

## Changes in Household Consumption After 1900

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### 1. Regional Comparison of Household Consumption

About 1910, Japan was almost settled in modern industries which had grown to a certain level to cope with developed countries. National income in 1900 was ¥6,232 million and it increased to ¥7,834 million in 1910; about 26% rise in the decade. Monthly household income, which was about ¥11 ~ ¥17 in 1901 at villages in Hokuriku<sup>1</sup>, had risen to between ¥27 and ¥30 depending on the economic conditions of the area concerned. Household income was almost doubled during the first decade of the twentieth century. Table 1 gives the household budgets of four areas in wider range

Table 1. Regional Comparison of the Household Budgets : 1906-1911

Area	Ibo(1906)	Onga(1907)	Minami-(1908) tsugaru	Tako-(1911) shima
No. of Household	17,287	24,576	15,271	318
Monthly Income	¥27.127	¥29.827	¥26.740	¥31.012
Total Expenditure	26.744(100%)	24.800(100%)	26.266(100%)	25.677(100%)
Item : Food	13.927( 52%)	16.011( 64%)	19.417( 74%)	15.813( 62%)
clothing	2.397( 9 )	2.392( 10 )	1.031( 4 )	2.665( 10 )
Housing	3.446( 13 )	2.185( 9 )	2.215( 8 )	2.627( 10 )
Others	6.974( 26 )	4.212( 17 )	3.603( 14 )	4.572( 18 )

Source : Gunze and Sonze of each area (Returns of the Survey practiced by each county and village)

of the country. Ibo county, close to Osaka (Kansai), Onga county in the north of Kyushu, Minamitsugaru county in the north end of the Honshu Island (Tohoku) and Takoshima village in the middle north (Hokuriku). The figures of average household budget of each area indicate the regional differences of the economic development which each area had attained as well as the level of consumption representing the characteristics of their way of living. The highest income level among the four can be found at Takoshima, the location of which did not seem advantageous. People of the village, however, mostly engaged in fishery and were adventurous. After the Meiji Restoration they started sericulture industry on a large scale which became one of the sources of their large income. Besides, their traditional work of fishery also became very prosperous as the demand for fish increased with the development of transport. Production of *somen* (dry noodle) was another traditional product which was shipped to distant areas. All these old and new industries benefited the village. Onga next to Takoshima in respect to household income, was a county in which an ironworks (Yahata) was established in 1897. The relatively large number of households shows that there

were multiple number of factory workers and labourers in the county. Ibo county traditionally had produced soya sauce and was mainly engaged in agriculture. As the county was close to Osaka, a large business centre, it had an advantage in starting light industries such as match production and flour milling as well as developing traditional manufacture of soya sauce and somen. Minamitsugaru was entirely devoted to agriculture and no modern industries had developed at the period.

The household budgets of the four areas show that Onga and Takoshima developed a similar structure of expenditure, while Ibo and Minamitsugaru show extremely different patterns from each other. And the propensity to consume of both Onga and Takoshima is about 83%, much lower than the other two whose propensity to consume is 99% and 98% each. We have already seen the same tendency in the household budgets for 1901,<sup>2</sup> in which Yadago showed a very low propensity to consume of about 84%. These three areas, Onga, Takoshima and Yadago, were examples of areas which caught up promptly with the new economic conditions. This resulted in the emergence of a new social class of wage earners.

Apart from the household expenditure on food, the amount of foodstuffs consumed reveals the food habits of each locality more clearly adding two more areas to the four mentioned in the table 1; Ohsuga in the north of Kanto district, and Komazawa in the suburbs of the city of Tokyo (Table 2). Of rice consumption all the areas but Ohsuga

Table 2. Regional comparison of Food Consumption: (per head per year) 1906-1912

Item/Area*	Ibo	Onga	Minami tsugaru	Takoshima	Ohsuga	Komazawa
Rice	150.429	168.285	218.600	156.430	126.143	133.571
Sweet potato	13.125 ( 16)	22.369 ( 16)	0.323 ( 43)	35.625 ( 13)	55.500 ( 16)	32.918 ( 17)
Potato	0.376 ( 23)	1.474 ( 22)	15.375 ( 13)	18.750 ( 11)	1.125 ( 11)	n.a.**
Meat, pork, poultry	0.375 (603)	1.008 (527)	0.292 (315)	0.019 (648)	0.450 (400)	0.519 (449)
Milk	0.36 (244)	0.65 (272)	0.06 (295)	0.18 (222)	0.36 (222)	3.60 ( 17)
Egg	5.0 ( 20)	12.1 ( 22)	2.7 ( 20)	7.0 ( 25)	4.6 ( 20)	22.0 ( 23)
Sugar	1.380	1.264	0.390	0.938	0.836	3.356
(Refined)	0.520 (333)	0.709 (238)	0.120 (417)	n.a.	n.a.	n.a.
(Brown & raw)	0.863 (250)	0.555 (160)	0.270 (285)			
Fish	¥3.470 ****	¥3.753	¥1.228	¥1.039***	¥4.764	¥2.402
(Raw)	0.880 (320)	2.934 (225)	0.597 (207)	0.960 ( 43)	2.537 (176)	1.808 (n.a.)
(Salted & dried)	2.590	0.819	0.691	0.079	2.227	0.594

\* Ibo, Onga and Minamitsugaru are counties and Takoshima, Ohsuga and Komazawa are villages. They are located in Kansai (Ibo), Kyushu (Onga), Tohoku (Minami-tsugaru), Hokuriku (Takoshima) and Kanto (Ohsuga and Komazawa). Komazawa was not in the city of old Tokyo, but in the suburbs at this period.

\*\* The amount of potatoes was included in the total amount of vegetables.

\*\*\* The amount of fish consumption for all the areas concerned was only available for Takoshima. Fish consumption in the village was 22.5kg and 0.938kg for salted and dried fish. As it was a fishery village, the unit price of fish was low.

\*\*\*\* Figures in parentheses indicate unit prices. The value is given in rin: 1 yen = 100 sen = 1,000 rin

\*\*\*\*\* The unit of the amount of each item is as following: rice, sweetpotato, potato, meat, pork, poultry and sugar=kg, milk=1, egg=piece.

and Komazawa the amount indicate above the average of 145 kg (1899–1914). Sweet potato used to be sometimes taken as a substitute for rice in the area of sweet potato production, and the biggest amount of sweet potato consumption shown at Ohsuga could be explained the fact that they did not eat much rice comparing to other areas. Potato was generally grouped in vegetables and the consumption shows its region of the production. The increased consumption of meat, milk, egg and sugar in the ordinary meal reveals changing food habits, the increasing consumption of them being usually taken as the indication of advance in the food habit. So far as the figures concerned, Onga and Komazawa seem to have made progress in improving their food habit, which eventually tell the fact that the areas had been more urbanized than the other areas. Meat and milk, quite new food introduced after the Meiji Restoration, were not yet widely accepted at this period, but the animal food was mainly covered with fish consumption. It is difficult to get the precise amount of fish consumption from the expenditure on fish, for the price differed from region to region. The price of salted and dried fish was usually higher than raw fish, but in those areas which did not have a geographical advantage of obtaining raw fish like Ibo and Minamitsugaru they had to buy salted and dried fish rather than raw fish. In Takoshima the expenditure on fish is relatively small as the price is considerably low. They consumed 22.5 kg of raw fish and 0.938 kg of salted and dried fish per head per year. Sugar consumption also shows big regional differences though the amount imported tremendously increased in the last three decades of the nineteenth century<sup>8</sup>; Komazawa consumed the largest amount of 3.356 kg per head per year and Minamitsugaru only 0.39 kg.

The amount spent on cereals in the household budget provides some criterion of the improvement in food intake, for a reduction, provided that food prices are fixed, necessarily enables people to spend more on other food stuffs. The share of the cereals in food expenditure of household budgets, was about 52% at Ibo, 48% at Onga, 73% at Minamitsugaru, 59% at Takoshima, 52% at Ohsuga and 50% at Komazawa. It was 60% at Krohone in Kanto in 1901, and around 80% or over at the villages in Hokuriku in the same period. Thus there was a 10% decline at cereal consumption in the first decade of the twentieth century, approximately from 60% to 50% in advanced areas and from 80% to 70% in backward areas, between the two, developing areas like Ibo and Takoshima showing the decline from about 70% to 60%. Here we can see the typical change in food consumption in regard to cereals, which had increased in the amount and declined in the percentage of the food expenditure in the household budget. So far we understand from the regional comparison, the traditional food habit was still prevailing even though the consumption level differed from area to area. There was, however, developing a new food habit of accepting food stuffs introduced from abroad. Since the start of the twentieth century, the improvement in the food intake was progressing, with the increased food consumption both in amount and variety, which we will deal in the next section.

## 2. Household Budget of the Working Class in Tokyo: 1911-1921

We have some materials about the level of consumption of the working class in Tokyo, the capital of the country, where urbanization progressed fastest. These data are based on surveys by scholars and the government authorities (Table 3). The data for 1911 comes from a survey conducted by Naimusho (Home Office), a department of the government, to examine the living conditions of the people at the bottom of the social strata. The sampling groups consisted of factory workers, craftsmen and labourers in irregular employment in Tokyo; Naimusho carried out the same kind of a survey in 1921. Minoru Oka, Iwasaburo Takano and Yasunosuke Gonda, all contemporary sociologists, tried to make a survey of the household budgets of factory workers in Tokyo for 1912, 1916 and 1919. The results of these surveys illustrate the changes in consumption of the working class as industrialization took place.

The survey for 1911 by Naimusho covered 3,047 households in the slum area of Tokyo. The classification of household expenditures was rather crude.<sup>4</sup> And the

Table 3. The Monthly Household Budget of the Working Class in Tokyo 1912-1921

Item/Year*	1912	1916	1919	1921	1919**
Food	¥11.27 (47.7%)	¥11.54 (37.3%)	¥35.09 (50.2%)	¥34.86 (48.2%)	¥34.31 (39.8%)
Clothing	1.50	2.09	6.77	4.41	11.03
Housing	3.24	4.90	7.39	4.66	9.83
Light & fuel	—	1.71	4.33	4.39	5.02
Health & sanitation	—	2.28	3.52	2.44	4.68
Childcare & education	0.81	0.92	2.17	3.70	2.39
Social expenses	—	0.88	3.79	1.24	5.50
Communication & transportation	—	0.84	0.84	1.07	2.02
Taxes, fees & donations	0.08	0.17	0.48	1.70	2.09
Culture & recreation	—	0.36	2.85	0.68	6.04
Miscellaneous	5.61	0.74	2.73	0.65	3.21
Saving & installment	1.12	4.52	—	12.46	—
Total	23.63 (100.0)	30.95 (131.0)	69.96 (296.1)	72.26 (305.8)	86.12
(Wage Index)	(100.0)	(105.4)	(215.4)	(293.6)	

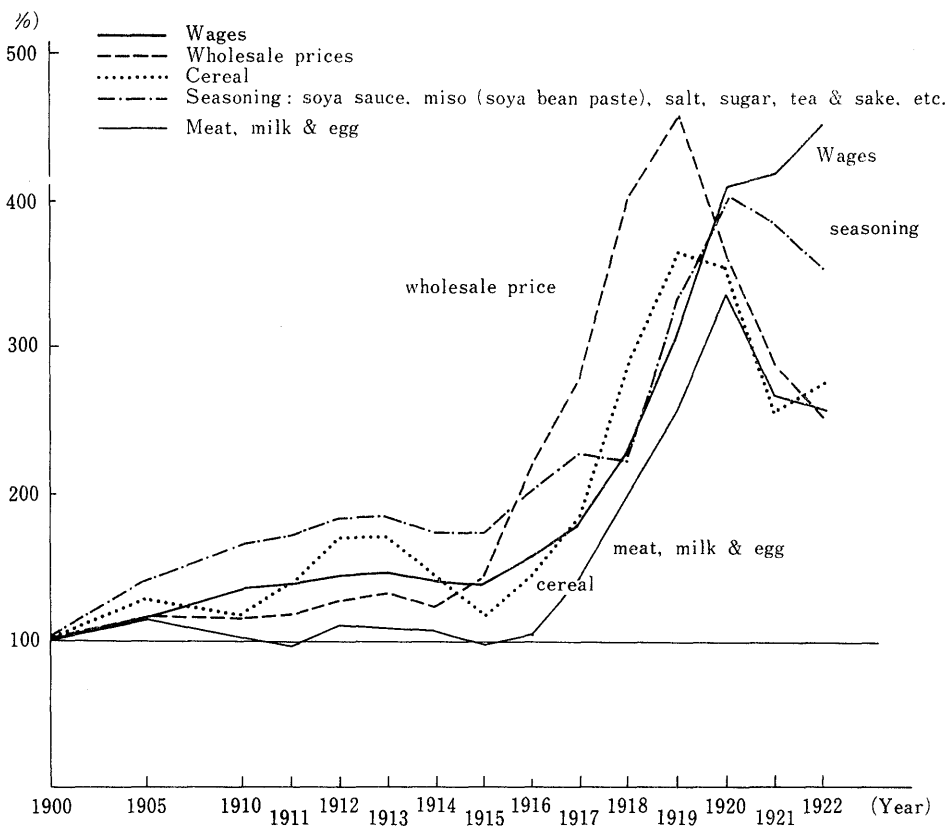
\* The data for 1912 was taken from Minoru Oka, SHOKKO NO SEIKATSU JOTAI (The Living Conditions of Factory Workers in Tokyo), contained in SEIKATSU KOTEN SOSHO (The Classic Series of Studies on Living), vol. 7, Tokyo, 1971, p. 73. For 1916, Iwasaburo Takano, TOKYO NI OKERU 20 SHOKKO KAKEI CHOSA (Survey of 20 Households Budgets of Factory Workers in Tokyo), *ibid.* p. 99. For 1919, both for the factory workers and the salaried class, see Yasunosuke Gonda, TOKYOSHI NI OKERU RODOSHA KAKEI NO ICHI MOKEI (A Case study of the Household Budgets of the Working Class in Tokyo), *ibid.* p. 107. And also TOKYO NI OKERU SHOGAKU HOKYUSHA KAKEI NO ICHI MOKEI (A Case Study of the Households of Lower Salaried Men), *ibid.* p. 119. For 1921, Naimusho, SAIMIN CHOSA TOKEIHYO (Statistical Tables of the Living Conditions of Working Class in Tokyo), 1922, Republished, Tokyo, 1971, pp. 60-1.

\*\* This household expenditure represents that of the lower salaried class, of which the sampling group was mostly consisted of school teachers' households.

estimated average living costs of the 1911 survey were about ¥18, and did not exceed ¥20 at the most. A survey in 1912 by Minoru Oka suggested that the estimated average household expenditures of a factory worker was about ¥21, of which food accounted for ¥12.50 (59%), rent ¥3.50 and clothing ¥1.5. Another survey was conducted by Naimusho (Home Office) in 1912 of 344 working class households in Tokyo. According to the survey, average income amounted to ¥28.12 and average household expenditure to ¥26.53.<sup>6</sup> This suggests that these households of the working class in the survey of 1912 were better off than those in that of 1911, of which the sample largely consisted of those in the slums.

Another survey also by Minoru Oka set out in "Table 3" gives different figures for the household expenditures of the working class. Items of expenditure were still divided crudely. Light and fuel, health and sanitation, social expenses and recreation were all included in "miscellaneous". The total expenditure averaged ¥23.63, which could be placed between his former survey in 1912 already mentioned above and that of by Naimusho. Considering these surveys together, we can conclude that the estimated average household expenditure for 1912 was about ¥24. The average household expenditures for 1916 surveyed by Iwasaburo Takano show a rise of about 30%, food

Fig. 1. INDEX OF WAGES AND WHOLESALE PRICES IN TOKYO: 1900-1922. (1900=100)  
 Source: The Asahi, ed., NIPPON KEIZAI TOKEI SORAN (The Economic Statistics of Japan), Tokyo, 1931, pp. 921, 1108, 1114.



costs staying almost the same. This means that the rest could be spent on other items raising the standard of living. Although the wholesale price index shows the rise of 94 points, that of cereals decreased 42 points from 1912 to 1916, while the wage index rose 7.7 points (Figure 1). As we have already seen, the food habit of the working class in these days was to take much cereals as a staple food, so that the price of cereals largely affected food costs, and hence living costs. This means that household expenditures could provide for a more variety in consumption as the household budget of 1916 shows (Table 3).

In 1919, after the World War I, there arose a galloping inflation and prices rose more than twice as much as that of 1916, particularly the price of cereals got to as far as nearly three times, while the wages reached as high as twice; so that the food costs occupied half of the household budget, the ratio of which rose about 13 points from that of 1916. Besides, there was no margin for savings or installments. From 1920 the prices tended decline, while wages still kept rising. In the household budget of 1921, the food costs only decreased slightly from that of 1916 in money terms, but the food consumption was much increased either in the amount or the quality (Table 4). Also there was much left for savings and installments in the household budget. But the consumption of meat, milk and egg seems not to have increased, as the sum disbursed on them decreased along with the fall in their prices. But these food stuffs as vegetables, fish, seasons and processed food were all increased the amount both in money terms and quantity as the results of the price fall and the wage rise. Comparing the household budgets in 1919 between the working class and the white color, the lower salaried class

Table 4. Food Consumption of the Working Class and the Lower Salaried Class in Tokyo 1916-1921 (per head per month)

Item/year	1916	1919	1921	1919
Cereals	¥1.340 (45.3%)	¥4.488 (53.4%)	¥3.933 (48.5%)	¥3.997 (52.4%)
Vegetable & dryfood	0.336	0.648	0.761	0.667
Fish	0.274	0.727	0.777	0.548
Meat, milk & egg	0.123	0.275	0.172	0.408
Seasoning*	0.251	0.606	0.660	0.665
process food**	0.171	0.340	0.488	0.260
Catered dish***	—	0.227	0.181	0.140
Tea, coffee & soft drink	0.047	0.059	0.059	0.062
Cake & fruit	0.165	0.398	0.398	0.425
Liquor	0.115	0.389	0.389	0.126
Tobacco	0.137	0.171	0.171	0.117
Miscellaneous	—	0.077	0.077	0.217
Total (Price index : cereals)	2.959 (100.0)	8.405 (286.2)	8.107 (202.6)	7.634

\* Soya sauce, miso (soya bean paste), salt, sugar, etc.

\*\* Soya bean curd, cooked beans and other cooked food (fish and vegetables) in soya sauce.

\*\*\* Delivered from restaurants or eating places to customers' homes.

in this case, the expenditure on food by the latter is smaller than that of the former, although the total sum of the household expenditures of the lower salaried class was larger than that of the working class by 23.1%. As for the food consumption per head per month, the food costs of the lower salaried class was less by 9.2% than that of the working class, but such food stuffs as vegetables, meat, milk, eggs and seasonings were consumed more than the latter. This might suggest two things; one is that they had to spend more on other living expenses to keep up their social status in the new circumstances of modern society. The other is that their food habits was changing from the traditional to the new and westernized one, while the working class always tried to keep traditional food habits. In this case, Engel's law would not function in the original effect, but the fall of the Engel's coefficient might indicate the changing consumer's preference in the processes of the urbanization, particularly the changing mode of living in a large city like Tokyo where the industrial society was developing in all respects.

### 3. Conclusion

There are two main factors in the changes in Japanese consumption. The rise of modern industries after the Meiji Restoration by altering social structures and institutions, changed sources of income. That brought about the emergence of wage earners who consequently became consumers. Industrialization in Japan as a late comer to the developed countries in the western world, meant westernization at the same time, absorbing scientific knowledge and technologies as well as cultures, with new types of consumer goods. The other factor was that traditional small-scale industries also developed to produce consumer goods and supplied them at reasonable prices to consumers even in the lower social classes. The production of crops such as cereals, vegetables and even fruit was encouraged to meet the increasing demand for food. These traditional sectors played a great role as a counterpart of the industrialization in Japan. By the end of the nineteenth century, a level of consumption both in food and clothing was attained almost everywhere in the country, and in some advanced areas the changes in consumption either in the amount or the quality was reached to a fair increase to raise the standard of living. As for the urban working class, income and prices particularly regulated their consumption. But the demonstration effect of the upper class in the process of urbanization also affected the consumption patterns of the lower class. Sometimes they reduced their food consumption to satisfy other aspects of life or to enjoy a new mode of life. In the 1920's city labourers' level of consumption was raised enough for them to attain a moderate living standard though their way of life was still maintained in the traditional one, particularly in food consumption.

#### NOTE

1. Yasuzawa, M., "Changes in Lifestyle in Japan: Pattern and Structure of Modern Consumption", in "Consumer Behaviour and Economic Growth in the Modern Economy", Croom Helm, London, 1982, p. 192.
2. *Ibid.*, p. 192.

3. Sugar production had already been practiced in Shikoku and Kyushu during the Tokugawa period, but the production was not significant. The increasing supply of imported sugar improved Japanese cookery of seasoning as well as the popular consumption of sweets.

The Amount of Imported Sugar: 1868-1890

Year	Amount	Unit Price/kg
1868	4,611,758 kg	¥1.992
1869	18,590,141	0.906
1870	37,338,484	0.832
1875	92,912,443	0.377
1880	41,746,410	0.870
1885	63,695,543	0.736
1890	104,370,306	0.814

The source of data: Tamemasa Nagae, ed, *The Shogyo Shiryo* (Treasure of Commerce), Osaka, 1894, vol. 1, no. 9, p. 227.

4. Yasuzawa, *Ibid.*, pp. 197-198.  
 5. Minoru Oka, "Shokko no Seikatsu Jotai (The Living Conditions of Factory Workers in Tokyo), contained in "Seikatsu Koten Soshu (The Classic Series of Studies on Living), vol. 7, Tokyo, 1971, p. 60.  
 6. Yasuzawa, *ibid.*, pp. 198-199.

〔附記〕

本稿は先に出版された "Consumer Behaviour and Economic Growth in the Modern Economy," (Croom Helm, London, 1982) 所収の拙稿 "The Changes of Lifestyle: Changing Consumption Patterns in Meiji Japan", に続く補稿である。なお第8回国際経済史会議(ブダペスト, 1982年8月) B部門における "Types of Consumption, Traditional and Modern" において同テーマで報告した。

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