LABORING POOR OF JAPAN IN THE EARLY STAGES OF INDUSTRIALIZATION

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1. Introduction

To break off from a dormant economic situation, most developing countries embark on introducing industrial concepts and techniques within their economic systems. But with the continuous growth of industries, a new and more serious problem crops up – the rise of informal sectors in large cities.

In the early stage of industrialization, a large number of people move from the rural to the urban sector to seek new jobs. While this pulls down disguised unemployment in the rural sector, modern industries do not have enough abilities to offer job opportunities for all of these people. As a result, they assemble in some specific area around large cities and make up the so-called informal sector.[1] Such a pattern can be observed in developing countries in Asia, Africa and South America.[2]

Japan also had such an experience before the Second World War. Since the late 18th century, the area of the informal sector increased in large cities like Tokyo, Osaka or Nagoya. While it is true slums existed before 1868, when Japan started her modernization through

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1. The definition of informal sector varies by authors. But the term is used here only to indicate the activities by residents in the slum area.

2. An eminent survey on the researches of informal sectors in these areas was done by Torii-Tsumita (1981)

the Meiji Restoration, these were different from the slums at present. In this period, the Tokugawa Government segregated small numbers of people in order to appease the fret of farmers under the feudal system. Thus the informal sector had its origin in political or sociological reasons rather than economic situations. While the political segregation was officially abolished by the Meiji Government, social segregations remained afterwards. Thus, some of the informal sectors of Japan had unique characteristics by international standards. This is known as the traditional type informal sector (TIS).

It is also true that the informal sector had grown in the process of industrialization like the cases of recent developing countries. The slum area spread not only around the TIS, but settled in new districts in the suburbs of cities. The residents were mainly composed of migrants. In this sense, their characteristics were different from the TIS and should be compared with those found in recent developing countries. These are to be called the new type informal sector (NIS) in the following description.

Since the number of residents in the informal sectors increased in prewar Japan, the Government of Japan attempted to introduce anti-poverty policies.[3] These policies were initiated mainly for the creation of job opportunities for the residents although minimum assistance was given to those who were unable to work, particularly the physically and mentally handicapped. In other words, the principles underlying such policies were based on the concept of self-reliance rather than on the modern concepts underlying the system of social securities. This line was kept not only before World War II but also in the 1950s. It was only in the 1960s that a significant development of social securities was introduced. It is very important to note that problems around the NIS have been solved gradually although crucial problems remain around the TIS in view of social justice or political considerations. Since the latter is the unique problem for Japan by international standards, a study of changes for the NIS would be of interest. If the NIS was very similar to those in developing countries, there are some possibilities that experience could supply some information for future policies. An examination of the characteristic of the NIS in detail would be in order.

3. See Mizoguchi (1982).

For this purpose, some survey data collected by central or local governments as well as private institutions are available.[4] Among these is a large-scale survey entitled the *Survey on Laboring Poor,* [Saimin Chosa] conducted by the Social Bureau, Ministry of Domestic Affairs, the Government of Japan, in 1911, 1912 and 1921. This survey is very important in three aspects. First, the survey covered a relatively large number of households, and had data on various aspects of sociological and economic characteristics of the poor. Second, the survey was done in the period of the early stages of industrialization in Japan. Third, the survey covered all slums of Tokyo where most of the slums were composed of the NIS.[5]

2. Characteristics of Surveys

These surveys aimed to study the general characteristics of the poor living *around* (not necessarily *in*) slums who were known as *Saimin* who were a little different from the absolute poor *Hinmin,* being included in Saimin as their component. The 1911 survey was done for two slum areas of Tokyo (Shitaya and Asakusa), while the 1912 survey covered two other slum areas in Tokyo (Honjo and Fukaya) as well as slums in Osaka. If the information in these two surveys is combined, one can obtain the data for all slums in Tokyo, although there were some restrictions for the attempt because the questionnaires were not the same for these two surveys.

The 1911 survey was composed of six independent reports covering (1) household characteristics, (2) housing conditions, (3) rent, (4) labor exchange institution, and (5) regular worker's characteristics. The last category was included to compare the informal sector with other workers. One should note that the survey tried to cover all households belonging to the informal sector. This method differs from the standard approach which utilizes random sampling methods. 3,047 households were counted as those belonging to the informal sector. The report supplied tables on the number of households classified according to characteristics of household heads such as age, sex, occupation, place of birth or level of education. The data provided a past record on these households

4. Miyaji (1981).

5. The TIS is distributed mainly in the western part of Japan, including Osaka, Nagoya and Fukuoka.

before they located in the slums. Family budget figures were also available. However, the data were classified according to family size only. The 1912 survey was very similar to the 1911 survey but the number of households covered decreased to 2,910. The total population in the informal sector was about 1 percent of the Tokyo population according to these two surveys. Nonetheless, the surveys were very detailed, covering a large number of samples as contrasted with those in recent developing countries.

The 1921 survey was rather specific in its nature. The survey was conducted in two or three areas of the informal sector in Tokyo, Osaka, Kyoto, Kobe, Yokohama and Nagoya, covering only households with two or more family members. The major contribution of this survey was the detailed family budget survey for one month, although the data also gave other characteristics of households. It is said that the figures were relatively reliable because researches were done with the assistance of officers of the Social Bureau. If the figures for Tokyo were used, one of the drawbacks found in the 1911-12 survey can be overcome. It is also convenient that the family budgets were reported in each sample, permitting a more varied classification.

In this paper, the 1911-12 survey was used to examine household characteristics in the Japanese informal sector in the early stages of industrialization. However, reliance was placed in the 1921 survey regarding the analysis of income and consumption relations. Since the characteristics would change in this decade, some problems exist about the comparability of these results. But for the international comparison, this would supply some interesting results. While these reports were published independently, a convenient reprint edited by Masumi Tsuda regarding the results of Tokyo can be used.[6]

3. Performance of the Informal Sector

For the purpose of analyzing the performance process of the informal sector, the family structure is examined. According to the reports on the informal sectors in recent developing countries, family structures are different from the national average, as suggested by Torii-Tsumita.[7] The population in the informal sectors is mainly

6. The reprint of reports was compiled in a book, with introduction by Tsuda. See Tsuda (1971).

7. Torii-Tsumita (1981), pp. 22-23.

composed of economically active persons, so the 20s age group occupies a large share in the employment sector of developing countries. The cohort structures decline sharply as ages increase because of the high death rate, and the sex ratio shows imbalance. According to the review by Torii-Tsumita, the average family size of informal sectors was 9.9 in Jakarta, 6.2 in Singapore and 10.1 in Kuala Lumpur. These are much higher than the national average in each country.

In contrast to these, there were relatively small differences in family structures between the laboring poor and others in Tokyo of the 1920s. The average family size of the laboring poor sector was smaller than others. While the average family sizes were 3.462 in the 1911 survey and 3.579 in the 1912s, they were 4.01 for overall Tokyo and 7.7 for overall Japan, including the rural area. These suggest that families of the laboring poor in Tokyo were an urban nucleus type with a relatively small number of dependents in the 1910s. The cohort structures in the informal sector also showed less significant differences from other sectors. When the averages and the coefficients of variations for the informal sector in the 1911-12 survey as well as those in overall Tokyo are calculated, a difference could be found only in the average age for the male population, although the difference is completely inverse that found in developing countries. While the average age of males was 18.31 with its coefficient of variation, 0.75, in the laboring poor, they were 16.86 with 0.65 for overall Tokyo. The corresponding results for females were 17.92 with 0.79 for the informal sector and 18.31 with 0.68 for overall Tokyo.

It is not easy to explain why the demographic characteristics of the informal sector are different between Tokyo and developing countries. However, there were data which may supply some information. Two kinds of motivations for the entry to the informal sector can be considered. One is the "pull" factor in the informal sector, which includes the high wage rate, abundance of job opportunities or relatively low costs of living. Another is the "push" factor in the native land of the population living in the informal sector. There are some researches in this respect regarding recent developing countries. According to Yap's migration function, which includes the wage rates of origins and destination as explanatory variables, the income effects do not necessarily explain the migra-

tion.[8] Torii's findings derived from questions asked directly of migrants in Thailand suggested that major motivations of migration are not much concerned with income.[9] They moved from the rural to the urban sector because of push effects including the loss of cultivated land, etc. These are called the "Neo-Enclosure" by Torii-Tsumita.

The situation seems to be different in the case of the Tokyo laboring poor. The 1911 survey asked the place of birth for household heads of the laboring poor sector, and reported that only 32 percent of them was born in the rural area while 48 percent in the Tokyo city zone. Since the 1911 survey researched relatively old slums of Tokyo, and a new slum area was covered by the 1912 survey, the percentages should be evaluated with some adjustments. One could say that the major origins of slum performance were not the push effects of the rural, like the case of Thailand. Other interesting questions were presented to migrants from other prefectures than Tokyo. The replies on the motivations leaving their native land in the 1911-12 survey also support the assumption that the pull effects would have been strong. About 59 percent of household heads in the 1911 survey reported that their major object of migration was to seek better employment or to have self-employed jobs in Tokyo, while only 19 percent of them in the 1911 survey said that they fall into some trouble in their native land. The percentages were slightly different for the 1912 survey; the former was 40.9 percent and the latter was 34.8 percent. This means that a relatively large share of population in new slums felt the push effects from their native land in comparison with the old slums, but the push effects would not be as strong as that found in recent developing countries. If such propositions could be accepted, it is not surprising that the family structures of the informal sector were not much different from other sectors.

4. Occupation and Industry

Torii and Tsumita wrote in their paper, "the Sector is called as 'informal' mainly because the type of occupation and goods and services produced in the sector are indefinite". In fact, previous

8. Yap (1977).

9. Torii (1976).

studies on the slums of recent developing countries proved that the conventional standards of classification were useless in the sector. For example, a large number of workers belong to miscellaneous groups if one adopts the standard system of occupational classifications. In other words, most of the people in the slums do engage in work in the informal sector. Further, some also reported that there were traditional and institutional barriers to self-employed jobs in the informal sector.

Other characteristics unique to Tokyo's labouring poor can be found. A pioneer work by Masumi Tsuda pointed out that occupational distribution was more modern than what was anticipated.[10] This paper's conclusion also supports Tsuda's suggestions. In the 1911 and 1912 survey, there were tables on the number of family members classified by industries to which they belonged. The industries can be divided into four categories in which some *unique* occupational distribution can be found in comparison with recent developing countries (please see Table 1).

The table gives the impression that the unemployment ratio was very high in Tokyo slums: the ratios were 9.9 percent for males and 29.2 percent for females in the 1911 survey and 14.8 percent for males and 33.4 percent for females in the 1912 survey. Since the 1911 survey covered mainly the old slums in Tokyo, it is not surprising that their ratios were lower than the 1912's. However, this seems to depend on the definition of unemployment. The labor force was defined as residents above 10 years old. There was some voluntary unemployment among children from ages 10 to 15 and among those above 60 years old. The 1911 survey gave the distribution of unemployed by ages and reported that 325 among 374 unemployed males belong to the age groups of 10-15 and above 60. If these are exlcuded, the unemployment ratio for males would be about 1 percent in the 1911 survey. Although such information cannot be found in the 1912 survey, the unemployment ratio would decline sharply if the same calculations were followed as was done for the 1911 survey. According to the survey by Squire as cited by Torii-Tsumita, unemployment is concentrated in young generations in recent developing countries, but this trend is not evident in the

10. Tsuda is a pioneer worker on the examination of the survey and pointed out various interesting characteristics of the laboring poor. This writer owes very much to his contributions. See Tsuda (1972).

Table 1 – Occupational Distribution of Family Members in Tokyo Slum in 1911-12

	1911 Survey		1912 Survey	
	Male	Female	Male	Female
Manufacturing				
Formal[a]	499	302	874	1,2[illegible]
Informal	795	1,187	521	7[illegible]
Others				
Formal	697	714	494	[illegible]
Informal	1,523	373	1,056	2[illegible]
Unemployed[b]	374	1,062	512	1,1[illegible]
Total (above 10 years old)	3,820	3,638	3,457	3,3[illegible]

[a] Regarding the definition of the formal and the informal, see text.
[b] While the number of unemployed is obtained from the detailed tables for the 1911 survey, the figures for the 1912 survey are calculated on the assumption that there were no child-employees under 10 years old.

Source: Tsuda (1971).

surveys.[11] Considering these together, the employment situation was much better in the 1910's Tokyo slums than recent developing countries', at least for males'. The unemployment ratio also declines for females when the age groups of 10-15 and above 60 are excluded, i.e., from 29.2 percent to 16.4 percent in the 1911 survey. But one cannot deny that the ratio was high even after this adjustment although one can infer that there was some voluntary unemployment for females. However, it should be noted that the unemployment ratios were nearly equal for the generations from the 20s to 50s for females.

The next important topic is to examine whether family members in slums could find their jobs in the formal sector or were forced to remain in jobs in the informal sector because this might be the key to the solution of the poverty problem. For this purpose, jobs were classified into the formal and the informal. Such an attempt has been done by various authors, including the ILO missions for developing

11. Squire (1979) cited in Torii-Tsumita (1981).

countries. Among them is the proposal by Sethuraman.[12] Jobs of family members can be classified into manufacturing and non-manufacturing, and further divided into the formal and the informal. It is rather easy to classify the nonmanufacturing jobs. The following occupations are defined as informal: rickshaw drivers, unskilled construction dairy workers, petty traders, low grade artists, domestic servants and miscellaneous service workers. Since the data give only the kinds of occupation for the manufacturing industry, one cannot identify which occupation belonged to the informal. Thus, one can classify the work, in considering the general situation in the period, with the use of various kinds of information. For example, the jobs in the food processing industry are defined as informal because most of the work concern the small-scale rice mill industry. The formal sector includes metal, machinery, cotton and fiber, chemicals, printing and publishing and glass-producing industries.

In Table 1, it is very impressive that the share of the manufacturing industry was very high: 41.3 percent for males and 71.1 percent for females. One should note that there were some documents which pointed out that major occupations of slum people in the 1880s consisted of jobs in the informal sector, like rickshaw drivers, ragpickers, dairy construction workers and petty traders.[13] The situation was very similar to that found in recent developing countries. However, industrialization in the late 19th century had changed the nature of slums. First, new industries absorbed young laborers who came from the rural areas and thus prevented the explosion of informal sector. Second, young generations in slums could find their jobs in the formal sector outside the slums. For example, the fiber and cotton industry presented job opportunities for females although their wage rate was very low. This explains a relatively large share of formal sector employment for females in Table 1. Third, owing to industrialization, there arose some self-employed jobs belonging to the informal sector of the manufacturing industry, like willowing. It is very interesting that the share of the formal sector is lower among household heads than among other family members. This suggests that some families would remain in the slums mainly because their household heads engaged in work in the informal sector although other family members could find jobs

12. Sethuraman (1977).

13. See Yokoyama (1949) as well as other documents cited in Tsuda (1972).

outside the slums. Thus, new generations could leave the slums in the formation of their own households.

The next topic concerns working conditions: i.e., the wage and labor hours. While the 1911 survey gave the tables classified by sexes and industries for the distribution of number of household members by monthly income and labor days (not hours), the 1912 survey showed their averages without any distribution data. Only the results of the 1912 survey are shown here because the following results are supported by the 1911 survey. According to the figures in Table 2, there were few differences in income between the formal and the informal sectors if one excluded that for females in the formal sector which depended on the low wage in the cotton and fiber industry. In addition, the levels of income in Table 2 were as high as those of regular workers outside the slums as compiled in the 1911 survey. It may be true that the workers covered by the 1911 survey belong to a relatively low income group in Tokyo, but it is very surprising that the family members in the slums had obtained the same levels of income. Tsuda pointed out that the income level of the rural classes in the early 1910s was as high as the low income classes in the urban.[14] These would explain why the "push" effects were not dominant in the migration in Japan. The labor days in the slums seem to be normal in the sense that they were similar to the regular workers in that period, although the conclusions may change if one could obtain data in working hours.

5. Income and Expenditure Relations

As was noted in Section 2, reliance was placed on the 1921 survey regarding the income and expenditure relations because the survey had detailed family budget data on a household basis. However, it is a good policy to show here the figures shown in the 1911 survey as references. The 1911 survey gave the distribution of the number of households for expenditures on food, clothing, housing and miscellaneous items *in each* classified by family size. Since one can obtain the average of these expenditures by groups of family size, one can calculate the total consumption expenditures as the sum of these categories.

The average monthly consumption expenditure per household was 20.30 Yen in the 1911 survey and 63.74 Yen in the 1921 survey.

14. See Tsuda (1972).

Table 2 — Average Income and Labor Days Per Month in 1912 Survey

	Income (¥/Month)		Income (Day/Month)	
	Male	Female	Male	Female
Manufacturing				
Formal	13.4	3.3	25.7	25.1
Informal	12.9	3.7	25.0	24.4
Others				
Formal	12.8	3.9	28.7	24.2
Informal	12.1	3.8	24.1	22.8
Total	12.7	3.7	24.5	24.6

Owing to the inflation caused by the World War I, consumer prices rose significantly between these two surveys. According to the calculation by Tsutomu Noda, the CPI rose from 100 to 213.2 in this decade.[15] Thus, the real average consumption level of the 1921 survey was 29.89 Yen in 1911 prices, which was about 50 percent higher than that of the 1911 data. But this does not necessarily mean that the consumption level of the informal sector rose significantly. First, while the 1911 survey covered all households including single member households whose income was generally low, the 1912 survey researched the households with two or more family members. Second, since the 1921 survey selected *representative* samples from all households and requested them to make the detailed family account books, one can infer that representative samples might be selected from the ones where household wives were relatively well educated. Third, it is generally known that downward biases can be found in the family budget surveys which use simple questions on expenditures in comparison with those adopted in daily family account books. Considering these, the differences in consumption levels between these surveys overestimate the rise of real income of households in the informal sector.

First, the income distribution should be studied. The summary

15. See Noda's estimates compiled in Ohkawa (1967).

table in the 1921 survey report gave the distribution of the number of households classified by monthly receipts. Since in the definition of the survey, 'monthly receipts' included the carry-over from the previous month and new debts in the month in addition to income, the table can be used only as an approximation. But the biases would not be so large as to affect seriously the conclusion. As shown in Table 3-A, the number of households concentrated in monthly receipt groups which were a little higher than the average receipts, 72.26 Yen. About 60 percent of households belonged to the groups from 50 to 80 Yen. Unlike the usual form of income distribution, it was symmetric or skewed a little to the right side. It is important to compare the distribution with the income levels of workers outside the informal sector. For this purpose, one can refer to an interesting survey called the Tsukishima Survey conducted in 1919-20 by the Bureau of Public Health, Department of Domestic Affairs.[16] This was promoted by Iwasaboro Takano, who was one of the pioneer workers in this field in the world. The survey researched social and economic characteristics of households of well-trained laborers living in the Tsukishima area of Tokyo. While the survey had various kinds of information, only the average income of these households was used here. Since the CPI in 1919 was nearly equal to that in 1921, one can compare the income level of well-trained laborers to the one of households in the informal sector: the average income level in Tsukishima survey was 72.92 Yen which is 22 percent higher than that of the informal sector. It appears that the differences are smaller than anticipated.

One can also obtain another kind of income distribution data classified by disposable income per adult equivalent family members which were calculated through the reclassification of individual household data. In Table 3-B, distribution is shown in 10 income groups. While the number of households in the highest income group is smaller than other income groups, the data could be used as if the decile group data is in a broad analysis. It is interesting to note that the coefficient of variation of income is much smaller in Table 3-B than that in Table 3-A. This means that the standard of living was very similar among the households in the informal sector. One should note that about 75 percent of households in the informal sector had

16. Bureau of Public Health (1921). This report was reprinted in *Classic Book Series on People's Livings*, by Koseikan published in 1971.

the surplus in the income-expenditure relations and that above 10 percent had the higher household income than the average of well-trained laborers in the Tsukishima Survey. The situation seems to be different from the experience in recent developing countries where the income differences are large between the formal and the informal sector.

It is very interesting to compare the composition of monthly receipts. Naturally, the primary income of household heads was the most dominant part. According to the Douglas-Long Law, the supply of labor of other families is determined by the level of household heads' income.[17] Thus, it is interesting to take the ratio of various receipts to the income of household heads as is shown in Table 4. While the ratio of wage type income of wives is relatively stable, that of 'other' income rises in the low income group, then declines

Table 3 – Income Distribution Data of Tokyo Informal Sector in 1921
(A) Data by Monthly Receipts

Range of Monthly Receipts (yen)	Number of House-holds	Family Size	Monthly Receipts (yen)	Disposable Income (yen)	Consump-tion Expen-ditures (yen)	Saving Ratio (%)
– 30	3	3.7	28.03	25.61	26.30	– 2.7
30– 40	10	3.5	35.69	25.48	33.31	–30.7
40– 50	51	3.8	45.66	40.62	41.13	– 1.3
50– 60	82	4.2	55.03	48.40	49.07	– 1.4
60– 70	111	4.3	64.85	56.57	55.30	2.2
70– 80	95	4.5	74.24	64.86	59.56	8.2
80– 90	67	4.5	84.91	70.40	67.86	3.6
90–100	26	4.7	94.97	72.32	67.60	6.5
100–120	35	4.9	109.30	82.04	77.66	5.3
120–150	14	4.5	131.31	80.61	78.88	2.1
150–	3	6.6	186.65	143.92	124.92	13.5
Total or Average	497	4.3	72.26	59.45	57.42	3.4

17. See, for example, Long (1958).

(B) Data Per Adult Equivalent Disposable Income

Group Number	Number of Households[a]	Number of Adult Equivalents	Per Capita (yen)			Saving Ratio (%)
			Monthly Receipts	Disposable Income	Consumption Expenditures	
1	50	3.71	15.42	9.78	13.42	−35.4
2	50	3.49	17.89	13.48	14.76	− 9.5
3	50	3.34	19.94	15.23	16.35	− 6.7
4	50	3.56	19.92	16.94	16.86	0.5
5	50	3.13	22.28	18.62	18.13	2.6
6	50	3.06	23.10	20.47	19.01	7.1
7	50	2.99	26.32	22.25	21.19	4.7
8	50	2.69	28.48	25.25	22.06	12.6
9	50	2.51	31.74	27.82	25.20	9.4
10	45	2.44	39.62	33.84	28.76	15.0

[a]We exclude two households whose figures seem to be unreliable in the calculation of Table 3-B.

Source: Tsuda (1971).

afterwards as the household income increases. Since the major part of 'other' income is the wage type income of family members other than household heads and their wives, one can consider that this represents the pattern of labor supply. In low income households, the family members were forced to engage in jobs even if the wage rate was low. But in the high income groups, the family members went to work if they found the jobs in the formal sector. In this respect, the Douglas-Long Law could be applied. In fact, when one calculates the ratio of family members' income to the number of other family members with jobs, it increased sharply as the income of the household head rose. These suggest that the households of the lowest 15 percent or 20 percent of income groups in the informal sector belonged to the absolute poor group, but the others could afford their living to some extent. This is consistent with the previous suggestions from the income-expenditure relations. Further, it is important to note that the ratio for debts is small, above a half of households.

Table 4 – Ratios to Income of Household Heads by Kinds of Receipts (%)[a]

Group Number	Wage of Wives	Other Income	Carry Over	Debts	Total[b]
1	6.45	7.14	22.45	30.50	166.36
2	5.58	11.29	16.45	20.51	154.03
3	6.63	4.70	16.42	12.01	139.76
4	7.11	18.08	12.73	7.02	144.94
5	7.93	14.12	13.84	5.97	141.86
6	4.86	7.05	7.31	5.98	125.11
7	6.79	9.98	10.00	9.80	136.57
8	3.83	4.41	8.06	3.10	119.40
9	6.34	5.15	9.31	4.68	125.48
10	5.93	6.70	8.37	4.72	125.27

[a]Table is calculated from data by disposable income per adult equivalent family sizes.
[b]Total includes the income of household heads.

The 'other income' includes the transfer income but its share was too small to be treated as an independent item here. Further, the expenditures for remittances were also small in the case of the Tokyo informal sector. Some recent reports inform that a large number of households in the urban informal sector send their money to the rural areas in recent developing countries.[18] In this sense, the informal sector in the 1920s Tokyo had a high degree of independence in comparison with recent experiences in developing countries.

Finally, considering the composition of consumption expenditures shown in Table 5, the income elasticities calculated from the regression equations for individual data were added. It is well known that the Engel coefficients – the ratio of expenditure for food to the total consumption expenditures – is one of the important indicators of the standard of living. One can identify a household as poor when

18. Two papers are cited in Torii-Tsumita (1981). They are Bienefeld-Sabot (1971) and Jhonson-Whitelaw (1974).

its Engel coefficient in a broad study is above 60 percent. In this respect, about a half of households in the informal sector were in the poor situation. Further, Oshima suggested that the coefficients do not decline or even increase as income rises in the absolute poor group of households.[19] Table 5 shows that the coefficients were relatively stable from group (1) to (6). This result shows a larger share of the poor in the informal sector than that shown in other indicators. Judging from the income elasticities, the expenditures for clothing were the most luxurious items. This is very interesting because the miscellaneous expenditures are the most luxurious in the usual household groups, including those shown in the Tsukishima Survey. These suggest that the cultural activities were restricted among the informal sector.

Table 5 — Composition of Consumption Expenditures (%)[a]

Group Number	Food	Accommo-dation	Cloth-ing	Fuel & Light	Miscel-laneous
1	64.5	7.7	4.0	8.8	15.0
2	62.4	8.4	4.6	8.4	16.3
3	60.9	7.8	6.1	8.8	16.4
4	61.2	8.6	5.7	8.3	16.2
5	61.1	9.3	6.9	7.1	15.6
6	62.8	7.9	6.4	7.4	15.5
7	58.3	7.2	8.2	7.2	19.1
8	58.7	8.5	8.6	7.7	16.5
9	57.7	7.5	9.4	7.1	18.3
10	54.1	9.0	13.8	6.5	16.5
Income Elasticities[b]					
	0.553	0.795	1.825	?	1.124

[a] See Note a of Table 4.

[b] The income elasticities are calculated with use of regression coefficients of linear Engel functions estimated from individual household data. ? means the regression equation was too unstable to be used here.

19. See Oshima (1977).

6. Final Remarks

The discussions in this paper could clarify the similarity and differences in household characteristics between the informal sectors in the 1910s and 1920s Tokyo and recent developing countries. Like recent developing countries, Japan suffered the explosion of the informal sector in the early stages of industrialization. However, Japan had solved the problem gradually through the process of industrialization although there appeared some serious situations in the early 1930s when the Japanese economy fell into a recession, owing to the world economic crisis as well as in the mid-1940s when the Japanese economy suffered heavy damage from the defeat in the Second World War. This experience seems to give a bright perspective for the future of developing countries. In this respect, it is important as an actual problem to examine the causes of the differences of characteristics mentioned above.

While there is limited information on the conditions of the informal sectors in the 1980s or 1890s Japan, one can infer that they were as serious as those found in recent developing countries. Most of the people in and around slums engaged in work in the informal sector, and their standard of living was much lower than that found in other areas. However, as years passed on, the relative income of the people in the slums had gradually risen and approached the relatively low income groups in the formal sector. In the late 19th century Japan, the rural sector had taken off from self-sufficient economy, and its income level was low, but was not too low to push out family members into the informal sector. Thus, the inflow of population to the informal sector was not remarkable after 1880s, although a significant inflow was found in the 1860s and 1870s owing to the economic and social confusions caused by the civil war, i.e., the Meiji Restoration. This was one of the differences of the Japanese experience from those of the recent developing countries. In this respect, one can say that the problems around the informal sector are the shadow of rural development problems.

Second, one should note that the educational level of the people in the informal sector was relatively high. Since the late 19th century, the Government of Japan had tried to spread education at the primary level. These efforts were also emphasized for the slum areas. The literacy rate for the above 15 years old was about 85 percent for males and above 50 percent for females, according to the

1911-12 survey. The rate was much higher if one restricts the calculation for young generations. Thus, most of the young people in the slum area became the relatively high quality labor to be employed in the informal sector. This suggests that the role of education is very important in solving the problems around the informal sector.

Third, one should note that Japanese central and local governments focused their policies to upgrade the standard of living in slum areas through self-reliance of these peoples, rather than the removal of slums. Their major policies were to supply the job opportunities with settlements of labor exchange institutions, some financial aids to improve housing or sanitary conditions in addition to the spread of education as mentioned above. It was only after the mid-1960s when Japan passed the turning point from a labor surplus to a labor scarce economy, that some local governments including Tokyo moved to eliminate slums. The experiences should be refered to when one considers the slum problems in recent developing countries.

REFERENCES

Bienefeld. M. A. and Sabot, R. H. (1971), *The National Urban Mobility, Employment and Underemployment and Income Survey in Tanzania*, Dar es Salam University.

Bureau of Public Health, Department of Domestic Affairs (1921), *Field Survey on Laborer's Households in Tsukishima Area of Tokyo City*, [Tokyoshi Kyobashiku Tsukishima niokeru Jitaai Hokoku]. (In Japanese).

Jhonson, G. E. and Whitelaw, W. E. (1974), "Urban-Rural Income Transfers in Kenya: An Estimated Remittance Function," *Economic Development and Cultural Change*, 22 (3).

Ohkawa, K. and et. al. (1967) "Prices" [Bukka], *Long Term Economic Statistics of Japan*, 8, Toyo Keizai Shimposha. (In Japanese with English summary).

Oshima, H. T. (1977), "Some Notes on Defining and Estimating Poverty Levels," Mimeographed Paper of the University of the Philippines.

Long, C. (1958), *The Labor Force under Changing Income and Employment*, National Bureau of Economic Research.

Miyaji, Mikio (1981), *Bibliography on Researches of Poverty Problems in Japan*, [Wagakuni no Hinkon Mondai Kankei Bunk Mokuroku], IADRPHU. (In Japanese).

Mizoguchi, T. (1982), "Anti-Poverty Policies and Social Securities in Japan 1880-1980," Discussion Paper, IADRPHU.

Sethuraman, S. V. (1977), "The Urban Informal Sector in Africa," *International Labor Review,* 116 (3).

Squire, L. (1979), "Labor Force, Employment and Labor Market in Course of Economic Development," *World Bank Staff Paper* (336.).

Torii, Y. (1979), "Labor Market in South East Asian Economic Development," *Azia Keinzai,* 19 (5). (Japanese).

Torii, Y. and Tsumita, Y. (1981). "Explosion of Informal Sector in Economic Development," Working Paper, Economic Development Project in Keio University.

Tsuda, M., *Reprint of Social Bureau, Domestic Affairs', Tables of Survey of Laboring Poor,* [Saimin Tokeihyo], Keiso Shobo. (In Japanese).

_____, *Japanese Low Income Society,* [Nihon no Kaso Shakai], Minoruba Shobo. (In Japanese).

Yap, L. Y. L. (1977), "Attraction of Cities: A Review of Migration Literature," *Journal of Developing Economics,* 4 (4).

Yokoyama. G. (1949), *Low Income Classes in Japan,* [Nihon no Kaso Kaikyū], Chuo Rodo Gakuen, [originally published in 1888]. (In Japanese).