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**Occupational Structure's Change in Colonial Korea, 1930-40<sup>\*</sup>**

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## I Introduction

There is no doubt that the 1930s was the most highly industrialization period in colonial Korea (Mizoguchi, Toshiyuki and Mataji Umemura, eds. 1988; Kim, Nak-Nyeon, ed. 2006). Nevertheless, the gainful occupied populations (*Yugyosha*) reduced from 1930 to 1940 on the most reliable census data. Why did this puzzle happen?

The previous studies (Odaka, Kōnosuke 1988; Liu, I-Ling, Osamu Saito and Tadayoshi Taniguchi 1994; Odaka, Kōnosuke and I-Ling Liu 1999) are very helpful when I tried to make a clue in order to solve the puzzle.

## II Occupational Structure's Change during Industrialization, 1930-40: Economic Growth without Employment Growth?

The 549 thousand gainful occupied populations, which were 5.6% of 1930's gainful occupied populations, reduced from 1930 to 1940 by occupation classified (table 1). This result from that the number of 713 thousand female gainful occupied populations reduced even though the number of 163 thousand male gainful occupied populations increased. Therefore the ratio of female non-gainful occupied population changed from 67.7% to 78.3% against total population.<sup>1</sup>

We can also find that the number of female gainful occupied populations in manufacturing dramatically reduced from 281 thousand to 55 thousand. Furthermore, we should keep attention that the number of gainful occupied populations of manufacturing in occupied classification less than in industrial classification.<sup>2</sup>

What was the reason of reduce in female gainful occupied population from 1930 to 1940? Liu, I-Ling, Osamu Saito and Tadayoshi Taniguchi (1994) focused on female secondary workers who have not primary occupations when they estimated gainful occupied population in Taiwan. That was appropriate

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<sup>1</sup> At this point, we can doubt if the survey method changed from 1930's census to 1940's census. But I could not find that. Furthermore, the ratio of male gainful occupied populations in Japan from 1930 to 1940 also descended even though the descend ratio was less than male gainful occupied populations in Korea. So we can not doubt the total reduced number of female gainful occupied populations or the total increased number of female non-gainful occupied populations.

<sup>2</sup> We can get industry classified detailed data and occupation classified detailed data in the 1930's census. But we can not get industry classified detailed data in 1940's census even though it has aggregated data as putting on table1.

analysis in case of Taiwan. Because the ratio of female secondary workers who have not primary occupations against female total population was comparatively high (table 2). But in case of Korea, we would better to focus on female secondary workers who have primary occupations since the ratio of those workers completely higher than female secondary workers who have not primary occupations. But, unfortunately, we have no detailed information concerning female secondary workers who have primary occupations in 1930's census and 1940's census as long as I have surveyed.

Nevertheless, we have two choices. Firstly, we can analyze the female non-gainful occupied populations who dramatically increased. This analysis can be getting information why female gainful occupied populations reduced indirectly. Secondly, so we need to investigate the reason of reduce in female gainful occupied populations in detail. Fortunately, we can try to explore concerning change of household workers.

### **III Structure's Change of Non-gainful Occupied Populations**

Most of non-gainful occupied populations were students and families who have not occupations (table 3).<sup>3</sup> In 1940, the number of families was about eight times of students. The contribution rate of increase in families was higher than in students. Especially, the contribution rate of increase in female families was 90.2% against the total increased number of female non-gainful occupied populations.

The contribution rate of increase in female non-gainful occupied populations was higher in age group of product able rather than in age group of 0-14 and 60 or more (table 4). We can also find that the ratio of age group of 20 or more descended from 1930 to 1940 in manufacturing sector during the ratio of age group of 15-29 ascended in same sector and in same period.

### **IV Occupational Structure's Change in Manufacturing**

We already knew that the number of female gainful occupied populations reduced from 1930 to 1940. Among manufacturing sector, the number of female gainful occupied populations in textile/ clothing/ accessories sector dramatically reduced rather than in other sectors (table 5). We want to know the precise reason but we can get only some information through the change of ratio in terms of factory workers and household workers now (table 6). We can calculate the number of household workers through the number of gainful occupied populations

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<sup>3</sup> The number of students in 1940 included the number of elementary students.

minus factory workers.<sup>4</sup> This is very simple process and the results have some problem that the number of household workers in 1940 is minus in several sectors.<sup>5</sup> Nevertheless, we can get some useful information that the number of household workers dramatically reduced during the number of factory workers increased about four times from 1930 to 1940.

## V Conclusion

We have puzzle on the most reliable census data in colonial Korea during 1930-40 called industrialization period. That is the number of female gainful occupied populations dramatically reduced from 1930 to 1940. We can get clue from the female secondary workers who have primary occupations differently in case of Taiwan. But we have little information about that, so we analyzed the change in non-gainful occupied populations and in household workers as a second best choice.

We knew that the number of female non-gainful occupied population in product able age group reduced rather than in other age group during female household workers dramatically decreased from 1930 to 1940. So we need to examine concerning the actual conditions of household workers in order to solve the puzzle in the future.

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<sup>4</sup> Recently, Park, Ki-Joo (2006) estimated the number of factory workers and the amount of factory product in order to calculate the labor productivity from 1911 to 1940.

<sup>5</sup> We should be careful that the number of factory workers is classified by industry and the number of household workers is classified by occupation.

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Table 2 Secondary Workers of Colonial Korea in Comparison with Taiwan (100persons, %)

	Korea		Taiwan	
	Males	Females	Males	Females
Total Population	107,430	102,956	23,533	22,392
Gainful Occupied Population	64,223	33,234	13,715	4,186
Primary Workers	57,018	28,554	13,715	4,186
Secondary Workers	7,205	4,680	1,383	1,366
Having Primary Occupation	7,189	4,283	1,367	309
(Ratio against Total Population)	6.69	4.16	5.81	1.38
Without Primary Occupation	16	397	16	1,057
(Ratio against Total Population)	0.01	0.39	0.07	4.72
Non-gainful Workers	43,207	69,722	9,818	18,207

Source: Chosensotokufu, *Kokuseichosa 1930*; Liu, I-Ling, Osamu Saito and Tadayoshi Taniguchi (1994).

Table 6 Number of Worker's Change in Factories and Households (100persons, %)

	1930		1940	
	Factory	Household	Factory	Household
Textile/Clothing/	212	2,331	516	169
Accessories	8.3	91.7	75.4	24.6
Metal manufactures/	103	274	581	201
Instruments	27.3	72.7	74.3	25.7
Ceramics	66	123	175	(20)
Chemical goods	34.9	65.1	112.7	(12.7)
Wooden goods	180	(37)	866	(582)
Papers/Paper	125.9	(25.9)	305.1	(205.1)
manufactures	37	956	155	231
Beverages/ Favorite	3.7	96.3	40.1	59.9
goods	55	83	88	55
Ohters	39.9	60.1	61.6	38.4
Total	120	362	418	(18)
(100persons, %)	24.9	75.1	104.4	(4.4)
Ohters	63	80	241	61
Total	44.1	55.9	79.9	20.1
Total	836	4,172	3,040	97
(100persons, %)	16.7	83.3	96.9	3.1

Source: Chosensotokufu, *Kokuseichosa 1930*; Chosensotokufu, *Kokuseichosa 1940*; Park, Ki-Joo (2006).

Table 3 Detailed Structure's Change of Non-gainful Occupied Populations in Colonial Korea (100persons, %)

		1930	1940	Number of Increase	Rate of Increase	Contribution rate of Increase
Students	Males	6,417	10,910	4,494	70.0	35.2
	Females	1,329	3,943	2,614	196.7	11.0
	Total of Korean	7,746	14,853	7,108	91.8	19.4
	Males	438	636	198	45.2	118.7
	Females	380	569	189	49.7	21.3
	Total of Japanese	818	1,205	387	47.3	36.7
	Males	6,855	11,546	4,692	68.4	36.3
	Females	1,709	4,512	2,803	164.0	11.3
	<b>Total</b>	8,564	16,058	7,495	87.5	19.9
	Elementary Students	Males		10,121		
Females			3,735			
Total of Korean			13,855			
Males			433			
Females			403			
Total of Japanese			836			
Males			10,553			
Females			4,138			
<b>Total</b>			14,691			
Males		34,989	43,321	8,332	23.8	65.3
Females	65,713	87,209	21,496	32.7	90.2	
Families	Total of Korean	100,702	130,531	29,829	29.6	81.5
	Males	569	754	184	32.4	110.5
	Females	1,524	2,242	718	47.1	81.0
	Total of Japanese	2,093	2,996	903	43.1	85.7
	Males	35,559	44,075	8,517	24.0	65.9
	Females	67,237	89,452	22,215	33.0	89.9
	<b>Total</b>	102,796	133,527	30,732	29.9	81.6
	Males	689	624	-64	-9.3	-0.5
	Females	611	328	-283	-46.3	-1.2
	Total of Korean	1,299	952	-347	-26.7	-0.9
Others	Males	245	29	-215	-88.1	-129.2
	Females	36	16	-20	-56.3	-2.3
	Total of Japanese	281	45	-236	-84.0	-22.4
	Males	933	654	-280	-30.0	-2.2
	Females	647	344	-303	-46.9	-1.2
	<b>Total</b>	1,580	997	-583	-36.9	-1.5
	Males	42,094	54,856	12,762	30.3	100.0
	Females	67,653	91,480	23,827	35.2	100.0
	Total of Korean	109,747	146,336	36,589	33.3	100.0
	Males	1,252	1,419	167	13.3	100.0
Total	Females	1,941	2,828	887	45.7	100.0
	Total of Japanese	3,193	4,246	1,054	33.0	100.0
	Males	43,346	56,275	12,929	29.8	100.0
	Females	69,593	94,308	24,714	35.5	100.0
	<b>Total</b>	112,940	150,583	37,643	33.3	100.0

Source: Chosensotokufu, *Kokuseichosa 1930*; Chosensotokufu, *Kokuseichosa 1940*.

Note: Elementary Students are included in Students.

Table 5 Occupational Structure's Change in Manufacturing and Construction in Comparison with Japan (100persons, %)

	Korea				Japan			
	Males		Females		Males		Females	
	1930	1940	1930	1940	1930	1940	1930	1940
Textile/Clothing/ Accessories	451 14.8	303 8.0	2,092 74.3	381 69.4	7,521 17.6	5,752 10.8	11,067 77.4	10,935 59.8
Metal manufactures/ Instruments	371 12.2	774 20.5	6 0.2	8 1.4	7,409 17.4	18,134 34.0	224 1.6	1,177 6.4
Ceramics	165 5.4	146 3.9	24 0.9	9 1.7	1,412 3.3	1,266 2.4	282 2.0	395 2.2
Chemical goods	111 3.7	248 6.6	32 1.1	35 6.4	1,023 2.4	2,480 4.6	253 1.8	918 5.0
Wooden goods	475 15.6	369 9.8	518 18.4	18 3.2	6,360 14.9	5,445 10.2	673 4.7	873 4.8
Papers/Paper manufactures	129 4.2	137 3.6	9 0.3	6 1.1	2,276 5.3	1,875 3.5	376 2.6	536 2.9
Beverages/Favorite goods	352 11.6	323 8.6	130 4.6	78 14.1	3,605 8.4	4,970 9.3	1,081 7.6	2,562 14.0
Civil engineering & Construction	847 27.9	1,179 31.3	2 0.1	6 1.1	9,966 23.3	9,484 17.8	35 0.2	113 0.6
Others	139 4.6	293 7.8	4 0.1	9 1.6	3,120 7.3	3,952 7.4	312 2.2	785 4.3
Total	3,040 100.0	3,773 100.0	2,817 100.0	550 100.0	42,692 100.0	53,360 100.0	14,303 100.0	18,295 100.0

Source: Chosensotokufu, *Kokuseichosa 1930*; Chosensotokufu, *Kokuseichosa 1940*; Naikakutokeikyoku, *Kokuseichosa 1930*; Naikakutokeikyoku, *Kokuseichosa 1940*.



Table 1 Occupational Structure's Change of Colonial Korea in Comparison with Japan (100persons, %)

	Korea								Japan			
	Total of by Industry		Total of by Occupation		Males		Females		Males		Females	
	1930	1940	1930	1940	1930	1940	1930	1940	1930	1940	1930	1940
Manager/Office /Engineer						2,431		634		20,642		4,833
Agriculture/ Forestry/Fishery	77,863	68,207	77,872	67,520	51,434	46,536	26,438	20,984	82,441	70,788	64,425	72,875
Mining	342	1,765	341	1,018	334	972	7	46	2,101	3,257	410	421
Manufacturing	0.4	1.9	0.3	1.1	0.5	1.5	0.0	0.2	1.1	1.7	0.4	0.3
	5,858	4,950	5,857	4,322	3,040	3,773	2,817	550	42,692	53,360	14,303	18,295
	6.0	5.4	6.0	4.7	4.7	5.7	8.5	2.1	22.7	27.0	13.5	14.3
Commerce	5,621	6,009	5,621	4,597	3,451	3,080	2,170	1,517	30,140	19,646	14,642	14,787
	5.8	6.5	5.8	5.0	5.4	4.7	6.5	5.8	16.0	10.0	13.8	11.6
Transport	1,075	1,522	1,076	1,501	1,050	1,451	26	50	10,286	10,145	790	1,099
	1.1	1.7	1.1	1.6	1.6	2.2	0.1	0.2	5.5	5.1	0.7	0.9
Public service/ Liberal profession	1,827	2,393	1,620	1,597	1,430	1,422	190	175	14,490	9,233	3,524	4,798
	1.9	2.6	1.7	1.7	2.2	2.2	0.6	0.7	7.7	4.7	3.3	3.8
House-maid	1,209	1,728	1,209	1,683	290	402	919	1,281	842	367	6,971	6,685
	1.2	1.9	1.2	1.8	0.5	0.6	2.8	4.9	0.4	0.2	6.6	5.2
Others	3,861	5,393	3,861	6,659	3,194	5,789	667	870	4,883	9,858	827	3,736
	4.0	5.9	4.0	7.2	5.0	8.8	2.0	3.3	2.6	5.0	0.8	2.9
Total of Gainful Occupied Population	97,655	91,965	97,457	91,963	64,223	65,856	33,234	26,107	187,875	197,296	105,892	127,529
	46.4	37.9	46.3	37.9	59.7	53.9	32.3	21.7	58.0	54.0	33.0	34.9
Total of Non-gainful Occupied Population	112,918	150,583	112,929	150,583	43,207	56,275	69,722	94,308	133,619	151,446	214,704	237,927
	53.6	62.1	53.6	62.1	40.1	46.1	67.7	78.3	41.3	41.4	67.0	65.1
Servicemen/ Civilian Employees			206	206	206	206			2,428	16,918		27
			0.1	0.2		0.2			0.7	4.6		0.0
Total	210,573	242,548	210,592	242,546	107,636	122,131	102,956	120,415	323,922	365,660	320,596	365,483
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Chosenotokufu, *Kokuseichosa 1930*; Chosenotokufu, *Kokuseichosa 1940*; Naikakutokeikyoku, *Kokuseichosa 1930*; Naikakutokeikyoku, *Kokuseichosa 1940*.

Table 4 Age group Structure's Change by Occupation in Colonial Korea (100persons, %)

	Agriculture/ Forestry/ Fishery		Mining		Manufacturing		Commerce		Transport		Public service/ Liberal profession		House-maid		Others		Non-gainful occupied populations		Contribution rate of Increase	
	1930	1940	1930	1940	1930	1940	1930	1940	1930	1940	1930	1940	1930	1940	1930	1940	1930	1940		
Males	0-14	7.1	3.4	1.2	2.5	3.2	2.7	2.5	2.8	0.8	1.6	0.4	1.7	47.6	36.7	2.3	1.8	89.4	87.6	81.7
	15-19	14.8	13.1	9.1	15.3	11.4	17.6	12.0	13.5	10.7	19.3	3.7	10.9	26.3	28.2	10.0	9.9	4.5	5.3	7.9
	20-24	13.2	12.5	14.8	17.8	15.0	18.8	12.3	12.5	19.6	20.0	26.6	18.5	8.1	9.2	11.8	12.1	1.0	1.1	1.4
	25-29	10.5	11.8	14.6	17.8	14.2	17.6	11.6	14.1	18.0	18.5	19.0	20.6	3.3	5.4	12.1	13.7	0.4	0.5	1.0
	30-34	10.7	10.4	16.0	14.1	13.9	13.2	12.6	12.7	15.9	13.7	15.8	17.4	3.0	3.4	13.9	12.9	0.3	0.3	0.3
	35-39	9.4	9.0	14.4	10.3	12.1	9.4	11.9	10.8	12.4	9.6	10.8	11.2	2.4	2.7	13.4	11.2	0.3	0.2	0.2
	40-44	8.4	9.5	11.8	9.0	9.9	7.8	10.8	10.0	9.2	7.2	8.0	7.6	2.1	2.8	11.7	11.3	0.2	0.2	0.2
	45-49	7.2	8.3	8.5	6.1	7.5	5.3	8.8	7.9	6.5	4.6	5.3	4.7	1.8	2.8	9.1	9.5	0.2	0.2	0.3
	50-54	6.0	7.4	5.0	3.8	5.1	3.7	6.7	6.3	3.7	2.9	3.6	3.2	1.5	2.7	6.6	7.4	0.3	0.3	0.5
	55-59	4.9	5.9	2.7	2.1	3.3	2.1	4.8	4.4	1.9	1.5	2.6	1.9	1.3	2.4	4.3	5.0	0.4	0.5	0.9
	60-64	3.6	4.3	1.3	0.9	2.1	1.1	3.1	2.7	0.9	0.7	1.9	1.1	1.2	1.7	2.7	2.9	0.6	0.7	1.3
	65-69	2.4	2.6	0.4	0.3	1.3	0.5	1.8	1.4	0.3	0.2	1.3	0.6	0.8	1.0	1.3	1.4	0.7	0.9	1.5
	70-	1.9	1.8	0.2	0.1	1.1	0.2	1.2	0.9	0.2	0.1	1.1	0.5	0.6	1.0	0.8	0.8	1.7	2.0	2.8
	Total	51,435	46,733	334	1,702	3,041	4,392	3,451	4,319	1,049	1,462	1,636	2,156	290	370	3,194	4,725	43,206	56,275	13,069
Females	0-14	6.0	3.5	3.0	10.0	11.3	20.5	2.7	2.4	6.6	15.5	2.0	4.3	52.3	52.2	1.7	1.4	54.9	50.7	38.6
	15-19	13.9	13.0	8.5	17.0	17.6	41.3	8.7	15.0	53.2	57.8	13.7	31.1	15.9	19.5	7.0	5.7	8.0	8.3	9.2
	20-24	14.0	13.1	9.4	11.3	13.2	9.1	10.3	11.6	19.7	13.4	17.2	19.1	6.1	6.2	10.3	8.5	6.2	6.7	8.4
	25-29	11.9	13.1	10.7	12.0	10.3	6.8	10.8	10.8	4.8	4.6	9.3	11.4	4.0	4.1	11.7	11.3	4.7	6.1	10.2
	30-34	12.3	12.0	17.3	12.9	10.2	5.9	13.4	12.0	4.4	2.6	8.2	8.4	3.4	2.9	14.7	13.2	4.3	4.9	6.5
	35-39	10.4	10.2	16.1	11.1	9.2	4.9	13.2	11.6	3.4	1.7	7.8	6.0	3.4	2.4	14.2	12.9	3.6	3.9	4.5
	40-44	9.1	10.4	12.0	10.8	8.0	4.3	12.0	11.6	3.1	1.7	8.6	4.8	3.2	2.5	12.2	13.6	3.2	3.7	5.3
	45-49	7.5	8.5	10.1	7.8	6.6	3.1	10.0	9.4	2.3	1.4	8.2	4.0	3.0	2.7	9.0	11.3	2.7	3.2	4.5
	50-54	5.8	6.9	7.3	4.3	5.1	2.1	7.7	7.1	1.2	0.7	7.2	3.6	2.7	2.5	6.7	8.6	2.5	3.0	4.3
	55-59	4.2	4.7	3.1	1.6	3.7	1.1	5.2	4.3	0.6	0.4	5.9	2.8	2.3	2.1	4.9	5.8	2.4	2.6	3.3
	60-64	2.6	2.7	1.0	0.8	2.4	0.6	3.3	2.4	0.3	0.2	4.9	1.9	1.7	1.4	3.5	3.8	2.3	2.3	2.3
	65-69	1.5	1.3	1.0	0.2	1.4	0.3	1.7	1.1	0.2	0.0	3.5	1.2	1.1	0.9	2.4	2.2	2.1	1.9	1.2
	70-	0.9	0.7	0.3	0.1	0.9	0.2	1.0	0.6	0.2	0.0	3.4	1.3	0.9	0.7	1.6	1.7	3.0	2.6	1.7
	Total	26,428	21,473	8	63	2,817	558	2,170	1,690	26	60	190	237	919	1,358	667	668	69,722	94,308	24,586

Source: Chosensotokufu, *Kokuseichosa 1930*; Chosensotokufu, *Kokuseichosa 1940*.