

1. Introduction

The publication of recent research on income inequality and poverty in Japan has attracted the attention of the news media and politicians in Japan. A study for the OECD by Förster and Mira d'Ercole (2005) and cited in OECD (2006) indicates that Japan has the 2nd highest poverty level among 17 countries, with only the US showing a higher rate among the most developed nations in the OECD. This has been a major shock for Japanese, who usually think of their society as being fair and egalitarian. Focussing more specifically on Japan, work by Tachibanaki (2006), Tachibanaki and Urakawa (2006) and Ohtake (2005) among others has examined growing income inequality and the increase in the rate of relative poverty that has taken place during the 1990s. Most of this literature has focussed on the variance in income levels and also on poverty levels defined by relative poverty measures such as half of median income. For example, Förster and Mira d'Ercole (2005) and Tachibanaki and Urakawa (2006) have both explored poverty levels using a relative poverty measure. Tachibanaki and Urakawa (2006) have also looked at a more restricted definition of poverty defined as a household income that fails to meet the standards used by the Ministry of Health, Labour and Welfare (hereafter MHLW) to determine who is eligible for Public Assistance (*seikatsu hogo*).

This paper looks at some of the characteristics of poor households and individuals using data from the 2001 (Heisei 13) Kokumin Seikatsu Kiso Chōsa (Basic Survey of National Life), a major annual survey of nearly 250,000 households run by the MHLW. Of these households a sub-group of 30,386 households were asked detailed questions about their income, assets and liabilities. There are data on various

categories of income received by households including work income, self-employment income and pensions, data on taxes paid, and also data on the relationships of individuals in the house to the household head. The first part of this paper examines some general characteristics of the poor using a relative poverty measure. We find that divorcee-headed households and elderly women are two groups with a very high incidence of poverty. The second part of the paper examines the much more specific question of whether elderly women living on their own have sufficient resources in the form of savings to stay out of poverty. In this paper, we find that for this group, the poverty rate (headcount rate) determined by both a relative poverty measure and an absolute poverty measure would be about 1/3 lower if we take account of savings.

2. Who are the poor in Japan?

We begin by examining the characteristics of the poor using a relative poverty line defined as half of median household equivalized disposable income, where equivalized disposable income is defined as household disposable income divided by the square root of the number of members of the household. This is a definition of equivalized income that is not entirely satisfactory, but is in common use (OECD 2006, Tachibanaki and Urakawa 2006, Ohtake 2005). Disposable income is defined as total income from all sources, including gifts from other family members less the amount paid out for taxes and pension contributions. The median equivalized income for households turns out to be 2.5 million yen per annum, so the poverty line by this definition is set at 1.25 million yen per year. As I will show later, in some cases, this figure is not that different from the standard used by the government for determining

basic needs. The overall poverty headcount rate, the proportion of the population living in households with income below the poverty line is 13.3%, comparable to the figures given in OECD (2006) and Tachibanaki and Urakawa (2006).

Table 1 shows poverty rates by age and gender. Two points immediately stand out. First, women are more likely to be poor than men and this is true across all age groups except for ages 20-29. Women may have a lower rate for this group because they are more likely to be living at home with their parents. Secondly, poverty rates rise with age after age 60 (the mandatory retirement age is 60) and this is especially noticeable with women. where the rates for those over the age of 60 is around 20%. If we restrict the sample to women living alone between the ages of 70 and 90, the poverty rate rises to 46%! The second part of the paper focuses on women in this particular group, precisely because they are one of the main sub-groups that are at the greatest risk of being poor.

Table 1: Poverty Rates by Age and Gender, 2001

Age group	Male	Female
0-15	12.6	12.7
16-19	13.7	13.8
20-29	13.5	12.7
30-39	10.2	12.6
40-49	9.8	10.9
50-59	9.4	12.2
60-69	14.9	18.3
70-79	14.9	20.8
80 and over	19.2	23.5
All ages	12.3	14.7

Source: Kokumin Seikatsu Kiso Chōsa, Poverty defined as member of family with less than 0.5 median family equivalized income, where equivalized income is income divided by the square root of the number of family members. Weights provided by the survey were used in these calculations.

Table 2 looks at the poverty rates for individuals based on the characteristics of the household head. Here, the most noticeable statistics are those for younger household heads. Earnings tend to be lower for younger workers, especially teenage workers and so this is not surprising. Again, poverty rates rise if the household head is over 60 and is higher for women than for men. This is in keeping with Shirahase (2006) who uses several years from the Kokumin Seikatsu Kiso Chōsa to show that the poverty rates for older Japanese living on their own, although high, have fallen substantially since 1991. She attributes this decline in the poverty rate to improvement of the social security system.

Table 2: Poverty Rates (for individuals) by Age and Gender of Household Head, 2001

Age group	Male	Female
16-19	71.0	83.9
20-29	24.1	24.7
30-39	11.6	13.5
40-49	9.0	10.2
50-59	9.2	10.6
60-69	14.1	17.0
70-79	15.6	19.8
80 and over	18.6	27.3
All ages	12.4	14.8

Source: Kokumin Seikatsu Kiso Chōsa, Poverty defined as member of family with less than 0.5 median family equivalized income, where equivalized income is income divided by the square root of the number of family members. Weights provided by the survey were used in these calculations.

Table 3 examines the poverty rates according to the type of household. Individuals in nuclear family and three-generation households have poverty rates that are lower than average, while households consisting solely of a married couple are about average.

The households with the highest rates are single-person and single-parent households.

In both cases, the poverty rate is around 1/3 of the population.

Table 3: Poverty rates by family type, 2001

Family type	Proportion of all individuals	Poverty Rate
Nuclear (2 parents and child(s))	28.4	10.0
Single person	16.3	35.5
Married couple	19.4	14.9
Three generation	18.7	10.8
Single Parent	11.9	34.8
Other	3.2	18.7

Source: Kokumin Seikatsu Kiso Chōsa, Poverty defined as member of family with less than 0.5 median family equivalized income, where equivalized income is income divided by the square root of the number of family members. Weights provided by the survey were used in these calculations. Proportions do not add up to 100 as there were some individuals whose family type was not known.

Since many of the variables in Tables 1 through 3 interact with one another, we have conducted a logit analysis both of the correlates of individual poverty and also poverty of households. The results are shown in Table 4. In addition to the variables of age, gender, household type included earlier, we have also included dummy variables for widows and divorcees, since this information is also available in the survey. Most of the results confirm results that were found in the previous tables.

Table 4: Logit analysis of correlates of poverty

Explanatory Variable	Model 1: Family poverty	Model 2: Individual poverty
Age of Individual	---	-0.0013
Age of household head	0.0056**	0.0058**
Household head female	0.66**	0.79**
Household head widow	-0.08	0.027**
Household head divorcee	0.50**	0.56**
Household type		
Single member	1.09**	1.07**
Married Couple	0.42**	0.44**
Three generation	0.14**	0.15**
Single parent	0.79**	0.76**
Other	0.83**	0.54**
Undefined	0.75**	0.79**
Number of Observation	27,597	80,022
Pseudo-R ²	0.096	0.078

Source: Kokumin Seikatsu Kiso Chōsa, Poverty defined as member of family with less than 0.5 median family equivalized income, where equivalized income is income divided by the square root of the number of family members. Weights provided by the survey were used in these calculations. For household types, the comparator group is households with a married couple and child(ren). The logit analysis includes constant terms.

* Significant at the 5% level

** Significant at the 1% level

However, age does not matter once the age of the household head and family structure are taken into account. Secondly, there is very little effect associated with widowhood, once household type and gender are taken into account. By contrast, there is a substantial additional positive effect associated with being a divorcee. This suggests that divorcee-headed households are especially prone to be poor, and

suggests that the government should consider policy initiatives to address this problem.

3. Poverty among older women living alone

For the second part of this paper, we will examine the income levels of women aged 70-95 who are living alone. In old age, a simple definition of poverty based on income is unsatisfactory as we would expect some dissaving to occur during this part of the life-cycle. Leaving the bequest motive (desire to leave wealth to heirs) aside, it may be possible for an individual to live off of their savings, even if their income (in the form of interest or rent or pensions) is insufficient to provide for expenditures. In order to keep analysis simple in this preliminary study, we have restricted my examination to women who are living alone. Using the life-expectancy table published in Health and Welfare Statistics Association, (2001 281) we have computed the annuities that could be received by an individual if they were to live the expected number of years given in the table. Of course, this does not take into account the fact that individuals may live longer than expected and may feel insecure if they were to consume their savings based on a simple life expectancy. Nevertheless, it does provide us with some indication of whether or not the elderly have enough income to maintain their retirement, or whether they will need supplementary assistance from the government, or from their families.

We have calculated the annuities available using three separate discount rates, 1%, 3% and 5%. In order to make the calculation I subtract the sum of outstanding borrowing, from the savings to derive net savings. It is possible for this amount to be negative if the individual is a net debtor. Table 5 shows some of the percentiles of

these annuities for the women in the defined group. It is immediately apparent that almost 90% of individuals would receive an annuity that is less than the relative poverty line of 1.25 million yen. Consequently, it is unlikely that these annuities would do much *by themselves* to change the poverty rate of women as measured by the relative poverty line. However, they become more significant if we consider them as added to other income.

Table 5: Annuities available for remaining life expectancy based on assets and liabilities of women living alone, age 70-95, Japan 2001, millions of yen

Percentile	Interest rates		
	1%	3%	5%
1%	-0.25	-0.29	-0.33
5%	0	0	0
10%	0	0	0
25%	0	0	0
50%	0.17	0.19	0.2
75%	0.56	0.63	0.69
90%	1.3	1.46	1.61
95%	2.15	2.32	2.57
99%	6.77	7.37	7.99

Source: Kokumin Seikatsu Kiso Chōsa for savings and loans. Health and Welfare Statistics Association (2001 281) for life expectancies

At this point it might be asked whether we should be so concerned about relative poverty standards, or whether some more absolute standard of living might be more appropriate. Government guidelines and tables of minimum living standards are published in Health and Welfare Statistics Association (2001 99). These guidelines are used by local authorities to determine whether or not someone is eligible for supplementary assistance. Tachibanaki and Urakawa (2006) use these figures to examine poverty rates with an absolute standard. In the case of the elderly living

alone, however, these standards turn out to be very similar to the relative poverty line, if not a bit higher. The living standard that determines whether or not one is eligible for government assistance consists of several component elements. There is a basic element, a winter heating supplement for November through March which varies according to region, a housing allowance, and an old age allowance. For example, for elderly inhabitants living alone in Tokyo, the standard would be set at around 1.3 million yen per annum, close to the relative poverty line used in this paper. The standard would be increased for individuals living in colder parts of the country, but would also be decreased for living outside of a major metropolitan area, so it is not unreasonable to use the relative poverty measure as a measure of absolute poverty as well.

We examine the total sum that would be at the disposal of the individual including the annuity, public and private pension income, rental income, interest income, money received from family members. We do not include employment income in the total as it should not be necessary for someone to work over age 70. We then observe how much inclusion of the annuity changes the likelihood of falling below the poverty line. The results are shown in Table 6. The poverty rate for disposable income using the relative poverty line of 1.25 million yen is 46.2%. In Table 6 the poverty rate for income without annuities added (48.7%) is slightly higher than this because I do not include income from work, self-employment, and the only government income included is pension income. One can see that almost half of all women in this category are poor without consideration of the annuities. However, once the annuities are added, it appears that only one third of the women in the sample fall below the

poverty line. Essentially the same results are achieved if one uses an absolute standard instead of the relative standard.

Table 6: Percentage of women living alone below relative poverty line with and without consideration of annuities.

	No Annuity	Annuity at 1%	Annuity at 3%	Annuity at 5%
Poverty rate	48.7%	34.3%	33.9%	33.8%

Source: Kokumin Seikatsu Kiso Chōsa, 2001. The annuities are calculated as in Table 5. An individual is poor if her total income (not including work, self-employment or non-pension government income) added to the annuity is less than one half the median equivalized household income for the entire population.

4. Conclusions

This paper has investigated poverty in Japan using the Kokumin Seikatsu Kiso Chōsa, and confirmed the figures of OECD (2006) and Tachibanaki and Urakawa (2006). In this paper, we have shown that poverty rates are higher for households headed by women, and for households headed by the elderly, especially those over age 60. Two groups stand out. The first is divorcee-headed households, which are much more likely to be poor, even taking into account single or single-parent status. Government policy should address this problem urgently as the divorce rate is rising rapidly. The second group consists of elderly women living alone, with poverty rates approaching 50%. In the latter case, it is clear that net savings will allow about a third of the poor to pull themselves above the poverty line by spending down their savings. While, on the one hand, this means that many elderly women living alone are not as poor as the income figures would suggest, it remains true that about one third do not have the savings necessary to maintain a decent life without government assistance. Poverty rates for this group have been falling as pointed out by Shirahase (2006).

Nevertheless, this group should be targeted with better basic pension benefits and also

encouraged to apply for assistance if pension benefits are insufficient to support a basic standard of living.

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第II-4章

職業と経済格差

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職業と経済格差

石田浩

本稿では、職業に着目して経済格差の推移を検討する。1980年代半ばから2001年にかけて経済格差が拡大していることが確認されている。しかし経済格差の意味そのものについてはまだ十分な議論がなされていない。そこで、本稿では、社会学における社会階層研究において最も注目されてきた階層変数である職業に着目して、職業ごとの経済格差について検討する。職業と賃金については労働経済学を中心に研究があるものの、世帯主の職業に着目して世帯の経済状況を検討するアプローチはまだ多くない。白波瀬(2005)は、職業によって構築した階層カテゴリーごとの所得格差を分析し、専門・管理層の相対的な優位性が維持されているものの、他の階層に比した相対的な経済的有意性が低下していることを示した。本分析で用いる「国民生活基礎調査」は調査時点の職業が聞き取られている。しかし、高齢層になると調査時点で就いていた仕事ということになるため、有業者割合そのものが低下し、職業も現役時代とは異なる場合が多い。その意味で、高齢層については結果そのものに偏りがあることを留意する必要がある。

本分析で用いる職業カテゴリーは、(1)専門・管理職、(2)事務・販売職、(3)サービス・保安職、(4)農林漁業職、(5)生産工程・運輸関連職、の5つである。また、ここでみる所得とは、総所得から税・社会保険料を引いた可処分所得であり、世帯サイズで等価したものをを用いる(以降、可処分所得)。まず世帯主の職業に着目して、職業カテゴリーごとの所得分布をみる。図1から図6は1986年、図7から図12は1995年、図13から図18は2001年の、世帯主年齢別に職業カテゴリーごとの所得分布を示した。全体として、専門・管理職の相対的な経済的優位性がどの年齢階層でも認められ、特に高齢層においてその優位性は顕著になる。もっとも、70代以降も専門・管理(管理職割合が高くなる)に就いているものといった限定された場合であることは留意すべきであるが、60代、70代グループでもまでも専門・管理層に留まった場合の経済的優位性は高い。一方、農林漁業従事者の経済状況は恵まれず、70代以上でも農林漁業に携わっている場合はその収入レベルは低い。

これまでは分布そのものをみてきたが、図19から図24は3時点間において、それぞれの世帯主年齢ごとの所得中央値と各職業カテゴリーの所得中央値の比をとって所得ギャップを男女別に算出した結果である¹。男性世帯主についてみると、専門・管理職の経済的有意性は1986年が最も顕著でその後高齢層で頭打ちとなっている。一方、2001年には比較的若い層での専門・管理職の優位性がみられる。事務・販売職も、相対的な経済的優位性の低下が認められる。1986年には、事務・販売層は専門・管理ほど有利ではないにしろ平均よりも恵まれた経済状況にあった。一方、サービス、農業、生産工程といった職業は全体よりも相対的に低い所得レベルにあった。しかし、1995年になると、事務・販売職が限

¹女性の世帯主数が少ないため、結果の解釈には注意を要する。

りなく全体平均レベルに近づくと同時にサービス、生産工程の所得レベルが上昇した。2001年になると、若干、サービス、生産工程職が全体平均レベルから下方移動し、専門・管理職が高齢期の経済的有利性を回復していることがわかる。女性については、専門管理職の経済的な優位性が顕著である。

図 25 から図 42 は、世帯主年齢別に職業カテゴリーの貯蓄分布をみたものである。20代の若年層では、専門・管理の高い貯蓄率が明らかで貯蓄がないと答えたものは 1 割程度であった。一方、生産工程・運輸になると 4 分の 1 以上が貯蓄なしと答えていた。しかし、調査年次が進むにつれて、若年層における貯蓄行動は職業間で似通ってきた。また、世帯主年齢があがるにつれて、専門・管理層の高い貯蓄率が顕著になる。それでも 2001 年については、50 代に入ると、どの職業カテゴリーでも高い貯蓄率が認められる。

所得と同様に貯蓄についても、世帯主年齢ごとの貯蓄中央値と各職業カテゴリーの貯蓄中央値の比をもって貯蓄ギャップをみたのが図 43 から図 45 である。ここでの大きな発見は、1986 年には専門・管理が特に 60 代以上の高齢層で圧倒的な貯蓄の高さを提示していたが、1995 年、2001 年では専門・管理の突出した貯蓄の高さは認められない。もっとも、他の職種にくらべると専門・管理層の積極的な貯蓄行動は明らかであるが、1980 年代ほど顕著な違いは認められない。一方、事務・販売職で特に 60 代を中心に貯蓄の相対的な高さがみられた。

最後に、所得格差のもつ意味について検討するために、生活の苦しさに関する意識（以降、生活意識）に関する規定要因について検討した。図表 46 から図表 48 は、1980 年代半ばから 2001 年にかけての生活意識に関するロジット分析結果である。生活が苦しい、あまりよくないと答えた場合を 1 とした。独立変数としては、世帯主年齢、世帯主既婚ダミー、世帯主仕事有ダミー、専門・管理職ダミー、事務・販売職ダミー、農林業職ダミー（生産工程・運輸関連職種をレファレンスグループとした）、可処分所得（対数値）、貯蓄（対数値）、18 歳未満のこどもの有無、65 歳以上高齢者の有無、である。まず、1986 年の結果からみると、有意な効果を呈したのは、世帯主年齢、世帯主既婚ダミー、専門・管理ダミー、農業ダミー、収入と貯蓄高、子どもの有無と高齢者の有無であった。

3 時点間で若干の決定構造の変化がみられるものの、基本的に生活意識を規定する要因に大きな変化はない。2001 年の結果に着目すると、年齢が高いほど生活が苦しいと訴え、既婚者はそうでないものに比べて生活の苦しさを訴える。事実、本分析で最も興味ふかい結果は、世帯にこどもがいるか高齢者がいるかによって、生活意識への効果の符号が異なることである。世帯に 18 歳未満のこどもがいるものほど、生活が苦しいと訴える傾向にあるが、高齢者がいる場合は生活の苦しさを訴える確率は低くなる。これまで、所得格差については近年改善の傾向があるものの高齢者のいる世帯の格差も貧困率も高いことがわかっている。それでも意識となると生活の苦しさを特に訴えるわけではない。つまり、生活の苦しさといった生活意識は、これまでの個人の生き様やこれまで生きてきた時代との相対的な認知であるので、貧困率や所得格差といった現時点での実態を直接反映するものでは

ない。

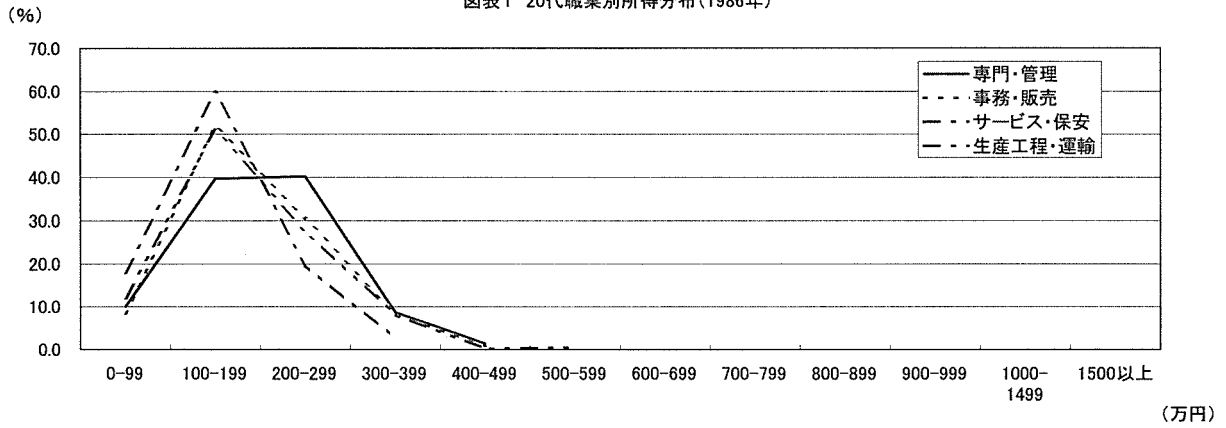
一方、18歳未満の子どもがいる世帯では生活の苦しさを訴える傾向にあり、その効果は1990年代以降高い。実態面においても、子どもがいる世帯の経済格差は広まっており、経済的な閉塞感を強めているこれらの世帯への社会的支援の要請が高いことが伺える。所得が生活意識に与える効果は貯蓄よりも高い。フローだけでなくストックは格差が最も大きくかつみえにくいところであるが、ひとびと（ここでは世帯主）の意識を規定する際にはフローとしての所得効果のほうが高い。所得や貯蓄をコントロールしても職業の効果も認められた。特に、専門・管理職の効果は2001年時点で最も大きい。

このように、生活意識を決定する際には、年齢や配偶関係、子どもの有無、高齢者の有無といったライフステージ、所得、貯蓄、仕事の有無と職業といった社会経済的要因が重要な効果を呈していた。ひとびとの生活意識を形成するのは、所得や貯蓄といった経済的要因のみならず、どのような職業に就いているのかも重要であることが確認された。

まとめ

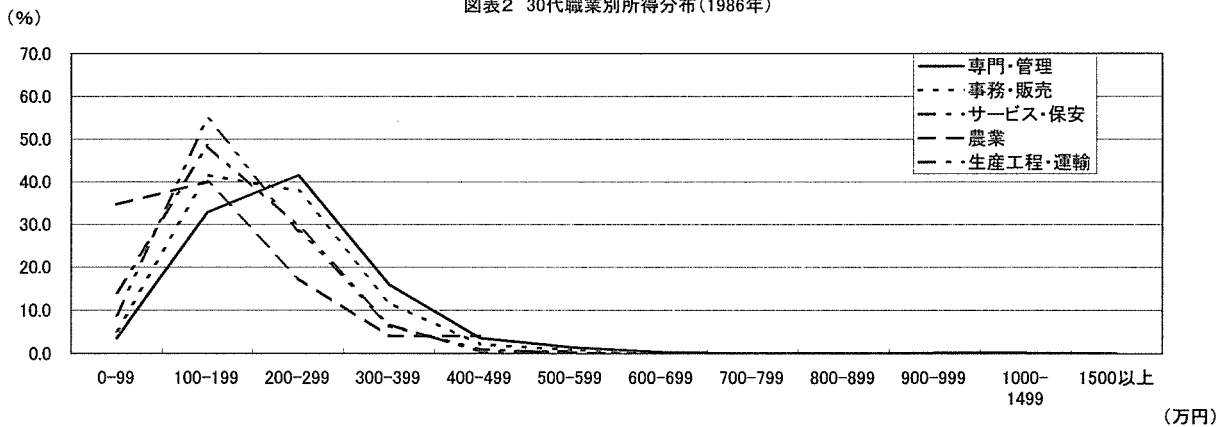
所得、貯蓄を職業カテゴリーから検討した結果、専門・管理職の経済的に恵まれた状況が明らかになったが、以前ほど圧倒的な経済的有利さを顕示できなくなっている状況も同時に認められた。相対的な専門・管理層の経済的優位性の低下と専門・管理層内の階層化についてさらなる検討を試みる必要がある。また、ひとびとの生活意識を規定する際には、所得や貯蓄のみならず、職業の効果もみ落とせないことが確認された。専門・管理職の相対的な経済的有利性が低下しつつも、専門・管理職に就いていることは人々の意識に重要な効果を及ぼしている。

図表1 20代職業別所得分布(1986年)

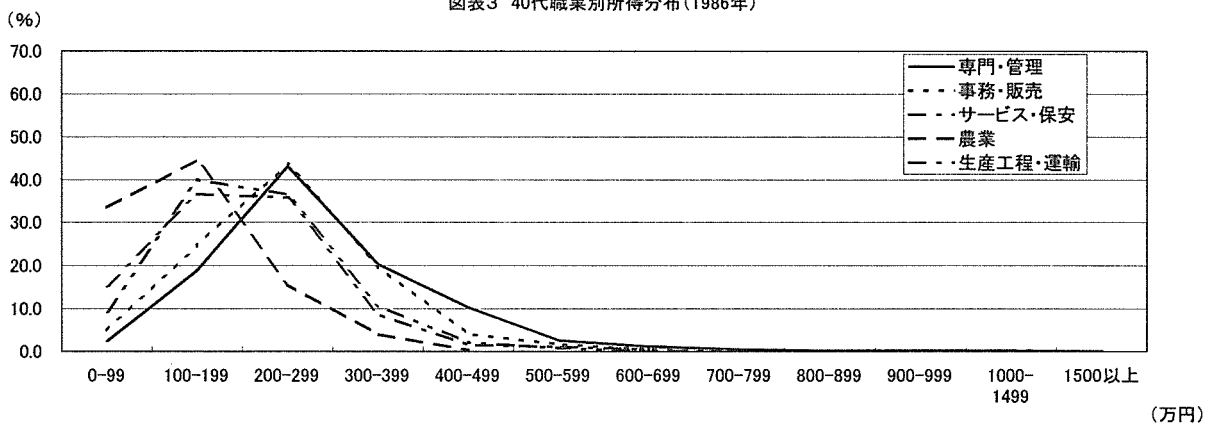


注)セル度数が10以下の場合省略

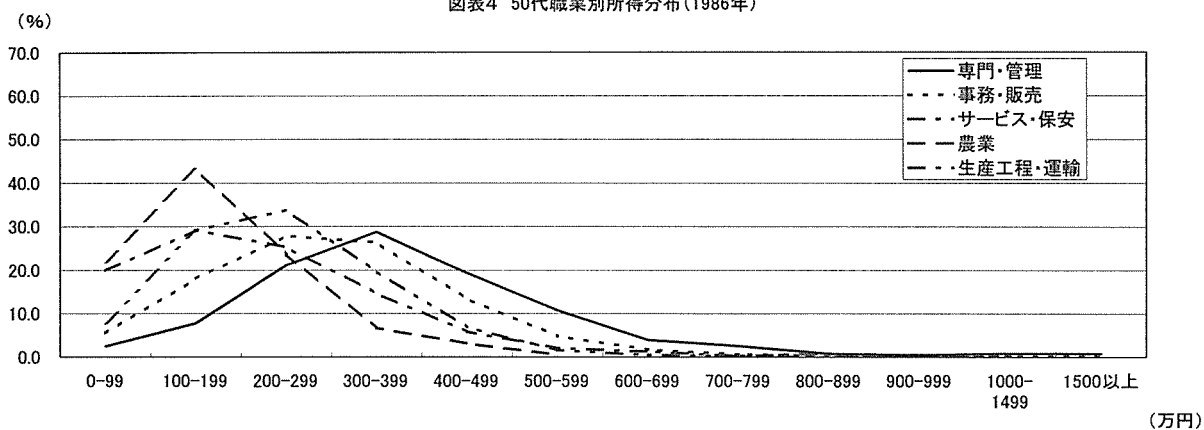
図表2 30代職業別所得分布(1986年)



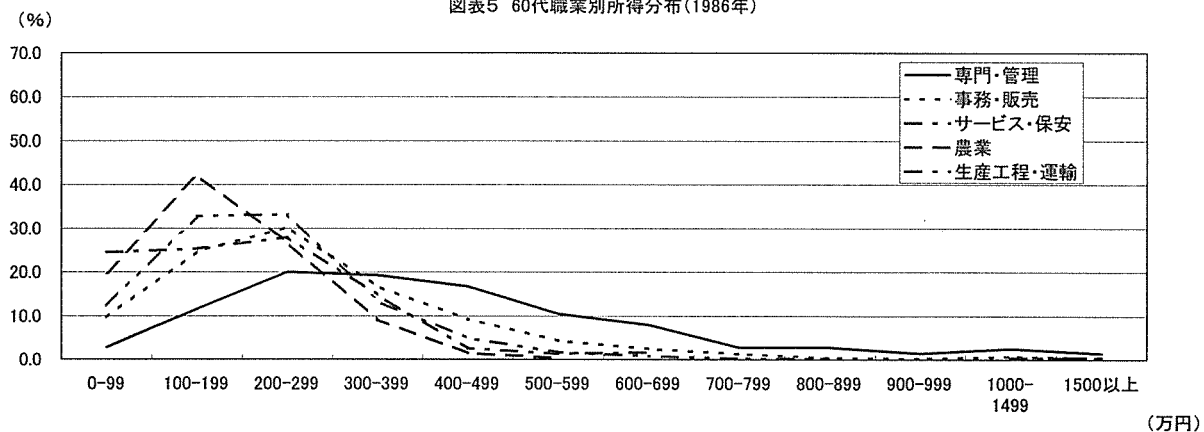
図表3 40代職業別所得分布(1986年)



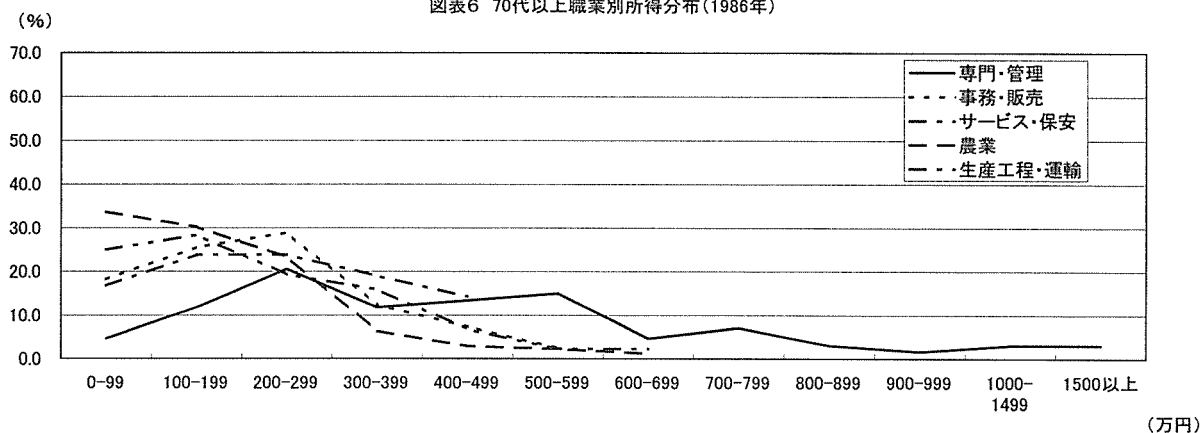
図表4 50代職業別所得分布(1986年)



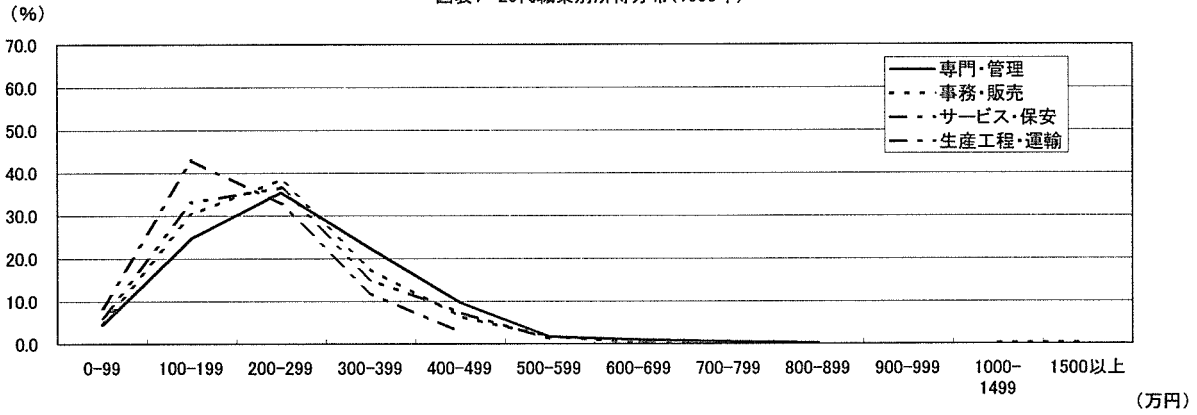
図表5 60代職業別所得分布(1986年)



図表6 70代以上職業別所得分布(1986年)

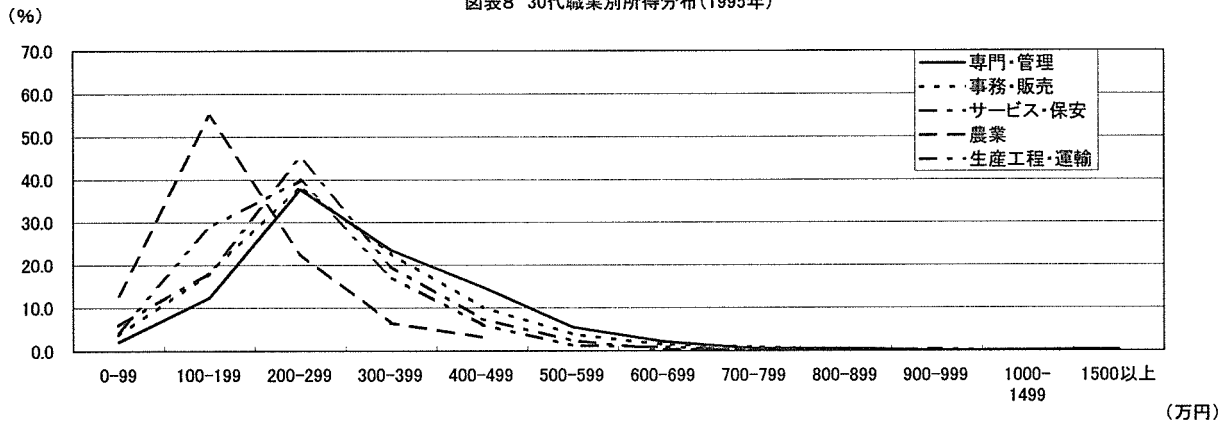


図表7 20代職業別所得分布(1995年)

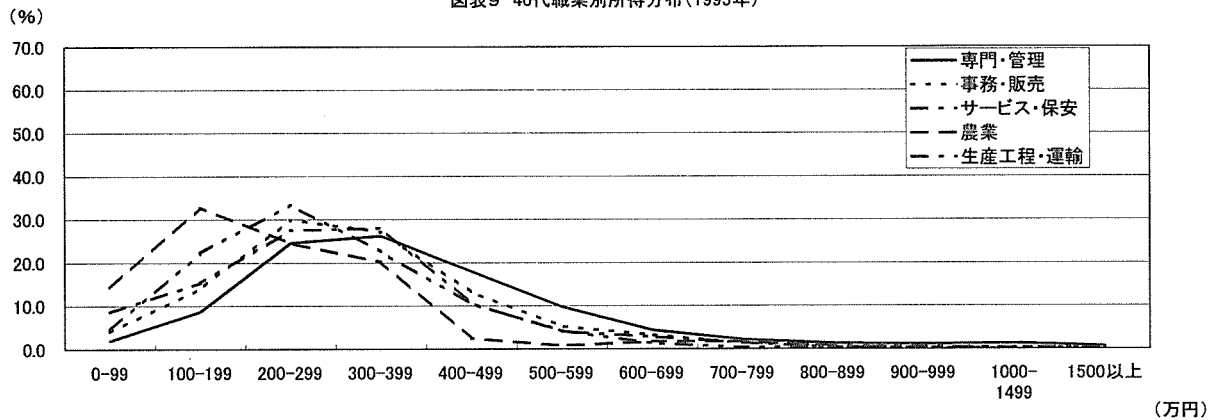


注)セル度数が10以下の場合は省略

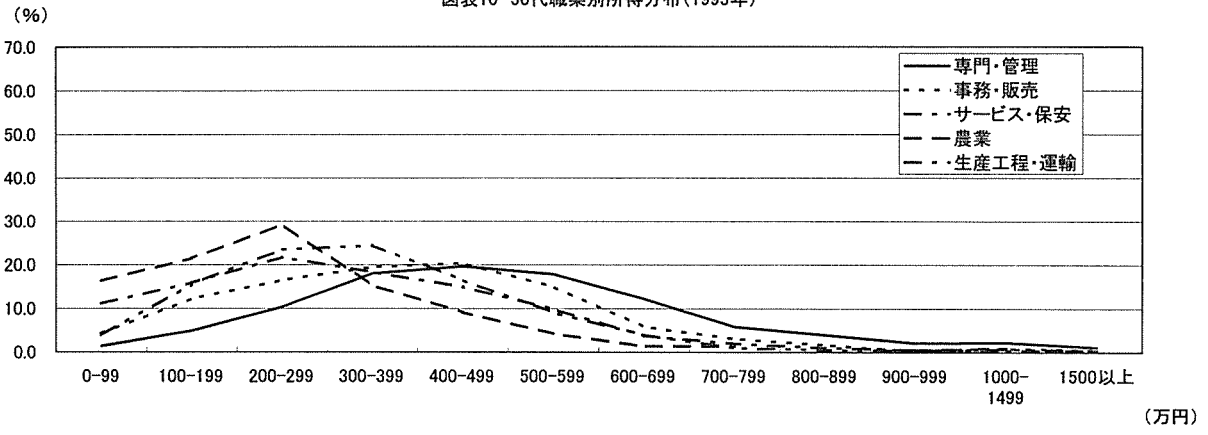
図表8 30代職業別所得分布(1995年)



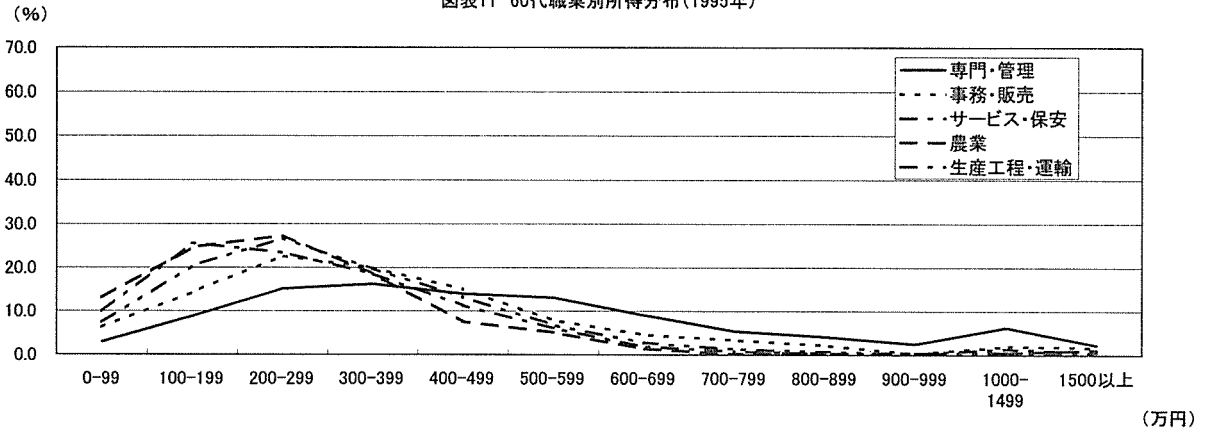
図表9 40代職業別所得分布(1995年)



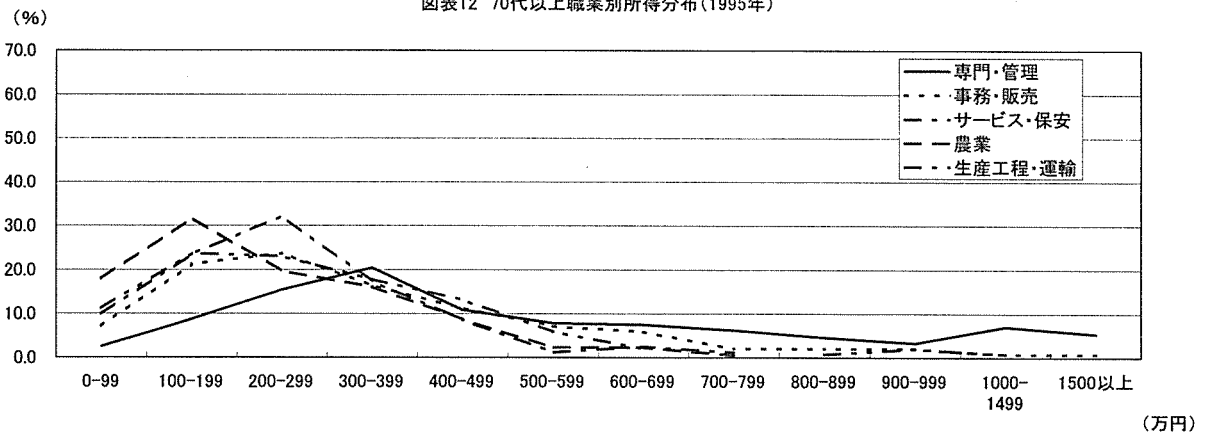
図表10 50代職業別所得分布(1995年)



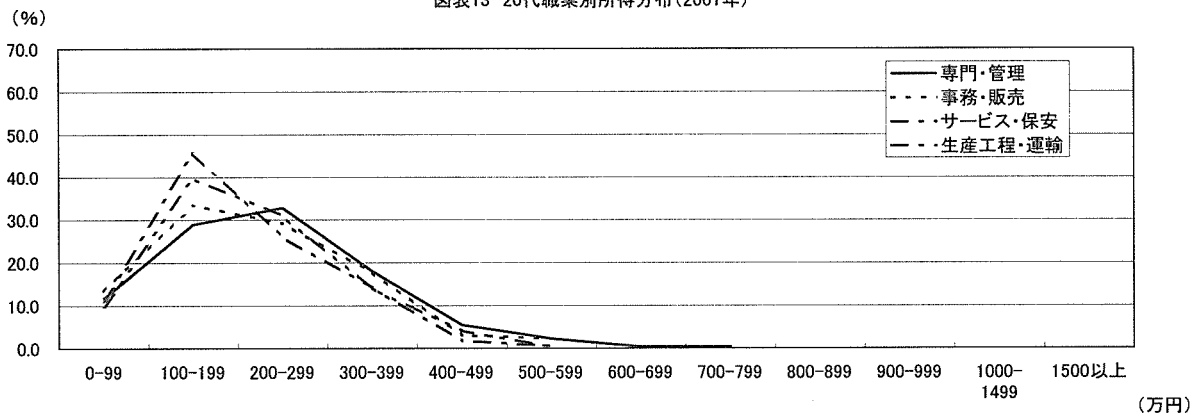
図表11 60代職業別所得分布(1995年)



図表12 70代以上職業別所得分布(1995年)

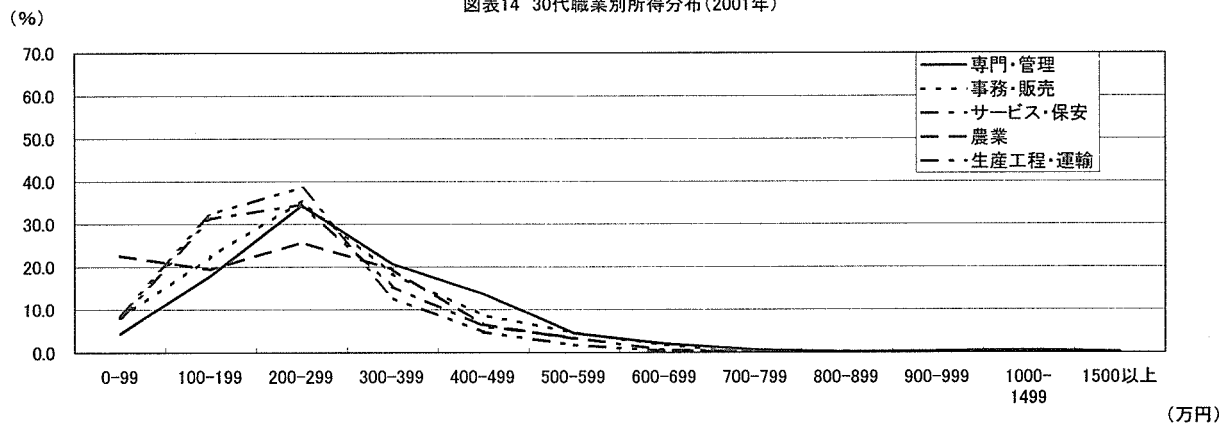


図表13 20代職業別所得分布(2001年)



注)セル度数が10以下の場合省略

図表14 30代職業別所得分布(2001年)



図表15 40代職業別所得分布(2001年)

