

A Statistical Comparative Study of the Working Poor in Japan and Canada

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Abstract: Problem statement: Recently in Japan, there has been an increase in the group which is termed the 'Working Poor'. However, the group's size and configuration remains unknown. **Approach:** The purpose of this study is to compare the working poor in Canada and Japan using microdata. First, the definition and method of estimation of the working poor provided by (Iwai and Murakami, 2007) are provided along with later modifications. Second, results of the investigation into data appropriate for use in estimating Canada's working poor and poverty line are given, as are estimates of Canada's working poor. Last, the characteristics of unemployment, unstable employment and the labor market are examined for both Canada and Japan and the similarities and differences between the two countries are highlighted. **Results:** In Canada and Japan, the working poor are most likely to be found among the young, those with a low level of education, those in unstable employment or those working in a company having few employees. As regards the differences between the two countries, males are more likely to be the working poor than females in Canada, though this trend is not seen in Japan; moreover, the percentage of the working poor is high among the 25-34 and 35-44 age groups in Japan, though this is not the case in Canada. **Conclusion:** As conclusions of this study, the first challenge that lies ahead is to find data from the two countries that allows a more rigorous comparison. The second challenge is to re-evaluate estimates made to date after a full investigation of labor market systems. Statistical Analysis Research Project (2009), we have estimated the working poor of the UK and compared their figures with those of Japan. The third challenge is thus to add the findings of this study to those from the UK/Japan and thereby perform a trilateral comparison.

Key words: Unstable employment, statistical comparative study, labor market systems

INTRODUCTION

Against the backdrop of the progress of globalization and accompanying social and economic transitions, there has been in Japan of late an increase in the groups of workers termed 'atypical' or 'non-regular'. The majority of non-regular workers are in unstable or irregular employment and receive low wages. Furthermore, among these individuals, there is a particular group that, although working, fails to earn sufficient wages or income (household income) to meet the most basic standard of living as defined by the welfare standards of Japan. This group, which is increasing in size and becoming an ever more pressing concern in Japan, is termed the 'Working Poor'. However, a precise definition of the working poor is elusive and the group's size and configuration remains unknown.

In (Iwai and Murakami, 2007), we have employed Japanese microdata to draw parallels between activities of individuals in the labor market and their household

income and have used their results to estimate the working poor in Japan and analyze their characteristics. Furthermore, as a first step in an international comparison of the working poor in developed countries, (Statistical Analysis Research Project, 2009) have compared the working poor of the UK and Japan. Their analysis has revealed the following: (1) Japan and the UK differ in that the percentage of the working poor in the UK is highest among the middle-aged, in contrast to Japan where the highest percentages are seen amongst the youngest and oldest age groups, (2) Japan and the UK are similar in that the rate at which the working poor are present is affected by (a) education level (percentage increases with decreasing education level), (b) the format of employment (different percentages of the working poor individuals are seen between groups of full time workers and part-time/self-employed workers) and (c) the number of employees in the company concerned (percentage increases with decreasing number of employees).

The purpose of this study is to compare the working poor in Canada and Japan using microdata and

thus clarify peculiarities of unemployment, unstable employment and the labor market in Japan. First, the definition and method of estimation of the working poor provided by (Iwai and Murakami,) are provided along with later modifications. Second, results of the investigation, at the meta-data level, of data used to estimate the working poor in Canada, are provided. Third, information is provided on the minimum standard of living in Canada. Fourth, the methods used to estimate the working poor in Canada are described. Fifth, the characteristics of unemployment, unstable employment and the labor market are examined in both Canada and Japan and the similarities and differences between the two countries are discussed. Finally, future work is clarified.

MATERIALS AND METHODS

Definition of the working poor: In this study, the working poor are defined as “Individuals (excluding students) active in the labor market (working or seeking work) for three months or more, but who still belong to a poor household”. This is a slightly modified version of the definition given in (Iwai and Murakami, 2007). The definition given in the above study is essentially that of the US Bureau of Labor Statistics (BLS). The working poor were first defined by (Klein *et al.*, 1989). Since the publication of Klein and Rones’ estimation results, the BLS has come to define the working poor as “Individuals who spent at least 27 weeks in the labor force (working or looking for work), but whose incomes fell below the official poverty level”. The present author’s revised definition of the working poor was made upon relaxation of this 27-week limit and in consideration of the usual labor force status (standard, 3 month) format of the ‘Employment Status Survey’.

The data (variables) needed to estimate the working poor in accordance with this definition are as follows: (1) Household income, (2) Activity of individuals in the labor market (employed, unemployed), (3) Period of activity of individuals in the labor market (days worked, working hours). Furthermore, these variables must be linked. Note that (1) above is not defined as individual income for the reason that, in most cases, ‘poverty’, when measured by income, is ascertained not from individual income, but from the relationship between household income, number of household members and the minimum standard of living (based on public assistance) in the

country concerned, as is the case with the social welfare system in Japan and the public assistance system in other countries. Accordingly, it is difficult to make estimates of poverty using aggregate data; microdata is required.

Methods of estimating the working poor: Let us now estimate the working poor on the basis of the above definition. The following is an outline of the methods used in estimating the working poor. The flowchart in Fig. 1 shows the methods of classifying the working poor used in this study, which are based on those provided Iwai and Murakami (2007) and the revisions.

Iwai and Murakami (2007), we defined the working poor as “Individuals active in the labor market (working or seeking work) for three months or more, but who nevertheless belong to a poor household.” Many points have been raised about this definition. First, the authors define the working poor as those active for three or more months in the labor market; however, this definition includes students and others for whom activities in the labor market are not the primary focus. Moreover, it has been noted that: “People who have a low income as a result of setting their own working hours should be omitted from the definition of the working poor. Asadi *et al.* (2008) Snel, E., Boom and J. Engbersen, G. (2008) have pointed out that students must be excluded from the definition of the working poor. As to the reason why, they state that, “Students understand that a low income is the norm during student years and have chosen their current situation in order to obtain a higher income later in life.” Taken from Ibid)” In response to these suggestions, we revised the definition of the working poor to exclude students.

In addition, the author revised the definition of the minimum standards of living. Iwai and Murakami (2007), we used the minimum standards of living based on the total of the first and second types of livelihood assistance within the larger category of public assistance and made their estimates of the working poor according to this. Their method of setting the minimum living standards was however called into question by (Komamura, 2008). Hence, in this study, ‘assistance’ and ‘additions’ (as defined by the Japanese public assistance system) other than livelihood assistance have been incorporated into the definition of the minimum standard of living, to the extent that this information could be gleaned from the ‘Employment Status Survey’. The additional factors considered in calculation of the minimum living standard are shown in Fig. 2.

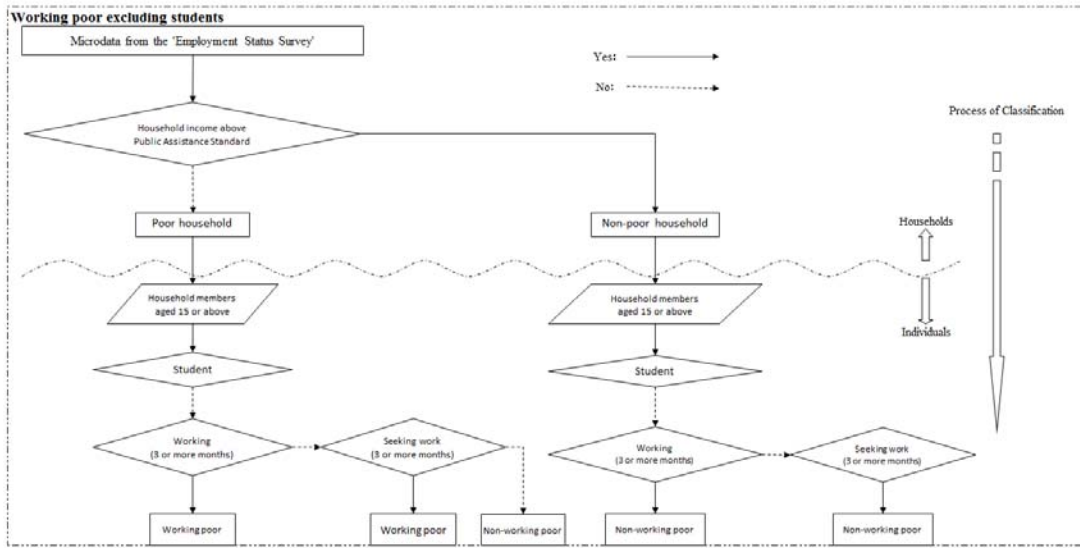


Fig. 1: Estimates of the working poor of Japan-classification flowchart

Livelihood assistance		+	Housing assistance	+	Education assistance	+	Addition for the elderly	+	Addition for Lone-Female-Parent household	=	Total
Type 1	Type 2		Varies by region; however, all set as 13,000 JPY		(Number of elementary/middle school children) x amount		Addition for those 70 or older		Addition for lone-female-parent households having children aged under 18		
Individuals; 12 age classifications	Households; number of household members (not including addition for winter season)										

(Note 1) For the various forms of assistance additional payments, the amounts applicable to 1st area of classification - 1 (1992, 1997, 2002) were used.
 (Note 2) The first category of livelihood assistance for 1992, 1997, and 2002 is divided into 12 age groups.

Fig. 2: Calculation of the minimum living standard

As shown in Fig. 1, the estimates of the working poor as defined above are calculated as follows. First, the relationship between welfare standards and household income/household size/other factors determines whether an individual provisionally belongs to a poor household. Second, students over the age of 15 living in poor households are excluded. And third, those meeting the above two conditions and who are seeking work or working are classed as the working poor.

Employing the above definition and estimation methods of the working poor, we may now attempt to estimate the working poor of Canada and compare the relevant figures with those for Japan. First, the investigation (at the meta data level) into the data used will be discussed. Second, the minimum living standard and public assistance system in Canada will be outlined. Third, the working poor in Canada will be estimated using Canadian microdata.

Investigation of the data to be used: As stated above, the data (variables) needed to estimate the working poor in accordance with the definition provided in this study

are as follows: (1) Household income, (2) Activity of individuals in the labor market (employment, unemployment), (3) Period of activity of individuals in the labor market (days worked, working hours). Furthermore, these variables must be linked. It would likely be difficult to estimate the working poor in Canada, or any other country, using aggregate data. Thus, the author began a metalevel search for surveys containing all the above variables, selected data to use and applied for usage permission to Statistics Canada.

As the state of labor market activity is relevant to this study, the author began by reviewing the Canadian Labor Force Survey (LFS). Like the UK labor force survey described by (Statistical Analysis Research Project, 2009), the Canadian LFS provides adequate information on the population of the labor force, as well as figures on employment, unemployment and other factors concerning the labor market following the International Labor Organization(ILO) definitions of these factors. Yet, as was the case with the UK labor force survey, the Canadian survey, though it has much

information on income, does not contain sufficient information for the estimation of the working poor the author wished to carry out. According to (Statistics Canada, 2009), wages and salary were incorporated into the LFS in 1997; when combined with working hours per week, wages and salary allow derivation of weekly and hourly wages; hence, they are valid for use as variables. Though it is possible to add such income and define it as the income for the whole household, this method does not take into account any income of an employed person that lies outside wages or salary; therefore, such data, which lacks information on the income of the self-employed, has limited application. Thus, when a household is formed of combinations of persons in the labor force such as those described below, it is not possible to determine whether a given household can be classed as poor. Examples of such households would be an employed person living with a self-employed person, or a self-employed person living with an unemployed person.

Hence, the author chose to consider surveys other than the Canadian LFS. As stated above, the data (variables) needed to estimate the working poor are as follows: 1) household income, 2) activity of individuals in the labor market (employment, unemployment), 3) period of activity of individuals in the labor market (days worked, working hours). One survey that provides all these variables is the Survey of Labor and Income Dynamics (SLID). Furthermore, the SLID contains panel data, namely, data obtained by observing multiple phenomena in a given group of individuals. The sample size in this survey is 17,000 households per panel.

The SLID contains the variable (1) Household income. The section on income, which is much more diverse than that in the LFS, contains not just wages and salary, but also income from self-employment, income from investment, retirement pensions, various government transfers and tax-related items. The author next looked into the second variable necessary for estimation of the working poor: (2) Activity of individuals in the labor market. The SLID contains variables on the activity of individuals in the labor market. Being composed of panel data, SLID contains more information on the state of activity in the labor market than LFS, which captures the current status in a more static fashion. Hence, albeit to a certain degree only, SLID can capture Goka's "migratory working poor" (However, as the SLID covers households only, the section of people in the SLID who are, as (Greve, 2007) describes them, "Short-term workers that migrate across geographical regions or are persons of no fixed

abode who use the dormitory of a temping agency as a base from which to repeatedly enter and leave employment." cannot be assessed. Taken from Ibid).

The author next looked into the third variable necessary for estimation of the working poor: 3) period of activity of individuals in the labor market (days worked, working hours). The SLID contains hours of activity in the labor market as a variable and as with the section on income, this section contains much detail. Among others, it contains variables for the period in employment, the period not in the labor force and the period of unemployment.

In light of the above characteristics, SLID microdata was used for estimates of the working poor in Canada in this study.

Standards of social assistance: Iwai and Murakami (2007), we used Japan's public assistance standards as the minimum standards of living. Then, applying these to microdata from the 'Employment Status Survey', they identified poor households and estimated the working poor in light of individuals' state of activity in the labor market.

In estimating the working poor of the UK, (Statistical Analysis Research Project, 2009) used the UK's 'applicable amount' as the minimum living standard. Then, applying this to the microdata of the General Household Survey (GHS), they identified poor households and estimated the UK working poor in light of individuals' state of activity in the labor market. Here, the author describes the minimum standards of living in the countries under comparison, a factor which proved important in identifying poor households in Japan and Canada (The author investigated whether or not the standard amounts for social assistance (in particular, income support) could be located on the Web. To take one example, the base standard amount for income support was available for British Columbia. Various basic amounts had also been published for Ontario state, under the umbrella of Ontario Works. For Nova Scotia, base amounts for personal allowance, shelter allowance and special needs had been published. A sample of the base amounts was also available for Quebec. For Saskatchewan state, base amounts have been published in the form of the Saskatchewan Assistance Rate. In contrast, for Alberta state, it was necessary to make enquiries to the E&I (Employment and Immigration) office to obtain details of income support. This was also the case for Manitoba state. For Yukon territory, it was necessary in most cases to enquire at the office of the region concerned to obtain such data. Each state and territory therefore required a specific form of enquiry (See Government of Alberta Website; Government of Nova Scotia Website Government of Saskatchewan Website, Government of Yukon

Website, Manitoba Website, B.C. Government Website, Ontario Website, Website,). The following describes the minimum living standard in Canada from an institutional and statistical perspective.

In Canada, 'social assistance' is the equivalent of what Japan terms 'public assistance'. As regards studies and books on this subject by Japanese authors, there are the works of Yuuiti (1999), which systematically outline Canada's social assistance. Furthermore, the National Council of Welfare (NCW) in Canada has published several reports and various data on the minimum living standard, number of persons classed as poor and similar topics. He writes that in Canada the social assistance system varies by state and that no unified national standards exist.

Japan's public assistance standards and the UK's applicable amount are published by the central government, making it possible, by combining the appropriate base amounts, to calculate the minimum living standard for individual households. However, the base amounts vary by state/territory in Canada and indeed vary widely; hence, it was difficult to calculate a unique minimum living standard for Canada by recombining the base amounts as was possible for Japan and the UK. Furthermore, for the poverty line and 'welfare income', NCW publishes base amounts by state for a variety of different households. However, on the basis of the data published by NCW, it is difficult to exactly calculate minimum standards of living for households other than these. Therefore, other methods were employed to calculate the minimum standards of living.

Minimum standards of living published by statistics Canada: As previously noted, the minimum standard of living varies by state/territory in Canada and indeed varies widely; hence, it was difficult to calculate a unique minimum standard of living for Canada by recombining the base amounts as was possible for Japan and the UK. Accordingly, for the purposes of this study, an alternative measure was needed. Here the author describes alternative measures in Canada.

In Canada, there is no official standard for 'poverty'. There are, however, three measures of low income. The Canadian government has stated that these are strictly measures of low income, not indicators of the poverty line; however, many reports on the status of poverty in Canada use these measures to distinguish poor from non-poor households. The following three measures of low income are available: Low-Income Cut-Off (LICO), Low-Income Measure (LIM) and Market-Basket Measure (MBM). For more information on these measures, (Iwai and Murakami, 2007). Let us now review these three measures in turn (For details, (Iwai and Murakami, 2007).

The LICO is a measure of low income that factors in the size of the household and the size of the city in which the household is located. To obtain the LICO, a household's total expenditure on food, shelter and clothing is obtained from the Family Expenditure Survey (FAMEX) and calculated as a ratio of pre-tax income. Households that spend 20% or more above the average of their pre-tax income on food, shelter and clothing are said to fall below the LICO. In recent years, measures using after-tax income (LICO-AT) in this calculation have been published.

The LIM uses an equivalence scale to adjust for household size and to obtain standards of income for individuals. Low income is defined as income below 50 % of the median value. The OECD and others use a method in which the equivalence scale is set as 0.5 and the number of individuals in a household as 0.5 squared. This method sets the amount of spending for a two-person household as 1.4 and that of a single-person household as 1.0. In a given household, the Canadian LIM gives a value of 1.0 to the first household member, 0.4 to the second household member, 0.4 to persons 16 or over and 0.3 to persons under 16. In contrast to LICO, this measure takes into account the number of children in the household. However, unlike LICO, LIM does not have separate standards for different regions.

The MBM, which sets a two-parent, two-child household as the norm, is calculated from a 'market basket' comprising a normal household's expenses for food, clothing, footwear, shelter, transportation and other goods and services. When calculating MBM for other household sizes, the LIM equivalence scale is employed. Furthermore, MBM is calculated with respect to geographical region.

Of the above measures of low income, which should be used as the minimum standard of living for Canada? In the 'Employment Status Survey', the data for household income is pre-tax data, that is to say, to define poor households when estimating the working poor of Japan, this survey compares the minimum standard of living with a household's pre-tax income. This is a very important factor to be kept in mind when comparing Japan and Canada. The characteristics of MBM indicate it is a measure of after-tax income. It is therefore not suitable for use in this study. In contrast, LIM indicates 50 % of the median income. It is used in international comparisons of poverty; however, it is not the same as the minimum standard of living in Canada. Accordingly, LIM is not suitable for use in this study. In light of these considerations, LICO, which considers pre-tax income, was used as Canada's minimum standard of living in this study (National Council of Welfare) for a discussion of the measures used in Canada and revisions to these measures).

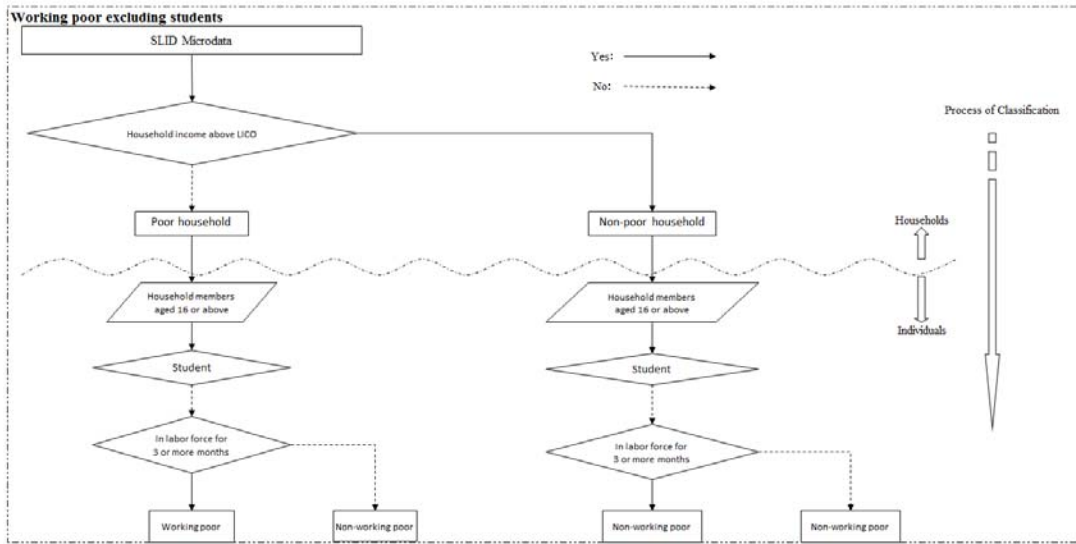


Fig. 3: Classification flowchart used to estimate Canada’s working poor

Key characteristics and estimates of Canada’s working poor: Here, Canada’s working poor are defined as those individuals (excluding students) in Canadian households, identified as poor using the (pre-tax) LICO measure, that have been active in the labor market for three months or more. This definition is in accordance with that used to define and thus estimate the working poor of Japan. The specific method used to estimate the working poor is provided in Fig. 3. Figure 3 also shows the variable names used during classification.

Following the steps provided in Fig. 3, the working poor were classified from the data for 1997 and 2002 and totals were calculated according to basic attributes (sex, age, education level) and type of employment (Estimations provided in the ‘Employment Status Survey’ cover the years 1992, 1997 and 2002. However, the SLID data does not cover the year 1992, hence only the two other years are compared. Microdata from the ‘Employment Status Survey’ from the present year, 2007, is not available for use). However, though investigation at the meta data level showed that variables, particularly those regarding the type of employment, exist in the SLID data such that comparison can be performed with those in the ‘Employment Status Survey’, it was found in the data dictionary of SLID at the data processing stage that some of data were “not available for use” and hence a strict comparison was not possible. This set a limit on the estimates that could be carried out.

Table 1 shows estimations of Canada’s working poor. Let us now use this Table to familiarize ourselves

with the characteristics of Canada’s working poor, classified by basic attributes. There follows an analysis using the two indices of a) percentage of the working poor [$\text{working poor}/(\text{working poor} + \text{non-working poor}) \times 100$] and b) Poverty Share, which is the composition ratio of the working poor.

According to the ILO, Canada’s unemployment rate dropped from 9.1% in 1997-7.7% in 2002. This unemployment rate is high; however, the economic situation improved in the country from 1997-2002 (Canada’s unemployment rate in 1997 and 2002 was confirmed on the LABORSTA website of the ILO (International Labour Organization Website).

The percentage of the working poor was lower in 2002 than in 1997 and has a parallel relationship with the unemployment rate. Viewing the data in terms of age, we can see that the rate of the working poor among the young is high. In terms of education level, it is evident that a higher education level equates to lower rates of the working poor and this rate differs greatly between those who graduated from high school and those who did not. Next, let us examine the data in terms of type of employment.

We will now examine type of employment throughout the year, with a focus on the division between part- and full-time (In the ‘Employment Status Survey’, part time workers are classed as those who are referred to as ‘part-time’ or by some similar term at their place of work, irrespective of the actual number of days or hrs they work. In contrast, the SLID classes all those who work 30 hrs or less per week as part time). As shown in Table 1, employment over a limited time period can be classified as full-time or part-time; the

Table1: The estimation of the working poor in Canada

		Actual number (population)					
		The working poor			Total		
		Total	Male	Female	Total	Male	Female
1997	Total	1,948,778	1,40,406	908,372	14,082,609	7,697,294	6,385,315
	Age class						
	16-24	311,647	155,817	155,830	1,281,698	706,552	575,146
	25-34	548,182	290,497	257,685	3,709,532	,980,495	1,729,037
	35-44	532,449	275,313	257,136	4,384,107	2,345,083	2,039,024
	45-54	375,367	211,443	163,924	3,284,540	1,777,940	1,506,600
	55-64	164,697	94,858	69,839	1,268,785	783,108	458,677
	65over	16,436	12,478	3,958	153,947	104,116	49,831
	Level of education grp 1						
	Never attended school	6,219	2,576	3,643	18,380	11,572	6,808
	1-4years of elementary school	8,272	5,521	2,751	43,761	28,009	15,752
	5-8years elementary school	170,474	97,349	73,125	706,280	467,416	238,864
	9-10years elementary and secondary school	216,835	125,367	91,468	1,081,445	676,007	405,438
	11-13years elementary and secondary school (but did not graduate)	119,491	65,145	54,345	602,922	369,462	233,460
	Graduated high school	333,198	157,849	175,349	2,453,827	1,262,296	1,191,531
	Some non-university postsecondary (no certificate)	239,000	129,583	109,417	1,307,656	723,206	584,450
	Some university (no certificate)	111,333	62,162	49,171	638,133	372,212	265,921
	Non-university postsecondary certificate	524,883	280,000	244,883	4,536,045	2,365,832	2,170,213
	University certificate below bachelor,s	28,534	11,142	17,392	276,361	124,512	151,849
	Bachelor,s degree	124,258	60,525	63,733	1,631,238	829,107	802,131
	University certificate above bachelor,s ,Masters, first Professional degree in law, degree in Medicine, Dentistry, Vet	63,931	41,795	22,136	779,919	464,256	315,663
	Don't know	-	-	-	-	-	-
	Emploment status						
	Full-year full-time worker	619,198	365,310	253,888	8,508,849	5,177,226	3,331,623
	Full-year part-time worker	196,426	80,191	116,235	1,238,014	290,847	947,167
	Full year some full-time work some part-time work	62,978	29,541	33,437	348,747	116,294	232,453
	Part year full time worker	158,870	97,801	61,069	805,208	514,536	290,672
	Part year part time work	156,036	58,135	97,901	565,863	167,589	398,247
	Part year some full time work some part time work	268,806	138,396	130,410	1,221,845	657,840	564,005
	did not work during year	350,630	181,458	169,172	649,269	328,730	320,539
	Don't know	-	-	-	-	-	-
	Self employed (in corporate bussiness)	104,940	75,764	29,176	745,617	536,369	209,248
	Self employed (Not-in corporate bussiness)	393,807	247,856	145,951	1,673,071	1,041,556	631,515
	No.employees all location						
	Less than 20	893,422	516,428	376,994	4,746,531	2,655,168	2,091,363
	20 -99	232,054	114,554	117,510	1,980,764	1,099,346	881,418
	100 -499	131,651	75,629	56,022	1,650,722	906,322	744,450
	500 -999	64,956	33,407	31,549	999,810	499,214	500,596
	1000 and over	228,559	98,983	129,576	3,792,503	2,067,180	1,725,323
	Don't know	-	-	-	-	-	-
	Refusel	-	-	-	-	-	-

Table 1: Continuous

2002	Not applicable	-	-	-	-	-	-
	Total	1,564,665	859,194	705,471	15,218,498	8,260,390	6,958,108
	Age class						
	16-24	261,147	145,549	115,598	1,488,911	818,574	670,337
	25-34	357,647	191,114	166,533	3,548,888	1,934,099	1,614,789
	35-44	436,132	238,316	197,816	4,490,293	2,392,861	2,097,432
	45-54	302,594	159,057	143,537	3,827,637	2,020,211	1,807,426
	55-64	184,655	112,164	72,491	1,677,602	983,255	694,347
	65 over	22,490	12,994	9,496	185,167	111,390	73,777
	Level of education grp 1						
	Never attended school	8,336	5,767	2,569	16,950	7,630	9,320
	1-4years of elementary school	6,117	4,511	1,606	63,965	33,773	30,192
	5-8years elementary school	113,881	73,176	40,705	584,639	368,934	215,705
	9-10 years of elementary and secendoy school	130,883	83,398	47,458	977,051	611,539	365,512
	11-13 of elementary and secendory school(but did not graduate)	89,283	49,983	39,300	626,389	377,841	248,548
	Graduated high school	276,822	172,025	104,797	2,621,409	1,471,853	1,149,556
	Some non-university postsecondary(no certificate)	173,296	85,650	87,646	1,333,523	714,451	619,072
	Some university (no certificate)	73,811	47,369	26,442	627,284	351,432	275,852
	Non-university postsecondary certificate	462,383	216,628	245,755	5,086,736	2,608,550	2,478,186
	University certificate below bachelor,s	17,686	7,499	10,187	302,813	147,536	155,277
	Bachelo,s degree	155,438	78,553	76,885	2,063,300	1,028,630	1,034,670
	University certificate above bachelor,s ,Masters, first professional degree in law, degree in Medicine Dentistry,Vet	54,813	33,295	21,518	879,555	519,316	360,239
	Don't know	1,915	1,339	576	34,883	18,903	15,980
	Emploment status						
	Full year full-time worker	519,800	331,259	188,541	9,805,318	5,852,590	3,952,728
	Full year part time worker	182,255	73,263	108,992	1,269,056	288,315	980,741
	Full year some full time work some part time work	42,983	14,138	28,845	353,826	111,871	241,955
	Part year full time worker	97,031	52,711	44,320	651,657	399,334	252,323
	Part year part time worker	113,646	46,586	67,060	435,175	121,642	313,533
	Part year some full time work some part time work	236,755	128,025	108,730	1,367,875	752,762	615,113
	Did not work during year	255,482	136,989	118,493	529,838	265,621	264,217
	Don't know	116,714	76,223	40,491	805,753	468,255	337,498
	Self employed(in corporate bussiness)	114,385	72,534	41,851	866,829	605,401	261,428
	Self employed (not incorporate bussiness)	324,913	211,303	113,610	1,774,909	1,057,805	687,104
	No employees all location						
	Less than 20	682,313	398,003	284,310	4,593,307	2,538,365	2,054,942
	20-99	169,920	94,302	75,618	2,234,231	1,264,227	970,004
	100-499	96,813	58,131	38,682	1,736,463	937,233	799,230
	500-999	32,566	16,326	16,240	807,288	417,535	389,753
	1000and over	167,143	79,667	87,476	4,167,757	2,260,647	1,907,110
	Don't know	159,666	75,776	83,890	1,141,904	571,757	570,147
	Refusel	764	0	764	7,977	5,271	2,706
	Not applicable	255,482	136,989	118,493	529,571	265,354	264,217

Table 1: continuous

	Composition ratio(%)						Working poor rate (%)		
	The working poor			Total			The working poor		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1997 Total	100	5,304	47	100	55	45	14	13.5	14.2
Age class									
16-24	16	8	8	9.1	5	4.1	24.3	22.1	27.1
25-34	28.1	14.9	13.2	26.3	14.1	12.3	14.8	14.7	14.9
35-44	27.3	14.1	13.2	31.1	16.7	14.5	12.1	11.7	12.6
45-54	19.3	10.9	8.4	23.3	12.6	10.7	11.4	11.9	10.9
55-64	8.5	4.9	3.6	9	5.6	3.4	13	12.1	14.4
65over	0.8	0.6	0.2	1.1	0.7	0.4	10.7	12	7.9
Level of education grp 1									
Never attended school	0.3	0.1	0.2	0.1	0.1	0	33.8	22.3	53.5
1-4years of elementary school	0.4	0.3	0.1	0.3	0.2	0.1	18.9	19.7	17.5
5-8years elementary school	8.7	5	3.8	5	3.3	1.7	24.1	20.8	30.6
9-10 years of elementary and secondary school	11.1	6.4	4.7	7.7	4.8	2.9	20.1	18.5	22.6
11-13 of elementary and secondary school(but not graduate)	6.1	3.3	2.8	4.3	2.6	1.7	19.8	17.6	23.3
Graduated high school	17.1	8.1	9	17.4	9	8.5	13.6	12.5	14.7
Some non-university postsecondary(no certificate)	12.3	6.6	5.6	9.3	5.1	4.2	18.3	17.9	18.7
Some university (no certificate)	5.7	3.2	2.5	4.5	2.6	1.9	17.4	16.7	18.5
Non-university postsecondary certificate	26.9	14.4	12.6	32.2	16.8	15.4	11.6	11.8	11.3
University certificate below bachelor,s	1.5	0.6	0.9	2	0.9	1.1	10.3	8.9	11.5
Bachelo,s degree	6.4	3.1	3.3	11.6	5.9	5.7	7.6	7.3	7.9
University certificate above bachelor,s ,Masters	3.3	2.1	1.1	5.5	3.3	2.2	8.2	9	7
first professional degree in law, degree in Medicine									
Dentistry,Vet									
Don't know									
Emploment status									
Full year full-time worker	31.8	18.7	13	60.4	36.8	23.7	7.3	7.1	7.6
Full year part time worker	10.1	4.1	6	8.8	2.1	6.7	15.9	27.6	12.3
Full year some full time work some part time work	3.2	1.5	1.7	2.5	0.8	1.7	18.1	25.4	14.4
Part year full time worker	8.2	5	3.1	5.7	3.7	2.1	19.7	19	21
Part year part time worker	8	3	5	4	1.2	2.8	27.6	34.7	24.6
Part year some full time work some part time work	13.8	7.1	6.7	8.7	4.7	4	22	21	23.1
Did not work during year	18	9.3	8.7	4.6	2.3	2.3	54	55.2	52.8
Don't know									
Self employed(in corporate bussiness)	5.4	3.9	1.5	5.3	3.8	1.5	14.1	14.1	13.9
Self employed (not incorporate bussiness)	20.2	12.7	7.5	11.9	7.4	4.5	23.5	23.8	23.1
No employees all location									
Less than 20	45.8	26.5	19.3	33.7	18.9	14.9	18.8	19.4	18
20 -99	11.9	5.9	6	14.1	7.8	6.3	11.7	10.4	13.3
100-499	6.8	3.9	2.9	11.7	6.4	5.3	8	8.3	7.5
500-999	3.3	1.7	1.6	7.1	3.5	3.6	6.5	6.7	6.3
1000and over	11.7	5.1	6.6	26.9	14.7	12.3	6	4.8	7.5
Don't know									
Refusel									
Not applicable									
Total	100	54.9	45.1	100	54.3	45.7	10.3	10.4	10.1

Table 1: Continuous

Age class										
16-24	16.7	9.3	7.4	9.8	5.4	4.4	17.5	17.8	17.2	
25-34	22.9	12.2	10.6	23.3	12.7	10.6	10.1	9.9	10.3	
35-44	27.9	15.2	12.6	29.5	15.7	13.8	9.7	10	9.4	
45-54	19.3	10.2	9.2	25.2	13.3	11.9	7.9	7.9	7.9	
55-64	10.4	11.8	7.2	4.6	11	6.5	4.6	11	11.4	
65over	1.4	0.8	0.6	1.2	0.7	0.5	12.1	11.7	12.9	
Level of education grp 1										
Never attended school	0.5	0.4	0.2	0.1	0.1	0.1	94.2	75.6	27.6	
1-4years of elementary school	0.4	0.3	0.1	0.4	0.2	0.2	9.6	13.4	5.3	
5-8years elementary school	7.3	4.7	2.6	3.8	2.4	1.4	19.5	19.8	18.9	
9-10 years of elementary and secondary school	8.4	5.3	3	6.4	4	2.4	13.4	13.6	13	
11-13 of elementary and secondary school(but not graduate)	5.7	3.2	2.5	4.1	2.5	1.6	14.3	13.2	15.8	
Graduated high school	17.7	11	6.7	17.2	9.7	7.6	10.6	11.7	9.1	
Some non-university postsecondary(no certificate)	11.1	5.5	5.6	8.8	4.7	4.1	13	12	14.2	
Some university (no certificate)	4.7	3	1.7	4.1	2.3	1.8	11.8	13.5	9.6	
Non-university postsecondary certificate	29.6	13.8	15.7	33.4	17.1	16.3	9.1	8.3	9.9	
University certificate below bachelor,s	1.1	0.5	0.7	2	1	1	5.8	5.1	6.6	
Bachelor,s degree	9.9	5	4.9	13.6	6.8	6.8	7.5	7.6	7.4	
University certificate above bachelor,s ,Masters	3.5	2.1	1.4	5.8	3.4	2.4	6.2	6.4	6	
first professional degree in law, degree in Medicine										
Dentistry,Vet										
Don't know	0.1	0.1	0	0.2	0.1	0.1	5.5	7.1	3.6	
Emploment status										
Full year full-time worker	33.2	21.2	12	64.4	38.5	26	5.3	5.7	4.8	
Full year part time worker	11.6	4.7	7	8.3	1.9	6.4	14.4	25.4	11.1	
Full year some full time work some part time work	2.7	0.9	1.8	2.3	0.7	1.6	12.1	12.6	11.9	
Part year full time worker	6.2	3.4	2.8	4.3	2.6	1.7	14.9	13.2	17.6	
Part year part time worker	7.3	3	4.3	2.9	0.8	2.1	26.1	38.3	21.4	
Part year some full time work some part time work	15.1	8.2	6.9	9	4.9	4	17.3	17	17.7	
Did not work during year	16.3	8.8	7.6	3.5	1.7	1.7	48.2	51.6	44.8	
Don't know	7.5	4.9	2.6	5.3	3.1	2.2	14.5	16.3	12	
Self employed(in corporate bussiness)	7.3	4.6	2.7	5.7	4	1.7	13.2	12	16	
Self employed (not incorporate bussiness)	20.8	13.5	7.3	11.5	7	4.5	18.6	20	16.5	
No employees all location										
Less than 20	43.6	25.4	18.2	30.2	16.7	13.5	14.9	15.7	13.8	
20 -99	10.9	6	4.8	14.7	8.3	6.4	7.6	7.5	7.8	
100-499	6.2	3.7	2.5	11.4	6.2	5.3	5.6	6.2	4.8	
500-999	2.1	1	1	5.3	2.7	2.6	4	3.9	4.2	
1000and over	10.7	5.1	5.6	27.4	14.9	12.5	4	3.5	4.6	
Don't know	10.2	4.8	5.4	7.5	3.8	3.7	14	13.3	14.7	
Refusel	0	0	0	0.1	0	0	9.6	0	28.2	
Not applicable	16.3	8.8	7.6	3.5	1.7	1.7	48.2	51.6	44.8	

Note: As of Self-employed, there is overlapping region between incorporated bussiness and not-incorporated business, Note: in employment status, full-time and part-time include employee and self-employed,Note: This analysis is based on Statistics Canada Microdata file (SLID PUMF 1997, 2002) which contains anonymized data collected in the year 1997 and 2002, Survey of Labour and Income Dynamics. All computations on these microdata were prepared by RISS Kansai University and the responsibility for the use and interpretation of these data is entirely that of the author(s)

percentage of the working poor varies greatly within this distinction. Upon comparing the working poor to the whole population (poverty share to the whole population), we can see that few of the working poor work full-time throughout the year. Moreover, though it will prove difficult later in this study to make a comparison between Japan and Canada given the differences in definition of the term ‘self-employed’, it is clear that the percentage of the working poor among the self-employed in Canada, particularly among the self-employed running an unincorporated company, is markedly high (In the Japanese government’s statistics, a self-employed person is defined as ‘an individual running an independent business’ (Labour Force Survey), ‘an individual running their own business, whether it be as a shop owner, manufacturer, farmer, physician, lawyer, writer, housekeeper or other profession’. In Canada, however, the definition of a self-employed person covers owners of corporate and unincorporated businesses and unpaid family workers).

RESULTS AND DISCUSSION

Comparison of basic attributes: To facilitate a comparison of the working poor of Japan and Canada, estimates of the working poor of Japan are provided in Table 2. This comparison will allow us to identify the features the countries have in common, as well as the differences. In comparing the two countries, the 2002 data will be used. First, let us compare the basic attributes of the working poor of Japan and Canada. Figure 4 shows graphs of the percentage of the working poor in each age group. In Japan and Canada, the percentage of the working poor is high among the youngest and oldest age groups. In contrast, while the percentage of the working poor does not vary greatly according to sex in Canada, the opposite is true of Japan. In particular, the percentage of the working poor among the 25-34 and 35-44 age groups among women is markedly high in comparison to men of the same ages in Japan. This trend is not seen in Canada.

Next, let us compare the percentage of the working poor with respect to education level. It should be noted that a direct comparison is problematic as the education systems differ between Japan and Canada. Accordingly, we will attempt to identify broad trends. Figure 5 shows graphs of the percentage of the working poor according to education level, for Canada and Japan, respectively. In both countries, the highest percentage of the working poor is seen in the ‘Never been to school’ group and the rate falls, again in both countries, with increasing education level. Thus, we can see that, in Japan and Canada, the education level is inversely correlated with percentage of unemployed/working poor individuals.

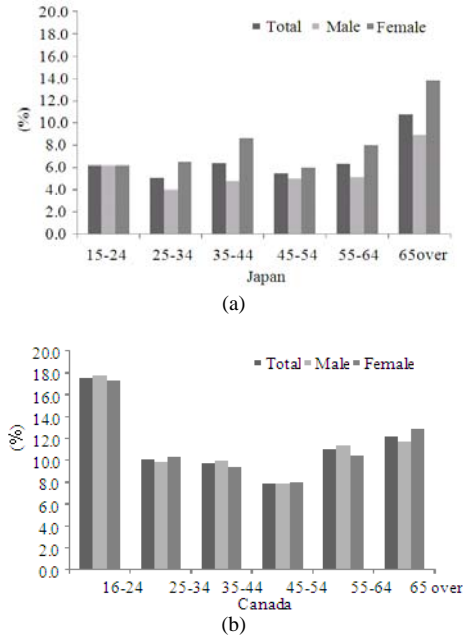


Fig. 4: Comparison of the Working Poor of Japan and Canada (by Age)

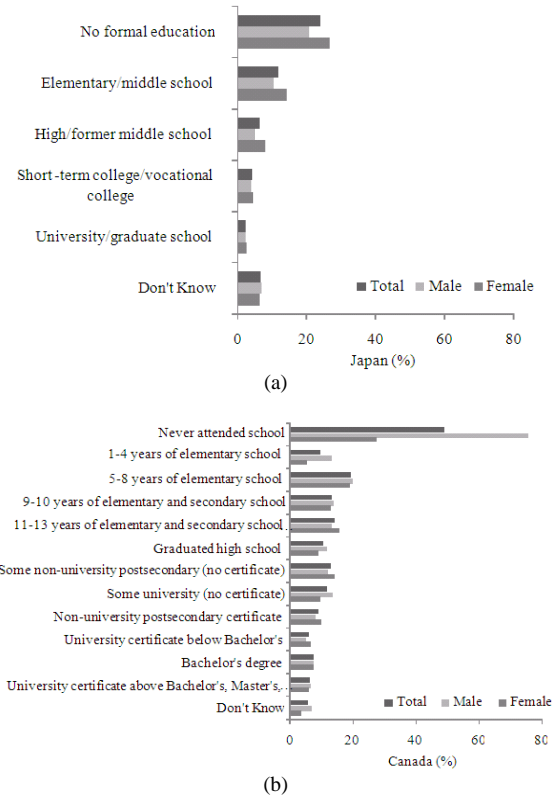


Fig. 5: Comparison of the working poor of Japan and Canada (by Education Level)

Table 2: The estimation of the working poor in Japan

		Actual number (population)					
		The working poor			Total		
		Total	Male	Female	Total	Male	Female
1997	Total	2,192,298	1,003,429	1,188,869	55,747,277	32,105,415	23,641,862
	Engaged in work	1,727,448	778,307	949,141	52,153,627	30,844,912	21,308,715
	Not Engaged in work (seeking work)	464,850	225,122	239,728	3,593,650	1,260,503	2,333,147
	Age Class						
	15-24	209,128	101,887	107,241	5,984,731	3,032,513	2,952,218
	25-34	342,591	155,382	187,209	11,599,609	6,894,123	4,705,486
	35-44	454,924	188,139	266,785	10,986,034	6,316,176	4,669,858
	45-54	417,941	195,677	222,264	13,566,976	7,611,560	5,955,416
	55-64	381,084	163,852	217,232	9,162,280	5,464,597	3,697,683
	65over	386,631	198,492	188,139	4,447,647	2,786,446	1,661,201
	Education						
	Elementary/middle school	869,683	434,027	435,656	11,297,351	6,612,971	4,684,380
	High/former middle school	1,010,464	425,308	585,156	27,124,654	14,971,163	12,153,491
	Short-term college/vocational college	175,443	46,038	129,405	7,200,412	2,355,159	4,845,253
	University/graduate school	127,054	94,050	33,004	10,045,396	8,122,888	1,922,508
	Status in employment						
	Ordinary employees	638,509	245,323	393,186	35,136,407	22,061,311	13,075,096
	Temporary employees	232,378	70,598	161,780	3,479,736	931,101	2,548,635
	Daily employees	113,415	63,553	49,862	1,062,430	497,803	564,627
	Executive of company or Corporation	27,599	21,553	6,046	3,019,870	2,340,955	678,915
	Self-employed workers(with Employees)	67,702	50,305	17,397	1,598,246	1,326,436	271,810
	Self-employed workers(without employees)	408,496	290,868	117,628	4,186,823	3,075,624	1,111,199
	Family workers	197,025	30,427	166,598	3,195,257	581,232	2,614,025
	Doing piecework at home	41,746	5,360	36,386	461,711	21,944	439,767
	Type of employment						
	Regular staffs	379,637	214,259	165,378	30,603,664	21,313,264	9,290,400
	Part-time workers	348,953	26,010	322,943	5,521,963	339,643	5,182,320
	Arbeit (temporary workers)	160,165	80,516	79,649	1,773,772	821,484	952,288
	Dispatched workers from Temporary labour agency	18,253	8,786	9,467	766,562	485,426	281,136
	Contract employees / Entrusted employees	5,572	835	4,737	194,188	38,669	155,519
	Other	69,613	47,002	22,611	805,952	481,547	324,405
	Number of persons Engaged in enterprise						
	1-4	881,405	455,586	425,819	11,807,804	6,274,485	5,533,319
	5-9	162,252	77,365	84,887	4,678,831	2,632,225	2,046,606
	10-19	139,873	61,432	78,441	4,093,552	2,322,754	1,770,798
	20-29	77,426	30,755	46,671	2,435,634	1,416,760	1,018,874
	30-49	80,280	31,838	48,442	2,894,951	1,696,674	1,198,277
	50-99	96,488	33,528	62,960	3,862,406	2,253,345	1,609,061
	100-299	107,485	33,353	74,132	5,428,717	3,200,650	2,228,067
	300-499	34,429	11,181	23,248	2,178,379	1,356,459	821,920
	500-999	28,489	8,528	19,961	2,319,954	1,489,901	830,053
	1000 and over	75,514	16,947	58,567	7,898,833	5,381,529	2,517,304
	Government administered Office	26,822	8,116	18,706	4,342,825	2,703,437	1,639,388
2002	Total	3,396,023	1,632,366	1,763,657	54,869,206	31,503,113	23,366,093

Table 2: Continuous

Engaged in work	2,514,104	1,155,972	1,358,132	50,626,890	29,710,355	20,916,535
Not Engaged in work (seeking work)	881,919	476,394	405,525	4,242,316	1,792,758	2,449,558
Age Class						
15-24	285,415	143,547	141,868	4,614,405	2,316,629	2,297,776
25-34	631,924	290,954	340,970	12,543,311	7,275,253	5,268,058
35-44	697,219	295,091	402,128	10,924,039	6,256,805	4,667,234
45-54	701,956	360,997	340,959	12,897,538	7,245,792	5,651,746
55-64	585,143	285,409	299,734	9,298,171	5,539,995	3,758,176
65over	494,366	256,368	237,998	4,591,743	2,868,639	1,723,104
Education						
Elementary/middle school	1,123,686	594,719	528,967	9,391,897	5,629,029	3,762,868
High/former middle school	1,646,907	736,638	910,269	25,552,248	14,233,636	11,318,612
Short-term college/vocational college	354,198	106,328	247,870	8,395,545	2,717,375	5,678,170
University/graduate school	262,336	190,671	71,665	11,460,046	8,888,784	2,571,262
Don't know	2,960	1,565	1395	44,560	22481	22079
No formal education	5,937	2445	3492	24,910	11809	13101
Status in employment						
Ordinary employees	1,007,133	384,700	622,433	33,809,196	20,955,322	12,853,874
Temporary employees	404,323	136,801	267,522	4,469,563	1,260,062	3,209,501
Daily employees	162,749	93,762	68,987	1,152,311	557,655	594,656
Executive of company or corporation	53,622	41,231	12,391	3,091,479	2,349,817	741,662
Self-Employed workers (With employees)	97,858	72,725	25,133	1,432,140	1,185,667	246,473
Self-Employed workers (without employees)	515,711	379,689	136,022	3,890,282	2,890,284	999,998
Family workers	227,905	39,059	188,846	2,452,086	454,130	1,997,956
Doing piecework at home	39,593	5,263	34,330	263,696	16,024	247,672
Type of employment						
Regular staffs	489,069	290,646	198,423	27,501,196	19,464,039	8,037,157
Part-time workers	572,404	47,842	524,562	6,229,332	488,588	5,740,744
Arbeit (temporary workers)	299,664	161,934	137,730	2,352,380	1,143,837	1,208,543
Dispatched workers from temporary Labour agency	27,864	7,652	20,212	565,364	163,122	402,242
Contract employees / Entrusted employees	95,771	45,803	49,968	1,984,667	1,046,307	938,360
Other	82,564	56,075	26,489	738,984	427,032	311,952
Number of persons Engaged in enterprise						
1-4	1,124,255	622,242	502,013	10,815,767	6,084,018	4,731,749
5-9	243,963	122,632	121,331	4,324,933	2,420,339	1,904,594
10-19	211,164	94,282	116,882	3,948,835	2,267,289	1,681,546
20-29	111,558	46,139	65,419	2,379,921	1,350,086	1,029,835
30-49	127,714	50,243	77,471	2,710,300	1,558,877	1,151,423
50-99	160,264	56,653	103,611	3,701,617	2,084,249	1,617,368
100-299	174,697	54,551	120,146	5,392,833	3,095,321	2,297,512
300-499	59,812	17,683	42,129	2,237,728	1,331,908	905,820
500-999	62,061	20,915	41,146	2,520,783	1,563,693	957,090
1000 and over	150,307	38,743	111,564	7,722,214	5,059,047	2,663,167
Government administered office	48,493	13,494	34,999	4,369,863	4,369,863	1,728,787

Table 2: Continuous

	Total	Composition ratio (%)						Working poor rate (%)		
		The working poor			Total			The working poor		
		Male	Female	Total	Male	Female	Total	Male	Female	
1997 Total	100	45.0	54.2	100	57.6	42.4	3.9	3.1	5	
Engaged in work (seeking work)	78.8	35.5	43.3	93.6	55.3	38.2	3.3	2.5	4.5	
Not Engaged in work	21.2	10.3	10.9	6.4	2.3	4.2	12.9	17.9	10.3	

Table 2: Continuous

2002	Age Class									
	15-24	9.5	4.6	4.9	10.7	5.4	5.3	3.5	3.4	3.6
	25-34		15.6	7.1	8.5	20.8	12.4	8.4	3	2.3
	4									
	35-44	20.8	8.6	12.2	19.7	11.3	8.4	4.1	3	5.7
	45-54	19.1	8.9	10.1	24.3	13.7	10.7	3.1	2.6	3.7
	55-64	17.4	7.5	9.9	16.4	9.8	6.6	4.2	3	5.9
	65over	17.6	9.1	8.6	8	5	3	8.7	7.1	11.3
	Education									
	Elementary/middle school	39.7	19.8	19.9	20.3	11.9	8.4	7.7	6.6	9.3
	High/former middle school	46.1	19.4	26.7	48.7	26.9	21.8	3.7	2.8	4.8
	Short-term college/vocational college	8.0	2.1	5.9	12.9	4.2	8.7	2.4	2	2.7
	University/graduate school	5.8	4.3	1.5	18	14.6	3.4	1.3	1.2	1.7
	Status in Employment									
	Ordinary Employees	29.1	11.2	17.9	63	39.6	23.5	1.8	1.1	3
	Temporary Employee	10.6	3.2	7.4	6.2	1.7	4.6	6.7	7.6	6.3
	Daily Employees	5.2	2.9	2.3	1.9	0.9	1	10.7	12.8	8.8
	Executive of Company or Corporation	1.3	1	0.3	5.4	4.2	1.2	0.9	0.9	0.9
	Self-Employed Workers (With Employees)	3.1	2.3	0.8	2.9	2.4	0.5	4.2	3.8	6.4
	Self-Employed Workers (Without Employees)	18.6	13.3	5.4	7.5	5.5	2	9.8	9.5	10.6
	Family Workers	9.0	1.4	7.6	5.7	1	4.7	6.2	5.2	6.4
	Doing Piecework at Home	1.9	0.2	1.7	0.8	0	0.8	9	24.4	8.3
	Type of Employment									
	Regular Staffs	17.3	9.8	7.5	54.9	38.2	16.7	1.2	1	1.8
	Part-Time Workers	15.9	1.2	14.7	9.9	0.6	9.3	6.3	7.7	6.2
	Arbeit (Temporary Workers)	7.3	3.7	3.6	3.2	1.5	1.7	9	9.8	9.8
	Dispatched Workers from Temporary Labour Agency	0.8	0.4	0.4	1.4	0.9	0.5	2.4	1.8	3.4
	Contract Employees/Entrusted Employees	0.3	0	0.2	0.3	0.1	0.3	2.9	2.2	3
	Other	3.2	2.1	1	1.4	0.9	0.6	8.6	9.8	7
	Number of Persons Engaged in Enterprise									
	1-4	40.2	20.8	19.4	21.2	11.3	9.9	7.5	7.3	7.7
	5-9	7.4	3.5	3.9	8.4	4.7	3.7	3.5	2.9	4.1
	10-19	6.4	2.8	3.6	7.3	4.2	3.2	3.4	2.6	4.4
	20-29	3.5	1.4	2.1	4.4	2.5	1.8	3.2	2.2	4.6
	30-49	3.7	1.5	2.2	5.2	3	2.1	2.8	1.9	4
	50-99	4.4	1.5	2.9	6.9	4	2.9	2.5	1.5	3.9
	100-299	4.9	1.5	3.4	9.7	5.7	4	2	1	3.3
	300-499	1.6	0.5	1.1	3.9	2.4	1.5	1.6	0.8	2.8
	500-999	1.3	0.4	0.9	4.2	2.7	1.5	1.2	0.6	2.4
	1000 and over	3.4	0.8	2.7	14.2	9.7	4.5	1	0.3	2.3
	Government Administered office	1.2	0.4	0.9	7.8	4.8	2.9	0.6	0.3	1.1
	Total	100.0	48.1	51.9	100	57.4	42.6	6.2	5.2	7.5
	Engaged in work	74.0	34	40	92.3	54.1	38.1	5	3.9	6.5
	Not Engaged in work (seeking work)	26.0	14	11.9	7.7	3.3	4.5	20.8	26.6	16.6
	Age Class									
	15-24		8.4	4.2	4.2	8.4	4.2	4.2	6.2	6.2
	25-34	18.6	8.6	10	22.9	13.3	9.6	5	4	6.5
	35-44	20.5	8.7	11.8	19.9	11.4	8.5	6.4	4.7	8.6
	45-54	20.7	10.6	10	23.5	13.2	10.3	5.4	5	6
	55-64	17.2	8.4	8.8	16.9	10.1	6.8	6.3	5.2	8
	65over	14.6	7.5	7	8.4	5.2	3.1	10.8	8.9	13.8
	Education									
	Elementary/middle school	33.1	17.5	15.6	17.1	10.3	6.9	12	10.6	14.1
	High/former	49.0	21.7	26.8	46.6	25.9	20.6	6.4	5.2	8

Table 2: continuous

middle school									
Short-term college /vocational college	10.4	3.1	7.3	15.3	5	10.3	4.2	3.9	4.4
University/graduate school	7.7	5.6	2.1	20.9	16.2	4.7	2.3	2.1	2.8
Don't know	0.1	0.0	0.0	0.1	0.0	0.0	6.6	7	6.3
No formal education	0.2	0.1	0.1	0	0	0	23.8	20.7	26.7
Status in employment									
Ordinary employees	29.7	11.3	18.3	61.6	38.2	23.4	3	1.8	4.8
Temporary employees	11.9	4	7.9	8.1	2.3	5.8	9	10.9	8.3
Daily employees	4.8	2.8	2	2.1	1	1.1	14.1	16.8	11.6
Executive of company	1.6	1.2	0.4	5.6	4.3	1.4	1.7	1.8	1.7
or corporation									
Self-employed workers		2.9	2.1	0.7	2.6	2.2	0.4	6.8	6.1
10.2 (with employees)									
Self-employed workers	15.2	11.2	4	7.1	5.3	1.8	13.3	13.1	13.6
(without employees)									
Family workers	6.7	1.2	5.6	4.5	0.8	3.6	9.3	8.6	9.5
Doing piecework at home	1.2	0.2	1	0.5	0	0.5	15	32.8	13.9
Type of employment									
Regular staffs	14.4	8.6	5.8	50.1	35.5	14.6	1.8	1.5	2.5
Part-time workers	16.9	1.4	15.4	11.4	0.9	10.5	9.2	9.8	9.1
Arbeit (temporary workers)	8.8	4.8	4.1	4.3	2.1	2.2	12.7	14.2	11.4
Dispatched workers from temporary labour agency	0.8	2	0.6	1	0.3	0.7	4.9	4.7	5
Contract employees	2.8	1.3	1.5	3.6	1.9	1.7	4.8	4.4	5.3
Other	2.4	1.7	0.8	1.3	0.8	0.6	11.2	13.1	8.5
Number of persons engaged in enterprise									
1-4	33.1	18.3	14.8	19.7	11.1	8.6	10.4	10.2	10.6
5-9	7.2	3.6	3.6	7.9	4.4	3.5	5.6	5.1	6.4
10-19	6.2	2.8	3.4	7.2	4.1	3.1	5.3	4.2	7
20-29	3.3	1.4	1.9	4.3	2.5	1.9	4.7	3.4	6.4
30-49	3.8	1.5	2.3	4.9	2.8	2.1	4.7	3.2	6.7
50-99	4.7	1.7	3.1	6.7	3.8	2.9	4.3	2.7	6.4
100-299	5.1	1.6	3.5	9.8	5.6	4.2	3.2	1.8	5.2
300-499	1.8	0.5	1.2	4.1	2.4	1.7	2.7	1.3	4.7
500-999	1.8	0.6	1.2	4.6	2.8	1.7	2.5	1.3	4.3
1000 and over	4.4	1.1	3.3	14.1	9.2	4.9	1.9	0.8	4.2
Government office administered	1.4	1.4	0.4	1	8	4.8	3.2	1.1	0.5

Comparison of different forms of employment: As mentioned earlier, though investigation at the metadata level showed that variables, particularly those regarding type of employment, exist in the SLID data such that comparison can be performed with those in the 'Employment Status Survey', it was found in the data dictionary of SLID at the data processing stage that some of the data were "not available for use" and hence, a strict comparison was not possible. Moreover, the definition of 'part-time' and 'self-employed' differs between Japan and Canada. In these respects, there is a limit to the comparison that can be made.

Figure 6 shows the percentage of the working poor with respect to type of employment. In Fig. 6, the percentage of the working poor among full-time workers in Canada is expressed as the average rate of the working poor for full-time workers working full time throughout the year and full-time workers working just part of the year. Similarly, the percentage of the working poor among part-time workers in Canada is expressed as the average rate of the working poor for part-time workers working part-time throughout the year and part-time workers working just part of the year.

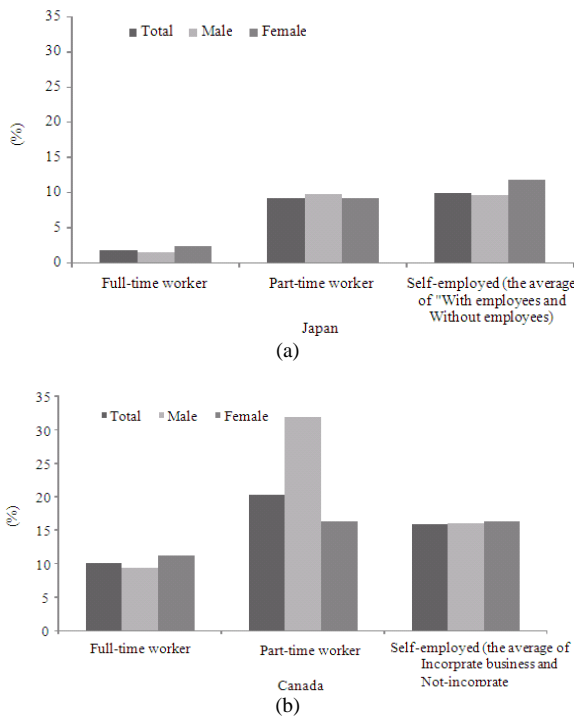


Fig. 5: Comparison of the Working Poor of Japan and Canada (by Type of Employment)

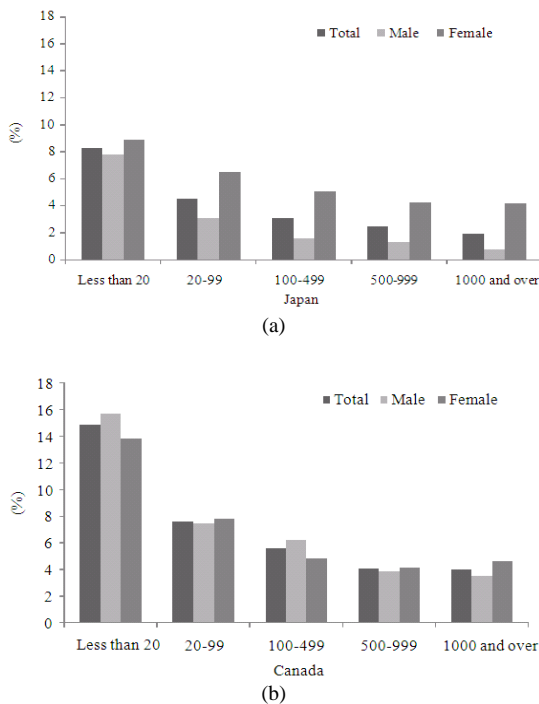


Fig. 6: Comparison of the working poor of Japan and Canada (by the Number of Employees)

Where it was not possible to distinguish between full and part time, the relevant figures were omitted from Fig. 6. The figures for self-employed persons in Japan are expressed as the average rate of the working poor for persons running a business with employees and those without employees. In the case of Canada, the average rate of the working poor for persons with either a corporate or unincorporated company is taken.

As is evident from Fig. 6, the percentage of the working poor differs greatly between Japan and Canada, whether the persons concerned are full-time workers or otherwise. In both countries, unstable forms of employment are major factors in increasing the percentage of the working poor. Also evident is the fact that in both countries the percentage of the working poor is higher among the self-employed than among full-time workers.

Figure 7 shows the percentage of the working poor with respect to the number of employees in the company concerned. The disparity between men and women is more pronounced in Japan than in Canada. Common to both countries is that the percentage of the working poor falls as the number of employees in the company concerned increases. In short, the company size is a factor that affects the percentage of the working poor individuals both in Japan and Canada.

CONCLUSION

Thus far we have made a comparison of the working poor of Canada and Japan as per the objective of this study. This analysis has revealed the following similarities between the working poor of Canada and Japan: (1) Percentage of the working poor is highest among the youngest and oldest age groups, (2) Percentage of the working poor falls with increasing level of education, (3) Percentage of the working poor is high amongst the self-employed, (4) Percentage of the working poor increases with decreasing number of employees in the company concerned. As regards the differences between the two countries, (1) Males are more likely to be the working poor than females in Canada (2) The percentage of the working poor is high among the 25-34 and 35-44 age groups in Japan, though this is not the case in Canada.

As a conclusion to this study, there follows a description of the limits of the above analysis and future challenges: In this study, a comparison was made between the working poor of Japan and Canada using microdata. Following an investigation at the metadata level, the author opted to use SLID microdata. However, it became evident at the data processing stage that there were limits to the variables that could be used and hence, a strict comparison of the working poor

between the two countries could not be performed, particularly with respect to employment type. The first challenge that lies ahead is to find data from the two countries that allows a more rigorous comparison.

In the above analysis, an in-depth analysis of the various systems of the labor markets in both countries and differences therein was not carried out. In particular, given that Canada's 'welfare to work policy' is more advanced than any equivalent policy in Japan, estimates of the working poor should not be interpreted at face value, but rather after a full investigation of the labor market systems of both countries. The second challenge is therefore to re-evaluate estimates made to date after a full investigation of labor market systems. Statistical Analysis Research Project (2009), we have estimated the working poor of the UK and compared their figures with those of Japan. The third challenge is thus to add the findings of this study to those from the UK/Japan and thereby perform a trilateral comparison.

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