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MIGRATION AND THE LABOUR MARKET IN JAPAN 1872-1920: A Regional Study*

OSAMU SAITO

I

We have poor knowledge about internal migration in the Meiji period, or precisely speaking, before the year 1920 when the first census was taken. Up to the present, only an estimate of the inflow into the six urbanized prefectures has been given as the difference between the total and natural increases of the population.¹ From this estimate, it has become clear that the first spurt of migration towards cities (especially Tokyō and Ōsaka) came in the late 1890s and a slow down in the early 1910s. Apart from this, however, it seems there is no method other than relying upon non-quantitative materials such as contemporary publications,² or giving a guess from changes in the numbers of the gainful workers estimated by industry and the movements of relative wages.³ And it is suggested that in the Meiji period rural industries played an important role as a channel for the allocation of the labour force in a regional economy, so that marked intersectoral wage differentials did not emerge. This picture of the Meiji labour market is an invaluable contribution to further study. However, a point to remember here is that the labour force transfer from agriculture to manufacturing through such a channel did *not necessarily* take place as migration.

Thus, the actual picture of migration during this period has been veiled still now. We should try to find a clue, from which the number of migrants can be estimated. Besides there are a few problems. It is said that the rate of net immigration into the urbanized areas correlates with the rate of economic growth.⁴ Can we give an interpretation, based on this, that production in the urban manufacturing sector regulated the volume of migration? Is it *consistent* with the picture of the rural labour market described above? On the other hand, what was the main

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¹ MINAMI Ryōshin, 'Jinkō Toshi Shūchū no Keikō to Hendō', *Keizai Kenkyū*, vol. XVI, no. 1, 1965. See also his 'Population Migration away from Agriculture in Japan', *Economic Development and Cultural Change*, vol. XV, no. 1, 1967.

² SUMIYA Mikio, *Nihon Chīnrōdō Shiron*, 1955; SUMIYA *et al.*, *Nihon Shihonshugi to Rōdō Mondai*, 1967, chaps. 1 and 2.

³ UMEMURA Mataji, *Chingin Koyō Nōgyō*, 1961; 'Meiji Nenkan ni okeru Jisshitsu Chingin to Rōdō no Kyōkyū', *Shakai-keizai-shigaku*, vol. XXVII, no. 4, 1962; 'Agriculture and Labour Supply in Japan in the Meiji Era', *Developing Economies*, vol. III, no. 2, 1965; 'Sangyō betsu Koyō no Hendō, 1880-1940', *Keizai Kenkyū*, vol. XXIV, no. 2, 1973.

⁴ MINAMI, *op. cit.*

function of such rural industries with regard to geographical movements? And; how did the labour market change, when the rural industries could not grow so steadily as before or large-scale factory industries were introduced?

First of all, I should say, we have some source material from which we can gather some information about migrants. From 1872 onward, the present-resident (*genjū* 現住) population of, for example, a prefecture had been counted by adding and subtracting the numbers of migrants and those who were in military service or in prison, to and from the annual increase of the legally domiciled (*honseki* 本籍) population of the prefecture. Such in- and out-migration were called *iri-kiryū* (入寄留) and *de-kiryū* (出寄留) respectively; and the *kiryū* population represented the number of those who had left their *honseki* place for more than ninety days. Unfortunately neither *honseki* nor *kiryū* populations can be assumed to be accurate.⁵ Nevertheless, since we have neither census⁶ nor other good material⁷ for the Meiji period, I can not think of any reason against using this source material.⁸ Furthermore, it is advantageous to us that it excludes migrants due to marriage (at which the *honseki* itself must be reregistered) and servitude or military service.

In this paper, since not all prefectural statistics on the *kiryū* population are good, I shall choose only one, i.e., Shizuoka Prefecture's whose data are all available except 1891. Shizuoka was the prefecture where neither exodus nor influx was heavy; it stood near the average among prefectures.⁹ Moreover, there were some indigenous rural industries, each of which had a different feature, on the one hand, and some large-scale industries which had no indigenous origins, on the other hand. Therefore, the analysis of the *kiryū* statistics of this prefecture would be a good

⁵ As a result, when the 1920 census was taken, the present-resident population of Japan as a whole was overstated by two millions.

⁶ There are a few exceptions. The earliest one is the pilot census of 1879 conducted in Yamanashi Prefecture, which is known as *Kai no Kuni Meiji 12-nen Ninbetsu Shirabe* (甲斐国明治十二年人別調). See, for example, Arlon TUSSING, 'The Labor Force in Meiji Economic Growth: A Quantitative Study of Yamanashi Prefecture,' *Journal of Economic History*, vol. XXVI, no. 1, 1966.

⁷ But, since the Meiji government had paid special attention to Hokkaidō as a frontier, there remained good statistical records of migrants. See NISHIKAWA Shunsaku, 'Hokkaidō eno Jinkō Idō, 1869-1970 nen', *Keizai Kenkyū*, vol. XXIII, no. 4, 1972.

⁸ It would be interesting to note that YANAGIDA Kunio had already referred to the *kiryū* statistics in his lecture, *Nihon Nōmin-shi*, delivered in 1925 (reprinted in *Teihon Yanagida Kunio Shū*, vol. XVI, 1962). But it was the population problem in the latter half of the Taishō period that he thought of. In effect, it was for the precensal period that it is useful. Since then, however, it has hardly been utilized for the study of Meiji economic history. As far as I know, there are two exceptions: ARAKI Moriaki, 'Jinushi-sei no Tenkai', *Iwanami Kōza Nihon Rekishi*, vol. XVI, 1962, pp. 94-5; and TAKAMURA Naosuke, *Nihon Bōsekigyō-shi Josetsu*, vol. I, 1971, pp. 134-5. But the former is only a cross-section tabulation; and the latter refers to Ōsaka for the years 1882-89, whose data are unreliable. As for qualifications for the reliability of this source material, see SAITŌ Osamu, '1920 nen izen no Jinkō Idō—Chūbu Chihō 4 Ken no Kiryū Tōkei o tsukatte' *Mita Gakkai Zasshi*, vol. LXVI, no. 7, 1973, sect. 2.

⁹ SAITŌ, *op. cit.*, sect. 3.

regional example, especially good for an inquiry into the interrelationship between migration, the labour market and some other factors affecting them.

The discussion below will be focused on the following points:

(1) Can the net-migration movement of Shizuoka Prefecture be explained only by the growth rate of the urban manufacturing sector?

(2) What were the effects of the existence or non-existence of a growing indigenous industry upon (i) the number of migrants and (ii) the wages relative to the *non*-indigenous industry's, when the pressure for farmers to try to earn some additional income became high?

(3) There may be observed a changing pattern of the labour market—in terms of migration and relative wages—in a regional economy. If so, in what sense was it significant?

II

The number of the *iri-kiryū* population in a district is the total of those who have left the *honseki* place. In order to get the inflow into the district during a year, we must use the increment of it. Since there are persons who came back to the *honseki* place or moved to the other places in the year, the increment represents in effect the difference between the true inflow and the number of these persons. Let us call it "in-migration". In the same manner "out-migration" is defined as the increment of the *de-kiryū* population. And the difference between the two is called "net in-migration", or "net out-migration" when the value is negative.

Fig. 1 shows the three-year moving averages of in- and out-migration and net in-migration of Shizuoka Prefecture since 1888.¹⁰ As is evident from it, the net in-migration moves cyclically; there are three peaks (1897, 1906-8 and 1916) and two troughs (1903 and 1913). Of the three peaks, the second is very low, where the figure for male proper is negative, and the third is very high but has deep troughs just before and after it. On the contrary, the first peak of 1897 has no distinguishable trough before it; the figures for 1889-97 are all positive. The movement of the in-migration proper is not much different from that of the net value.

A business indicator for the prefecture proper is unobtainable. Roughly speaking, however, the three peaks of the net value coincide with the periods after the Shino-Japanese War, the Russo-Japanese War and World War I respectively; and in the pre-World War II times an economic upswing had "always occurred during a period of war".¹¹ Although the inference from an indicator for the nation as a whole to explain a fact of a certain district might be undesirable, the results of

¹⁰ The data for 1884-86 are, though available, unreliable. Even for the period after 1887, not completely. First of all, generally speaking, *de-kiryū* tends to be understated more than *iri-kiryū* (SAITŌ, *op. cit.*, sect. 2). For the other reasons, see notes to Fig. 1 on p. 50. However, since the ratio of the present-resident population to the 1920-census figure is less than that of the national aggregate, we may say, the Shizuoka *kiryū* statistics has some degree of accuracy in comparison with that of the nation as a whole.

¹¹ Mīyohei SHINOHARA, *Growth and Cycles in the Japanese Economy*, 1962, p. 85.

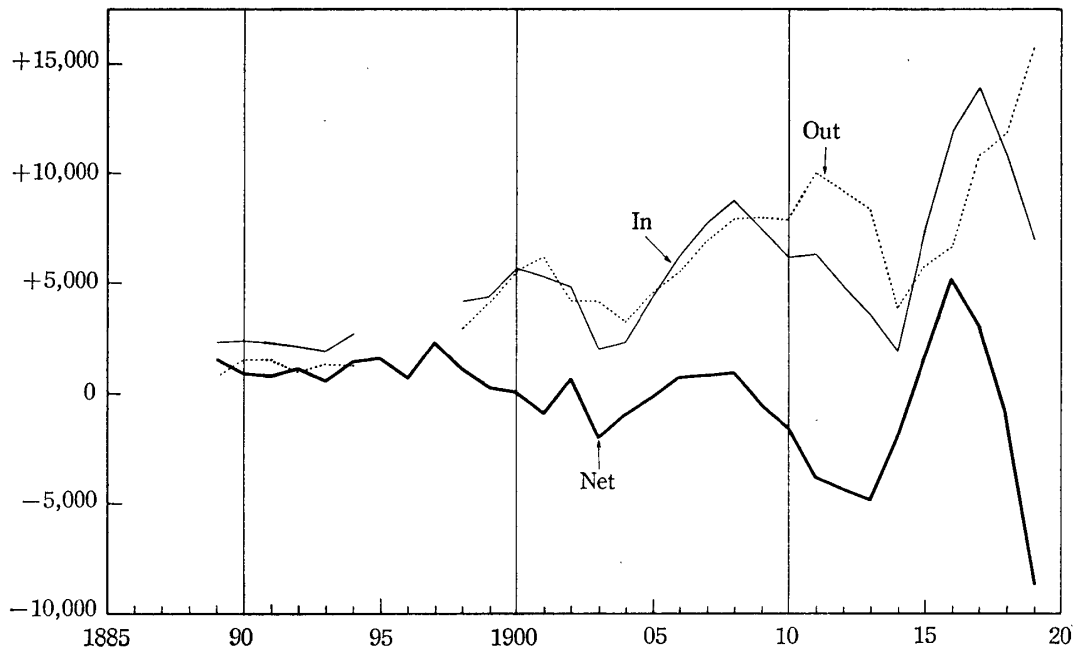


Fig. 1. In-migration, out-migration, and net in-migration:
Shizuoka Prefecture, 1888–1920 (three-year moving averages)

- Notes:
1. Calculated from the *kiryū* statistics, *Shizuoka Ken Tokeisho*, corresponding years.
 2. The 1887–97 figures in the original source are broken down into two categories: *kiryū* into or from the jurisdiction (*kan'nai* 管内) and *kiryū* into or from the other jurisdictions (*kangai* 管外). Net in-migration computed from figures of the former kind must be always zero, but actually not. The figures from 1888/90 to 1895/97 are: –147, 239, 77, 99, –155, 323, 769, 416; the proportion of the *kangai* net in-migration to the unmodified figures is 81.5 percent on the average. However, the unmodified figures are used here.
 3. The figures for 1888/95 do not include *kiryū* within *gun*, so that they understate the volume of in- and out-migration, compared with those for 1897–1920. But, it is obvious that there is no problem in the series of net in-migration.

the comparison with two nation-wide indicators—the rate of change in bank debits and the rate of change in the growth rate of industrial production (in constant prices)—would be worth nothing here: the movement of the net in-migration resembles the cyclical movement appearing in the former fifteen-term moving average series,¹² and not so closely the long swings in the latter.¹³ The two indicators do not move together except in the latter half of the 1910s. Admittedly, we can not draw a definite conclusion from these results. But these seems to indicate, at least, that migration during the Meiji period had had a close connexion with economic fluctuations, and that, on the other hand, we should *not* think of the industrial sector as the *only* factor of the fluctuations.

In order to confirm these statements, let us confine ourselves to considering the

¹² Shozaburo FUJINO, 'Business Cycles in Japan, 1868–1962', *Hitotsubashi Journal of Economics*, vol. VII, no. 1, 1966, p. 60.

¹³ SHINOHARA Miyohiei, *Chōki Keizai Tōkei*, vol. X, *Kōkōgyō*, 1972, pp. 22–3.

period before the mid-1890s.

Before going into the argument, however, we should like to know about earlier years than those covered by Fig. 1. While all the figures of the net in-migration are positive for 1889-97, what about the earlier figures? The data for the mid-1880s are unreliable as we have stated, but the data for 1872-76 seem to be better than those. At that time, however, this prefecture consisted of three different districts: "Shizuoka", "Hamamatsu" and a half of "Ashigara". Let us put "Shizuoka" and "Hamamatsu" together. Thus for this period we have 3,192 for *iri-kiryū* and 20,753 for *de-kiryū*,¹⁴ while the 1887-91 *iri-* and *de-kiryū* of Shizuoka Prefecture are 12,798 and 22,560 respectively (*per annum* each).¹⁵ Dividing the *iri-kiryū* by the present-resident population and the *de-kiryū* by the *honseki* population, and then subtracting the 1872-76 values from the 1887-91 values, we get 0.5 per thousand change in the *iri-kiryū* ratio and -0.3 per thousand change in the *de-kiryū* ratio annually; dividing the net *kiryū* by the present-resident population and making a subtraction, we get 0.85 per thousand change. Of course these results can not be accurate. Yet it would be fair to say that there was no substantial increase in out-migration at all.¹⁶ In other words, it was the change of outflow, rather than inflow, that kept the net value positive up to the early 1890s.

During this period there was the Matsukata deflation, whose influence were so great on farm households¹⁷ that probably it was urgent for farmers to get some additional income. In such a case, if there had been no by-employment opportunities, sons or daughters of them would have appeared as out-migrants. In reality, the volume of out-migration did not increase; therefore, there did exist such opportunities. As a matter of fact, commercial transactions in this period were active;¹⁸ Shizuoka was, at that time, one of the largest prefectures in terms of the number of banks, and many of them, though small, had been founded even in villages.¹⁹ What supported the commercial activities was the tea-growing or tea-making industry; we may also point out as a factor the silk-reeling industry in the east of the prefecture. Both of them were the sectors which had rapidly grown since the start of foreign trade in 1859;²⁰ and both had been carried on largely as a side

¹⁴ Naikaku Tōkei-kyoku, *Ishin igo Teikoku Tōkei Zairyō Isan*, vol. IV, *Jinkō Seitai ni kansuru Tōkei Zairyō*, 1913, part 2.

¹⁵ *Kangai* only. See note 2 to Fig. 1 on p. 50.

¹⁶ But, I am not sure if the out-migration decreased so markedly, for it seems that the *de-kiryū* population of 'Shizuoka' in the years 1873-76 were too many.

¹⁷ The influences are described in: HARAGUCHI Kiyoshi, 'Shizuoka Jiken no Shakaiteki Haikai', Meiji Shiryō Kenkyū Renrakukai, ed. *Minken Undō no Tenkai*, 1958, pp. 33-62.

¹⁸ See, for example, the return of an inspector, which depicts social, political and economic situations of the prefecture in 1883: *Sekiguchi Genrōin Gikan Chihō Junsatsu Fukumeisho—Shizuoka Ken*, ed. and repr. by SEKIGUCHI Tai, 1940, especially chaps. 12 and 23.

¹⁹ Shizuoka Ginkō, *Shizuoka Ginkō-shi*, 1960, pp. 147-161.

²⁰ For a survey of the effects of the entry into foreign trade, see M. MIYAMOTO, Y. SAKUDO and Y. YASUBA, 'Economic Development in Pre-industrial Japan, 1859-1894', *Journal of Economic History*, vol. XXV, no. 4, 1965.

business of farm households. For tea growing, the expression "side business" may sound strange since it belongs to the category "agriculture"; but it had been functioning in the same way as silk reeling or weaving, because it was a dry-field cropping linked directly with processing. An example given below will clarify the above description and its significance. Haibara Gun was the most developed tea-growing area in the prefecture, not only in terms of the percentage of farm households engaged in tea making, but also in terms of productivity and its growth rate.²¹ Yet, the proportion of tea growing in the total arable land was low—only one-fifth for the households engaged in tea making.²² It remained no more than secondary. In agricultural production, moreover, the proportion of tea had been steadily declining; and so had the proportion for foreign trade. Just corresponding with this pattern, the movement of net in-migration shows a steadily declining trend from the positive values in the early 1890s to the negative in the 1910s. However, an important point to remember here is that since the in-migration is negligible all over the period, the pattern of the net value is dependent on the movement of the out-migration;²³ in other words, till 1890 or so, the tea making in this purely agricultural area was able to restrain the out-migration.

Thus, it would be safe to say that the net migration of Shizuoka Prefecture did *not always* move *pari passu* with changes in the pull of the manufacturing sector in the urbanized areas, or that it could be regulated largely by the conditions of rural industries or something equivalent to them.

III

Now, let us turn to the second problem: how did the existence of a growing rural industry make a difference with regard to the volume of migration and the relative wages? To examine the problem, it would be a good method to compare the area where a rural industry was still expanding, with the area where a rural industry was declining. I should like to take up two districts in the prefecture: Fuji Gun and Hamana-Inasa Gun. In the former, the indigenous silk-reeling industry could expand no longer in the first and second decades of the nineteenth century; in the latter, the indigenous cotton-weaving industry kept growing. Moreover, some largescale industries were introduced into both the areas, which had then a different influence on each economic structure.

²¹ About eighty percent of the farm households were engaged, and the annual growth rate of per household tea products was 7.7 percent from 1887 to 1902. The sources are: Shizuoka Ken Chagyō Kumiai, *Shizuoka Ken Chagyō-shi*, 1926, pp. 58–68, and *Shizuoka Ken Tōkeisho*, corresponding years.

²² The per household land under the cultivation of tea was 1.5 *tan* in 1887 and 1.8 *tan* in 1902.

²³ Pluckers and rollers had come from distant places. For this, see Haibara Gun Chagyō Kumiai, *Shizuoka Ken Haibara Gun Chagyō-shi*, 1919, pp. 34–5. A document of 1885, one of the earliest example, refers to those who had come from Aichi Prefecture (quoted in Hatsukura Son-shi Hensan Iinkai, *Hatsukura Son-shi*, 1965, p. 117). Nevertheless, they would scarcely affect the figures of *kiryū*, because they were almost all seasonal migrants.

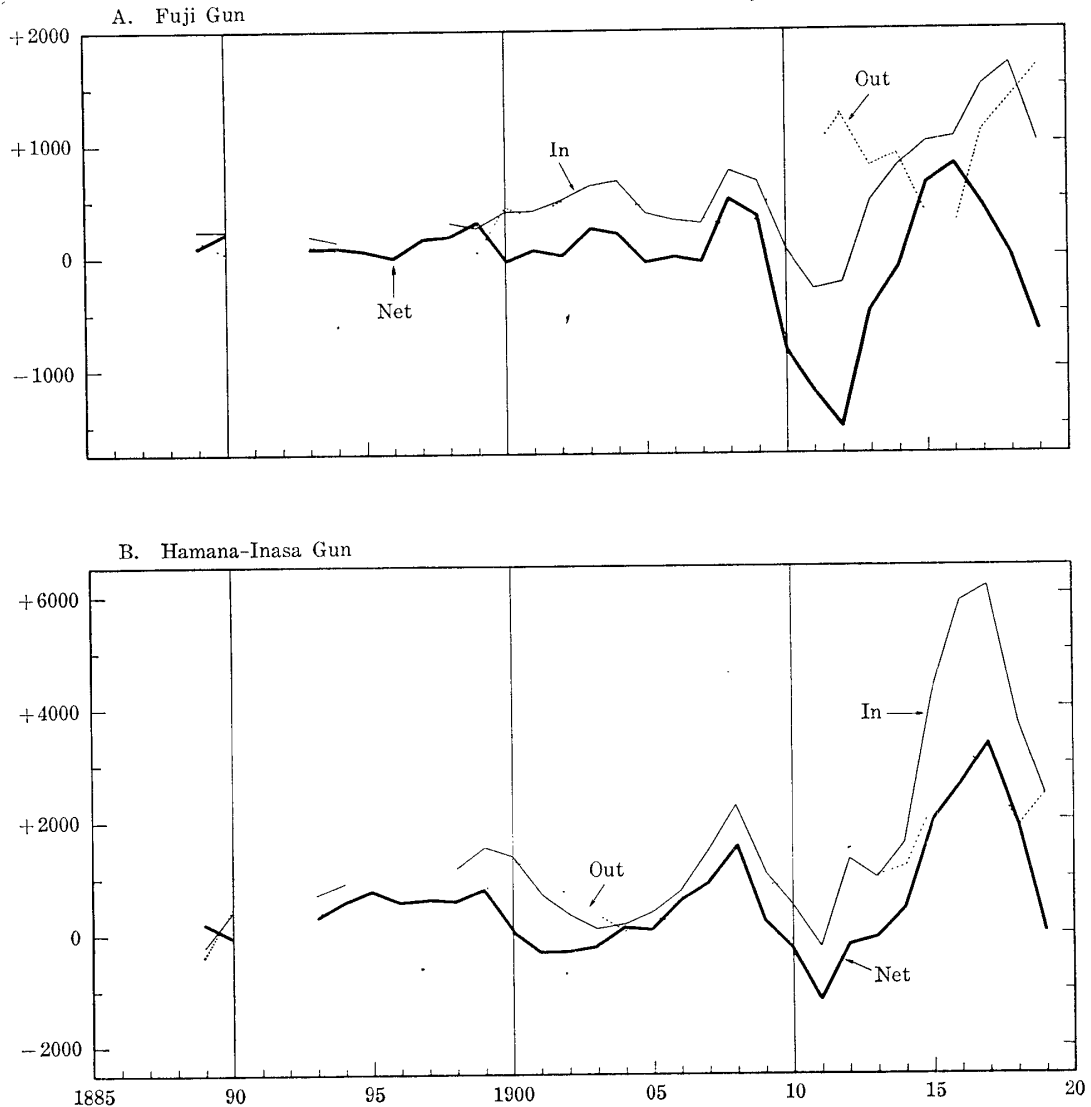


Fig. 2. In-migration, out-migration, and net in-migration:

Fuji and Hamana-Inasa Gun, 1888-1920 (three-year moving averages).

- Notes: 1. Calculated from the *kiryū* statistics, *Shizuoka Ken Tōkeisho*, corresponding years.
 2. The 1891 data missing.
 3. Figures for 1888-95 do not include *kiryū* within each *gun*. See note 3, Fig. 1, p. 50.

First, let us see the movements of migration over the whole period in question. From Fig. 2, it is evident that the net in-migration of both the areas moves cyclically, and peaks and troughs of the two come about the same years. However, it seems that there is a difference in the amplitude of fluctuations: the amplitude in Fuji's appears to widen suddenly from 1910. Dividing the period in halves, and taking the coefficient of variation respectively, we get: in Fuji's, 1.036 for 1888/90-1904/06 and 4.565 for 1905/07-1918/20, and in Hamana-Inasa's, 1.560 for 1888/90-

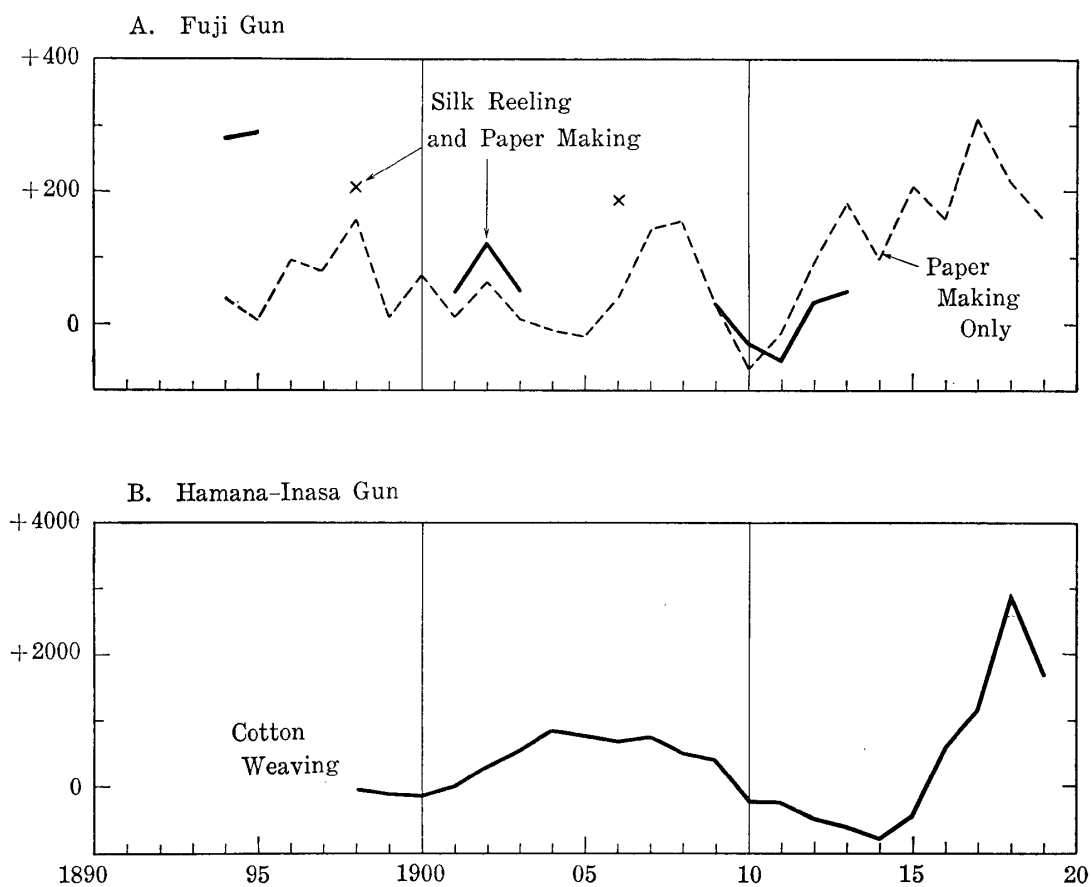


Fig. 3. Annual increase in employment:
Fuji and Hamana-Inasa Gun, 1893-1920
(three-year moving averages).

Notes: 1. Panel A covers *factory* workers (including children under fourteen years old) in the silk-reeling and paper-making industries. Source: factory statistics, *Shizuoka Ken Tôkeisho*, corresponding years.

2. Panel B covers not only factory workers, but also those who are engaged in cotton weaving in *any* forms, i.e., who work in workshops with less than ten operatives or under the putting-out system. Source: *Shizuoka Ken Tôkeisho*, corresponding years.

1904/06 and 1.500 for 1905/07-1918/20. In other words, while in Hamana-Inasa's there is no change in the deviation from the mean, in Fuji's the deviation sharply widens from the years 1905-10. As is evident from Fig. 2-A, this widening of the amplitude is mainly due to the fact that the out-migration keeps increasing in spite of decrease in the in-migration during the early 1910s.

How do these different patterns appearing in the amplitude of net in-migration relate to changes in industrial employment? For the Hamana-Inasa region, cotton weaving can be regarded as a representative; although there were the so-called "big three" companies in Hamamatsu,²⁴ all of which had non-indigenous origins, the

²⁴ The Nihon Gakki (piano), the Teikoku Seibô (hat), and the Nihon Keisen (dyeing).

proportion of the cotton-weaving workshops was high even in the 1910s. It was a typical rural industry, which had rapidly expanded since the 1890s depending on the home market,²⁵ and which was carried on mainly by farm women as domestic work—in 1905, those who worked in workshops with more than ten operatives were only one-fifth of the total number of those who were engaged in cotton weaving. After that, as power looms were introduced, “factories” went on increasing; in 1915, however, about forty percent were still working in workshops with less than ten operatives.²⁶ As regards Fuji Gun, we should take up the silk-reeling industry and the paper industry, which were very different from each other. The former was an indigenous industry like cotton weaving in Hamana-Inasa—although the proportion of “factories” was a little larger than in the other areas.²⁷ On the other hand, the latter was founded by the Fuji Seishi in 1887, which had nothing to do with the tradition of Japanese paper making in this area since the latter half of the eighteenth century.²⁸ And, involving the Fuji Seishi’s paper mills as a leading part, an industrial area had been growing there.

Let us compare changes in employment opportunities of the above industries (Fig. 3) with the in-migration (Fig. 2). The comparison makes it clear that the in-migration does not always move together with the employment opportunities. Looking at the case of cotton weaving in the first decade of the nineteenth century when the in-migration decreased, we may say, they show even an inverse relationship. But, if we take the Fuji paper industry only, it correlates well with the annual increase or decrease of the number of workers in the mills.²⁹

What do the results mean? Did the in-migration have nothing to do with economic opportunities? Of course, it did have something, because it has a relationship with the change in employment of the paper mills. In Fuji Gun, we can say, the establishment of the paper mills—directly or indirectly—caused an inflow of people. Even in Hamana-Inasa Gun, it seems to have had something to do with economic factors—especially interest rates. Roughly speaking, the peaks came in 1899, 1907 and 1914, and the troughs in 1903-4, 1911 and 1917-8;³⁰ and these agree, though not exactly, with the peaks and troughs of the in-migration. Again,

²⁵ On the contrary, the products of the “modern” sector were mainly for export. See NAKAYASU Sadako, ‘Zairai Men’orimonogyō no Tenkai to Bōseki Shihon’, *Tochiseido-shigaku*, no. 14, 1962, and TAKAMURA, *Nihon Bosekigyō-shi Josetsu (op. cit.)*, vol. II, pp. 220-1, 232. For the development of cotton weaving in this area, see YAMAZAKI Hiroaki, ‘Ryōtaisen-kan-ki ni okeru Enshū Men’orimonogyō no Kōzō to Undō’, *Keiei Shirin*, vol. VI, nos. 1 and 2, 1969.

²⁶ *Shizuoka Ken Tōkeisho*, corresponding years. A workshop with more than ten operatives was called “factory”. Among such workshops, however, there must have existed what we can not regard as a factory.

²⁷ Fuji Shi-shi Hensan Inkai, *Fuji Shi-shi*, vol. III, 1966, pp. 217-223, 425-7.

²⁸ WAKABAYASHI Atsushi, ‘Suruga Hanshi’, Chihōshi Kenkyū Kyōgikai, ed., *Nihon Sangyōshi Taikei*, vol. V, 1960.

²⁹ $r=0.721$ for $n=22$. (If we assume a one-year lagged response in in-migration, the correlation coefficient is a little higher: $r=0.781$ for $n=22$.) But, the correlation in the 1890s is weak. It may be because at the very beginning most of the workers were those who had been living near the mill (*Fuji Shi-shi*, vol. III, p. 404).

³⁰ OKADA Kazuyoshi and HONMA Yasuo, ‘Chihō Sangyō no Hatten to Chihō Ginkō’, *Kinyū Keizai*, nos. 127, 129-130, 1971, Figs. 5-6 and 8-10.

this is an example of what has been said in the previous section: the influx of people into this area closely related to business conditions, but not all of them came in as factory workers. Rural industries, as long as carried on mainly by the farm population as domestic work, were scarcely connected with in-migration, on the one hand; and they could, as long as keeping an upward trend, check the swell of out-migration, on the other hand. On the contrary, the pull of the so-called 'modern' sector worked as the prime mover of an inflow of population. And, net migration was determined by the relative weights of these factors.

It is in this context that the different patterns appearing in the amplitude of net migration can be explained. In Fuji Gun, towards the early 1910s the employees of the silk-reeling workshops sharply decreased, as can be conjectured from Fig. 3-A.³¹ For the Hamana-Inasa cotton weaving too, the same trend is observed, but not so sharply as in the Fuji silk-reeling industry. Since Fuji's figures are of "factories", the true picture of the decline might be more drastic.³² On the other hand, the weight of the non-indigenous sector, which was completely dependent on imported Western techniques, and therefore, which demanded a different kind of labour force separated from farming, was heavier in Fuji than in Hamana-Inasa. Or, in other words, the non-indigenous sector in the latter was still outnumbered by rural industries. Thus, as for Fuji in the early 1910s, when a trough in the employment-opportunity movement of the paper industry came and the silk-reeling employment was in sharp decline, the movement of the in-migration was more widely discrepant from that of the out-migration, so that the net out-migration abruptly increased, than in Hamana-Inasa.

It would be interesting to note here a fact: both in Fuji and Hamana-Inasa, the rate of natural increase in the *honseki* population was high—higher than not only the nation's, but also Shizuoka Prefecture's.³³ Of the two, Fuji's was higher;

³¹ The difference between the solid line (or the mark ×) and the dotted line represents the silk reeling's.

³² The causes of the decline have not been explored yet.

³³ Each rate of increase is as follows (percent *per annum*):

	Total Population of Japan		Natural Increase	
	(AKASAKA's Estimate)	Shizuoka Pref.	Fuji	Hamana- Inasa
	(1)	(2)	(3)	(4)
1891-1895	0.9	1.1	1.5*	1.2*
1896-1900	1.1	1.3		
1901-1905	1.3	1.4	1.7	1.5
1906-1910	1.1	1.5	1.7	1.6
1911-1915	1.4	1.7	2.0	1.8
1916-1920	1.0	1.4	1.6	1.4

* 1890-98, and the 1891 data missing.

Sources: for column (1), UMEMURA Mataji, 'Meiji-ki no Jinkō Seichō', Shakai-keizaishi Gakkai ed., *Shakai-keizaishi ni okeru Jinkō*, 1969, p. 122; for columns (2)-(4), *Shizuoka Ken Tōkeisho*, corresponding years.

Shizuoka Prefecture's was, perhaps even in the Meiji period, one of the highest rates that occurred mostly in the northeast prefectures. Cf. the rates of natural increase in the prefectures for the period 1920-25 or 1925-30, I.B. TAEUBER, *The population of Japan*, 1958, p. 314.

TABLE I. DAILY WAGES OF AGRICULTURAL LABOURERS, COTTON WEAVERS, AND HAT-MANUFACTURING WORKERS: HAMANA GUN, 1894-99 AND 1906-14 (in yen)

Year	Agriculture		Cotton Weaving		Hat Manufacturing (Teikoku Seibō)	
	Male	Female	(A)	Female (B)	Male	Female
1894	.120	.100	.100			
1895	.130	.080	.080			
1896	.200	.150	.150			
1897	.300	.200	.250			
1898	.250	.180	.200			
1899	.300	.200	.250	.145	.300	.160
1906	.400	.180				
1907	.450	.250	.250	.185	.350	.250
1908	.450	.250	.250	.167	.500	.270
1909	.400	.250	.250	.223	.500	.270
1910	.450	.250	.250	.236	.500	.270
1911	.450	.250	.300	.237	.500	.270
1912	.450	.270	.300	.247	.500	.260
1913	.550	.300	.300	.250	.500	.270
1914	.450	.300	.300	.250		

Notes: 1. Sources: For agricultural labourers and cotton weavers(A), tables of wages for various labourers and craftsmen, *Shizuoka Ken Tōkeisho*, corresponding years; for cotton weavers (B) and workers in the factory of the Teikoku Seibō, factory statistics, *ibid.*, corresponding years.

2. Each figure in cotton weaving (B) is the average of the individual factory wages for workers over fourteen years old, weighted by the number of the workers. For 1899, since the number of workers is unclassifiable by age, the ratio for 1907-14 is used in order to estimate the number of workers over fourteen years old.

especially the rate for the years 1911-15 reached 2 percent *per annum*. This fact could seem to be relevant here, because out-migrants in Fuji swelled in the very same years. However, I should like not to go too far here in this respect. What I want to emphasize is not the difference between Fuji and Hamana-Inasa, but the fact that the latter's level of growth rate was also rather high and reached a peak in the years 1911-15 as well. In spite of that fact, the result appearing in migration was different from the case of Fuji: the trough in the net in-migration series was not so deep as Fuji's or even as the prefecture's. Considering this in relation to the situation described above, the importance of the existence of a growing rural industry should be much more emphasized.

In the next place, let us make a comparison between the relative-wage movements in the two districts.

It is said that in general the relative wages between agriculture and manufacturing (or between the indigenous sector and the so-called "modern" sector) was stable

during the Meiji period, making a sharp contrast with the period after 1920;³⁴ and this change is often called the "emergence of dual structure". It must be very much so, if we single out a certain area where the weight of rural industries was heavy. As regards the Hamana-Inasa region, this is the very case. Table I shows money wages of three kinds in Hamana Gun (the Teikoku Seibō is a representative of non-indigenous industries). The ratios of industrial wages to agricultural wage, calculated from Table I, are as follows:

	<i>Cotton Weaving (A)</i> (Female)	<i>Cotton Weaving (B)</i> (Female)	<i>Teikoku Seibō</i> (Male)
1899	1.13*	0.73	1.00
1907-10	1.00	0.81	1.06
1911-14	1.07	0.88	1.03**

(* 1894-99, ** 1911-13)

And the ratios of the Teikoku Seibō's to cotton weavers' (A) and (B) are:

	(A)	(B)
1899	0.64	1.10
1907-10	1.06	1.31
1911-13	0.89	1.09

Thus, it is clear that the agricultural wage relative to the industrial wages was stable both for male and female workers. When we compare the indigenous industry with the non-indigenous industry, it is also clear that the relative wage of

TABLE II. DAILY WAGES OF WORKERS IN SILK-REELING AND PAPER-MAKING FACTORIES: FUJI GUN, 1899 AND 1907-14 (in yen)

year	Silk Reeling			Paper Making		
	Male	Female	Weighted average	Male	Female	Weighted average
1899	.353	.252	.257	.343	.125	.256
1907	.383	.262	.267	.426	.181	.348
1908	.371	.266	.271	.493	.206	.410
1909	.411	.283	.288	.436	.198	.360
1910	.414	.268	.274	.453	.219	.400
1911	.416	.275	.280	.460	.238	.407
1912	.421	.276	.282	.495	.251	.431
1913	.421	.285	.291	.487	.252	.420
1914	.432	.250	.259	.472	.236	.402

For the calculation method, see note 2, Table I, p. 57.

³⁴ UMEMURA, *Chingin Koyō Nōgyō* (op. cit.), chap. 9; ditto, 'Agriculture and Labour Supply' (op. cit.), p. 283 et seq.; OKAWA Kazushi et al., *Chōki Keizai Tōkei*, vol. VIII, *Bukka*, 1967, pp. 46-50; NAKAMURA Takafusa, *Senzen-ki Nihon Keizai Seichō no Bunseki*, 1971, pp. 25-6, 112-7. For the emergence of wage differentials between the "traditional" sector and the "modern" sector, see also KONOSUKE ODAKA, 'A History of Money Wages in the Northern Kyushu Industrial Area, 1898-1939', *Hitotsubashi Journal of Economics*, vol. VIII, no. 2, 1968, p. 83 et seq.

the former did not fall, on the whole.³⁵

Yet, is it the case in Fuji Gun? Did relative wages not change, as the rural industries declined in importance? The wage-rates for workers in the silk-reeling and paper-making factories are shown in Table II. Towards the 1910s, as is evident from it, the wage-rate of the silk-reeling "factories" relative to that of the paper mills had been falling; the ratios of the latter to the former are:

	<i>Male</i>	<i>Female</i>	<i>Weighted Average</i>
1899	0.97	0.50	1.00
1907-10	1.15	0.75	1.38
1911-14	1.14	0.90	1.49

Comparing the wage-rate of the paper mills with those for scutchers (male) and weavers (female) in Shizuoka City, we get the following ratios:

	<i>Male</i>	<i>Female</i>
1899	0.98	0.79
1907-10	0.96	0.90
1911-14	0.92	0.86

Thus, it was not because the wage-rate had been set at a remarkably high level in the paper industry; but because the silk-reeling industry had not been able to follow the general trend of wage-rates after the turn of the century. Assuming here that in Fuji Gun too, the agricultural wage had been moving—roughly speaking—in association with that of the indigenous industries, we can conclude that towards the 1910s there had occurred a big change in the relative wages between agriculture and manufacturing or between the indigenous sector and the so-called "modern" sector, as the rural industries were on the decline. And, this was what had occurred with the changing pattern of migration.

IV

So far I have examined the functions of rural industries or commercial croppings and their relationship with the non-indigenous sector in terms of migration and relative wages. And above all, it has been clear that where rural industries had declined in importance *and* some large-scale factory industries introduced had played a leading part in the regional economy, the swell of out-migrants *and* the relative-wage changes unfavourable to agriculture or the indigenous sector could occur concurrently.

By the way, I have used the term "indigenous" throughout the previous sections of this paper; but it does not always mean the Tokugawa origins. Rather, most of what developed during the Meiji period were not so flourishing in the Tokugawa period. Tea making and silk reeling were what had rapidly grown with Japan's

³⁵ For the differential between two kinds of cotton weavers' rate, it is not certain what should be attributed to it. I suppose that a "factory" wage-rate recorded in the source material was not only for adult weavers, but also for other unskilled operatives in the "factory".

entry into international trade in 1859; rural cotton weaving had expanded since the mid-Meiji period, buying cotton yarns produced by the “modern” cotton-spinning industry, and selling the products in the home market—in a sense, the third decade of the Meiji period was the time when “rural industrial areas came into being”.³⁶ In the case of the above examples, the conditions of development were, first, the existence of the export market for some indigenous goods, and secondly, the existence of the home market where they scarcely needed to compete with the domestic “modern” sector.³⁷ Therefore, the condition of the Meiji labour market which, it is said, was largely regulated by rural industries was, after all, determined by these conditions. Hence, when these conditions changed, the picture of the labour market must have been altered. Generally speaking, this change did not occur before the 1920s; Hamana-Inasa Gun’s experience corresponds to this pattern, but Fuji Gun’s does not. Perhaps, the latter was such an exception as to suggest the *coming* overall change.

When population growth was added to the set of factors, this change would be more remarkable. We have seen that the rate of natural increase in the Shizuoka *honseki* population was higher than the national average. I am not sure now what were the causes of it. Any way, apart from the particular case, we can think of a situation where the farm population increased without any substantial increase in arable land, as opportunities for side work such as weaving or silk reeling came into existence, and the population increase kept on inelastically with the change of the side-work opportunities.³⁸ If such an economico-demographic interaction was working, the change must have been more drastic. It is because when a certain side-work opportunity for farm population disappeared, the high birth rate in the region would not automatically be reduced, so that the direct pressure on out-migration would become high; and because such a situation would also heighten the pressure on land and, as a result, downward status shifts of farm families would become dominant, which would also cause an increase in the volume of out-migrants. Unfortunately this aspect has been neglected; but it would be a problem well worth investigating in future study of Meiji and Taishō economic history.

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³⁶ FURUSHIMA Toshio, *Sangyōshi*, vol. III, 1966, p. 378.

³⁷ Cf. NAKAMURA, *op. cit.*, pp. 75–89.

³⁸ For the European experiences in the seventeenth and eighteenth centuries, see E.A. WRIGLEY, *Population and History*, 1969, pp. 137–9, and F.F. MENDELS, ‘Proto-industrialization: The First Phase of the Industrialization Process’, *Journal of Economic History*, vol. XXXII, no. 1, 1972, pp. 249–253. For a critical survey of this subject, see Wolfram FISCHER, ‘Rural Industrialization and Population Change’, *Comparative Studies in Society and History*, vol. XV, no. 2, 1973.