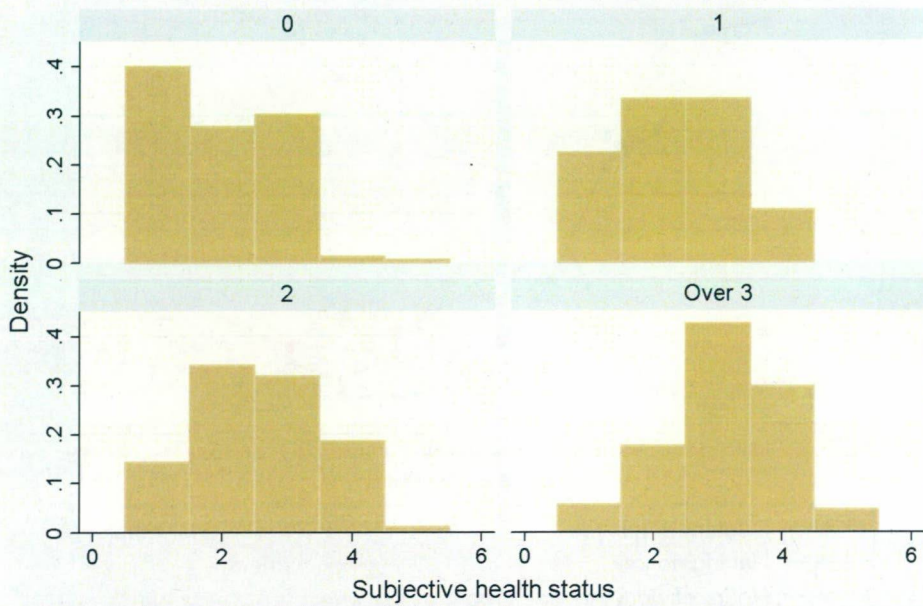
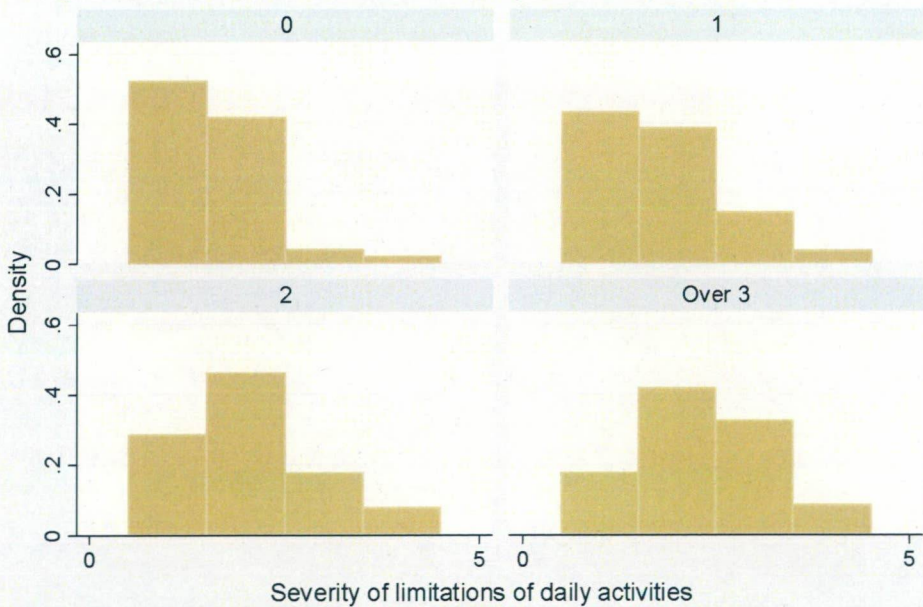


Figure 2a. Distributions of self-rated health by the number of diseases



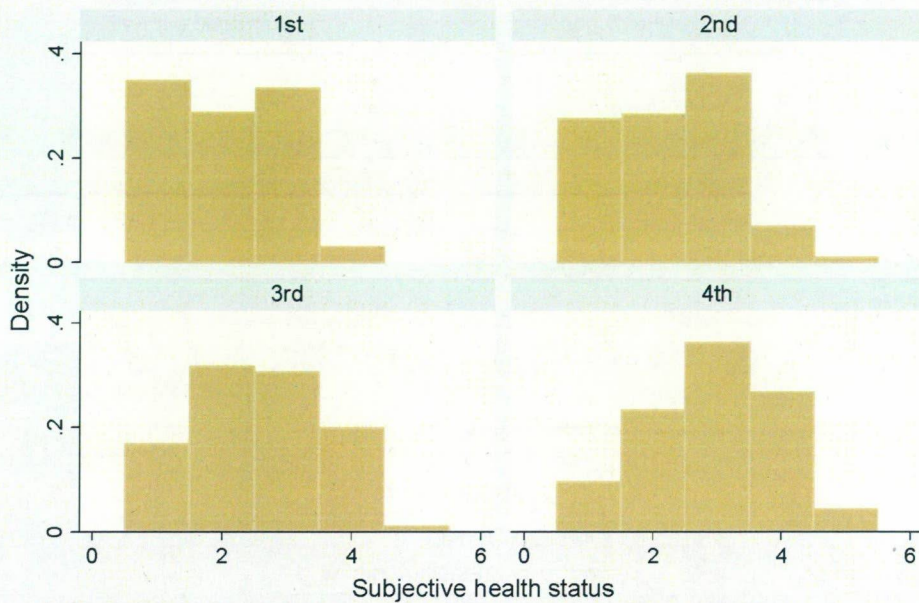
Graphs by Number of chronic diseases (0, 1, 2, over 3)

Figure 2b. Distributions of limitations of daily activities by the number of diseases



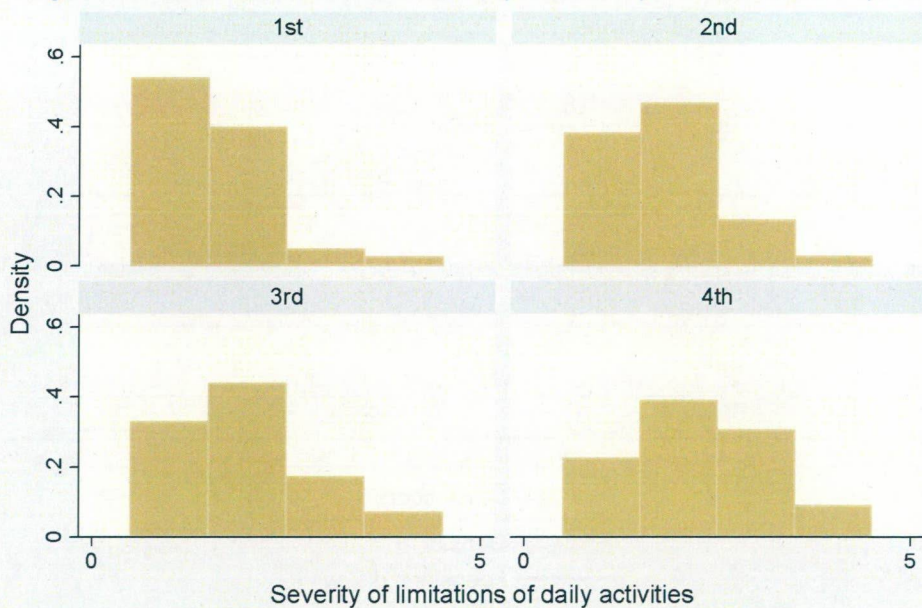
Graphs by Number of chronic diseases (0, 1, 2, over 3)

Figure 3a. Distributions of self-rated health by the disease score quartile



Graphs by Inter-quartile range of disease scores based on principle component analysis

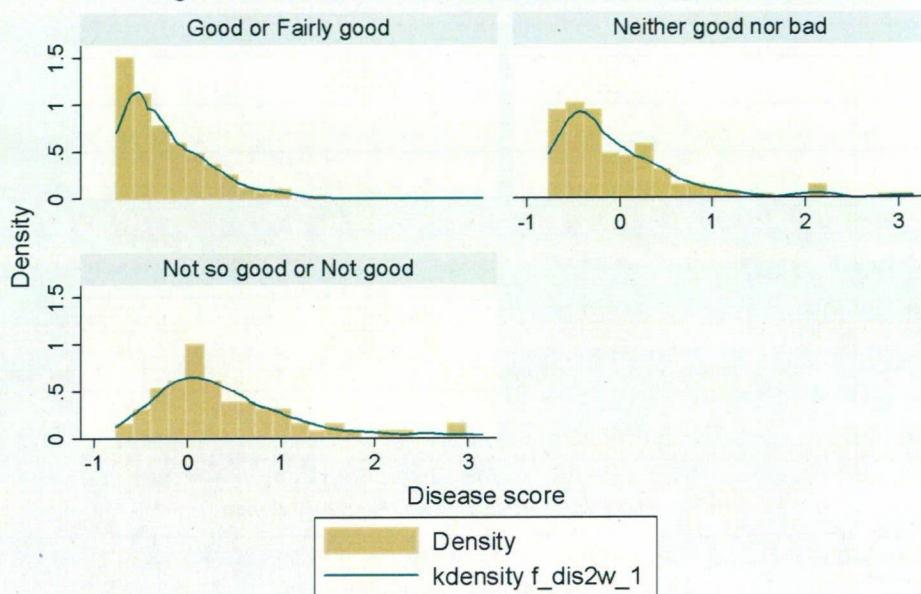
Figure 3b. Distributions of limitations of daily activities by the disease score quartile



Graphs by Inter-quartile range of disease scores based on principle component analysis

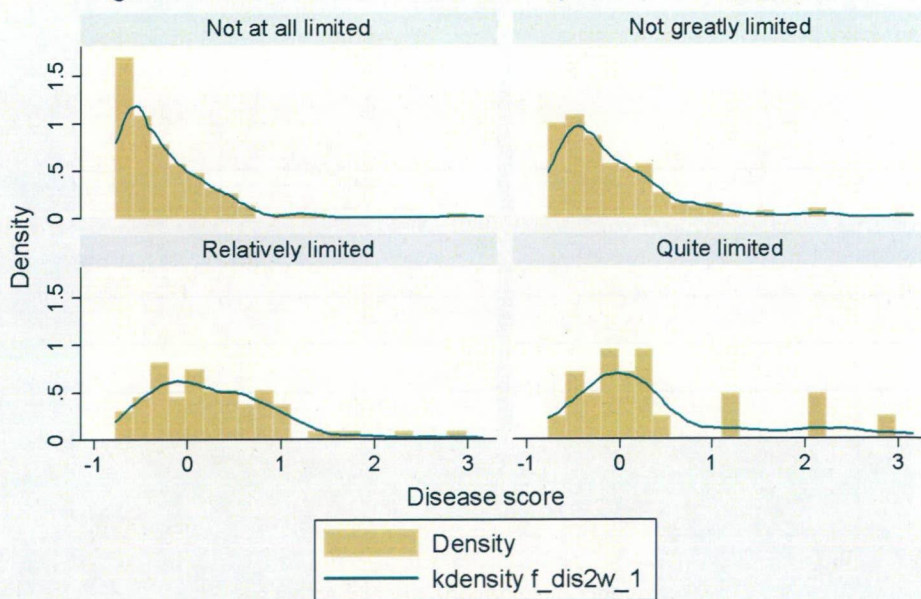


Figure 4a. Distributions of disease score by self-rated health



Graphs by Three Subjective Health Groups (1 or 2, 3, and 4 or 5)

Figure 4b. Distributions of disease score by limitations of daily activities



Graphs by Presence of limitations of daily activities

Figure 5a. Distributions of the number of diseases by self-rated health

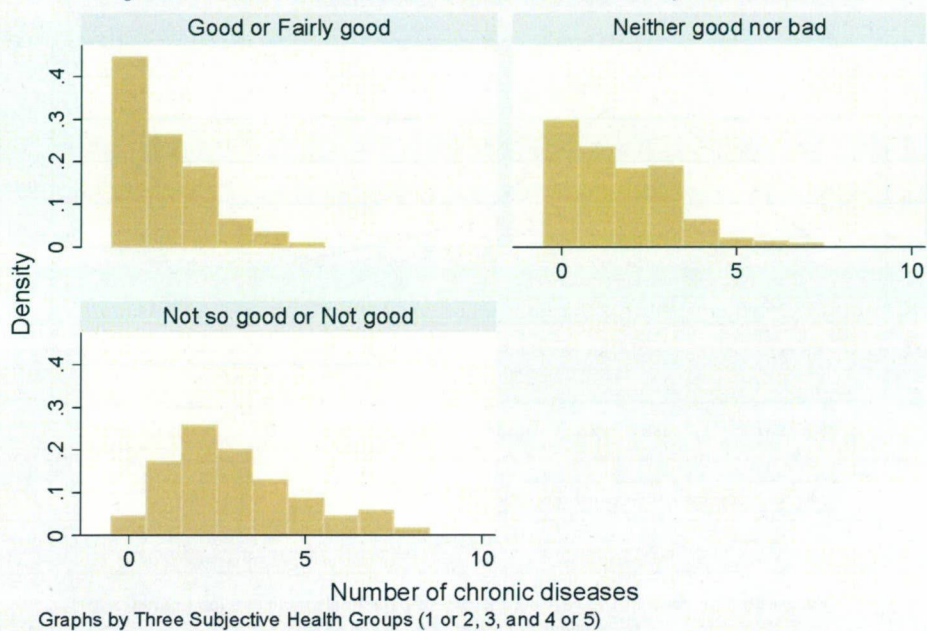
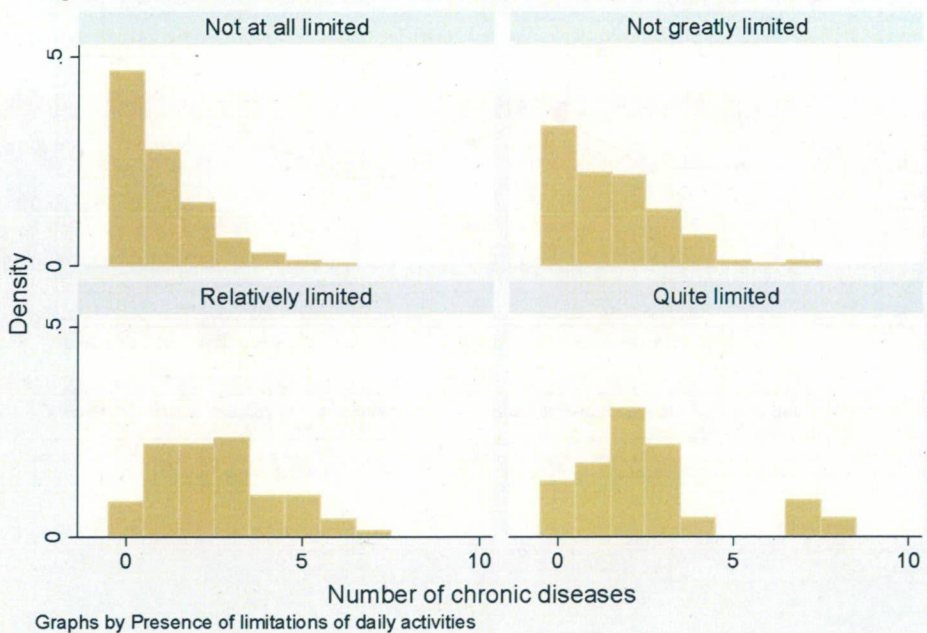


Figure 5b. Distributions of the number of diseases by limitations of daily activities





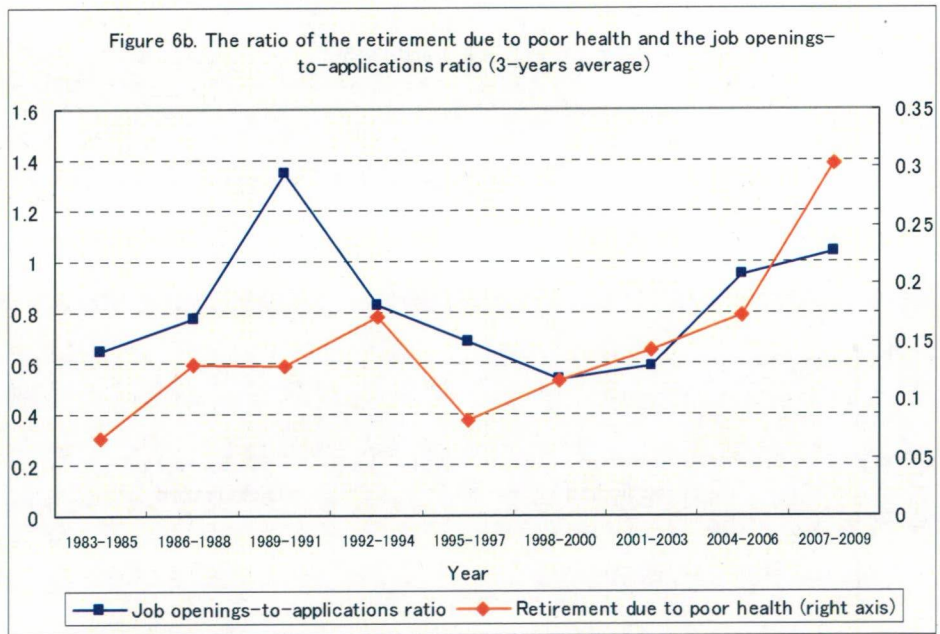
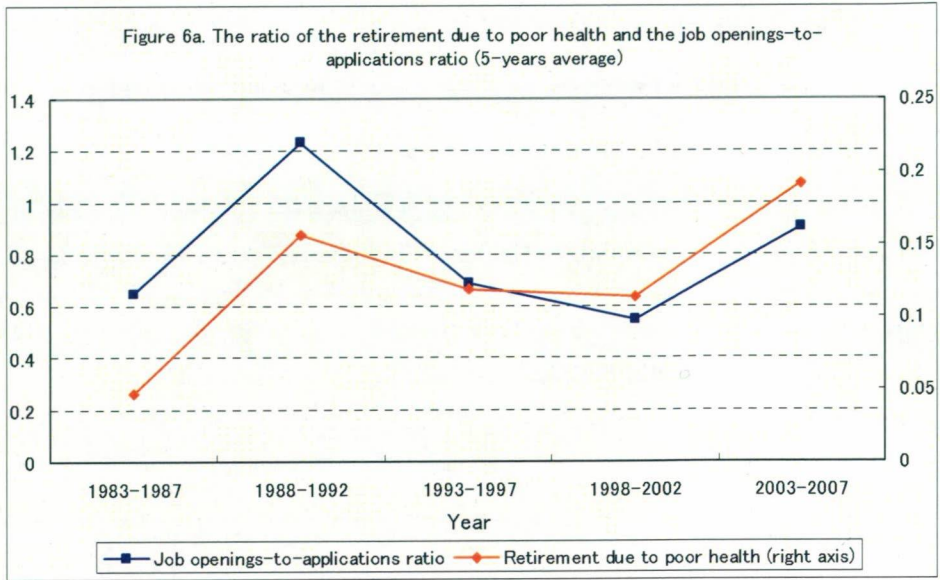
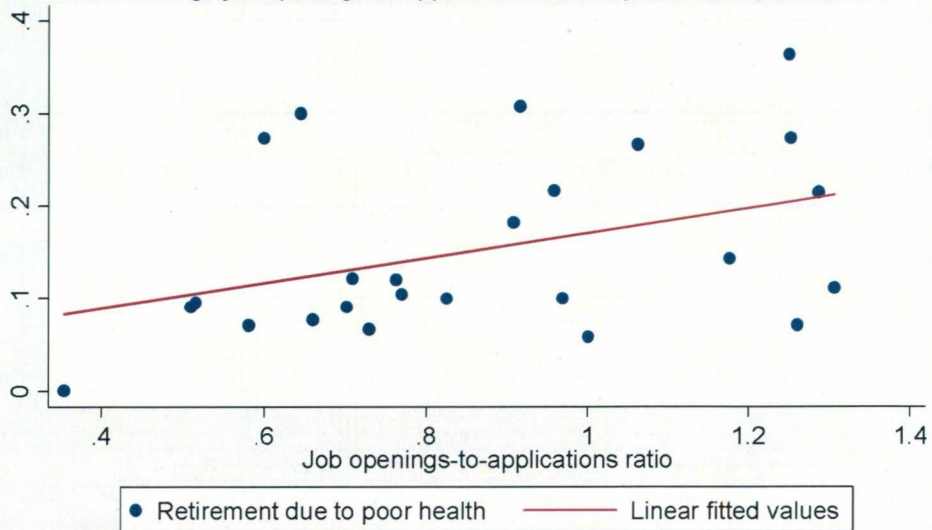
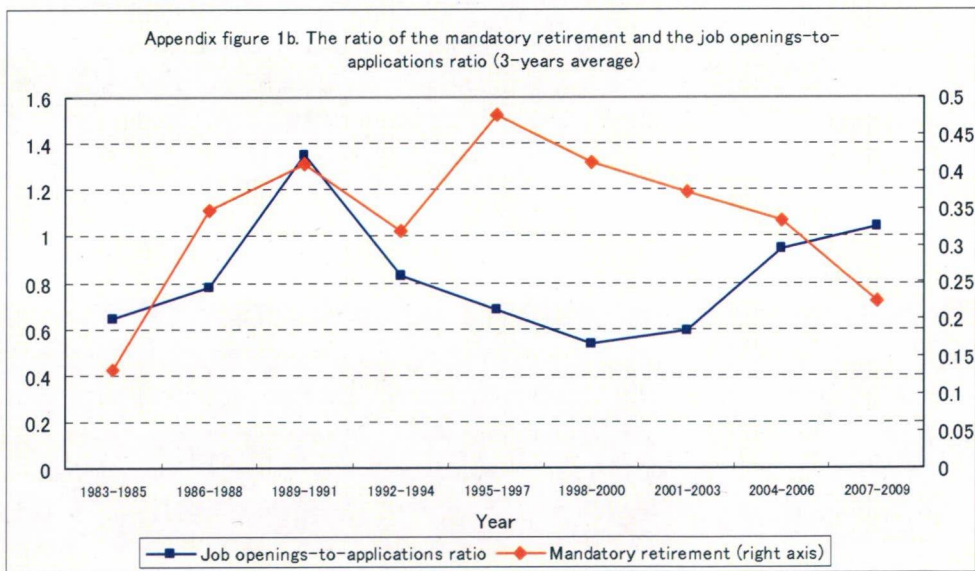
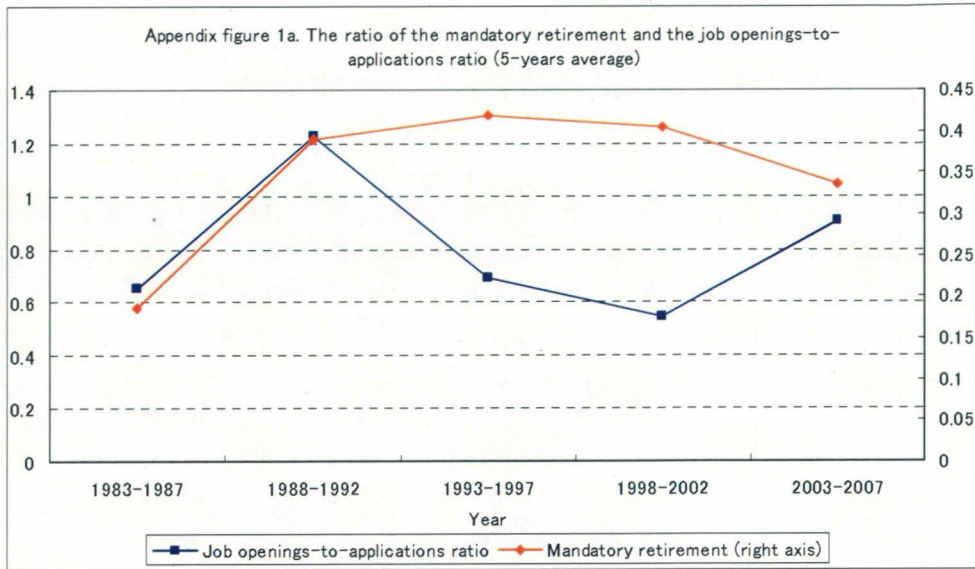


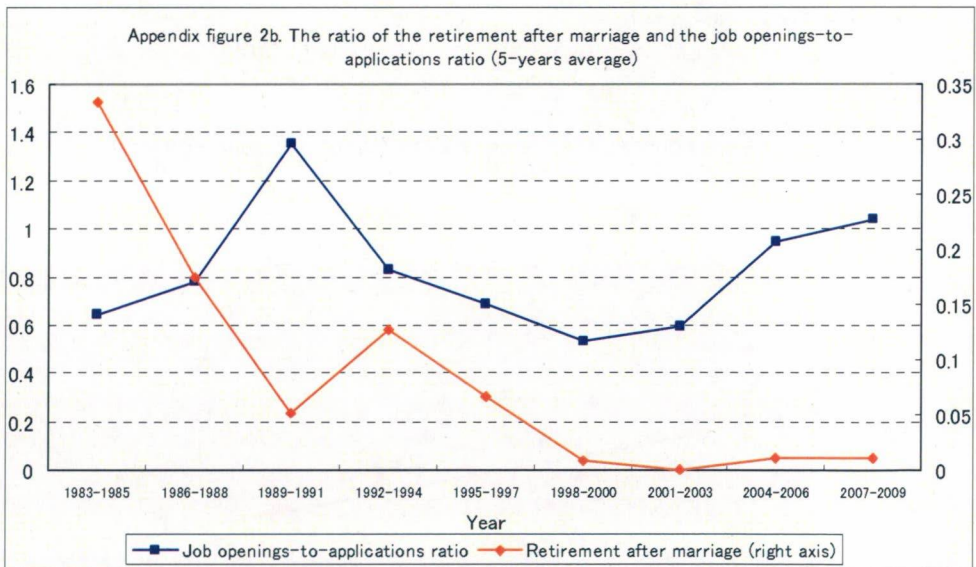
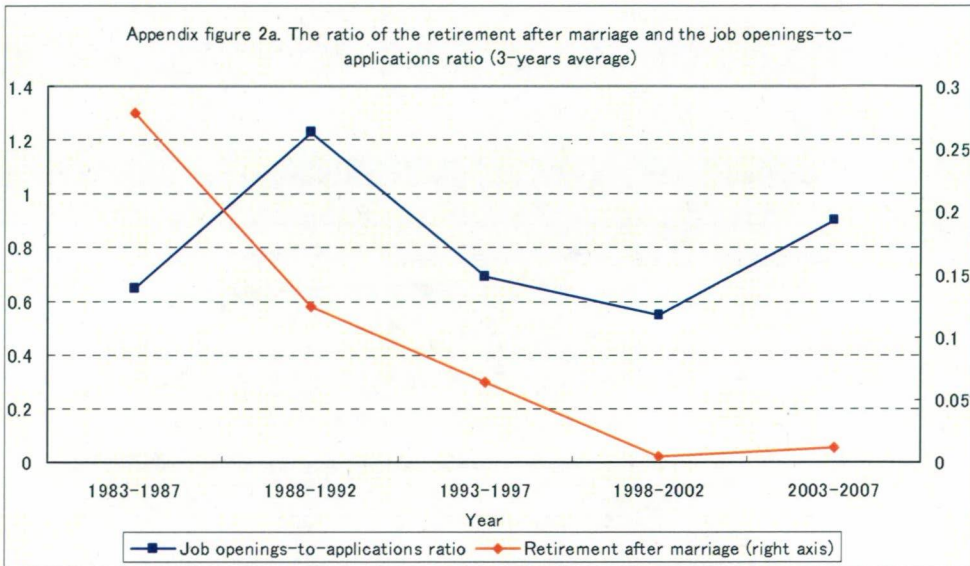
Figure 7. The ratio of the retirement due to poor health and the average job openings-to-applications ratio in prefectures (1980-2007)



Note: 25 prefectures containing more than 10 observations are used.  
 Source: The report of the Employment Service Agency (various issues) and the Survey on Health and Retirement in 2009

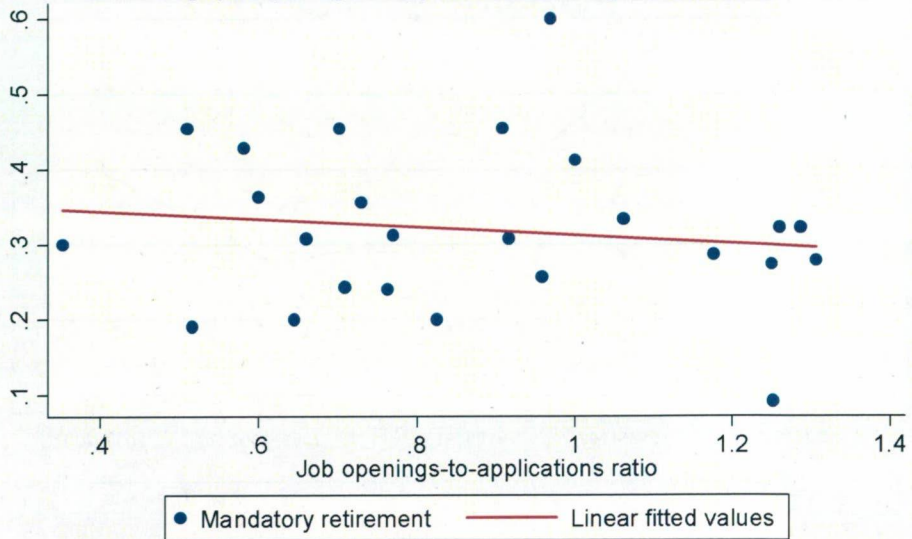






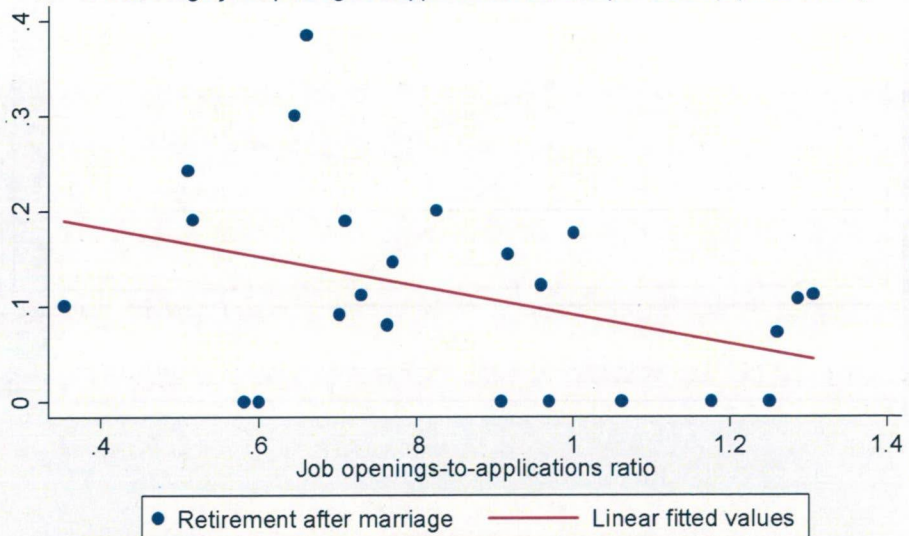


Appendix figure 3. The ratio of the mandatory retirement and the average job openings-to-applications ratio in prefectures (1980-2007)



Note: The same as Figure 7.  
Source: The same as Figure 7.

Appendix figure 4. The ratio of the retirement after marriage and the average job openings-to-applications ratio in prefectures (1980-2007)



Note: The same as Figure 7.  
Source: The same as Figure 7.

# **The Myth of Egalitarian Society: Poverty and Social**

## **Exclusion in Japan**

*Aya K. ABE*

**[Abstract]** This paper is one of the first attempts in Japan to define and measure the extent of poverty and social exclusion in the country. It makes use of data from a 2006 survey of 600 households which was carefully designed to capture incidents of different dimensions of poverty and social exclusion, such as income poverty, material deprivation, exclusion from public services, lack of social relations, inadequate housing, lack of activities, and subjective poverty. The paper's main findings can be summarized as follows. First, sections of the population which are most vulnerable to social exclusion are not necessarily vulnerable in terms of income poverty. Second, disadvantages at earlier stages of life seem to exert influence on some aspects of current social exclusion, even after controlling for current income, occupation and household type. One of the most interesting results of the analysis is that the variable indicating poverty at age 15 has a positive and significant effect on one's current lack of basic needs (food, clothing and medical care), even after controlling for current income, age, sex, household type AND experiences of divorce and lay-off. This indicates that poverty during childhood not only influences adult well-being via education and occupation (and thus, income), but there is also a path which connects childhood poverty and adult social exclusion directly.

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## 1. Introduction

It is widely believed that Japan is an egalitarian society. The notion that Japan had achieved economic growth without worsening of income inequality has sunk deeply into the Japanese public consciousness that it has become a national pride and identity. The term “All middle-class nation” was coined to describe Japan and it was widely believed by the public, bureaucrats, politicians and even some researchers, as well as those from abroad. The government stopped collecting and publishing statistics on poverty in the 1960s. Existence of poverty in Japan was unimaginable by most citizens. Low awareness of poverty as a social issue also means that there has been virtually no people’s movement against poverty and economic inequality.

Thus, it came as a big surprise that just before the New Year’s celebration in 2009 that a stream of homeless people started to gather together in the Hibiya Park located at the dead center of Tokyo in front of the Ministry of Health, Labour and Welfare and the Imperial Palace. The homeless people were mainly short-term contract workers whose jobs were terminated just before the New Year’s long holiday. They were provided dormitories together with their employment, and were forced out of their accommodation at the same time of their lay-off. Their employment was low-wage with no room for skill development, and once out of a job, they had no savings and social networks to live on. They were the labourers at the bottom of the employment hierarchy in which full-time permanent employees are at the top. They were gathered at the Hibiya Park because a non-profit organization had put up a make-shift tent village to accommodate those who do not have any place to stay during the long holidays during which all government offices are closed. The site of hundreds of labourers placed out of their accommodation and are forced to live in a park was repeatedly broadcast on TV and newspapers and was an awakening call to the Japanese public that there are those living in poverty in modern Japan.

However, the statistics show that Japan’s poverty rate is quite high among the OECD countries. The latest OECD figure in *Growing Unequal* (OECD 2008), states that Japan’s poverty rate at 15.3%, the 4<sup>th</sup> highest after the US, Turkey and Mexico. In fact, the high incidence of poverty is not a new phenomenon in Japan. Since the 1970s, Japan’s inequality and poverty rate has been rising steadily. Even back in the 1980s, the poverty rate is estimated to be 10.1% (Abe 2006): in the past 3 decades, Japan has not experienced low incidence of poverty as some OECD countries such as Nordic countries enjoy today. It is the public perception has not caught up with the idea of poverty.

A misperception that Japan is an egalitarian society also means that there has not



been much interest in discussions of social exclusion in Japan. A handful of researchers have introduced the concepts of social exclusion and inclusion from Europe (e.g. Fukuhara, ed. 2008), but it did not make it to the political debate because it was not clear how to interpret it in a Japanese setting. Some have tried to apply the concept of social exclusion in understanding issues of specific groups of people, such as the homeless (rough sleepers) who are clearly impoverished as well as excluded (Iwata 2008, etc.). However, these studies of specific groups reinforced the idea that poverty and social exclusion is a problem faced by very specific small groups of people, and that the general public is not affected by such phenomenon. There has been no attempt to measure the extent of social exclusion in the general population.

The purpose of this paper is to define and measure the extent of poverty and social exclusion in contemporary Japan, to identify at-risk groups within the population, and to capture the effects of earlier disadvantages in life on social exclusion later on. For poverty, the paper uses a nationally sampled *National Living Conditions Survey* (Kokumin Seikatsu Kiso Chosa) collected by the Ministry of Health, Labour and Welfare. For social exclusion, the paper draws data from *2008 Social Living Survey (SLS)* by a team of researchers with the author as its head. The SLS is the first nationally collected survey which is designed exclusively to collect data on social exclusion. The findings show that Japan is indeed not an egalitarian society and the incidences of poverty and social exclusion spread narrow and deep within its population, instead of wide and shallow. It also shows that in Japan, earlier life disadvantages such as child poverty, lay-off, divorce and long unemployment leaves long-lasting adverse effects on poverty and social exclusion.

## **2. Income Poverty in Japan**

### **1) Data**

The data used for capturing incidence of poverty is *2007 National Living Conditions Survey (NLCS)* (Kokumin Seikatsu Kiso Chosa). Its sample size is about 23,000 households. The NLCS knows to cover population at the bottom end of the economic strata more precisely compared to other national large scale household surveys such as the *Family Income and Expenditure Survey* (Zenkoku Shohi Jittai Chosa) by the Statistics Bureau. The NLCS is not a panel survey and it cannot be used to analyze dynamics of poverty.

The definition of poverty is 50% of median disposable household income. The unit of the analysis is individual, but the definition of income is household income, rather than individual income. The household income is defined as combined income of all

household members. It should be noted that cohabitation of extended family is still very much in practice and 36.1% of elderly above 65 years old live with their children (and/or childrens' spouses and grandchildren) (MHLW 2009). In such case, income of all household members including pension income of elderly and part-time earning of teenagers are included in the household income. The household income is adjusted for household size by using equivalent scale equal to the square root of the household size.

## **2) Those At-risk of Income Poverty**

Table 1 and Graphs 1 and 2 show poverty rates by key characteristics. Examining Graph 1 shows that the incidence of poverty is very much dependent on the age and sex of individual. The poverty rate is somewhat high before the age 20, lowers between ages 35 to 54, and then soars after age 65. Even after nearly a half century since Japan put in place a universal public pension scheme, poverty is still very much an elderly problem. One of the main reasons that the elderly in Japan face high risk of poverty is the failure of the public pension to provide minimum living standard. The basic pension which is a social insurance program covers nearly all elderly, but the pension amount is dependent on the premiums paid into the system and does not guarantee the minimum standard of living. Thus, a large portion of pensioners, notably those whose lifetime earning has been low, receive public pension which is lower in amount compared to the poverty threshold. Traditionally, the risk of poverty in old age was mitigated by co-habitation with younger family members, mostly children and their spouses. It is those who do not have this familial safety-net that the poverty risk is the highest. The poverty rate for elderly living alone is 38.3% for men and 52.3% for women in 2007 (Table 1) even though both figures have declined somewhat since 1995.

The gender differential is also prominent. Women face higher risk of poverty than men throughout the life span, and the difference becomes larger as the age increases. The difference occurs essentially because of women's low position in the labour market, and in the last age bracket, the longer life expectancy. One notable deviation from this norm is the age bracket between 20 and 24. In this age bracket, men's poverty rate peaks and is higher than the women's. This peak is a fairly new phenomenon. In 1995, the rate was 13.9% and it did not peak, but in 2001, it increased to 17.9% and then in 2007 to 20.5% (not shown, Cabinet Office 2009). Deterioration of young men's position in the labour market is probably the cause. As the economy slowed down after the 1990s, the share of non-permanent, contract workers increased rapidly (cite) and it spread to young men, who have traditionally become permanent employees right after schooling and stayed within a single company throughout the career.

Another notable characteristic of poverty in Japan is that the poverty risk for those who “deviate from standard life course” (Iwata 2008) is quite high. Those who do not marry, those who have lost their spouse, those who divorce show very high poverty rate, especially for women but also for men. Even though such individuals are still a small portion of the population, their poverty rates are strikingly high. The elderly who have not married show the poverty rate of 40.0% for men and 47.4% for women. Never married elderly have not children to support them, and also their economic status during the life course maybe low (which could be the cause of their not marrying). Divorced women are likely to be poor even during the working age (38.9% during working age and 44.0% during old age). Widows, despite the existence of widower pension in the public pension scheme, are at high risk of poverty.

From analysis of women’s panel data and homeless people, Iwata (2008) argues that those who deviate from the standard life course of graduating from school at 18 (or 22), getting a permanent job right after graduation, marrying by the early 30s and staying in the same job until retirement, or stay married to such men, face high risk of poverty and even homelessness. In fact, this is one of the hypotheses that this paper attempt to prove regarding social exclusion in the following chapters.

<Table 1, Graphs 1 and 2 >

### 3. Constructing Social Exclusion Indexes

#### 1) Data

From this section, the paper will analyze the extent of social exclusion and characteristics of those who face high risk of social exclusion. The data used in this section is *the 2008 Social Living Survey* (FY2008 Shakai Seikatsu Chosa : SLS)<sup>1</sup>. The SLS was conducted by distributing questionnaires to a randomly selected sample of 1,320 persons above 20 years old (chosen from the residential registry [jūminhyō])<sup>2</sup> all over Japan in February 2009. Out of 1,320 questionnaires distributed, 1,021 were collected (effective response rate = 77.3%).

*The Social Living Survey* (SLS) follows the format and methodology of *the 2006*

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<sup>1</sup> The survey was conducted as a part of the *Effect of Social Security System on the Low-Income Population* (Principal Researcher: Abe Aya), funded by a Ministry of Health, Labor and Welfare Grant for Health and Labor Science.

<sup>2</sup> The residential registry is a list of all residents residing within a municipality. All residents of Japan are mandated to register at the office of their residing municipality, and the registry serves as the official base for local taxes, voting, public schools, and other public services.



*Living Conditions Survey (LCS)* which was a pilot survey to measure extent of social exclusion in Japan. The LCS was conducted in fairly small area of the southern section in the city of Kawasaki, a municipality neighboring Tokyo. The region developed as a part of industrial belt connecting Tokyo and Yokohama, and traditionally hosted many medium to large factories with a flux of migrant laborers from rural areas. Thus, the region can be classified as an area of blue collar workers, and that of former blue collar workers who are now aged. The location was chosen as the pilot survey site because by doing so, the survey was expected to capture more people belonging to low-income, low social class. However, because of this reason, it was deemed impossible to generalize the findings from the LCS to the general public all over Japan. Thus, the main purpose of the SLS was to refine and generalize the findings from the LCS. The questionnaire contains almost the same set of questions to capture the incidents of social exclusion as the 2006 LCS. Both SLS and LCS follow the methodology developed by the Poverty and Social Exclusion Survey in the U.K., modified to fit the specific Japanese setting. The items chosen are those commonly owned or done by the general public in Japan. However, the length of the questionnaire and the sample size had to be reduced considerably due to budget limitations.

The survey was designed with the following rationale. First, it should capture not only economic impoverishment, but also social impoverishment (such as lack of social relations and networks, and inactivity). Second, it should capture how an individual is excluded (forced out) from various public constructs within a society, e.g. public schemes such as public pensions and public health insurance,<sup>3</sup> public services such as transportation and utilities, and public spaces such as libraries and sports facilities. Third, it should also capture exclusion from private spheres, e.g. a lack of social relations (communication with others, meeting family obligations, having friends) and social networks (support in need). Fourth, it should measure the degree of an individual's activities within the society, e.g. activities such as being active in local communities (neighborhood organizations, women's clubs, PTA, etc.), civic activities (political involvement, etc.), and personal communities (alumni clubs, sports and hobby circles, etc.). Fifth, any exclusion or lack of these items must be *involuntary*, rather than *voluntary*. Thus, the lack of the item is indeed an enforced deprivation, not a preference of the individual. To do so, the survey specifically distinguishes between the lack of a

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<sup>3</sup> Japanese public pension and public health care systems are social insurances, and individuals have to pay premiums in order to subscribe to pension insurance and health insurance. Failure to pay premiums means not being able to receive pension payments and medical payments (i.e. individuals must pay 100% of the medical costs out of pocket). The premium default is becoming an increasingly big problem (see Abe 2003 for details).

certain item due to deprivation and lack of an item due, merely, to a preference; the confusion of the two was a criticism made by Piachaud (1981) against Townsend's (1979) pioneering work on measuring relative deprivation. This criticism was overcome in the 1983 and 1990 *Breadline Britain* surveys by distinguishing those who 'don't have but don't want' from those who 'don't have and can't afford' (Mack and Lansley 1985, Gordon 2000). In this survey, we used a similar approach. Except for those items which are widely considered basic needs (such as adequate food, clothing and medical care), we asked whether items 'are wanted but cannot be obtained (or achieved)', 'not wanted (or not interested)' or 'are obtained (or achieved)'.

Sixth, it should not only capture involuntary exclusion due to economic constraints, but also due to other constraints. Here, the survey expands the idea of deprivation from 'cannot afford' in the U.K. surveys to 'not being able to have for any reason'. This is because our survey team recognized that there are non-economically driven deprivations. For example, there might be an elderly person who cannot vote because she is not physically well, or a man who cannot enjoy social activities because he has to work until late at night, or a housewife who cannot enjoy social life because she has to take care of children, or frail elderly, at home. All of these cases are a form of social exclusion, but they are not economically driven (i.e. they may be able to 'afford' to do these items, but cannot for some other constraints). They cannot be mitigated simply by having more 'resources' (i.e. money). Non-economically driven social exclusion is particularly thought to be extensive in Japan since public perception and social norms often restrict individual behavior.<sup>4</sup> For this reason, it was especially important in Japan to capture the reason(s) a person is deprived of an item. Thus, for most items, the survey also asks why that item cannot be obtained (or achieved) in a multiple choice question.<sup>5</sup> The respondents are given four options: economic; work and family related (or access and facility related); health-related; and other. No matter what the reason for the deprivation, if involuntary it is considered to be a form of exclusion.

To clarify, the survey classified items used as social exclusion indicators into seven dimensions: (lack of) basic human needs, material deprivation, exclusion from systems

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<sup>4</sup> For example, a man without a job (even if he does not need a job economically) may be reluctant to be seen outside his house during daytime because not working is considered 'inappropriate' for men. A woman who has enough money to hire a nurse to take care of an elderly mother at home may be compelled to stay at home to take care of her because 'it is the duty of a daughter' to take care of an elderly mother. These are but a few examples of how individuals may be excluded from society for non-economic reasons.

<sup>5</sup> For items in basic human needs, material deprivation, housing, and income poverty, it was assumed that economic constraints are the main reason for deprivation, and they can be 'solved by money'. Thus, the reason was only asked for items in systems exclusion, lack of activities and social relations.

and services, inadequate housing, (lack of) activity, (lack of) social relations, and subjective poverty. The description of each dimension is briefly described below. The number of items used for the construction of these indicators amounts to 50.

Income data used for the analysis is household income. The survey asked the respondents to fill in the sum of the after tax (and social security premiums and benefits, including pensions and other social security benefits) incomes of the head of household (respondent) and his/her spouse (if any) in increments of one million yen.<sup>6</sup> The 'equivalent household income', e.g. the value of household income adjusted for household size, was obtained using the equivalent scale of the square root of the household size.

**Table 2. Eight Dimensions of Social Exclusion**

<b>Dimension</b>	<b>Description</b>
Basic Human Needs	Lack of materials required for human survival
Material Deprivation	Lack of material possessions owned by most of the general population
Exclusion from Systems	Exclusion from various public constructs (social security schemes, public services and public spaces)
Lack of Social Relations	Lack of person-to-person connection with others, lack of human networks which one can draw upon when in need
Lack of Adequate Housing	Inadequate standard of housing
Lack of Activities	Lack of activities and participation in various activities which construct personal spheres (including activities done alone)
Economic and Financial Stress	Economic and financial hardship such as not being able to make payments and make ends meet
Income Poverty	Inadequate income (defined as below 50% of the median income)

<sup>6</sup> Ideally, it would be necessary to ask the incomes of all members of a household in order to accurately determine the household income. However, considering the limitations of an interview survey and the lack of information on the part of the respondents themselves, we believed that the most reliable values would be obtained by limiting data to the income of respondents and their spouses.



< Table 3 >

### 3) Social Exclusion Indexes

Social exclusion indexes for the seven dimensions are constructed as follows. For each of the 50 items in the seven dimensions of social exclusion, a value of 1 was assigned if the item is deprived, and a value of 0 if the item was not deprived. Then, for each dimension, the values were weighted, summed and then standardized, so that no matter how many items in each dimension, the aggregated index assumed a value from 0 (all items in the dimension are satisfied) to 1 (all items in the dimension are deprived). The weights used are propagation rate which is defined as the percentage of respondents who possess the item divided by one minus percentage of respondents who do not want that item.

$$S_i^x = \frac{\sum_{j=1}^{J^d} d_{ij} w_j}{\sum_{j=1}^{J^d} w_j}$$

$S_i^{(1,2,3,\dots,7)}$  = Social Exclusion Index of Dimension (1,2,3,... 7) for individual i

$J^d$  = Number of items in Dimension d

x = Dimension 1,2,3,...,7

$d_{ij}$  = 1 if individual i is deprived of item j, otherwise 0

$w_j$  = weight for item j

Table 4 shows the basic statistics of the social exclusion indexes for the seven dimensions and income poverty. Comparing absolute values of the indexes between the eight fields, or assessing whether each of these values is 'too high' or 'too low' is not meaningful, since these values depend on the set of items that are used for the construction of the indexes. For example, if one item in the category is replaced with another item whose deprivation rate is much lower, then the average index for the category will decrease. What is important is the distribution of indexes. If there is a large fraction of the population whose index is much lower than the median, it means that these people may be excluded from normal activities that are commonly enjoyed by the majority of the population. In this respect, social exclusion is a relative concept. Also, these indexes are helpful in comparing sub-groups of the population and

identifying who are most likely to be excluded and in what dimension.

< Table 4 >

The right side of the table shows the social exclusion rate (or in the case of income poverty, poverty rate). As with income poverty or the relative deprivation rate, the social exclusion rate is defined as those who are excluded in more items than the cut-off line. The problem is how to set this cut-off line. In most cases, the determination of the cut off line seems rather arbitrary. Apospori and Millar (2003) define the cut-off line as 60% (or 80%) of the median (of the social exclusion index). Tsakoglou and Papadopoulos (2002) call the bottom 20% of the population in the index 'the risk group'.<sup>7</sup>

There is no 'correct' way to define the cut-off line, and as long as a consistent approach is taken, it should suffice. For the purpose of this paper, which is to identify risk groups and to analyze the effects of earlier disadvantages on current social exclusion, we decided it was best to have about the same size of the fraction of the population which are excluded in each of the eight dimensions, and thus, the cut-off line was chosen so that the exclusion rate lies somewhere between 10% and 20%.

#### **4. Those at-risk of Social Exclusion**

<Table 5>

#### **5. Social Exclusion and Earlier Disadvantages**

##### **1) Previous studies**

One of the questions that the Living Conditions Survey attempted to address was whether, and by how much, earlier disadvantages in life affect social exclusion today. For this question, there exist few studies in Japan compared to other industrial nations, such as the US and the UK, because there are very few panel data sets available. There is only one data set, the Japanese Panel Survey of Consumers (JPSC) by The Institute

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<sup>7</sup> Tsakoglou and Papadopoulos (2002) also identify those 'at high risk of social exclusion' as those 'at high risk of chronic, cumulative disadvantages' (p.146). Using the ECHP, they constructed four deprivation indicators: income (poverty), living conditions, necessities of life and social relations. Then they constructed an indicator for 'cumulative disadvantage' as those suffering from two or more deprivations. Adding a dynamic dimension for this indicator, they defined those at high risk of social exclusion as those at high risk of cumulative disadvantage at least twice during a period of three years, or three waves of the ECHP.

for Research on Household Economics, which has been continuing long enough to study the impact of life events such as marriage, divorce, and the birth of children on poverty status. Findings from this data set have shown that those who divert from the 'standard life course', such as those who divorce, do not marry, etc., are more prone to becoming income poor (Iwata and Nishizawa 2005). However, this data set only covers women in a certain cohort, and it may not be wise to generalize findings to the general population. There are virtually no studies on the effects of childhood poverty on adult outcomes.<sup>8</sup>

Of course, one can find a myriad of studies linking childhood poverty to adult outcomes (such as income, labor force participation, educational attainment and crime and/or welfare dependency) in other developed countries (e.g. Duncan and Brooks-Gunn 1997). There are also some studies linking earlier disadvantages and current social exclusion. Hobcraft (2002) directly addresses the influence of childhood circumstances on social exclusion during adulthood. Using the National Child Development Study [NCDS], Hobcraft shows that childhood disadvantages such as family structure, occupational class and employment status of father, and some indicators of poverty ('financial hardship' and free school meals) are correlated with negative adult outcomes. However, the outcome indicators that the study employs are somewhat disappointing and are missing some aspects of social exclusion. The study does include many indicators which *could* indicate social exclusion (such as low income, homelessness, unemployment), but does not include social aspects of social exclusion, such as social participation and exclusion from services.

## 2) Results

The SLS is designed to capture major events which are likely to be disadvantages earlier in life (that is, earlier than the survey point, not necessarily childhood). The disadvantageous events considered were: childhood poverty (living standard at age 15<sup>9</sup>), low attainment of education, divorce, prolonged illness or injury<sup>10</sup>, involuntary lay-off and unemployment more than one year. The logistic regression was performed on

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<sup>8</sup> There is only one panel data set, the 21<sup>st</sup> Century New-Born Baby Panel Survey by the Ministry of Health, Labor and Welfare, which contains questions on the well-being of children in households, but this data set only started in 2000, and respondents have not yet reached adulthood.

<sup>9</sup> For 'living standard', the question was 'Compared to other families in Japan, how do you characterize the living standard of your family when you were 15 years old?' The answer was multiple-choice, with 'very low', 'low', 'average', 'high', and 'very high' as possible answers. The distribution of answers was: 11.1%, 18.0%, 51.4%, 15.0%, and 2.7%, respectively.

<sup>10</sup> 'Major illnesses and injuries' was defined as those illnesses and injuries which caused the respondents to be out of work or school for more than one month.