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Aging in Japan: Causes and Consequences - Part III: The Elderly

Horlacher, D.

IIASA Interim Report
January 2002

International Institute for
Applied Systems Analysis
Schlossplatz 1
A-2361 Laxenburg, Austria

Tel: +43 2236 807 342
Fax: +43 2236 71313
E-mail: publications@iiasa.ac.at
Web: www.iiasa.ac.at

Interim Report IR-02-002/January

Aging in Japan: Causes and Consequences Part III: The Elderly

David E. Horlacher (d_horlacher@yahoo.com)

Approved by

Landis MacKellar (mckellar@iiasa.ac.at)
Social Security Reform Project

January 2002

Contents

Abstract

This survey reviews current research on the impact of present demographic trends -- population aging combined with slower overall population growth -- on Japan's elderly population and their families. Among the conclusions, which emerge, are the following:

Living arrangements are a major determinant of the level of support of the elderly. In particular, the availability of care from a spouse or a child may be essential to the well being of the very old and the frail elderly. In the long run however, the importance of the family as a source of support for the elderly will decrease. This is inevitable because the share of the frail elderly population will increase and the capability of families to care for older parents will decrease. The decline in the ability of families to provide in-home care will decrease not only because of industrialization and urbanization but also because of the aging of the caregivers.

The health care system in Japan is not appropriate to the needs of the elderly. There is an excess of acute care hospital-based facilities and a shortage of chronic care nursing home-based facilities. Furthermore both hospital and nursing home facilities tend to assume that the condition of the elderly can only remain the same or deteriorate. They fail to promote rehabilitation and as a result they lack the necessary human and physical resources needed to restore bedridden elderly to a more active state.

Increasingly the elderly are living in independent households and are depending on their own incomes that are largely derived from wages salaries and pensions. Compared to the elderly of other OECD nations, the elderly of Japan are in a very strong financial position. For those over age 60, average household savings is about 200,000 Euros and their annual income of those households was about 45,000 Euros. Relative to that of all Japanese households, the average income of elderly households rose rapidly in the decade between 1975 and 1985 and since that time has remained at about half that of all households. As a result there has been a marked decline in the incidence of poverty among the elderly.

About the Author

David E. Horlacher is Visiting Professor of Economics, Middlebury College, Middlebury, Vermont, USA. He spent the summers of 2000 and 2001 with the SSR Project.

Aging in Japan: Causes and Consequences
Part III: The Elderly

David E. Horlacher

Introduction

There is widespread concern in Japan among economists, public officials and the public at large about the social and economic consequences of population aging. Such concern is a prudent response to a demographic inevitability. Not only will the population of Japan age significantly in future decades; it will age more rapidly than any country has ever done before. Japan is on the frontier of our knowledge of how workers, savers, investors as well as publicly administered health and pension plans must change so as to adapt to a rapidly aging population. These various decision-makers must find an economically viable path that citizens and governments in other aging nations may wish to follow.

Currently (January 2001) the GDP of Japan is falling. It is now lower than it was three years ago and unemployment is at a three-year high.[1] In part, this situation may simply be a reflection of short-term deficiencies in aggregate demand. But it is possible that longer-term economic forces associated with population aging are already at work. As Japan's labor force growth slows, there is less need for investment in new equipment. As the contribution rates of public pensions rise, less remains of personal incomes for saving and investment. As public policies lengthen the working lives of the elderly, the career opportunities for young people are diminished. The creativity, energy and vitality that young people bring to the workplace may be reduced or lost altogether.

When the Japanese children who are born this year are themselves elderly, they may well find themselves living in a nation that is continuing to grow smaller - and older. Will such a nation be able to make the necessary savings and be able to increase the labor productivity to the degree that will be needed to support those children in their old age?

This study will review the state of our knowledge on those questions.[2] It will be divided into three broad sections. This first section has examined the trends in Japan's demographic structure and the reasons why those trends may continue. The second section will examine the economic implications of population aging and proposed

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[1] Paul Krugman, "End of ZIRP", *New York Times*, August 13, 2000.

[2] The present study is a component of a larger research effort by IIASA on the Socio-economic Impacts of Aging that is supported by the Economic Planning Agency, Government of Japan.

policies for addressing some of the key problems posed by population aging. The present section will examine the implications of increases in the absolute and proportionate size of the old age population for the welfare of the elderly themselves and their families.

The present chapter is divided into four parts. The first part examines the living arrangements of the elderly, especially the institution of co-residence. The second part examines the problems and prospects associated with caring for the frail elderly. The third section examines the system for providing the elderly with health care. The final section examines the economic status of the elderly giving special attention to labor-based income and pension-based income.

I. Living Arrangements of the Elderly

The living arrangements of the elderly are a major determinant of the level of support of the elderly. In particular, the availability of care from a spouse or a child may be essential to the well being of the very old and the frail elderly. In the long run however, the importance of the family as a source of support for the elderly will decrease. This is inevitable because the share of the frail elderly population will increase and the capability of families to care for older parents will decrease. The decline in the ability of families to provide in-home care will decrease not only because of industrialization and urbanization but also because of the aging of the caregivers (Maeda, 1983).

A. Marital Status

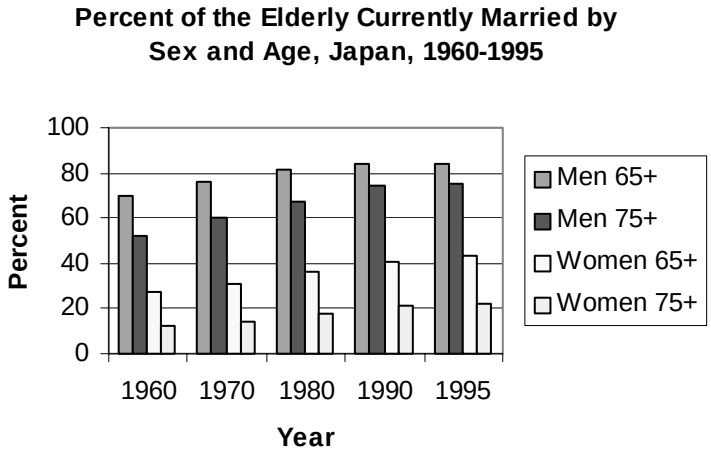
For most males and for many females as well, the most important source of care in old age is provided by the spouse.[3] (Maeda, 1983).

1. Married Couples

Mortality decline in Japan has resulted in a significant increase in the proportion of the elderly who are married. This is especially among the population most likely to be in need of care, the older elderly. In 1990, 83 percent of males and 40 percent of females over age 65 were married (Kojima, 1995, p. 203). Among men, aged 65 and older the proportion married has increased substantially, from 70 percent in 1960 to 84 percent in 1995. The increase has been even more pronounced among men over are 75. Whereas only 52 percent had spouses to care for them in 1960, in 1995, 75 percent of men over age 75 had living spouses (Figure 1).

[3] In the case of elderly Japanese women, it is more likely that the caretaker will be the daughter-in-law than the husband. Fewer than 10 percent of caretakers are men (Maeda, 1983).

Figure 1



Source: Ogawa, Naohiro and Robert D. Retherford (1997), "Shifting Costs of Caring for the Elderly Back to Families in Japan: Will It Work?" in *Population Development Review*, Vol.23, No. 1, Table 2.

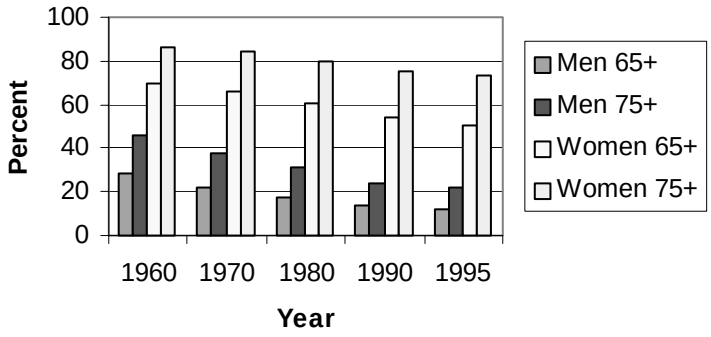
2. Widows

Because of greater female life expectancy and the fact that Japanese women generally marry older men, many elderly Japanese women are widowed. In absolute terms, there has been a significant increase in widows aged 75 and over. That group has grown from about .6 million in 1950 to about 2.8 million in 1990.

Figure 2 shows that the proportion widowed are much higher for elderly women than elderly men. In 1995, almost 90 percent of women aged 85 and older were widowed. (The older-old widows are principally being cared for in the context of intergenerational households.) For men aged 85 and older, the figure was less than half that, 41 percent.

Figure 2

Proportion Widowed by Sex and Age, Japan, 1960-1995



Source: Ogawa, Naohiro and Robert D. Retherford (1997), "Shifting Costs of Caring for the Elderly Back to Families in Japan: Will It Work?" in *Population Development Review*, Vol.23, No. 1, Table 2.

B. Household Status

In general, only one married child (usually the eldest child) is expected to live with the parents. Hence, the availability of family support for elderly widows is not likely to decline in proportion to the decline in completed family size. As long as there is one child in the family, there is likely to be an appropriate source of care.

Kojima (1995, p.205) found that the eldest son is three times as likely to live with his mother than are the other sons. If his wife lacks older sisters, the probably increases that a son might live with his that mother-in-law. That the eldest children are more likely than other children to live with their parents implies that, even though the laws have changed, the custom of primogeniture is widespread. Eldest children tend to live with their parents in the expectation that in return for the care they give, they will receive a larger share of the inheritance.

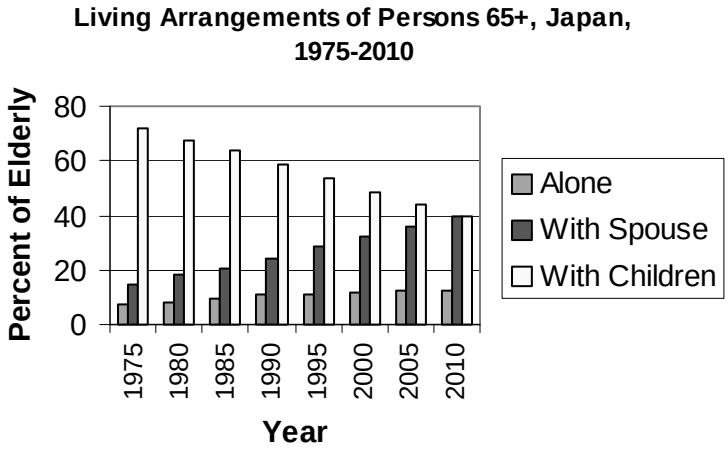
1. Co-residence

(a) Prevalence of Co-residence

As elderly Japanese became healthier and wealthier, there has been a steady decline in the proportion of the elderly that reside with their children. In 1960 about 87% of those over age 65 were living with their children. Seventeen years later (1977), about 70% of the elderly lived with their children. By 1995 only about half of people over age 65 were doing so. By 2001 that figure is projected to fall to 40 percent. At that time an equal proportion of the elderly will be living with their spouse only (Figure 3).

About twelve percent will be living alone and about 5 percent will be living in institutions.

Figure 3



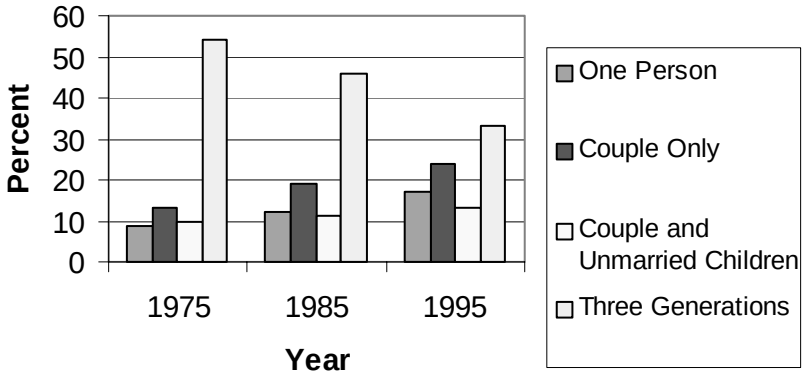
Source: Endo, Yukihito and Eji Katayama, "Population Aging and Japanese Economic Performance" in *Aging Societies: the Global Dimension*, Barry Bosworth and Gary Burtless editors, the Brookings Institute Press, Washington, D.C., Chapter 5, 1998. Table 5-3.

The distribution of Japanese households containing at least one person aged 65 or older has changed markedly between 1972 and 1995 (Figure 4). There has been an increase in one-person and couple-only households. The proportion of households containing a couple and unmarried children remained stable. At the same time, there has been a significant decline in the proportion of three generation households.

There has been a slow but steady decline of co-residence for elderly at all ages. Evidence presented by Miyajima (1993-1994). Figure 5 shows that for elders 65 and over the proportion living with their children dropped by about one percentage point per year. Though the proportion of co-residence was higher for the older age groups the decline in co residence was also about one percentage point per year. At that rate of decline, co-residence as an institution should continue for many decades to come.

Figure 4

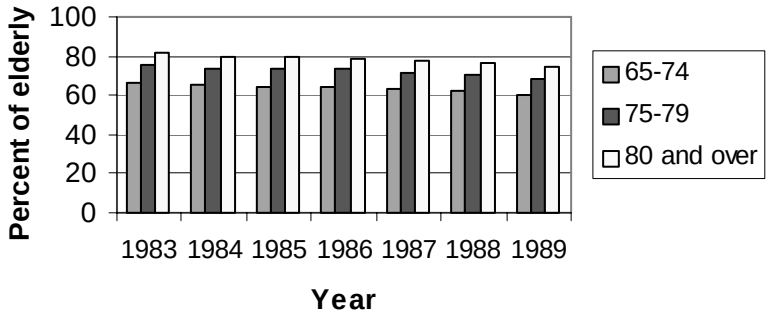
Proportion of Households Containing Persons Aged 65 or Older, Japan, 1975-1995



Source: Ogawa, Naohiro and Robert D. Retherford (1997), "Shifting Costs of Caring for the Elderly Back to Families in Japan: Will It Work?" in *Population Development Review*, Vol.23, No. 1, Table 3.

Figure 5

Proportion of Eldely Living with Children, Japan, 1983-1989



Source: Miyajima, Hiroshi (1993-1994), "The Family Structure in Contemporary Japan", *Japanese Economic Studies*, Vol. 21, No. 6, Winter, Figure 12, p. 38.

(b) Length of Co-residence

The increase of life expectancy at old ages has also resulted in a situation where the caregivers themselves are often elderly. In the 1920s, the period from the time one's parents retired until both died was quite brief (about 5 years). Over the past seven

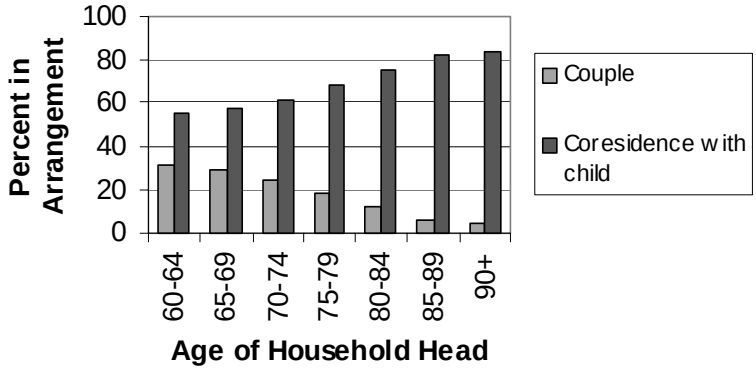
decades this period of co-residence has greatly increased. By 1991, a Japanese couple could expect to co-reside with one of their parents for more than 20 years after the parents' retirement (Endo and Katayama, 1998, p. 258).

(c) Determinants of Co-residence

Two major factors that influence the likelihood of co-residence are the age and the wealth of the parent. As the elderly become older, (and presumably more frail) they are more likely to be in co-residence with a child Ohtake (1991), (Figure 6).

Figure 6

Proportion of Elderly Households by Living Arrangement and Age, Japan, 1986

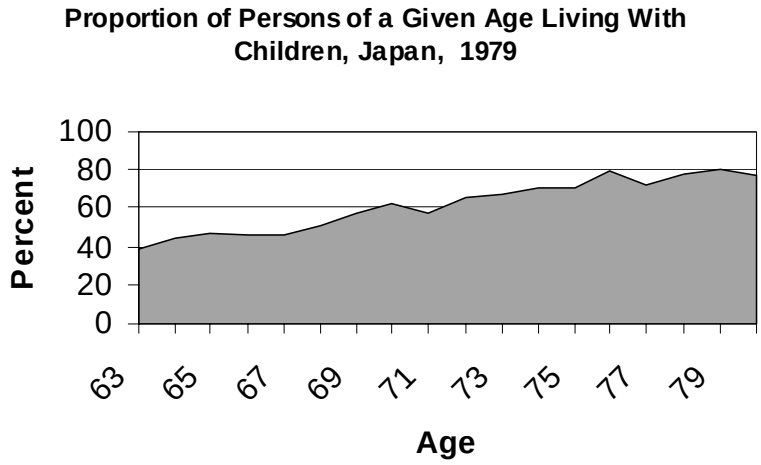


Source: Ohtake, Fumio (1991), "Bequest Motives of Aged Households in Japan", *Ricerche Economiche*, XLV, 2-3, September 1991, Table 9.

Ohtake's findings for 1986 are consistent with earlier observations for 1979 (Ando et al., 1995) that also showed that as Japanese men and women age, they are more likely to live with their children (Figure 7).

Ohtake (1991) also found that increases in the wealth of the parents increased the likelihood of co-residence. As a result, he speculated that the increase in land prices that had then been occurring might increase the likelihood of co-residence because older households were more likely to own land than younger households (p. 301). He also speculated that since wealthier households are more likely to co-reside with their children, an increase in social security wealth by the elderly would not reduce co-residence with children in Japan as it has in many other countries.

Figure 7



Source Ando, Albert, A. Morro, J. P. Cordoba and G. Garland (1995), "Dynamics of Demographic Development and Its Impact on Personal Saving: Case of Japan" *Richerche Economiche*, September, Table 2.

Since housing is so expensive in Japan and the elderly are relatively better off than their children in terms of housing, it is generally the child who moves into the home of the elderly parent. Nearly 70 percent of residential transfers that resulted in living together were those of children moving into the home of their parents (Miyajima, 1993-1994, p. 49).

60% of families now are nuclear families in 1997. Among elderly households in 1997, 17.6 percent were living alone and 26.1 percent were living with a spouse.

(d) Alternatives to Co-residence

The proportion of elderly residing with children does not fully reflect the support that the elderly may receive from their children. The ministry of Health and Welfare defined three levels of family support. The firs was "Living together" which occurs when parents live with children in the same residence and share expenses. "Quasi-living together" occurs when parents and children have the same domicile but do not share expenses. "Living nearby" occurs when parents and children live in residences served by the same neighborhood association. In 1989, 65 percent of persons past 65 years of age were living with their children. Another 4 percent were "quasi-living together" and an additional 7.4 percent were living nearby. These lesser categories assumed even greater importance in Tokyo where in 1989 about 51 percent of those over 65 were living with children. Another 11 percent were quasi-living together and another 11 percent were "living nearby" (Miyajima, 1993-1994, Figure 14).

(e) Prospects for Co-residence

The Government of Japan considers the persistence of co-residence to be a unique asset that can be used to cope with the adverse effects of aging. Ogawa and Retherford (1997, p.76) argue that the government's view of the co-resident household as a unique asset will prove to be "illusory". They suggested that the fact that the co-resident household has persisted this long may simply reflect a significant lag in Japan's adjustment to social change and that the institution of co-residence will continue to decline. They examined the variables that might be associated with co-residence and found that though co-residence increased with age, but decreased for those who are currently married, for those who have a college or university education and for those who currently reside in an urban area. Based on these associations, Ogawa and Retherford concluded that "Inasmuch as the proportions married, education levels, and urbanization are rising among the elderly, ... it is likely that the prevalence of coresidence will decline." (pp. 78-79).

There are some reasons to believe that the decline in the prevalence of co-residence may be arrested. Among the trends favorable to co-residence are (1) the increase in the portion of sons that are eldest sons, (2) the increasing desire of married women to take full time employment and (3) the increase in the wealth of the elderly.

Eldest children (particularly sons) are more likely to co-reside with their parents than other children are. Over 80 per cent of co-resident households involve the oldest son or oldest daughter. The reduction in average family size in Japan means that a male child is more likely to be an eldest son. Since the proportion of sons who are eldest sons has increased, this should slow the decline in co-residence over time.

There are many reasons why an eldest son might wish to co-reside with an elderly parent. It may be a sense of moral obligation or it might be the knowledge that if the oldest child co-resides with the parent, that child will inherit the parents' house and land, a legacy that can be quite valuable. Though the potential material gains may be substantial, the moral imperative may be the most important reason for co-residence. When adult children who lived with their parents were asked why they did so, more than 60 per cent indicated that it was their duty as the eldest son or daughter (Ogawa and Retherford, 1993, p. 588).

Another factor that might slow the decline in coresidence is that women who are engaged in full-time employment are more likely to favor coresidence since it provides them with household assistance.[4] As the proportion of women in full time employment increases, there may be an increased support for co-residence on the part of fully employed wives.

Hirosima (1997) found that the proportion of childless elderly (persons who never married or lost their children to death) has declined from 19 percent for cohorts born in the 1880s to 10 percent for cohorts born in the 1930s. This would have resulted in an increase in co-residence were it not for a rising propensity of the elderly to chose not to co-reside with their children. The decline in that proportion is about one percent per year.

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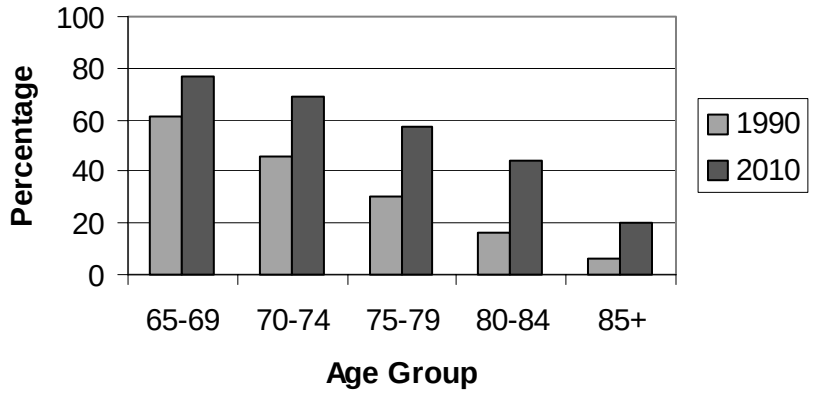
[4] See Ogawa and Ermisch, 1996.

A second demographic factor is that the male elderly population is increasing at a somewhat faster rate than their female counterparts. (Only in the over 85 age group is the rate of growth greater for females than males.) Between 1990 and 2010 this will raise the sex ratio for the elderly from 67.3 to 74.7 even in the face of a widening gap between male and female life expectancy in Japan. The result of this is that there has been a significant growth in married women relative to women who are widowed. By 2010 the majority of elderly women aged 65 and over will be married. The proportion married will increase from 40.4 percent in 1990 to 57.5 percent in 2010. The greatest absolute gains will be in women aged 75 to 84. The greatest proportionate gains will be to women over age 85, where the fraction who are married will rise by a factor of three, from 6.2 percent to 19.8 percent.[5]

Figure 8

Proportion of Elderly Females Married, by Age, Japan, 1990-2010



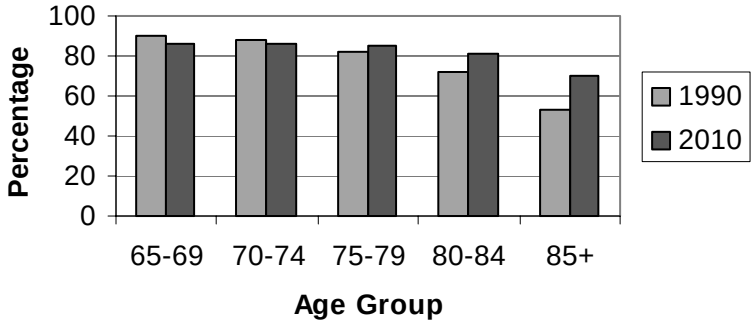
Source: Horosima, Kiyoshi (1997), Projection of the Living Arrangements of the Elderly in Japan: 1990-2010, *Genus*, Vol. 53, no 1-2, Table 2.

The decline in female mortality at older ages will result in a significant increase in the proportion of very old males, aged 85 and over, who are married. It will rise from 53 to the 70 percent.

[5] The proportion widowed in the 85+ age group will fall from 45.5 percent in 1990 to 27.4 percent in 2010.

Figure 9

Proportion of Elderly Males Married, by Age, Japan, 1990-2010

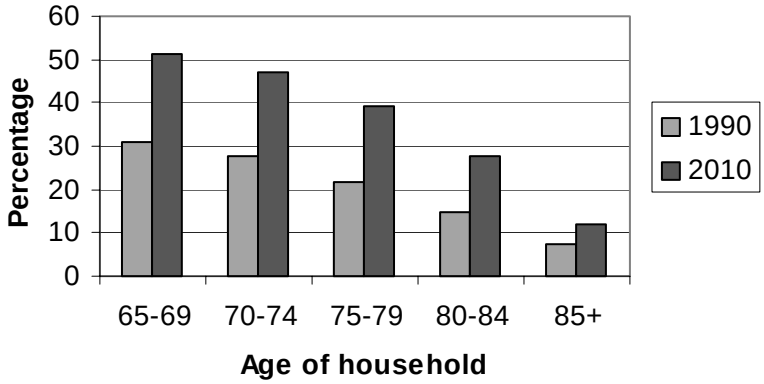


Source: Horosima, Kiyoshi (1997), Projection of the Living Arrangements of the Elderly in Japan: 1990-2010, *Genus*, Vol. 53, no 1-2, Table 2.

By 2010, couple-only households will have almost supplanted co-residence with child as the most numerous type elderly household. Each type will account for about 40 percent of households. However, couple-only households will more prevalent among all age groups except households in the 85 and over category.

Figure 10

Proportion of Couple-Only Households by Age, Japan, 1990 and 2010

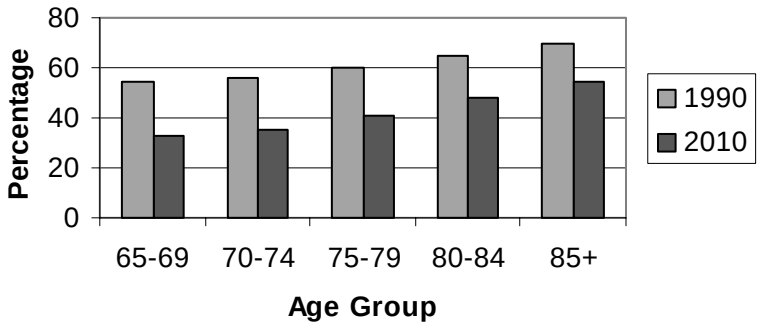


Source: Horosima, Kiyoshi (1997), Projection of the Living Arrangements of the Elderly in Japan: 1990-2010, *Genus*, Vol. 53, no 1-2, Table 2.

Among the young-elderly of Japan (65-69) co-residence with children will be relatively rare. It will occur in only about one third of such households. Even among households aged 80 to 84, co-residence with a child can be expected in a little less than half the cases.

Figure 11

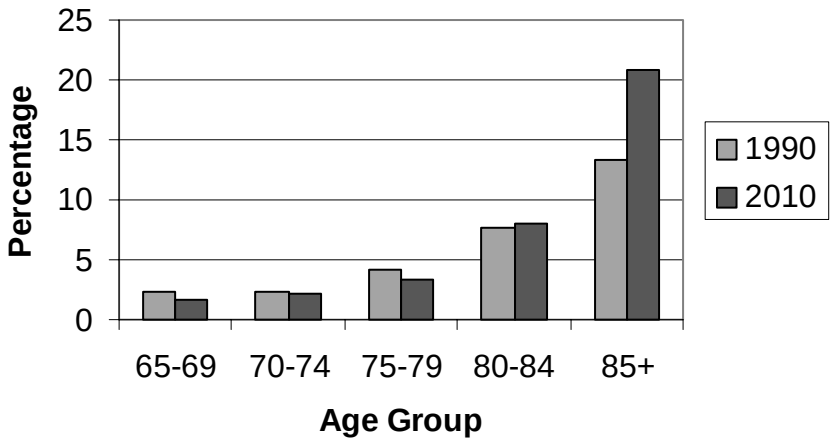
Proportion of Elderly Households Co-residing with a Child, by Age, Japan, 1990-2010



More disturbing is the projection of institutionalized households. The prevalence of institutionalization for all households aged 65 and older is expected to increase only slightly (from 4.2 to 5.3 percent), and is projected to decrease for all of the younger age groups. However, between 1990 and 2010 the proportion of households aged 85 and older in institutions will increases significantly. It is projected to rise from 13.4 per cent to 20.9 percent. Hirosima (1997, p. 104) observed that though this increase is due in part to a change in the distribution of households by marital status, it is primarily caused by the increase in the very aged population of both sexes.

Figure 12

Proportion of Households Institutionalized by Age, Japan, 1990-2010



II. Care of the Frail Elderly

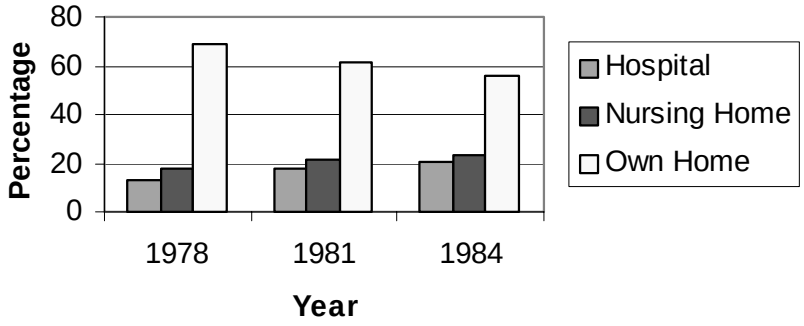
Liu et al. (1995) found that on average a Japanese person aged 60 in 1991 could expect to live 18.7 years in functional independence and another 4.4 years in a state of disability.[6] At age 65, men could expect to live about 91% of their remaining years free of disability. The figure was 87% for 65 year-old women (Tsuji et al., 1995). These proportions which are in line with other OECD countries, suggest that over the next 35 years, the number of elderly in Japan who are frail, demented or bedridden will increase by a factor of three (Gibson, 1993)[7].

A. Location of Care

Most of the bedridden elderly were taken care of in their own homes in 1984, but that proportion is declining, while the proportion in hospitals and nursing homes has been increasing (Figure 13).

Figure 13

Proportion of Bedridden Elderly By Place of Residence, Japan, 1978-1984



Source: Maeda, D. and Y. Shimizu, 1992, "Family Support for Elderly People in Japan" in H. Kendig, A. Hashimoto, and L.C. Coppard (eds.), *Family Support for the Elderly: The International Experience*, Oxford, Oxford University Press. Figure 15.1.

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[6] A study of elderly of Sendai, Japan, found that women at age 65 could expect to live 17.7 years in functional independence. The disability free life expectancy for 65 year-old men was three years less (Tsuji et al., 1995).

[7] An indicator of the prevalence of heath problems, particularly mental health, is the prevalence of suicide. Though suicide rates among the Japanese elderly have been falling, in 1981 they were at about twice those of the United States. The death rate from suicide in 1981 was a little more than 20 per 100, 000 for 60 year olds. This figure rose almost linearly with age reaching 80 per 100, 000 for 85 year olds (Preston and Kono, 1988, p. 297).

B. Difficulties in Providing Care

It is becoming increasingly difficult for many families to care for their bedridden or otherwise disabled parents. The majority of caregivers are middle-aged women. However as more middle-aged women take up full time employment, fewer families may be able to care for the elderly in their own homes. Between 1967 and 1995, the labor force participation rates of women aged 40-54 in paid employment outside the home has increased from 24 to 53 percent. (About half of these are full-time employees.)

Ogawa and Ermisch (1996, p. 691) found that the opportunity cost of dropping out of the labor force to care for elderly parents is quite substantial. They estimated that if a woman who has a full-time job looks after an elderly relative for 10 months, it would reduce her income by 12 percent. These costs are likely to increase as women's wages rise and as the proportion of women in full-time paid employment increases. Hence this should "reduce even further the pool of middle-aged women willing to stay at home to care for elderly parents in need of such care." (Ogawa and Retherford, 1997, p. 86).

To some extent this problem has been ameliorated by a new law which grants employees the right to take up to three months of unpaid leave to take care of a sick spouse, child or parent. This should allow women to return to their jobs without the loss of seniority rights. (Only 16% of firms allowed such leave in 1993.)

Ogawa and Matsukra (1995) used the NUPRI model to estimate the proportion of non-employed women aged 40-49 who are likely to have to take care of a parent 65 and older who suffers from senile dementia or is bedridden. In 1990, only 7 percent of such women were likely to be giving such care. But by 2025 about 45 percent of unemployed women would be caring for demented or bedridden elderly parents.

A second reason why it is becoming more difficult to provide care for the frail elderly is the increased longevity of those in need of care and hence the aging of the potential caregivers. In 1983 Maeda reported that a fourth of all caretakers were over the age of 60.

C. Changes in Values

The likelihood that working age families will make the sacrifices necessary to care for frail or demented parents has been reduced by an ongoing change in Japanese attitudes toward intergenerational support. In 1965, two thirds of parents expected support from their children in old age. That figure had fallen to less than 15 percent by 1996. It is thus not surprising that a 1986 survey of the those aged 60 or over found that 56 percent preferred to spend their assets on themselves rather than pass them on to their children. Only 25 percent of respondents planned to bequeath assets to their children.[8] Hence, many children leave their elderly parents in hospitals, even though they do not require medical treatment.[9]

[8] This trend may be advanced by reverse mortgage schemes, which allow elderly persons to obtain mortgages on their homes, with ownership reverting to the mortgage holder upon death.

III. Health Care for the Elderly

Health care for the elderly has been heavily subsidized in Japan since 1972. The share of the elderly in total health care costs has risen from about 14 percent in 1975 to 31 percent in 1995; by 2025 the elderly will account for half of total costs.

A. Effect of Age on Utilization of Health Care

The "oldest-old" (70 and over) are estimated to account for 25 percent of medical spending (Yashiro, 1997). Patients who are over age 65 use more than 3 times as much medical care as other individuals. While most of this reflects the greater need for medical care among the aged, some of it also reflects the fact that this group can receive virtually unlimited care for a very low fee. In response to the moral hazard problem, since 1984 the program offering free medical service to persons over age 70 was been abolished and the fixed fee that the elderly are required to pay for medical care was increased in 1986.[10] Nonetheless, while for the general public there is a co-payment of 20 percent for hospital charges and 30 percent for outpatient services, the elderly aged 70 or more only pay a small fixed amount of the charge (Maeda, 2000).

Preston and Kono (1988) report that in a survey taken in 1985, that for age groups above the age of 20 hospital use increased with age (Figure 14). They noted that about one in five elderly persons visited a hospital or medical institution on the day of the survey.

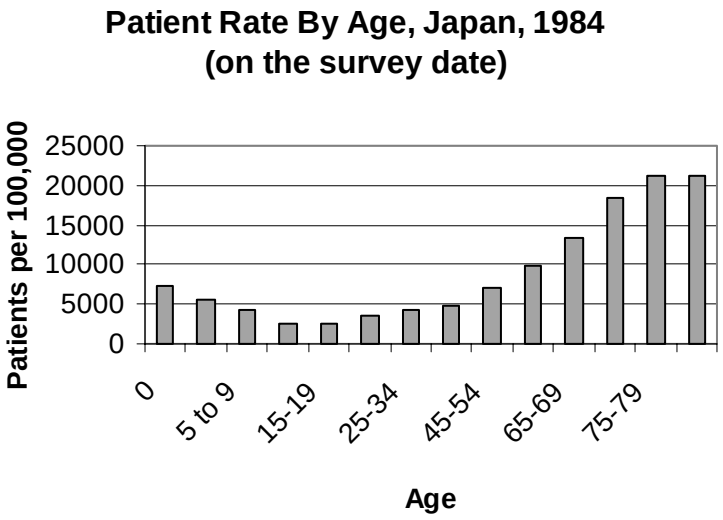
In general there are three health care programs paralleling the pension insurance program. The first is the National Health Insurance Program for the Self-Employed. The second is for persons employed by private firms and the third is for persons employed by governmental bodies.

If parents take out such mortgages, there will be less incentive for their children to care for them in old age.

[9] They are not left in nursing homes because there is a stigma attached to leaving one's elderly parents in a nursing home. Another reason for the high hospitalization rate of the Japanese elderly is the shortage of social welfare facilities and home-help services for the elderly (Katsumata, 2000).

[10] Ikegami and Campbell (1995), cited in Ogawa and Retherford, 1997.

Figure 14



Source: Preston, Samuel and Shigemi Kono (1988), "Trends in Well-Being of Children and the Elderly in Japan," in J.L. Palmer, T. Smeeding and Barbara Torrey (eds.), *The Vulnerable*, Washington, D.C. the Urban Institute Press, Table 11.9

B. Hospitalization

Hospital stays for the elderly are quite long. In 1981, the average hospital stay for acute care for those over age 65 was 88 days (N. Maeda 1983). The corresponding figure for the United States was 11 days (Muse and Sawyer, 1982). The average length of hospitalization had fallen to 79 days in 1990 and has decreased to 71 days in 1993. Even that was quite long compared to 20 days for Sweden in 1997 (Ogawa and Retherford, 1997, p. 71).

Watts (1998) estimates that more than 100,000 people are admitted unnecessarily to hospital each year. There are a number of reasons why old people have long hospital stays in Japan. One reason is the cost of hospital care relative to nursing homes.[11] Another reason is the paucity of facilities and staff needed for rehabilitation care (Kiefer, 1988). The near-absence of rehabilitative facilities can be explained in part by the absence of financial incentives to develop them. (Many physicians operate small hospitals.) A second explanation is that rehabilitation requires that the caretaker impose discomfort on the patient conflicts with Japanese notions of the role of the caretaker.

[11] The monthly co-payments for hospital stays are only two thirds of the co-payments for intermediate-care nursing homes.

C. The Gold Plan

In 1990 the " Ten-year Gold Plan for the Development of Health and Welfare Services for the Elderly" was instituted to reduce the demand for medical services by improving social services for the elderly and their families and by providing long-term care services.[12] The major part of the Gold Plan was directed at improving home-based services for the elderly by improving three types of services: (1) home-helpers, (2) short-term stay facilities, and (3) elder day care centers.

To address the shortage of nursing-home facilities, the Gold Plan called for expanding the capacity of nursing homes by nearly 80 percent by the year 2000. In the early 1990s Japan had only 360 home-helpers per 100,000 elderly persons, as compared to more than 5,000 in Sweden. Elder day care centers were to be increased 17 fold by the year 2000 (Ogawa, and Retherford, 1997, p.70).

The 1994 revision of this plan, called the "New Gold Plan", kept the same target year, 1999, but put greater emphasis in the development of community care services. With the exception of the target for "care houses", all the goals of the New Gold Plan were met by 1999.

Still the government believed that the goals set by the Gold Plan would not meet the projected needs of the elderly over the next decade; so a new plan was instituted in 1999. It was called the Gold Plan 21.

Table 1 shows that by the year 2004, Japan will have one home health worker for every 70 persons, aged 65 or older. That is quite close to the one to 50 ratios for Sweden. A typical city of 100,000 will have about 20 day service centers. The number of beds for long-term institutional care will grow roughly in proportion to the 65 years and over population. The result will be that about 2.7 percent f the elderly population will be institutionalized, about the same percentage as in 1999 and about half the proportion in Western Europe and North America (from Maeda, 2000).

Families are expected to pay little or nothing for these Gold Plan services. They are to be paid for by national and local governments.

[12] The Gold Plan is described in Japan Aging Research Center (1996).

Table 1: The Situation in 1999 and the Goals of Gold Plan 21.

Service	Situation in 1999	2004 Goal of Gold Plan 21
In-home service		
Home helpers	178,5000	350,000
Short term stay beds	63,000	96,000
Day service centers	17,150	26,000
Institutional services		
Nursing home beds	300,000	360,000
Health care facilities	280,000	297,000

Source: Maeda, Daisaku (2000), "Social Security, Health Care and Social Services for the Elderly in Japan", *In Aging in Japan, 2000*, Japan Aging Research Center, Tokyo, Japan, 2000, Table 2, p. 121.

D. Long-term Care Insurance

In April 2000, the government instituted a program of public long-term care health insurance. It was introduced to contain public health care costs by separating them from long-term care costs. Four goals of the long term care insurance program are: "(1) to enable a chronically impaired old adult to chose long-term care services; 2) to deliver a comprehensive long term care service package; (3) to provide a variety of arrangements for receiving long-term carte services; and (4) to reduce unnecessary hospitalization.

The scale of the new system's finances will be only about one-sixth of the medical insurance system. The budget for Long Term Care insurance in fiscal 2000 is about 43 billion Euros. Funding may come from the individual, national, municipal and local government resources. It is to be financed half from contributions and half from general revenues (Maeda, 2000). One objective of the scheme is to keep the average monthly premiums down to about 30 Euros. The plan covers all residents aged 40 and above, and all those covered by the plan, including the elderly, must pay premiums.

About 2.7 million people will be eligible for benefits under the program. Of these, about 700 thousand are already in institutions.[13] It is likely that about one third of the remainder will receive some kind of care or services (Naoke, 2000). Although everyone who pays into the plan is eligible for benefits, those between the ages of 40 and 65 can qualify only if they have certain designated medical conditions related to aging.[14] Hence a 40-year old, who is badly disabled in a traffic accident, would not be eligible for long-term care (Naoke, 2000, p.32).

[13] About two thirds of the fiscal 2000 finances have been set aside for institutional care.

[14] Hence a 40-year old, who is badly disabled in a traffic accident, would not be eligible for care.

The population in need of long-term care is projected to increase from 2.8 million in 2000 to 5.2 million in 2025.[15] In 1997 52.5 % of caregivers are older than 70 years old.

The insurers of the long-term care insurance program are local governments. To get care one must go through the following process: Firstly an inspector authorized by the local government visits a beneficiary candidate in a home or institution and performs an on-site assessment using an 85-item questionnaire[16]. A computer scores the result and determines whether the candidate is eligible for the program and if so, assigns the candidate to a level (1 to 6). Periodically, the local government will hold a committee meeting composed of health professionals who will review the first decision. They make the second and final decision.

The program can provide a variety of in-home services as well as stays at a nursing home, group home, an intermediate facility and an intensive medically supported home. The beneficiaries can chose their own care managers who are responsible for case identification, assessment, care planning, implementation, follow-up and evaluation. The maximum benefit depends on the eligibility level. This can run from about $500 a month for level 1 to $4,000 a month for level 6. A co-payment of 10 percent is required

A possible difficulty inherent in this scheme is that it is administered on the municipal level. There are 3,250 municipalities in Japan. Some are large cities, some are villages of a few hundred persons. There will be great variability among services available and insurance premiums charged. One example of such variability is that there are only 167 nursing home beds per 100 thousand residents in Tokyo compared with almost 2,000 beds per 100 thousand residents in rural Tokushima Prefecture (Watts, 1998).

The scheme may not be as effective in lowering costs as had been hoped. Home care can be quite expensive. For example, having a home health care helper come in twice a night to change an elderly person's diapers can cost as much as $3,600 Euros per month (Masuzoe, 2000).

1. Services Paid for by Long-term Care Insurance

The long-term care insurance will pay the expenses of eligible beneficiaries in nursing homes and health care for the elderly. It does not provide for stays in homes for the aged and retirement homes (Maeda, 2000).

Stays in nursing homes for the elderly may be eligible for coverage under the long-term care insurance. Application is made to the local; government and if the assessment shows that an elderly person's impairment is above a certain level, that person is allowed to enter the nursing home. Older patients are required to pay a 10 percent co-payment plus the cost of meals. Unfortunately there is a shortage of nursing

[15] 53 percent of those who are bedridden stay in that state for more than three years.

[16] The questionnaire assesses ADLs, IADLs in addition to mental and physical disabilities. ADLs include bathing, toileting, dressing, getting out of bed, and eating. IADL include cleaning of the room, control of medication and money.

home beds in many large cities and applicants have to wait a long time before being admitted.

Health care facilities for the elderly are similar to nursing homes but are designed to be half way houses between an institution and the community. Stays by the elderly in these institutions are also covered under long-term care insurance.

2. Services not Covered by Long-term Care Insurance

Homes for the aged are for frail or slightly impaired older persons who are functionally independent in activities of daily living. There are two types of such homes. The first type is for poor elderly and charges no fees[17]. In the second type, elderly residents pay their living costs but not the administrative expenses of the institution. As in the case of nursing homes, these homes for the aged have long waiting lists.

These homes provide the elderly with life-long care so that when residents become severely impaired, the home will provide nursing care and this care will be covered by long-term care insurance.

At present there are about 300 such homes in Japan and these homes average about 100 residence for a total of about 30,000 residents. These homes are quite expensive and only the wealthy can afford them.

E. Health Examinations

The Law for Health and Medical Services for the Elderly requires that all local governments provide health checks annually for persons aged 60 and over. These checks include all the important medical examinations.

IV. Income of the Elderly

Today a rapidly declining proportion of the Japanese elderly co-resides with their children. This is particularly true for the younger portion of the elderly population. The three major sources of support for the elderly living independently are earned income, drawing down assets and pensions, both private and public.

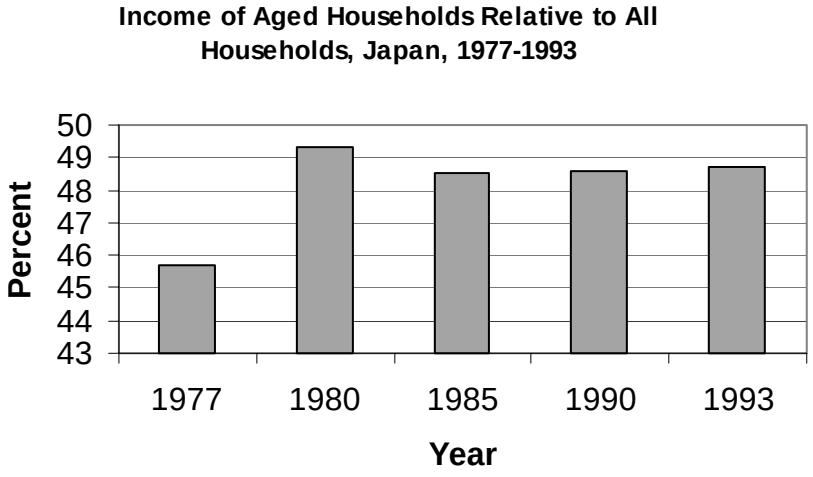
1. Levels and Trends

Compared to the elderly of other OECD nations, the elderly of Japan are in a very strong financial position. For those over age 60, average household savings is about 24 million yen (about 200,000 Euros). The annual income of those households was about 4.5 million yen (about 45,000 Euros) according to a survey by the Central Council for Savings Information (Fordyce, 1999).

[17] The “responsible relative” may be asked to pay something.

Relative to that of all households, the average income of elderly households rose rapidly in the decade between 1975 and 1985. Since that time the average income of elderly households has remained at about half that of all households[18] (Figure 15).

Figure 15



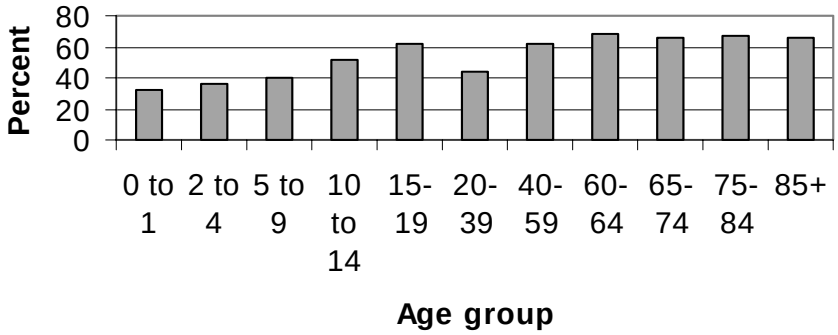
Source: Endo, Yukihito and Eji Katayama (1998), "Population Aging and Japanese Economic Performance" in *Aging Societies: the Global Dimension*, Barry Bosworth and Gary Burtless editors, the Brookings Institute Press, Washington, D.C., Chapter 5, Table 5-2.

The improved financial position of the Japanese elderly is reflected in the growth in their share of total expenditures. During the decade 1975-1985, the shares of household expenditure by the elderly has increased more rapidly than the share going to children and matched the share of expenditure going to other adults (Preston and Kono 1988), (Figure 16).

[18] For those households with a 65-year-old head who is still working, income is equal to 80% of that of all households (Endo and Katyama, 1998, p. 243).

Figure 16

Percentage Change in Mean Monthly Household Expenditure By Age, Japan, 1975-85

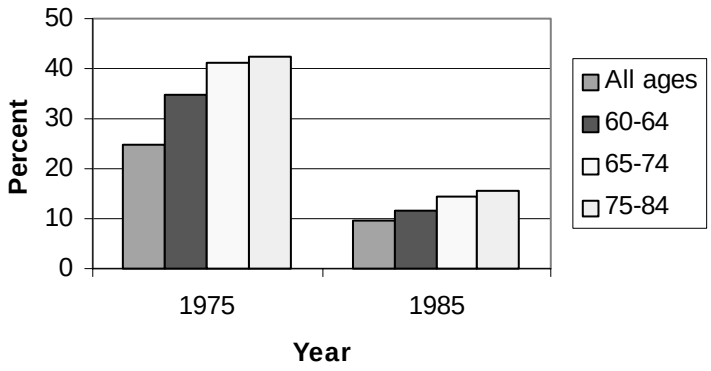


Source: Preston, Samuel and Shigemi Kono (1988), "Trends in Well-Being of Children and the Elderly in Japan," in J.L. Palmer, T. Smeeding and Barbara Torrey (eds.), *The Vulnerable*, Washington, D.C. the Urban Institute Press, Table 11.5.

The decade between 1975 and 1985 also saw a marked reduction of poverty among the elderly. Assuming a poverty line which is the equivalent of 420 U.S. dollars per month, the proportion of the 60-64 year olds in a state of poverty is greater than the average for all households in Japan. Nevertheless, that proportion fell from about 35 percent in 1975 to about 12 percent in 1985 (Kono, 1991, p. 56), (Figure 17).

Figure 17

Proportion Living in Households that Spend less than $420 per Month, Japan, 1975-1985

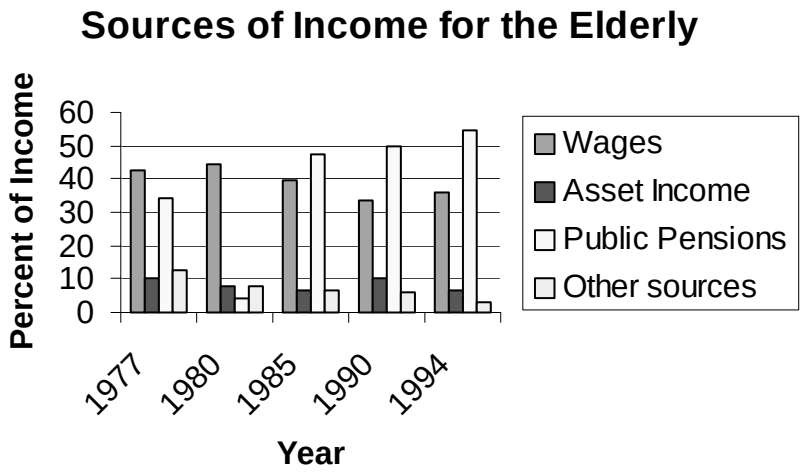


Source: Kono, Shigemi (1991), "Well-Being Among Children and the Aged in Japan" in T. Mizoguchi (ed.), *Making Economies More Efficient and More Equitable*, Kinokuniya and Oxford University Press, Table 3.

2. Sources of Income

In 1977 wage and salary earnings was the largest single source of income for the elderly. Over the next quarter century, public pensions became the main source of income for the population over the age of 60. In 1996, public pensions accounted for about 57% of income. Asset income and private pension income together accounted for only about 10% of elder income (Figure 18).

Figure 18

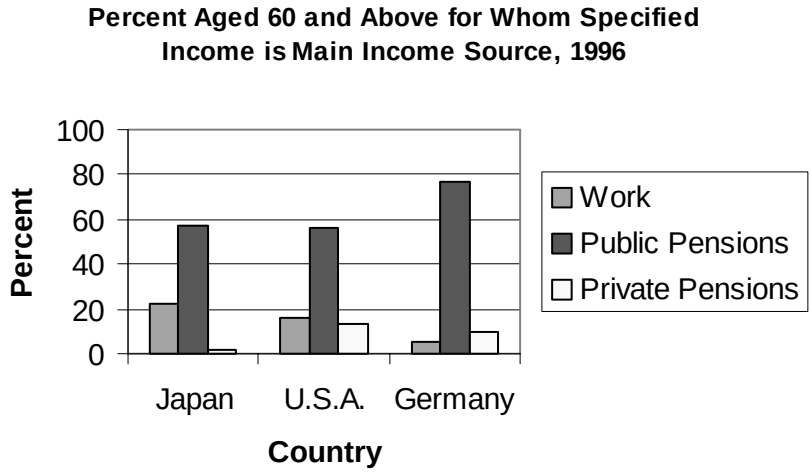


Source: Source: Endo, Yukihito and Eji Katayama (1998), "Population Aging and Japanese Economic Performance" in *Aging Societies: the Global Dimension*, Barry Bosworth and Gary Burtless editors, the Brookings Institute Press, Washington, D.C., Chapter 5, Table 5-2.

Japan is similar to the United States and Germany in that public pensions are the main source of income for those over age 60.[19] Japan is different in that a greater share of the elderly have work as their main source of income and a much smaller share of the Japanese elderly depend primarily on private pensions (Figure 19).

[19] In view of the traditionally high rate of personal saving in Japan, it is noteworthy that only a very small portion of elderly income is derived from assets. This may reflect a failure to impute the rental value of owner-occupied housing.

Figure 19



Source: Ogawa, Naohiro and Robert D. Retherford, (1997), "Shifting Costs of Caring for the Elderly Back to Families in Japan: Will It Work?" in *Population Development Review*, Vol.23, No. 1, Table 1.

In 1996 only 4 percent of Japanese aged 60 and respondents replied that the main source of their income was their children. (In the U.S.A. and Germany, the percentage of the elderly who responded that children were the main source of their income was approximately zero.)

(a) Wage and Salary Income

Wage and salary income is more important in Japan that in most OECD countries because of the much higher labor force participation rate of the elderly. To some degree this effect is offset by the ubiquity of mandatory retirement from at age 60 followed by a return to employment at a significantly lower wage**.**

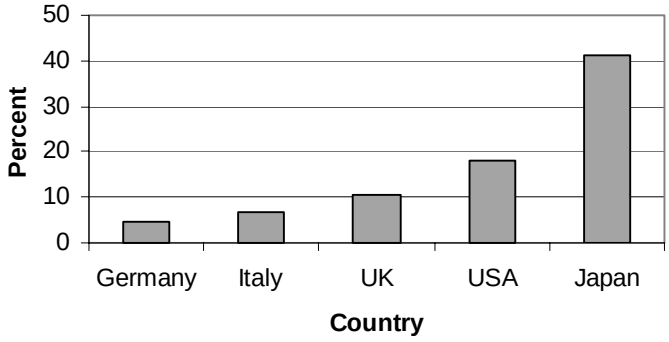
(i) Labor Force Participation

The LFPRs of the elderly in Japan are quite high compared to other developed nations[20] (Figure 20).

[20] In 1998, the labor force participation rate among Japanese elderly age 65 and over was about 36 per cent. This is much higher than most other OECD countries (Katsumata, 2000, p. 5)

Figure 20

Male Labor Force Participation Rates, Aged 65+, Selected Countries, 1985

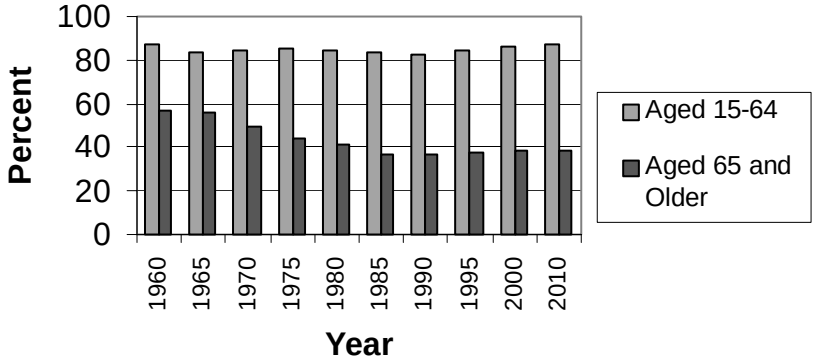


Source: Furuya, Kenichi, and Clark, Robert L. (1993), "Labor Force Developments and Emerging Human Resource Policies in Japan" in *Human Resources in Development along the Asia Pacific Rim*, edited by Naohiro Ogawa, Gavin Jones and Jeffrey G. Williamson. 1993, Oxford University Press, South-East Asian Publishing Unit Table 7.8.

While the LFPR of Japanese men between the ages of 15 and 64 have remained relatively constant, there has been a significant decline in the LFPRs of men aged 65 and older (Figure 21).

Figure 21

Male Labor Force Paricipation Rates by Age Group, Japan, 1960-2010

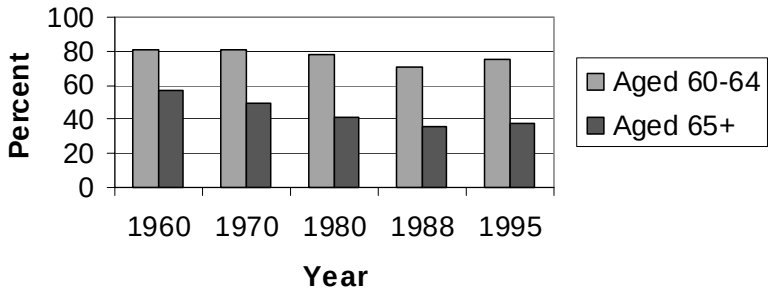


Source: Endo, Yukihito and Eji Katayama (1998), "Population Aging and Japanese Economic Performance" in *Aging Societies: the Global Dimension*, Barry Bosworth and Gary Burtless editors, the Brookings Institute Press, Washington, D.C., Chapter 5, Table 5-5.

Between 1960 and 1988 the decline was from 81 to 71 percent in the case of males aged 60-64 (see Figure 22). In the case of males aged 65+ the decline was even more rapid, from 57 percent in 1960 to about 36 percent in 1988. Between 1987 and 1995, this trend was reversed. The proportion of males aged 60-64 who were working has increased from about 71 percent to about 75 percent (Yashiro et al., 1997, p. 5). In the case of males aged 65 and older, this ratio has gone from 36 to 37 percent.[21] This rise occurred in spite of an increase in pension benefits. Reasons for the turnaround included the shortening of working hours and the tightening of labor markets**.**

Figure 22

Male Labor Force Participation, Aged 60-65+, Japan, 19660-1988



Source: Furuya, Kenichi, and Clark, Robert L. (1993), "Labor Force Developments and Emerging Human Resource Policies in Japan" in *Human Resources in Development along the Asia Pacific Rim*, edited by Naohiro Ogawa, Gavin Jones and Jeffrey G. Williamson. 1993, Oxford University Press, South-East Asian Publishing Unit Table 7.6. Data for 1995 is from Yashiro, Naohiro (1997), "Aging of the Population in Japan and its Implications to the Other Asian Countries", *Journal of Asian Economics*, Vol. 8, no. 2, Summer, Greenwich, Connecticut.

Yashiro et al. (1997) suggest that in the future, the labor force participation of older workers may rise as a result of the increase in the age of eligibility for the basic pension to 65 as well as the general reduction in pension benefits.

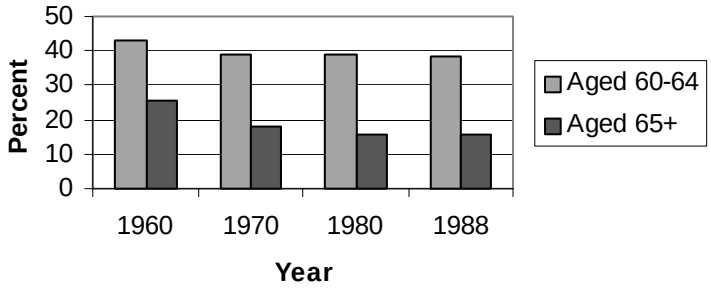
Among older female workers there has been a decline in the LFPR of both the 60-64 and, more significantly, 65+ age groups (see Figure 23). Between 1960 and 1988, the decline was from 43 to 39 percent for women aged 60-64. For women aged

[21] These trends are even more marked if only employees are considered. The proportion of males aged 60-64 who were employees rose from 38 to 46.5 percent in the seven-year period 1987-1993. There was a one-third increase in the proportion of males aged 65 and over who were employees.

65+, the decline was more pronounced, from more than 25 percent in 1960 to about 16 percent in 1988.

Figure 23

Female Labor Force Participation Rates, Aged 60-65+, Japan, 1960-1988

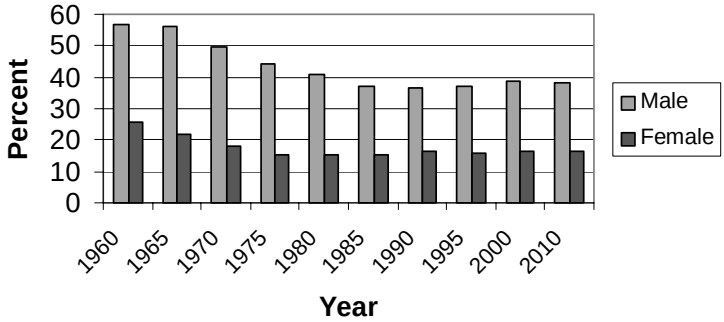


Source: Furuya, Kenichi, and Clark, Robert L. (1993), "Labor Force Developments and Emerging Human Resource Policies in Japan" in *Human Resources in Development along the Asia Pacific Rim,* edited by Naohiro Ogawa, Gavin Jones and Jeffrey G. Williamson. 1993, Oxford University Press, South-East Asian Publishing Unit Table 7.6.

The labor force participation rates of elderly females are much lower than that of males. But they also have experienced a decline since 1950. Like the labor force participation rates of males, female participation rates are expected to recover slightly by 20.

Figure 24

Elderly Labor Force Participation Rates, by Sex, Japan, 1960-2010



Source: Endo, Yukihito and Eji Katayama (1998), "Population Aging and Japanese Economic Performance" in *Aging Societies: the Global Dimension,* Barry Bosworth and Gary Burtless editors, the Brookings Institute Press, Washington, D.C., Chapter 5, Table 5-5.

(b) Pension Income

The majority of the income of the elderly id derived from pension income. The bulk of this income is derived from the public pension program.

(i) Retirement

Most companies have set the mandatory retirement age at 60. When employees reach that age, they usually change employers or they are re-employed by the former employer, at a lower wage. Hence, most employees do not actually retire when the reach "retirement age". It is expected that the availability of satisfactory pensions should eventually lead to a decline in the labor force participation of elderly workers.

(ii) Effects of Pensions

[a] Yamada

Yamada (1990) used data from the 1980 Population Census to determine the elasticity of the probability of withdrawal from the labor force with respect to social security benefits. He found that

The impact of the availability of pension benefits on withdrawal declines with age.

Retirement decisions of full time workers are more sensitive to the availability of pension benefits.

The receipt of social security benefits will cause the elderly to remain unemployed longer.

Some of the unemployment of the elderly was due to the "discouragement effect" in the labor market.

In summary he found that the main determinants of the retirement decisions of elderly male workers was the level of social security benefits and the unemployment rate.[22]

[b] Takayama

Takayama (1990) used data from the 1979 and 1984 National Survey of Family Income and Expenditure to examine the inter-relationship between public pensions, personal saving and retirement. His results with regard to savings were unambiguous. In 1984, the Japanese public pension system reduced the overall savings rate of workers households by 12 percent. But he found that the effect on the retirement decision was

[22] He also found that males living with a spouse were more likely to keep working; while those living with their children were less likely to keep working.

more complex. The effect of the pension depends on the level of the benefit. The pension exerts little effect on those with very small and very large pensions[23].

The pensions were originally structured to have a powerful discouraging effect on labor force participation of elderly workers (especially part-time work). The 1994 pension reforms significantly reduced those disincentives.[24] This may have stemmed the decline in labor force participation of elderly men, which had fallen from about 57 percent in 1960 to about 37 percent in 1990.

(iii) ***Proportion of the Elderly Receiving Pensions***

Between 1981 and 1996 the pension system of Japan matured. The share of the population aged 60 and over receiving public pensions has increased from 65 to 84 percent.

(iv) ***Eligibility***

The minimum age for drawing a pension was age 60; but this is gradually being raised to age 65. To be eligible for the full pension under the NP one must be at least 65 years old.

(v) ***Indexing***

Once benefit levels are fixed, subsequent payments are indexed to the Consumer price Index (CPI) annually. They are indexed to wages every five years

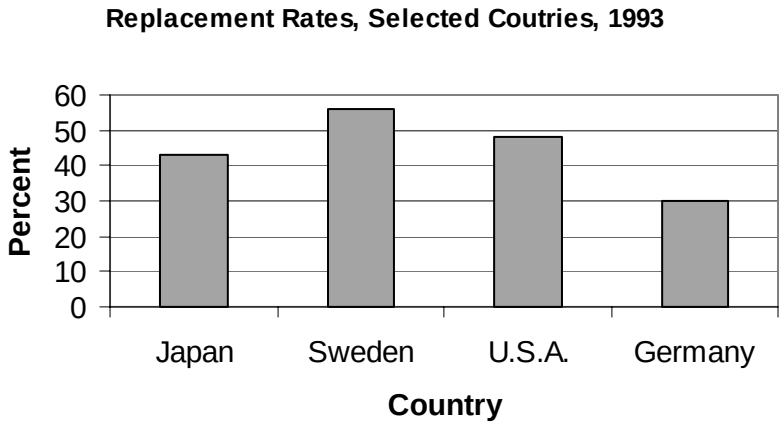
(vi) ***Replacement Rates***

Since 1973, the goal was to provide a benefit equal to 60% of the monthly average wage (not including bonuses). Because of the immaturity of the system the replacement rate has only reached about 45 percent thus far. In 1994 per capita pension benefits paid out under the EPS were about 45 percent of total earnings, including bonuses. This rate is comparable with that of other OECD countries (Figure 25).

[23] Because of a retirement income test, the elasticity of employment with respect to social security benefits is –0.86 for those with benefits between .6 and 1.2 million yen.

[24] Based on the pension reforms, the Ministry of Labor projections of the labor force in 2010 assume a significant increase in participation by elderly workers.

Figure 25



Source: Ogawa, Naohiro and Robert D. Retherford (1997), "Shifting Costs of Caring for the Elderly Back to Families in Japan: Will It Work?" in *Population Development Review*, Vol.23, No. 1, page 72.

(vii) Role of Taxes

In order to make valid comparisons of household incomes in Japan; it is necessary to compare after-tax incomes because the elderly are allowed special tax deduction. Furthermore the government provides the elderly with important services such as medical treatment, and transportation free or for greatly reduced charges. If taxes and non-cash income were taken into account, elderly incomes would be increased by 10 or 20 percent; while that of people aged 30-44 would be reduced by about 20 percent.

3. Distribution of Income

The incomes of the elderly in Japan, like the incomes of the elderly in the United States are more unequally distributed than incomes of the population as a whole (Yashiro, 1996).

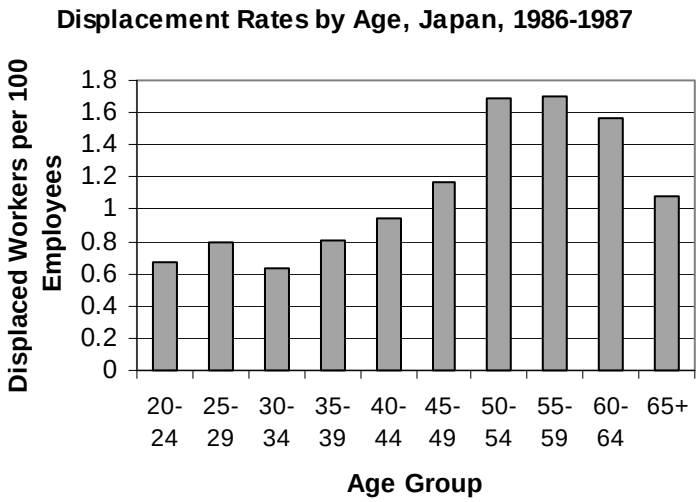
Ohtake and Saito (1998) confirm that the distribution of income in Japan is more unequal among older than among young households.[25] Thus as the population of Japan continues to age, inequality within cohorts is likely to increase as there are more older households with a large dispersion of income and consumption. They also found that income equality increases much faster with age than does inequality in consumption.

Their study found that "within cohort inequality increases rapidly after the age of 40", and that about "half of the increase in the economy-wide consumption inequality during the 1980s was caused by population aging". They hypothesize that consumption inequality increases rapidly after Japanese reach age 40 for three reasons. First, Japanese firms will lay off workers over the age of 40 in the event of temporary

[25] Deaton and Paxon (1994) find that both income and consumption inequality increases as households age in the U.S. and the U.K.

reductions in sales or production. Figure 26 presents displacement rates per 100 employees by age for the period 1986-1987.

Figure 26



Source: Ohtake, Fumio and Makato Saito (1998), "Population Aging and Consumption Inequality in Japan" in *Review of Income and Wealth*, Series 44, Number 3, September 1998. pp. 361-381. Table 3.

The second possible source of inequality is that after Japanese workers are in their mid 30s, the speed of promotion is likely to differ substantially from one worker to another. A third possibility is that in Japan, the amount of gifts from parents to children is finalized about the age of 40.

Ohtake and Saito (1998) observe that consumption inequality in Japan increased by 20 percent between 1979 and 1989. Using a decomposition procedure, they found that slightly more than half of the increase was due to the aging of the population (p. 378).

Ohtake (1999) also found that in Japan, the returns from investment in human capital tend to become greater in the later stages of life. He notes that the relative inequality of older cohorts is greater because of the low degree of inequality within young cohorts.

Concluding Comments by Landis MacKellar

This piece concludes David Horlacher's trilogy on the causes and consequences of population aging in Japan. Taken together, the three papers, the first on demographic trends, the second on economic consequences, and this third piece on status of the elderly, provide a unique analytical review of the English-language literature on this subject.

Society devotes considerable attention to avoiding large disparities in living standards between generations and, just as importantly, wrenching changes in the prevailing distribution of consumption between old and young. No institution is more important in serving these functions than the three-generation household, which ensured that those who were elderly during the "Asian economic miracle" (including Japan) were able to share in its fruits. The prevailing opinion is that co-residence is on the decline because of changing mores and the desire for independence on the part of both parents and children. Horlacher cites a contrary point of view, however, which stresses the rising proportion of sons who are first-born (and hence most likely to host aging parents) and the desire of wives to work (increasing the role of grandparents in child-care).

The elderly in Japan are quite well off the income of elderly households is about half that of all households (although it is not quite clear from the presentation precisely how this is measured) and wealth is highly concentrated among the elderly because of the price of land. As in all developed countries, there has been a marked decline in poverty among the elderly due to the expansion of public pension programs. One puzzle (as in other countries) is why the concentration of housing wealth among the elderly has not encouraged the emergence of financial mechanisms to translate this wealth into income. The answer may lie in the persistence of the three-generation household and the crucial role of housing inheritance in preserving this institution. The Japanese tax code, which punitively taxes the transmission of non-housing wealth, may be another reason.

Even if the three-generation household proves more robust than expected, the need for institutional care of the elderly, as well as the need for community-based services, is sure to rise dramatically. Horlacher cites evidence that the number of frail, demented, or bedridden elderly in Japan will triple, at a time when population as a whole is declining. Care has traditionally been given at home, but caregivers themselves are aging and the opportunity costs for middle aged-women who remain home to care for aged parents are high. So, too, are the implicit costs for the social insurance system. In the past, there has been a tendency to warehouse the disabled elderly in hospitals Horlacher cites evidence that the average acute-care stay in hospital for those over 65 is eight times longer than in the U.S -- and the concept of the nursing home has been regarded with horror. Through the "Gold Plan," however, policy makers are coming to grips with the need for substantial increase in the number of nursing home beds, short-stay facilities, and support for home care.

The picture which emerges here is of a society which is coping fairly well with the pressures of population aging. The pattern of adaptation is far, however, from the economic ideal of forward-looking optimization. The labor market is proving slow to adapt, financial institutions remain practically as rigid as they ever were, pension

reforms are tentative, there have been no dramatic attempts to improve the position of women, etc. Yet this is hardly surprising. The strategies adapted by societies to deal with the aged are closely tied to culture and ideology. The sorts of dramatic shifts which economists and policy makers often call for are possible only in the context of sweeping cultural or attitudinal change. Some attitudinal changes of the required magnitude are underway. For example, no one (perhaps apart from advocates for the elderly) accepts the view of the average elderly person as poor and vulnerable any more. But other attitudes are stubborn. There has been little change in the view that the elderly are entitled to leisure (if there had been, the baby boom generation would not confidently expect to retire early, as survey evidence indicates that it does). Hortatory pronouncements on extending working life must be placed in perspective alongside the clear preference of unions and employers to keep the elderly out of the workplace.

It is impossible to read a comprehensive work like Horlacher's trilogy without indulging in some idle philosophy at the end. Attitudes towards aging, and by extension the policies which derive from then, reflect a deep-seated compromise between the necessity to confront reality and the desire to avoid it because it is too terrible to contemplate. The social fact is that the aged are, sooner or later, a burden. The myth of a golden age in which they were appreciated for their wisdom, were cared for in the bosom of their family, and died gently and quickly is, in fact, a myth in the pejorative sense of the word. The individual fact is that we decline into a state of incapacity to participate in life combined with physical pain, at which point we die, usually not wishing to live any more, alone in spirit if not in body. This state may last ten minutes or ten years, but it is out there waiting. As individuals and as policy makers, we are just trying to make the best out of a bad situation, playing out a losing hand. As the old proverb has it, the game may be rigged, but it's the only game in town.

Can the game be changed? This raises issues of technology, anti-aging discoveries, and the like. Are these a panacea? Certainly not. Can they shift the constraints substantially outward, at a reasonable cost? I would like to think so. I have also been much taken in recent years, mostly through the writings of Colin Wilson and others, with the proposition that human beings really use only a small portion of their brains, that we go through life not firing on all cylinders, so to speak. Wilson asks us each to think of moments when we functioned at the peak of our concentration and focus, to re-construct the intense calm and self-assurance which we felt, and to ask whether such states cannot be produced on a systematic basis; as importantly, to ask whether many of our bad behaviors do not represent attempts to recreate such states via improper means. William Burroughs, similar in some ways to Wilson, asserts that coincidence is non-existent, that telepathy can be developed, that language can be fundamentally re-tooled by decomposition and re-assembly, and other equally subversive propositions. The New Age movement has done much to attract attention to these and similar propositions, but mixes them with saccharine spirituality; postmodernists are also receptive to alternative view of reality, but get distracted by their obsessive concern with exploitation. However, it seems perfectly consistent to me that with rising income levels, and provided that economic and social institutions can maintain their momentum towards increased flexibility and tolerance, we as individuals and societies will want to devote more attention to firing up the unused cylinders.

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