

率を削減した場合には、相対的に負債が多い高齢者にも大きな影響を与えていることが分かる。先ほどの議論から明らかなおと、現行給付水準の下で相対的に負債が大きい高齢者とは在宅の要介護高齢者であり、要介護状態に陥ることによる経済的負担が最も大きいのは在宅の要介護高齢者である。介護給付率の削減は、介護費用が大きいほど自己負担の増加額が大きくなるため、同規模の基礎年金削減に比べて高い負債を抱える高齢者を多く生み出すことになる。このことは、現物給付である介護保険の貧困抑制機能が機能していることの裏返しと考えられる。

表3は同様の政策変更を行った際の年齢階級別の資産の変動係数をまとめたものである。基礎年金の削減は資産分布の形状には影響を与えないため、変動係数に与える影響は小さなものにとどまる。その意味で、基礎年金額の変更がリスク・プーリング機能に与える影響は小さいと考えられる。図8、図9で見たとおり、食費の全額自己負担化は結果として分布の散らばりを縮小し、このことは変動係数の変化からも見て取れる。一方で、介護給付率の削減は絶対値で見た変動係数を拡大させることになり、リスク・プーリング機能が大幅に損なわれることになる。

表3 資産分布の年齢階級別・変動係数(女性)

| | 74歳以上77歳未満 | 77歳以上80歳未満 | 80歳以上83歳未満 | 83歳以上86歳未満 | 86歳以上89歳未満 | 89歳以上92歳未満 | 92歳以上95歳未満 |
|-------------------|------------|------------|------------|------------|------------|------------|------------|
| 現行給付水準 | -0.039 | -0.069 | -0.098 | -0.124 | -0.148 | -0.162 | -0.182 |
| 食費給付率0% | -0.023 | -0.040 | -0.053 | -0.061 | -0.065 | -0.065 | -0.064 |
| 基礎年金削減(食費給付率0%相当) | -0.037 | -0.065 | -0.091 | -0.115 | -0.137 | -0.150 | -0.168 |
| 介護給付率7割 | -0.069 | -0.115 | -0.148 | -0.166 | -0.171 | -0.168 | -0.163 |
| 基礎年金削減(介護給付率7割相当) | -0.032 | -0.056 | -0.080 | -0.101 | -0.120 | -0.131 | -0.147 |

出所)筆者計算

5. 結論

本稿では、高齢期の介護リスクが存在する想定の下、基礎年金と介護保険が持つリスク・プーリング機能と貧困抑制機能の定量的把握を試みた。以上の分析を行うにあたって、一定期間の状態推移の確率を表す遷移確率を用いた介護費用推計モデルを構築した。また、介護費用に大きな影響を与えられられる介護場所についても考慮した推計モデルを構築した。同推計モデルを用いた被保険者数の推計から、女性が直面する介護リスクは男性に比べて非常に大きいことが明らかとなった。

以上の推計モデルを用いて、リスク・プーリング機能と貧困抑制機能の2つの機能について検討した結果、以下の2点が明らかとなった。第1に、同水準の財政効果を持つ基礎年金削減との比較から、2005年10月に導入された食費の原則全額自己負担化が貧困抑制機能に与える影響は小さいと考えられる。第2に、介護給付率の削減は、基礎年金の削減に比べて、貧困抑制機能、リスク・プーリング機能をより低下させることになる。

最後に、本研究の課題について述べる。本稿では単身高齢者を対象として高齢期の介護リスクについて検討した。しかしながら介護保険導入以降においても高齢者介護の多くはインフォーマルな部分に大きく依存している。また、高齢夫婦世帯であるか高齢単身世帯であるかによっても、要介護状態に陥ることによって発生する経済的損失は異なるものと考えられる。高齢期の介護リスクをより正しく評価するためには、世帯構造も考慮した分

析を行う必要がある。また、本稿では高齢期のリスクとして、介護リスクを取り上げたが、高齢期の疾病リスクも無視することができない大きなリスクである。社会保障の貧困抑制機能やリスク・プーリング機能を評価するためには、疾病リスクを同時に考慮したモデルでの分析が求められる。これらの点に関しては今後の課題としたい。

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The Impact of the Increase in Non-regular Employment on Income Disparities

Seiichi Inagaki¹

Abstract

Changes in the employment and lifestyle patterns of young people, in particular, the increase in non-regular employment, has the potential to widen income disparities in Japanese society in the future. These latent disparities are hidden because the young people, who are not engaged in regular employment, continue to live with their parents. This paper attempts to reveal the hidden disparities by two methods. One is to observe the Gini coefficient based on virtual households by splitting the current households into adult/couple units. The other method is to measure future income disparities by using a microsimulation model. The results of both the studies reveal that the latent disparities exist in reality.

1. Introduction

Japanese society is currently at a major turning point, and this has brought dramatic changes to the life paths of the people. During the postwar period of rapid economic growth, a couple with two children constituted the standard household. Under the seniority-based promotion system, people identified themselves as belonging to the middle class and discussed the existence of a “100-million-strong middle class.” As a result, the birthrate was steady, various systems designed on the basis of the

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standard household functioned extremely well, income disparities were small, and society was stable. However, after the oil shocks, the bubble economy, and its subsequent collapse, people's attitudes changed significantly, and lifestyles diversified. Non-regular employment increased, people married and left their parents' homes at a later age, the number of "parasite singles"² increased, the fertility rate declined, and income disparities widened. As a result, the notion of the standard household became a thing of the past.

However, a major debate has emerged in recent years in various circles on whether income disparities are actually widening at all, or if they are, to what extent, and why. This debate began with a claim by Tachibanaki (1998) that "income disparities in Japan have widened, to the extent that they are now on a par with those in Europe and the United States." Opinions are divided on whether the rising inequality exhibited by household-based disparity indicators reflects the reality or whether it is merely a structural issue, and therefore, not a serious one.

In the latter camp is the Japanese government; in its monthly economic report for January 2006, it claimed that "while statistics show that income disparities are widening gradually, this is mainly due to the aging of society and the fact that households are becoming smaller," an explanation that caused more than a few ripples. The report's main contentions on the subject of income disparities are as follows:

(1) Disparities in incomes, consumption, wages, and so on have been put forward as evidence for the increasing inequality, but this cannot be confirmed from the statistical data.

(2) The tendency for people to identify themselves as middle class remains strong, and it has not been confirmed whether individuals consider the disparities to have

² A Japanese English term for single adults who live with their parents

widened, based on their own experience.

(3) However, attention needs to be paid to the fact that changes in the employment and lifestyle patterns of young people, i.e., the rise in the numbers of NEETs³ and freeters⁴, have the potential to cause disparities to widen in the future.

Nevertheless, many people do feel that the disparities are already widening, and the issue is currently a common topic of discussion among the Japanese people.

As the monthly economic report points out, consideration needs to be given to the possibility that the increase in the number of young people who are not engaged in regular employment may cause the income disparities to widen even further in the future. Many of these young people continue to live with their parents as parasite singles, resulting in a situation in which the normal tendency for adult children to get married and become independent from their parents come to an end. This, in fact, hides the income disparities, which may result in their not being reflected in statistical data such as the Gini coefficient.

The results of various surveys have clearly indicated that young people who are not engaged in regular employment tend to remain dependent on their parents by continuing to live with them. Table 1 shows the percentage of never-married people who live with their parents in various categories relating to sex, employment status⁵ (regular employees, non-regular employees, self-employed people, and unemployed people), and age group. Because students comprise many of those who are 25 years old or younger, let us consider those who are 26 years or older. The data reveal that the percentage of never-married people who live with their parents is the highest for

³ People who are not in education, employment, or training

⁴ Part-time workers who frequently switch jobs

⁵ Employees who are Class II Insured Persons under the national pension scheme are classified here as regular employees, while other employees and family members working for family-owned businesses are classified as non-regular employees.

unemployed people, followed by non-regular employees and regular employees, in that order. The less stable a never-married person's income, the more likely is he or she to live with his or her parents. It is likely that many of these people find themselves in a situation in which they have to rely on their parents' income as parasite singles because they do not have the economic means to live independently.

Therefore, it seems certain that the tendency for young people who are not engaged in regular employment to continue to live with their parents results in income disparities becoming hidden. In this paper, therefore, I employ two methods in an attempt to shed light on these hidden income disparities⁶.

Table 1 Percentage of Never-Married People Who Live with Their Parents

| Age | Men | | | Women | | |
|-------|-------------------------------------|-----------------------|-------------------|-------------------------------------|-----------------------|-------------------|
| | Regular employees and self-employed | Non-regular employees | Unemployed people | Regular employees and self-employed | Non-regular employees | Unemployed people |
| 18-21 | 81.1 | 80.1 | 74.9 | 79.3 | 83.4 | 84.2 |
| 22-25 | 75.1 | 83.0 | 77.3 | 82.4 | 85.5 | 88.8 |
| 26-29 | 72.0 | 79.5 | 86.6 | 81.9 | 84.0 | 90.7 |
| 30-33 | 68.7 | 76.5 | 89.9 | 80.1 | 82.1 | 92.0 |
| 34-37 | 65.2 | 70.7 | 82.6 | 72.5 | 75.2 | 88.9 |

Source: Table produced by the author using data from the Comprehensive Survey of the Living Conditions of People on Health and Welfare, 2001 (Ministry of Health, Labor and Welfare).

First, I will examine the impact on the Gini coefficients if household division had actually occurred in all households with adult children, regardless of whether or not these adult children were engaged in regular employment. To do this, I will split the current households into adult/couple units⁷, and calculate the Gini coefficients based on the assumption that these "virtual households" actually exist. Second, if

⁶ The data used in this paper are based on the results of Terasaki (2000) and Inagaki (2005), (2007).

⁷ The idea of adult/couple units in chapter 2 were developed by Terasaki (2000). The author recalculated the Gini coefficients using his method.

income disparities are hidden, they can be expected to reveal themselves in the future. I will verify this by using a microsimulation model to measure future income disparities.

2. Income Disparities Viewed Through Adult/Couple Units

Using adult/couple units to assess income disparities involves assuming that all adults living with others are living separately, and then measuring income disparities based on these divided households⁸. The method assumes that the nuclearization of the family has progressed to its ultimate conclusion, such that everyone leaves their homes to live independently as soon as they reach adulthood.

Table 2 shows what happens to the number of households when this method is applied. With the actual number of households expressed as 100.0, it shows how the number of households changes after the divisions. For example, if the 100.0 actual households in 1989 are divided into adult/couple units, the number of households rises to 159.8. Households comprising a couple and never-married child/children and those comprising a parent and never-married child/children account for 46.8 of the total number of actual households. These households are divided into 28.9 households without the adult/adults being separated and 17.9 households with the adult/adults being separated. From these 17.9 households, 22.9 new “virtual” adult households emerge.

For 1998 and 2001, the divisions result in increases to 153.2 and 152.7 households, respectively. This implies that the increase in the number of households resulting from the divisions in both these years is smaller than that for 1989. This is likely to be due to a decline in the proportion of three-generation households or households

⁸ Some studies that were conducted did the opposite of dividing households. Tanaka, Sato, and Matsuda (2005) attempt to calculate Gini coefficients based on virtual households that merge elderly people and their children when they are living in the same premises even if they are economically independent.

comprising a couple and child/children, as both these types of households are subject to household division. In fact, between 1989 and 1998, there was a considerable change in the distribution of household structures, with single-person and couple-only households as a percentage of all households rising by 5.9 and 3.9 points, respectively; households comprising a couple or single parent with a child or children declining by 6.9 points; and three-generation households falling by 3.6 points. As a result, the proportion of households that divided because adults are living with their parents declined from 40.3% in 1989 to 38.9% in 1998 and 38.7% in 2001. As these figures indicate, no major change was observed between 1998 and 2001.

Table 2 Division of Households into Adult/Couple Units (Actual Number of Households = 100.0)

| | | 1989 | | 1998 | | 2001 | |
|--|---|--------|-----------------|--------|-----------------|--------|-----------------|
| Actual households | Households after the divisions | Actual | After divisions | Actual | After divisions | Actual | After divisions |
| Single-person households | No divisions | 13.2 | 13.2 | 19.1 | 19.1 | 18.6 | 18.6 |
| Couple-only households | No divisions | 17.2 | 17.2 | 21.1 | 21.1 | 22.4 | 22.4 |
| Couple and unmarried child or children, or single parent and unmarried child or children | No divisions | 46.8 | 28.9 | 39.9 | 20.5 | 39.6 | 20.0 |
| | Separated heads of households | | 17.9 | | 19.4 | | 19.5 |
| | Separated children | | 22.9 | | 25.0 | | 24.9 |
| Three-generation households | Separated heads of households | 17.1 | 17.1 | 13.5 | 13.5 | 12.7 | 12.7 |
| | Separated children, grandchildren, etc. | | 29.7 | | 20.9 | | 19.9 |
| Other households | No divisions | 5.7 | 0.5 | 6.4 | 0.4 | 6.9 | 0.3 |
| | Separated heads of households | | 5.3 | | 6.0 | | 6.5 |
| | Separated children, grandchildren, etc. | | 7.2 | | 7.3 | | 7.9 |
| Totals | | 100.0 | 159.8 | 100.0 | 153.2 | 100.0 | 152.7 |

We now consider the average income per household. According to surveys⁹ conducted in 1989, 1998, and 2001, the average income per household was 5,453 thousand yen in 1988, 6,577 thousand yen in 1997, and 6,169 thousand yen in 2000. Therefore, while there was an increase of 20.6% between 1988 and 1997, there was a decline of 6.2% between 1997 and 2000.

The average income per household after dividing the actual households into adult/couple units was lower than that for the actual households, at 3,411 thousand yen, 4,293 thousand yen, and 4,039 thousand yen, respectively, in the three years. There was, therefore, a 25.9% increase between 1988 and 1997, and a decrease of 5.9% between 1997 and 2000. Because the number of post-division households declined from 159.8 to 153.2 between 1989 and 1998, the income growth per post-division household was higher than that for the actual households.

Table 3 uses the Gini coefficients to compare income disparities between adult/couple units and the actual households. The Gini coefficients for the actual households rose steadily from 0.3834 in 1988 to 0.4086 in 2000. However, if we consider the Gini coefficients for adult/couple units, we observe that the disparities actually narrowed during the 1990s and began widening thereafter.

Table 3 Gini Coefficients

| | 1988 | 1997 | 2000 |
|--------------------|--------|--------|--------|
| Actual households | 0.3834 | 0.4041 | 0.4086 |
| Adult/couple units | 0.5457 | 0.5064 | 0.5123 |

Because the Gini coefficients for adult/couple units are not affected by changes in

⁹ Comprehensive Surveys of the Living Conditions of People on Health and Welfare (Ministry of Health, Labor and Welfare); they investigated the income of the previous year when the surveys were conducted.

family structure such as the increase in single-person households and the decline in three-generation households, we can conclude that if the effect of changes in family structure is eliminated, the disparities narrowed during the 1990s. This is likely to be due to the effect of higher pension benefits for the elderly and can thus be considered as the result of a shift from self-dependency to dependency on welfare.

After 1997, however, Gini coefficients increased for both the actual households and adult/couple units. This may indicate that as the mean income per household declined, the income disparities gradually began to widen. Nevertheless, it must be acknowledged that income-related surveys are fairly unreliable, and thus, it would be risky to draw conclusions from the results of just three surveys. It is therefore necessary to continue to observe the future trends.

3. Income Disparities in the Future

3.1. Assumptions of a Microsimulation Model

Hidden income disparities can be expected to reveal themselves in the future. In this section, I will measure the future income disparities using a microsimulation model INAHSIM¹⁰.

A microsimulation model is a model that forecasts future socioeconomic situations such as family/household structure, income distribution, employment status, or health status, at a micro level. It simulates a miniature society in a computer, based on transition probabilities that represent individual behaviors on life-course events, such as the decision to marry.

INAHSIM encompasses the life events of birth, death, marriage, divorce, young

¹⁰ Integrated Analytical Model for Household Simulation; see Inagaki (2005)

people leaving their parents' home, changes in employment status, changes in health status, earning income, and people living with their elderly parents¹¹. It also covers the changes in households that accompany the occurrence of marriages or divorces. The transition probabilities (Table 4) are estimated based on people's recent behavior, and it is assumed that, in principle, their behavior will not change¹² in the future.

Table 4 Life Events and Transition Probabilities

| Life Event | Group at Risk | Transition Probability | Determinants |
|--|---|--|-----------------------------------|
| Birth | married women | married fertility rate | age, parity |
| | new born babies | sex ratio | uniformly |
| Death | all persons | mortality rate | sex, age |
| Marriage | never-married persons | rate of first marriage | sex, age, employment status |
| | divorced or widowed persons | rate of remarriage | sex, age |
| Divorce | married couple | divorce rate | age of wife |
| Leaving Home | never-married persons living with their parents | probability of leaving home | sex, age, employment status |
| Returning Home | never-married persons not living with their parents | probability of returning their parents' home | sex, age, employment status |
| Health Status | all persons | transition probability of health status | sex, age |
| Employment Status | all persons | transition probability of employment status | sex, age (male) |
| | | | sex, age, marital status (female) |
| Change in Household at Marriage | newly married couple | probability of living with grooms' or brides' parents or forming new household | uniformly |
| Custody at Divorce | divorced couple | probability of wives gaining custody | uniformly |
| Change in Household at Divorce | divorced couple | probability of returning their parents' home | sex |
| People Living with Their Elderly Parents | aged persons not living with their children | probability of living together with their children | sex, age (single only) |
| Earnings | all persons | multiple regression model | sex, age, employment status |

In order to analyze the impact of the increase in non-regular employment among young people on income disparities and family/household structures, three scenarios were assumed regarding the change of employment patterns. The three scenarios were specifically defined as follows: (1) employment patterns will not change in the future (medium variant); (2) non-regular employees will increase in the future (low variant); (3) regular employees will increase and employment patterns will approach their pre-1990 state (high variant).

¹¹ It is still common for people in Japan start living with their children instead of entering a nursing home to be taken care of when they become very old.

¹² The declining trends of first marriage and mortality rates are included since it is evident that they comprise the major declining trends.

The employment patterns are given by the transition probabilities between each employment status. The proportions of regular employment at age 24 in the medium variant are 61.2 % for men, 22.7% for married women, and 63.6% for unmarried women; those in the low variant are 41.2%, 15.3%, and 42.8%, respectively, and those in the high variant are 81.2%, 30.1%, and 84.4%, respectively. The proportions of the other employment statuses will change proportionally. The transition probabilities over age 25 are assumed not to change in the future. Therefore, the difference in employment patterns among the three scenarios is assumed to apply only to young people or fresh graduates. However, the difference in the employment status among the youth will persist throughout their lifetimes.

This model takes into account that the employment status of young people affects their marriage patterns and the probabilities of leaving their parents' home. In particular, the following is supposed: (1) the probabilities of men's first marriage rates¹³ for regular employees are higher than those for non-regular employees; (2) the probabilities of never-married people leaving their parents' home for regular employees are also higher than those for non-regular employees. Therefore, the difference in the transition probabilities between each employment status affects the number of marriages, fertility rates, family/household structure, or income disparities.

Earning income is determined by multiple regression models using sex, age group, and employment status as the explanatory variables. The seniority-based promotion system continues to exist in Japan, and the earnings of employees in their early fifties are the highest. Differences in the earnings of regular and non-regular employees are small among the youth but are increasing among the middle-aged

¹³ The probabilities for regular employees and self-employed persons are double those for non-regular employees. The first marriage rates for unemployed men are assumed to be zero percent.

and older persons. Additionally, we should keep in mind that non-regular employment tends to be immobilized under the lifetime employment system.

3.2. Future Trends of Families Living with Elderly People

The increase in non-regular employment and the change of lifestyle will have an effect on families living with elderly people in the future. In Japan, it was formerly common for elderly people to live with their married children; this family type had been dominant for long time. However, the trend toward the nuclear family accelerated under the reinforcement of the social security system, and the number of elderly people living with their married children is now on the decline. As a result, by the late 1990s, couple-only households of elderly people represented the largest family type.

Figure 1 Trends in Number of Elderly People by Family Type (Medium Variant)

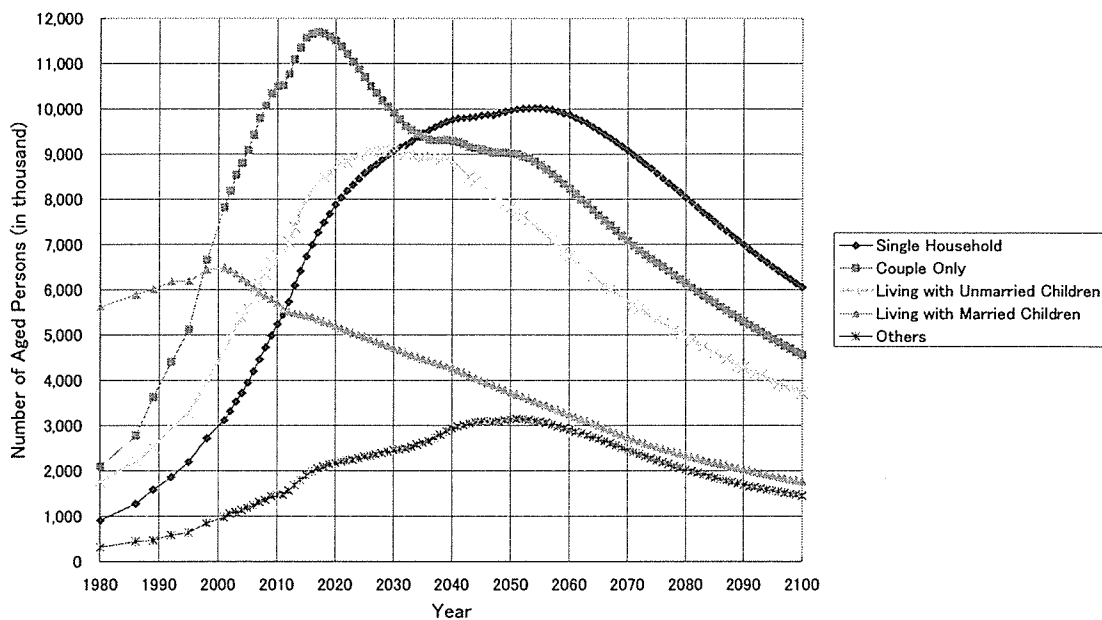


Figure 1 illustrates the trends in the number of elderly people by family type. The family types are categorized by families living with elderly people in a “single

household,” “couple-only household,” “living with married children and their spouse,” “living with unmarried children,” and “others.” It is expected that the number of elderly people in a “couple-only household” will continue to increase by the year 2020, and it will remain the largest until the 2030s. Subsequently, the “single household” type will become the largest and the number of elderly people living by themselves will reach 10 million around the year 2050. In 2050, the aged population will be 33.7 million out of a population of 91.6 million, which implies that elderly people living by themselves will account for 10.9% of the entire population and 29.6% of the total number of elderly people.

A notable feature regarding family types among elderly people is that the number of elderly people “living with unmarried children” will grow rapidly in the next few years. Elderly people that fall into this category accounted for 4.7 million in 2001, and are expected to rise to 9.0 million around the year 2025. This is because young people who are parasite singles tend to continue to live with their parents, and the parents will reach old age without the children leaving home. The income level of these households will fall sharply after the retirement of the parents since the earnings of these children are usually low.

A comparison between the low and high variants reveals that the greater the progress of non-regularization, the more will the number of elderly people living with unmarried children increase. In the year 2025, the number of elderly people living with unmarried children will be 9,184 thousand for the low variant and 8,820 thousand for the high variant.

The typical lifestyle of elderly people in Japan used to be “living with a married child and his/her spouse,” and the couple took care of their old parents. As described above, however, the family types of elderly people are expected to change dramatically. The typical lifestyle will no longer exist. Elderly people in the “couple-only household” type will increase, and these people will be able to live on

their pensions. However, the family type of “living with unmarried children” may not be financially secure, as many of the unmarried children will be non-regular employees and their earnings will be relatively low.

In the distant future, the situation may become much worse. The number of elderly people living by themselves will increase; in particular, those without any children will increase to a greater extent. At present, most of the elderly people living by themselves have deceased spouses. They are living by themselves, but they have children living separately. They receive survivors’ pensions and social services. They can also expect their children’s care, if necessary. However, the percentage of elderly people without any children will increase from 34.5% in 2001 to 53.8% in 2025, 67.9% in 2050, and 74.8% in 2100. Most of the parasite singles will not marry and neither will they have children. Their pensions will not be sufficient to support them in their old age, because their earnings in their prime years are likely to be low.

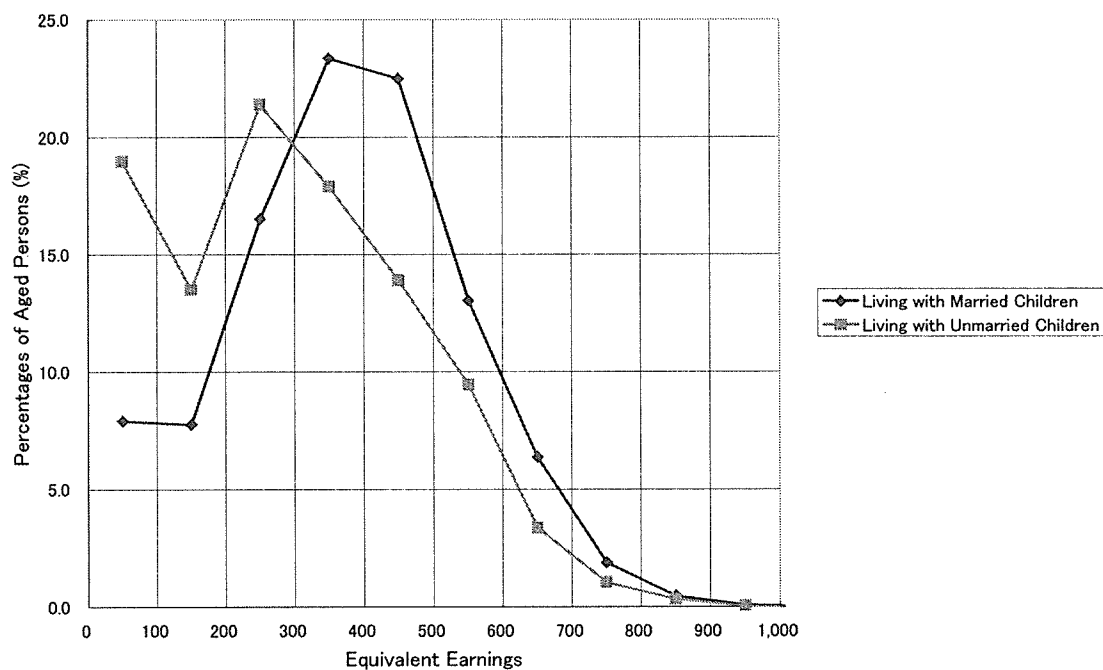
3.3. Distribution of Equivalent Earnings in Households of Elderly People Living with Children

Young people who are not engaged in regular employment are more likely to never marry and to continue to live with their parents. Their earnings will be lower than those of married persons. Therefore, there will be differences in the distribution of earnings between households of elderly people living with married children and those living with unmarried children. Figure 2 depicts the distribution of equivalent earnings¹⁴ in households of elderly people living with children in 2025, by marital status of the children.

¹⁴ Equivalent earnings are used to adjust the size of household; these are defined as the total household earnings divided by the square root of the size of each household.

The equivalent earnings of households of elderly people living with married children are higher than those of elderly people living with unmarried children. The former case has a peak around 4 million yen while the peak in the latter case is much lower. Moreover, there is a large low-income group, such that the equivalent earnings are less than 1 million yen in the latter case. The median of the equivalent earnings is 3,763 million yen for the former case but only 2,816 million yen for the latter case. This is because most of the unmarried children had been parasite singles, and their earnings are likely to remain low.

Figure 2 Distribution of Equivalent Earnings in Households of Elderly People Living with Children by Marital Status of the Children



The family type of elderly people living with unmarried children arises mainly as a result of the children not having the economic means to live independently. Figure 2 presents the distribution of equivalent earnings of children after the retirement of their parents and reflects the low earnings of such children. The increase in non-regular employment results in an increase of this family type of elderly people.

The hidden income disparities before the retirement of their parents are revealed along with the retirement.

3.4. Trends in the Gini Coefficient

The family type of elderly people living with unmarried children will increase in the future, and the earnings of the families will be low. Consequently, it is expected that the hidden income disparities will gradually be revealed. Figure 3 depicts the future trends in the Gini coefficient by three scenarios of employment patterns. Since this model includes only earnings, the Gini coefficients are calculated¹⁵ based on earnings excluding elderly households¹⁶.

It is noted that the lower Gini coefficients are estimated in this model because no variation in the earnings of each group¹⁷ is assumed. The absolute values of the Gini coefficients may not be realistic, but it is possible to compare the level of Gini coefficients among the three scenarios or the future trends. In addition, since the earnings comprise a large portion of income before-tax-and-benefit, the trends also show the widening of income inequality before-tax-and-benefit in the future.

In all three scenarios, the Gini coefficient will rise until 2011 and will subsequently fall until 2020. After 2020, the Gini coefficients of the high variant will be stable, but those of the other scenarios will rise by around 0.35 in the medium variant and by around 0.37 in the low variant. In 2050, the Gini coefficients will be 0.352 for the medium variant, 0.367 for the low variant, and 0.337 for the high variant. The

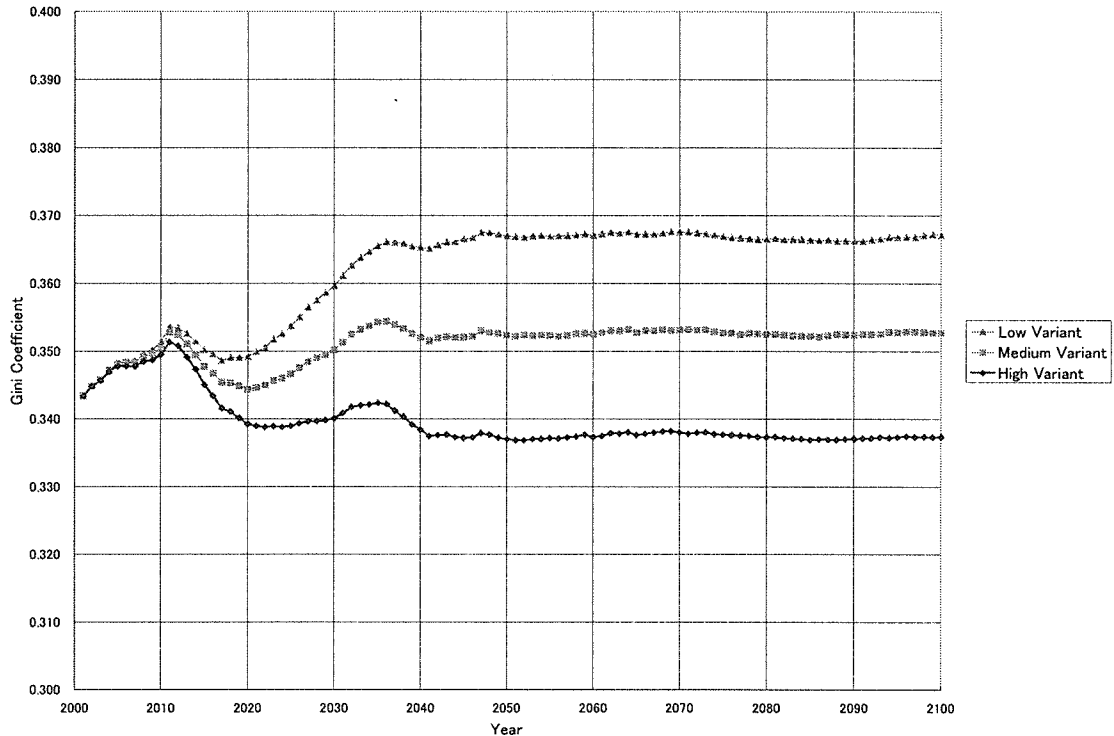
¹⁵ The Gini coefficients are calculated using the distribution of households by group of total household earnings (22 groups from zero to 20 million yen by 1 million yen).

¹⁶ The elderly household comprises only elderly people (65 years and older) and never-married children (younger than 18 years old). The income of the households comes mainly from public pension, and their earnings are low.

¹⁷ Earning incomes are determined by the multiple regression models using sex, age group, and employment status as the explanatory variables.

difference between the low and high variants will be 0.030.

Figure 3 Trends in the Gini Coefficient



The fall in the Gini coefficient in the 2010s can be explained in terms of the effect of the retirement of postwar baby boomers. There are now large differences in earnings between postwar baby boomers and the younger generation. Moreover, a considerable number of postwar baby boomers are living with their children or parasite singles, making their total household earnings very high. However, this high-earning group will shrink rapidly with the retirement of postwar baby boomers in the 2010s and will result in a fall of the Gini coefficient. However, because this phenomenon is due to the special event of retirement of postwar baby boomers, it can be regarded as a structural issue. The potential widening of disparities in the future will remain hidden. The income disparities will reveal gradually themselves in the 2020s after the retirement of postwar baby boomers.

Under the seniority-based promotion system in Japan, disparity in earnings between regular and non-regular employment will widen with age. This disparity, which is not wide among the youth, will become more manifest as these people reach their 40s or 50s. In fact, according to the average earnings by sex, age, and employment status, the differences in earnings between regular and non-regular employment for males is 1,075 thousand yen for the age range of 25 to 29 years while that for the age range of 50 to 54 years is 3,666 thousand yen. The Gini coefficient in the low variant will rise higher than the other variants because the percentage of non-regular employment in the low variant is high. In the 2020s, when most postwar baby boomers will retire and parasite singles will reach their 40s or 50s, the disparity in the same generation will widen as well and the difference in the Gini coefficients among the three scenarios will be apparent.

The future disparities due to the increase in NEETs and freeters are presently hidden by children living with their parents; however, they will be revealed in the future. According to Figure 3, the Gini coefficients in the 2000s are relatively high, but this is only a temporary phenomenon caused by the postwar baby boomers under the seniority-based promotion system. The rise of the Gini coefficient¹⁸ after the year 2020 really indicates the problem of income disparities in Japan.

4. Examination of the Results and Future Directions

Although the recent widening in income disparities in Japan has mainly been the result of the aging population and a reduction in the size of households, it has been pointed out that the increase in non-regular employment among the young people may contribute to a further widening in income disparities in the future. The foregoing analysis of income disparities viewed through adult/couple units and the

¹⁸ The Gini coefficients of this model are calculated based on earnings excluding elderly-people-only households. If these households are included, the Gini coefficient will be considerably higher.

estimates of future income disparities obtained using a microsimulation model have demonstrated that changes in the work and lifestyle patterns of young people, as seen in the emergence of parasite singles and other phenomena, are concealing income disparities.

The estimates of future income disparities obtained using a microsimulation model indicate that as the population ages rapidly, the composition of households and families will change significantly, and income disparities will widen. By the middle of the twenty-first century, the increasing nuclearization of the family and the continued rise in the number of parasite singles will have transformed the traditional Japanese notions of the family and the household.

There has been a particularly striking change in the proportion of elderly people living with other family members. In Japan, it used to be customary for elderly people to live with one of their married children, and until around 1980, more than half of elderly people did so. However, three decades later, after 2010, such families are expected to be the rarest type, and most households will comprise only elderly people, either an elderly couple, or a single elderly person. Even in the case of elderly people who live with their children, there will be an increase only among those living with their unmarried adult children. As mentioned earlier, many of these unmarried adult children are likely to have been parasite singles. In addition, after 2040, when these parasite singles themselves join the ranks of the elderly, there is expected to be an even sharper increase in the number of elderly people living by themselves. Particularly noticeable will be the rise in the number of elderly people living by themselves who do not have children at all.

In such a future society, income disparities are expected to widen considerably. In this paper, I have estimated future Gini coefficients relating to earning income, such that households comprising elderly people are excluded. Under the low variant, in which the proportion of people engaged in regular employment declines, the Gini