

# Subjective Life Expectancy and the Accumulation of Assets among Elderly Japanese People

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## I . Introduction

The aim of this study is to examine the relationship between the life expectancy and the accumulation of assets among elderly Japanese.

In our country, an economic growth was given as what had an impact on individual lives and personal savings have been increased after the war, because there is a tendency toward savings among Japanese people. It is said that older people have a habit of saving especially, it is known that they have the most among age stratifications through the survey the government conducted.

As a preparative for their golden years, people save before they leave their job on reaching retiring age. Subjective survival time is one of factors that determine a target of amount of savings. Therefore, I will prove an effect of subjective life expectancy on the amount of accumulated assets.

People inevitably experience retirement from their occupational life. During their occupational life, they must maintain their daily life by income from their jobs and deposit in part. This saving is so called preparation for their golden years.

Before I start to analyze, it will be useful to discuss which kinds of factors depend on a goal of saving.

To begin with the period that a person expects to survive has an influence on the provision for their old age. Everyone must have his or her last day. Therefore it is certain that everyone would estimate their longevity. The period of their expected survival decides their plans and lifestyle concerning how much money they would spend in their golden years.

Then, how they are ready for their old age is important. Some people may save money; others may purchase real estate or stocks. Some may prepare by themselves, the other may

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give their children their property as inheritance and ask to be cared for by the person who receives the property.

Finally, the provisions depend on the level of living that they expect to live. If people desire a high living standard, then they should save a lot. And if others don't hope for a high living level, they don't have to accumulate their assets even though they earn high income.

In this discussion, some of them were clarified by advance researches, especially in the realm of economics concerning savings.

First, it is well known that Japanese hold a high level of personal saving rate. And we can take in that Japanese generally save financial assets for their old age, as in data from Takayama et al. (1996), providing for their old age (31.3%), making ready for illness and unforeseen expenses (20.8%), educational expenses for their children (12.1%), and saving for house construction (2.8%). Especially, saving money for their golden years exponentially increases in their 40's.

Second, as patterns of savings, there exist two model, 'life-cycle model' and 'dynasty model'. Life-cycle model means that savers themselves consume and use up all their savings by themselves, and dynasty model means that savers leave their children part of their fortune. Generally, Japanese make the choice of life-cycle model in savings. (Takayama et al., 1996)

At the same time, subjective life expectancy is defined by respondent's longevity minus his age when survey was carried.

There is a lot of advance researches concerning subjective life expectancy. At first, this started as analogy of price expectation (Hamermesh, 1985). After that, research into how subjective life expectancy is formed and how subjective life expectancy that people estimate is accurate followed (Hamermesh, 1985; Pollock and Suyderhoud, 1992; Mirowsky, 1999). There are studies that have showed subjective life expectancy correlates with social stratification (Mirowsky and Ross, 2000) and other concepts of attitude like anxiety (Handal, 1969).

At last, it is mentioned that subjective life expectancy that every person feels may have an effect on economic behaviors like saving (Hamermesh, 1985; Pollock and Suyderhoud, 1992).

## II. Method

### (1) Sample

Analyses are based on data obtained from a Sapporo survey conducted in August 1999, a cross-sectional study of a random sample of 484 men who were 60 and older when the survey was carried out. Data collection consisted of interviews. Distributions of basic variables are presented in Nakata (2001).

Table 1. Mean, Standard Deviations, Coding Method of This Study (N=316)

Variables	Mean	Std Dev	Method of Coding
Assets	26546677	24616220	yen currency
Life Expectancy	11.57	6.84	number of years
Education	12.16	3.59	number of years
Job Prestige	53.77	13.18	SSM Prestige Score
Health Status	3.25	0.80	5-item scale
Age	69.70	6.16	number of years

## (2) Variables

### ① Endogenous variables

Saving. I measure estimated value of private property that respondents have accumulated by the time when the survey carried out. Respondents were asked "if you assess all the property; real estate like house or land, deposits and saving, stock and bond, and other financial products, how much do you have?" This variable is the definitive dependent variable in a model I analyzed.

Subjective life expectancy. As Mirowsky and Ross (2000), this variable consists from the estimated subjective longevity minus age when the survey was conducted.

### ② Exogenous variables

Social status. Two indicators, education and job prestige compose social status. The respondent's education is measured in number of years for formal education completed. Job prestige was referred to job prestige that made by 'Society for the Study of Japanese Social Stratification and Mobility 1995'. Respondents who have a job when the survey was carried out are coded the score for a job at that time, and Respondents who are retired are coded with the score for a job that they chose as the main job in their occupational life.

Health status. I used an index of self-reported health as a health status. The response anchors are five items.

Age. Age is coded as respondents' age when the survey was carried.

## III. Results

Values of accumulation of property and mean subjective life expectancy respectively ap-

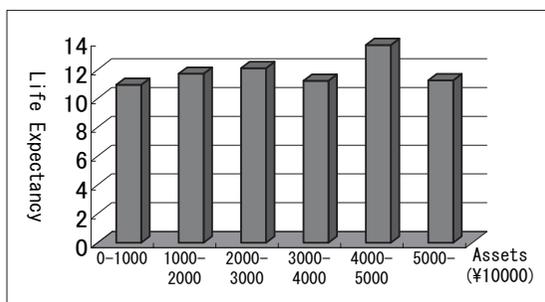
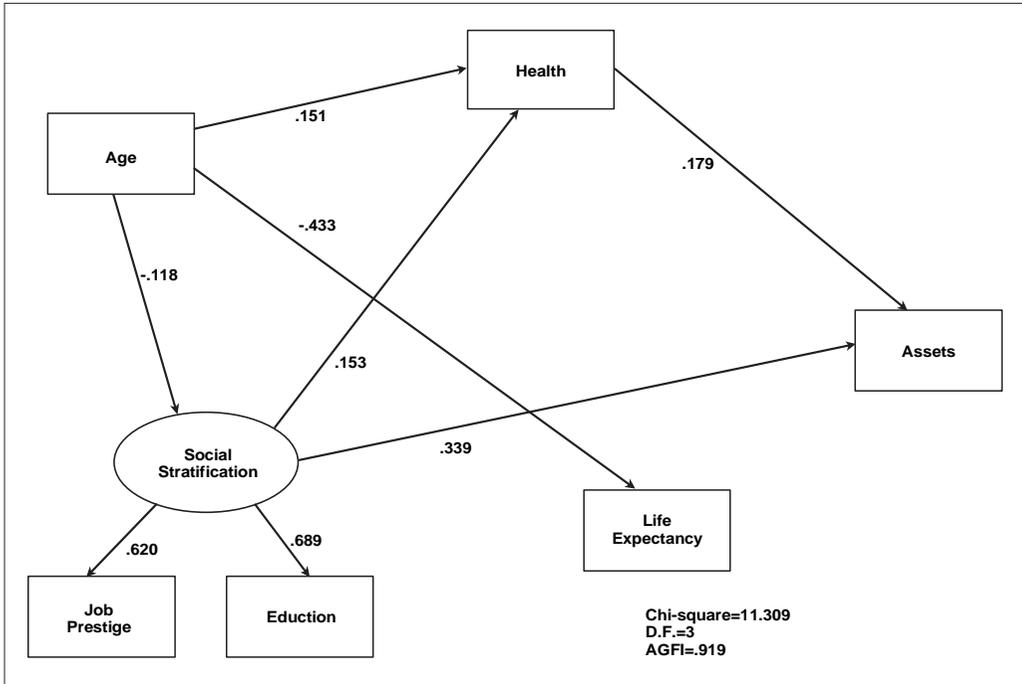


Figure 1. Accumulation of Assets and Subjective Life Expectancy



pear in Figure 1. This shows that there is a slight relationship between these variables.

Then, to test an influence on accumulation of property, I analyze a fully recursive path analysis by use of Amos 3.61. The results are presented in Figure 2. This figure seeks to capture the facts as follow;

1) Subjective life expectancy has no effect on amount of assets. Therefore we can see from this result that the relationship illustrated in Figure 1 is spurious correlation. The hypothesis of this study, that is 'the longer respondent's subjective life expectancy, more property he saves', is rejected.

2) Social stratification and health status have a positive effect on assets. This trend, that is people who hold high social status save a lot of money, is often mentioned as below.

3) Subjective life expectancy depends on respondent's age. Higher social status doesn't cause a rise of subjective longevity. This result doesn't correspond with Mirowsky and Ross (2000).

I shall discuss these results in detail. There may be some possibilities that illustrate a strong effect of social stratification on accumulating property.

First of all, I have not brought lifestyle by social stratification into this study. As quoted above, on the occasion when I analyze plans for old age, it needs to take a level of living into account. It is possible that living standards differ by social stratification among Japanese people. For example, Takayama et al. (1996) proved that target figure of saving and saving flow increase to the accompaniment of a rise of respondent's income. This is a part of evidence of this possibility.

Secondly, accuracy of subjective longevity might have an effect on the relationship between social stratification and accumulation of assets. Hamermesh (1985) and Pollock and Suyderhoud (1992) discussed accuracy of subjective life expectancy in the study of that subject to Western people. They argued that respondents estimate their longevity with accuracy. However respondents that I collected in Japan tend to overestimate their longevity. Their mean score is 81.0 years old in proportion as average expectation of life at birth among Japanese male, 77.3 years old. (In a narrow sense, methods to calculate longevity between advance studies and this study are different.) This overestimated longevity has a potential for making Japanese people save a lot of money.

#### IV. Discussion

The results suggest that among Japanese people, an effect of social stratification on accumulation of property is stronger; therefore there is no significant influence of subjective life expectancy.

This study cannot cover except 'consequence' of accumulation of assets, because the subjects of survey are old people. However it is debatable concerning a process of accumulation of property, because a starting point and period of saving affect the amount of assets.

The hypothesis in this study was rejected. However I cannot say for certain whether it is due to Japanese culture or not. To solve this problem, there is room for further investigation. Especially, I could not include people's generational background into this study. we need to observe next older generation, because current generation were working during booming economy relatively. So they could have saved much money and will receive high level of pension. Conversely, next generation people were work in the depressed economy and get reduced pension because of budget reform. I'm interested in their behaviors concerning retirement.

The pervious version of this study was presented at the 17<sup>th</sup> World Congress of the International Association of Gerontology, Vancouver, Canada, July 1-6, 2001.

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[Abstract]

## Subjective Life Expectancy and the Accumulation of Assets among Elderly Japanese People

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The aim of this study is to examine the relationship between the life expectancy and the accumulation of assets among elderly Japanese. People tend to save before they leave their job on reaching retiring age as preparation for their post-retirement years. Subjective survival time is one of the factors that determine the target amount of savings. Therefore, I will prove the effect of subjective life expectancy on the amount of accumulated assets.

Analyses are based on data obtained from a Sapporo survey conducted in August 1999, a cross-sectional study of a random sample of 484 men who were 60 and older. I used 'savings', which was measured by estimated value of private property that respondents accumulated, and 'subjective life expectancy', which consists of the estimated subjective longevity minus respondents' age as endogenous variables. I used 'social status', 'health status' and 'respondents' age' as exogenous variables. I found these results through path analysis as follows; 1) Subjective life expectancy has no effect on amount of assets; 2) Social stratification and health status have a positive effect on assets; and 3) Subjective life expectancy depends on respondent's age. Higher social status doesn't cause a rise in subjective longevity.

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Key Words: elderly Japanese people, assets, Subjective Life Expectancy