955 and 1994. The proportion living with the husband’s parents fell even more steeply, while the proportion living with the wife’s parents remained nearly steady. The substantial convergence of the proportion living with the husband’s parents and the proportion living with the wife’s parents, though still incomplete, indicates that the traditional value favoring coresidence with the eldest son has weakened considerably over time.

This weakening is also indicated by the upper curve in the figure, which shows that among newly married couples in which the husband is the eldest son, the proportion coresiding declined steeply from 65 to 30 percent between 1959 and 1994. Although it is not graphed in the figure, the proportion coresiding among newly married couples in which the husband is not the eldest son also declined over the same period, from 42 to 17 percent. Of course, coresidence after marriage is not necessarily permanent. Some newly married couples may reside temporarily with the parents of one of the spouses, most frequently the husband’s, until they can find suitable housing, which is expensive and difficult to obtain in Japan’s larger cities.

One expects that the declines in coresidence after marriage, when most parents are still below age 65, will be echoed a decade or so later by corresponding declines in coresidence among the elderly aged 65+. Thus Figure 4 suggests that coresidence among the elderly will continue to decline for at least another decade.

Again it is useful to look at the determinants of coresidence with an eye toward their implications for future trends in coresidence, but this time with adult children rather than elderly parents as the units of analysis. Table 5 shows predicted percentages coresiding with one’s own parents (not spouse’s parents), based on a logistic regression analysis for currently married persons aged 40–59 with at least one parent alive. The observed percentage coresiding, shown at the bottom of the right hand column, is 30 percent for men and 8 percent for women. The low value for women is not surprising, given that coresidence with husband’s parents is considerably more common than coresidence with the wife’s own parents.

As in Table 4, the predicted percentages coresiding for categories of any given predictor variable control for other predictor variables by holding them constant at their mean values in the sample. In the case of women respondents, the only predictor variable with a significant effect on coresidence is the woman’s number of siblings. The fewer siblings a woman has, the more likely she is to reside with her own parents.

In the case of men respondents, eldest sons are much more likely to coreside than other sons. Coresidence is also more likely among men with fewer siblings, men whose marriages were arranged, men with less than a senior high school education, and men with fathers with less than a senior high school education. Because the proportion of sons who are eldest sons
### TABLE 5 Predicted percentages of currently married persons aged 40–59 with at least one parent alive who coreside with their own parents, by selected predictor variables: Japan 1993–94

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Men</th>
<th>Women</th>
<th>Predictor variable</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent’s age</td>
<td></td>
<td></td>
<td>Arranged marriage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>30</td>
<td>4</td>
<td>Yes</td>
<td>35**</td>
<td>5</td>
</tr>
<tr>
<td>49</td>
<td>28</td>
<td>5</td>
<td>No†</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>59</td>
<td>27</td>
<td>6</td>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wife is eldest daughter</td>
<td></td>
<td></td>
<td>Urban</td>
<td>25**</td>
<td>5</td>
</tr>
<tr>
<td>Yes</td>
<td>31</td>
<td>7</td>
<td>Rural†</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>No†</td>
<td>28</td>
<td>5</td>
<td>Respondent’s education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husband is eldest son</td>
<td></td>
<td></td>
<td>Junior high school or less†</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Yes</td>
<td>41**</td>
<td>5</td>
<td>Senior high school</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>No†</td>
<td>24</td>
<td>5</td>
<td>Junior college or university</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Respondent’s number of siblings</td>
<td></td>
<td></td>
<td>Spouse’s education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>40**</td>
<td>28**</td>
<td>Junior high school or less†</td>
<td>40</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>31**</td>
<td>8**</td>
<td>Senior high school</td>
<td>27*</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>24**</td>
<td>2**</td>
<td>Junior college or university</td>
<td>28</td>
<td>4</td>
</tr>
<tr>
<td>Spouse’s number of siblings</td>
<td></td>
<td></td>
<td>Respondent’s father’s education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>4</td>
<td>Junior high school or less†</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>28</td>
<td>5</td>
<td>Senior high school</td>
<td>24*</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>31</td>
<td>6</td>
<td>Junior college or university</td>
<td>22*</td>
<td>4</td>
</tr>
<tr>
<td>Survival status of respondent’s parents</td>
<td></td>
<td></td>
<td>Predicted percentage coresiding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both alive</td>
<td>26</td>
<td>4</td>
<td>Observed percentage coresiding</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>One dead†</td>
<td>30</td>
<td>6</td>
<td>Sample N</td>
<td>863</td>
<td>881</td>
</tr>
</tbody>
</table>

Notes: Separate logistic regressions were calculated for male and female respondents. In the list of predictor variables a dagger (†) indicates a reference category specified by a dummy variable. An asterisk after a number indicates that the underlying logistic regression coefficient differs significantly from zero at the 5 percent level; i.e., .01 < p ≤ .05. Two asterisks after a number indicate p ≤ .01. Percentages are adjusted by multiple classification analysis (see Retherford and Choe 1993). The predicted percentage coresiding is calculated by setting all predictor variables at their mean values in the underlying logistic regression equation.

Source: Calculated from pooled data from the 1993 and 1994 rounds of the National Opinion Survey on Female Labor, Rearing of Infants, and the Care for the Elderly.

has been increasing over time, the positive effect of being eldest on coresidence tends to cause increases in coresidence over time. (An analysis of pooled data from the National Survey on Family Planning shows that the proportion of newly married couples in which the husband is an eldest son increased from 40 to 68 percent between the marriage cohorts of 1957 and
However, this tendency may be more than offset by a diminishing effect of being eldest on coresidence, as seen earlier in Figure 4. The negative effect of number of siblings on coresidence, combined with the downward trend in number of siblings due to fertility decline, also tends to cause increases in coresidence over time. On the other hand, the positive effect of arranged marriage and the negative effects of urban residence and education tend to cause decreases in coresidence over time, inasmuch as the frequency of arranged marriage is declining, urbanization is continuing, and educational levels are rising (Ogawa and Retherford 1993; Retherford, Ogawa, and Sakamoto 1996).

Further light can be shed on the future of coresidence in Japan by analysis of survey responses to a question that asked coresiding women

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Adjusted percentage</th>
<th>Predictor variable</th>
<th>Adjusted percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>57</td>
<td>Junior high school</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>48</td>
<td>or less†</td>
<td>22</td>
</tr>
<tr>
<td>45</td>
<td>39</td>
<td>Senior high school</td>
<td>47</td>
</tr>
<tr>
<td>55</td>
<td>31</td>
<td>Junior college or</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>university</td>
<td></td>
</tr>
<tr>
<td><strong>Eldest daughter</strong></td>
<td></td>
<td><strong>Occupation</strong></td>
<td></td>
</tr>
<tr>
<td>Yes†</td>
<td>37</td>
<td>Housewife</td>
<td>55*</td>
</tr>
<tr>
<td>No†</td>
<td>46</td>
<td>Family worker and</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other</td>
<td></td>
</tr>
<tr>
<td><strong>Living with own parent(s)</strong></td>
<td></td>
<td><strong>Part-time paid employee</strong></td>
<td>43</td>
</tr>
<tr>
<td>Yes</td>
<td>39</td>
<td>Full-time paid employee†</td>
<td>27</td>
</tr>
<tr>
<td>No†</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marriage form</strong></td>
<td></td>
<td><strong>Predicted percentage who have thought about</strong></td>
<td>42</td>
</tr>
<tr>
<td>Arranged†</td>
<td>30</td>
<td>ending coresidence</td>
<td></td>
</tr>
<tr>
<td>Love</td>
<td>49*</td>
<td>Observed percentage who have thought about</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ending coresidence</td>
<td></td>
</tr>
<tr>
<td><strong>Current residence</strong></td>
<td></td>
<td><strong>Sample N</strong></td>
<td>175</td>
</tr>
<tr>
<td>Urban</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural†</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Childhood residence</strong></td>
<td></td>
<td>Urban</td>
<td>39</td>
</tr>
<tr>
<td>Rural†</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES: In the list of predictor variables a dagger (†) indicates a reference category specified by a dummy variable. An asterisk after a number indicates that the underlying logistic regression coefficient differs significantly from zero at the 5 percent level; i.e., .01 < p ≤ .05. Percentages are adjusted by multiple classification analysis (see Retherford and Choe 1993). The predicted percentage who have thought about ending coresidence is calculated by setting all predictor variables at their mean values in the underlying logistic regression equation. In a separate logistic regression for husbands (not shown), no coefficients of predictor variables were significant at the 5 percent level. In a logistic regression for husbands and wives combined (also not shown), age and education were significant, with directions of relationship the same as shown for wives in this table.

SOURCE: Calculated from the 1993 National Opinion Survey on Female Labor, Rearing of Infants, and the Care for the Elderly.
whether they had ever thought about ending the coresidence arrangement. Table 6 shows results from a logistic regression analysis of factors that could influence responses to this question. Women in love marriages and women who are not full-time employees (especially housewives) are more likely to have thought about ending the coresidence arrangement. Younger women and women with more education are also more likely to have thought about ending the arrangement, but these effects are not statistically significant, probably because the underlying logistic regression is based on only 175 women. A woman’s full-time employment decreases the likelihood of her thinking about ending the coresidence arrangement, which may occur because having parents at home to help with the household tends to facilitate outside employment, especially full-time employment (Morgan and Hirosima 1983; Ogawa and Ermisch 1996). This suggests that the increasing trend in women’s full-time labor force participation rates could exert some upward influence on the prevalence of coresidence; but the evidence suggests that causation runs mostly the other way, from coresidence to full-time labor force participation (Ogawa and Ermisch 1996).

From the logistic regression analyses in Tables 4–6 it is unclear which of the various offsetting effects on coresidence will predominate in determining the future of coresidence. However, extrapolation of the trends in Table 3 and Figures 3 and 4 suggests that effects tending to reduce coresidence will, on balance, prove stronger.

Changes in the labor force participation of Japanese wives

As mentioned earlier, family caregivers for the elderly in Japan tend to be middle-aged women. Since caring for the elderly may conflict with work outside the home, the rising labor force participation rates of middle-aged women affect the ability of families to care for the elderly.

Figure 5 shows trends in labor force participation rates for women aged 40–54. Their overall participation rate increased from 62 to 70 percent between 1967 and 1995 (1967 is the first year for which participation rates for this age group are available from the annual Labor Force Survey). Overall labor force participation contains a large component of family workers. The trend in paid employment, which usually occurs outside the home, is more germane for assessing the ability of middle-aged women to care for the elderly. The participation rate for paid employment increased more dramatically, from 24 to 53 percent.

It is not possible in Figure 5 to subdivide paid employment into part-time and full-time work on the basis of available data from the Labor Force Survey. However, since 1979 the various rounds of the National Survey on Family Planning do allow such a breakdown for currently married women aged 40–49. Trends based on this data source are shown in Figure
FIGURE 5 Labor force participation rates of women aged 40–54, Japan 1967–95


6, which also shows labor force trends in proportions who are family workers and housewives. Between 1979 and 1996, the proportion of currently married women aged 40–49 who were housewives fell somewhat irregularly from 37 to 25 percent, and the proportion who were family workers fell from 22 to 12 percent. The proportion working full time rose from 17 to 27 percent, and the proportion working part time rose from 12 to 27
FIGURE 6  Labor force participation of currently married women aged 40–49, by type of participation, Japan 1979–96

SOURCE: Calculated from various rounds of the National Survey on Family Planning.

percent. After the start of the recession in 1991, the percentage working part time fell slightly between 1992 and 1994 but then recovered between 1994 and 1996. The percentage who were family workers rose slightly between 1992 and 1994, reflecting layoffs of part-time workers, but then fell again between 1994 and 1996. The percentage working full time continued to increase after 1991, and at a slightly faster rate than previously.
For women who work outside the home, dropping out of the labor force to care for elderly parents involves costs. Using data from the 1990 round of the National Survey on Family Planning, Ogawa and Ermisch (1996) estimated the opportunity cost of temporarily dropping out of the labor force to care for elderly parents. Eight percent of women respondents who were full-time paid employees at the time of the survey reported that they had been adversely affected in pursuing their career because of having to leave their job temporarily to care for an elderly parent. Among these women, the mean duration of caregiving was 1.3 months. Ogawa and Ermisch estimated that women who took leave for ten months, and subsequently returned to work (but not necessarily to the same job), received 12 percent less in hourly wages than their counterparts who did not take leave.

Thus for women who are full-time paid employees, the opportunity costs of caring for elderly parents are high, both in terms of forgone wages during the period of care and in terms of lower wages after women return to full-time work. These opportunity costs are likely to increase during the next three decades, as women’s wages rise and more women are drawn into full-time paid employment. Women’s wages and their full-time paid employment are both expected to increase, because the continuing decline in hours worked and the shrinking proportion of the total population that is of working age will combine to create labor shortages that will tend to drive up wages. Moreover, women’s wages are projected to increase faster than men’s wages as women catch up with men with respect to educational qualifications, and as social values continue to evolve in the direction of gender equality in the workplace. These value changes are reflected in the 1986 Equal Employment Opportunity Law, compliance with which is currently poor but is expected to improve over time. The projected changes in women’s educational qualifications, wages, and labor force participation, as well as changes in values, will tend to reduce even further the pool of middle-aged women willing to stay at home to care for elderly parents in need of such care.

Recently the Diet passed a law giving employees the right to take up to three months of unpaid leave to care for a sick child, spouse, parent, or parent-in-law. This law, which will take effect in 1999, will at least allow women to return to their jobs without forfeiture of seniority or any other tenure rights, and it will help to offset the previously discussed increases in opportunity costs for working women (Asahi Evening News 1995). In 1993, only 16 percent of firms allowed such care leave, so the law is expected to have a considerable impact on working women (Ministry of Labor 1994).

To explore further the effect of increased female labor force participation on care of elderly parents, it is instructive to project the trend in the ratio of elderly persons aged 65 and older who suffer from senile dementia or who are bedridden (referred to here as the impaired elderly) to poten-
tial caregivers in various age groups. In order to keep the projection reasonably simple, potential caregivers are assumed to be women not in the labor force. The projections are calculated by means of the NUPRI long-term macroeconomic–demographic–social security model, mentioned earlier.

The projection of numbers of impaired elderly in the numerator of the ratio incorporates age-sex-specific probabilities of suffering from senile dementia or being bedridden, as estimated from various sample surveys in Japan. In computing these probabilities, the number of bedridden cases is deflated to take into account that approximately 21 percent of senile dementia cases are also bedridden. For any given calendar year in the future, the impaired elderly in that year are allocated to age groups of potential caregivers on the basis of survey data on the age composition of households that contain impaired elderly. Projected numbers of nonworking women in an age group are computed by multiplying the projected female population in the age group by (1 – FLFPR), where FLFPR denotes the projected female labor force participation rate in the age group. FLFPRs for age groups are estimated in the population submodel of the NUPRI model (Ogawa 1993; Ogawa and Matsukura 1995).

Figure 7 shows the projected trends. At the start of the projection in 1990, the ratio of impaired elderly to available caregivers does not exceed 7 percent for any age group. Thereafter the ratios increase faster for some age groups than for others. The most dramatic increase occurs for age group 40–49, where the ratio increases from 7 to 46 percent between 1990 and 2025. The ratio for age group 50–59 also increases substantially, from 6 to 20 percent. For any given calendar year, the ratios for ages beyond 40–49 are lower than those for the 40–49 age group, mainly because the proportion of women who work falls steeply after ages 40–49. The ratios are also lower for ages below 40–49, mainly because parents are younger and therefore less likely to be afflicted with senile dementia or to be bedridden.

The point that leaps out from Figure 7 is that the average per capita burden on primary caregivers—middle-aged nonworking women—is expected to increase four- or fivefold between 1990 and 2025. The projections call into question the feasibility of shifting more than a small share of the responsibility of caring for the elderly back to families.

Changes in values about caring for the elderly

Changing values about caring for the elderly will make it even more difficult to shift much of the responsibility for such care from the social security system back to families. Survey data provide some insight about how these values are changing.

Starting in 1963, various rounds of the National Survey on Family Planning asked the question, “What is your opinion about children caring for their elderly parents?” The principal categories offered to respondents
were "good custom," "natural duty," "unavoidable," and "not a good custom." Between 1963 and 1996, the proportion of currently married women of reproductive age who responded either "good custom" or "natural duty" fell from 80 to 47 percent.

Most of this value shift occurred after 1986. It occurred across the board, with little variation by socioeconomic characteristics. The homogeneity of response no doubt reflects the considerable homogeneity of the
Japanese people, among whom values are widely shared. The shift appears to have been triggered by highly publicized cutbacks in social security benefits that were announced in 1986. The “natural duty” of caring for elderly parents seemingly became less palatable when people realized that this duty had suddenly become more burdensome (Ogawa and Retherford 1993; Retherford, Ogawa, and Sakamoto 1996). Expectations of old-age support from one’s own children have also declined greatly over time; the proportion expecting such support declined from 65 percent in 1950 to 13 percent in 1996.

Findings from the 1991 Opinion Survey on Women’s Life and Work, conducted by the Prime Minister’s Office (1992), show that both men and women respondents perceive changes in how families care for elderly parents. The survey asked the following question: “In the recent past, the functions of the family have been changing in Japan. Which has changed the most?” Eight pre-coded responses were included in the questionnaire. The most frequently mentioned response categories were “Providing care to elderly parents” and “Childbearing and childrearing,” both of which were mentioned by 28 percent of respondents.

The earlier analysis of coresidence showed that the proportion coresiding with husband’s parents and the proportion coresiding with wife’s parents are converging, indicating a weakening of the traditional value attached to coresidence with the eldest son. This trend is associated with a corresponding erosion of the traditional primogeniture inheritance pattern, which has persisted despite legal provisions for equal inheritance dating back to the 1948 revision of the Civil Code. Nowadays inheritance is less automatic in that parents increasingly tend to pass on their property and financial assets to whichever of their children coresides with and takes care of them.

Data from several nationwide surveys provide evidence of a shift toward this reciprocity-oriented pattern of inheritance. For example, among respondents to the 1988 Family Survey whose parents had already died, only 24 percent thought that the parents’ property should be divided equally among the children. Forty-six percent thought that it should be inherited by the person in the family who cared for the parents. Ten percent thought that the person who cared for the parents, even if not a family member, should be the one to inherit. Only 15 percent favored primogeniture inheritance. Another 5 percent gave other responses or did not answer the question. Additional evidence of reciprocity-based inheritance is the increasing tendency of parents to use wills to specify what each child will inherit (Sugawara 1989).

Value changes are also indicated by the 1986 Opinion Survey on Welfare Services for the Elderly, which showed that 56 percent of respondents aged 60 and older preferred to spend their assets on themselves rather than pass them on to their children. Only 25 percent intended to pass on assets
to their children (Prime Minister's Office 1986). This surprising finding suggests that the weakening of values about caring for elderly parents is being accompanied by a parallel weakening of values about passing on assets to children. Reciprocity is being maintained, but at lower levels than previously. The 1992 and 1993 rounds of the National Survey on Aging, conducted by the Mainichi Newspapers, asked the same question that was asked in the earlier survey and obtained nearly identical results (Mainichi Newspapers Opinion Survey Department 1993).

Recent actions by the government may further weaken reciprocity-oriented inheritance. The government's statement of General Principles Concerning Measures for the Aging Society, issued in 1996, encourages the implementation of a new reverse-mortgage scheme, which would allow elderly persons to obtain mortgages on their homes, with ownership reverting to the mortgage holder upon death (Japan Aging Research Center 1996). If this scheme is implemented, motivation to pass on assets to children will be further weakened, as will the motivation of adult children to care for elderly parents. A recent study by Noguchi (1995) indicates that the potential impact of a reverse-mortgage scheme could be large. Based on a survey that asked respondents whether they would enroll in such a scheme, Noguchi estimated that the total real estate value of property annually reverting to mortgage holders would reach 3.5 percent of gross domestic product by the year 2025.

Changes in values of filial piety are also evident in Japanese family law, which can be viewed as a formal codification of values. The old Civil Code, reflecting Confucian values of filial piety, gave authority to family heads over arranged marriages and primogeniture inheritance, and it buttressed this authority with legal sanctions. The law emphasized the traditional system of family obligations between individuals in direct lineal descent and the maintenance of continuity of the patrilocal household with successive generations of parents, eldest sons, and their wives and children (Sano 1958). The son and his wife were legally subordinate to the son's parents (Campbell and Brody 1985).

The 1948 revision of the Civil Code removed most of the legal powers of family heads over other family members and generally reshaped family law to conform to a philosophy of individual rights more in tune with the needs of a modern industrial economy (Kendig 1989). The 1948 revision was unusual, however, in that it was strongly influenced by the American authorities in charge of the occupation of Japan following World War II. Because of this, the values of many Japanese lagged behind changes in the law. An example of this lag is the provision of the 1948 Civil Code, mentioned earlier, that replaced primogeniture inheritance with equal inheritance. In practice, primogeniture inheritance remained the predominant pattern for some years after 1948 (Sugawara 1989).
Even according to the new Civil Code, children are legally responsible for taking care of their elderly parents, and under some circumstances more-distant relatives are required to provide support. These provisions of the law seem to be enforced to some extent. For example, in 1995 there were 112 court cases involving inadequate provision of support for elderly persons (Supreme Court 1996). In contrast to Japan, most other developed countries have abolished legal requirements for providing care to elderly parents (Hashimoto 1984). Whether Japan will eventually follow suit remains to be seen.

Conclusion

The evidence examined in this article mostly validates our hypothesis that population aging, the growth of the social security system, and the weakening of family care of the elderly in Japan conform to a pattern common to all countries that modernize and undergo demographic transition. Japan differs in the speed and extent of population aging and in the initial strength of traditional joint family arrangements and values of filial piety. And because Japan has modernized so rapidly, changes in values about family care of the elderly have tended to lag behind changes in underlying economic and social conditions to a greater extent in Japan than elsewhere.

Both theory and evidence suggest that the government's efforts to shift some of the responsibility for caring for the elderly from the social security system back to families will not be very successful. Rapid population aging, declines in coresidence, increases in women's education and full-time paid employment, increases in the ratio of impaired elderly to available caregivers, and weakening values of filial piety all point to a continuing decline in the ability and willingness of the Japanese family to provide care for the elderly.

Note

The authors thank the Mainichi Newspapers of Japan for making available data from various surveys and Rikiya Matsukura for computer programming and research assistance. This work was supported by a research grant from AFLAC (American Family Life Assurance Company of Japan).

References


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