

JAPAN'S POSTWAR EXPERIENCES IN EDUCATION AND LABOR MARKET: RAPIDITY OF SOCIAL CHANGES AND INSTITUTIONAL ARRANGEMENT IN YOUTH LABOR MARKET

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Introduction

As well known, Japanese society experienced a very rapid social change in terms of industrial and occupational structure, particularly after the World War Second. As I shall show later, this drastic change proceeded with rapid expansion of education. This coincidence of these two rapid changes, one in industrial and occupational structure, the other in educational opportunity, indicates a contrast between Japan and the Western societies. This tendency that education expands along with the process of "modernization" of industrial structure, i.e. from agricultural to industrialized society, is a well known fact among lately developing societies (Dore 1976). In this sense, Japan is regarded as the front-runner of these societies.

However, Japan provides a distinctive example to show how these two rapid changes took place smoothly with less frictions in a society. In other societies, rapid structural social change and rapid expansion of education do not necessarily proceed without frictions in labor market. Mismatch between demand and supply for each level of school graduates may give rise to massive unemployment problems, especially for educated youth, or delay of job entry, both of which could be a great loss of efficient human capital accumulation and allocation. Also, migration of massive job seeking youngsters into large cities could cause such urban youth problems as juvenile delinquencies or abuse of young, especially female, workers. From my view, Japan successfully controlled the rise of these problems.

What factors make it possible for Japan to attain such rapid and smooth transformation? What impact does this change put on social formation of Post-war Japanese society? What implications can we derive from such Japan's post-war experiences? In this paper, by focussing on education and its relation with labor allocation, I will investigate what mechanisms enables Japan to perform these changes smoothly. Particularly, I will examine the meaning of expanded compulsory education and rapid increase of senior high school education for youths' labor entry and for emerge of a "mass education society."

For the first part, I will show distinctive features of social changes in Japan

to contrast to some Western nations, and confirm the coincidence of rapid growth of educational opportunities and change of occupational structure with comparing other societies. The rapidity of occupational structural change along with educational expansion highlights the importance of education as an agency to form new social order.

In the second section, I will clarify what factors contributed to making this massive social transformation smoothly. I will focus on roles of schools and Public Employment Service Offices (PESO), which committed greatly to labor allocation for new school graduates, To what extent did schools and PESO's job placement services contribute to both occupational and geographical social mobility? How did these placement services control matching between job seekers and employers? What impact did rapid expansion of secondary education have on such matching? Using several data sets, I will attempt to answer these questions.

In the third section, based on results from data analyses, I will argue what theoretical and policy related implications that Japan's experiences in education and labor allocation provide.

1. Rapid Changes in the Occupational Structure and Expansion of Education

To begin with, let us look at changes in the occupational structure among several nations. Figure 1 shows changes in non-farm share in the labor force in UK, US, Germany, France, Japan, and Korea (Gagliani, 1985). We find both Japan and Korea spent much shorter time to increase the share of non-farm labor force than other societies. From roughly 50% to 80% of its share increase, it took Japan less than 40 years, while the Korea's case suggest more rapid change is taking place.

For the Western societies, the same change took much longer years. To compare rapidity of such changes in occupational structure, one can estimate what percentages of increase of non-farm shares for 30 years from 1950 to 1980. For the 30 years, UK increased about 5 point (94.7 to 98.6%), US 9 point (88.1 to 97.2%), France 11 point (79.0 to 89.7%), Germany 18 point (77.9 to 94.6%), Japan 37 point (52.0 to 89.2%) and Korea 46 point (20.3 to 65.9%). For the time length to reproduce one generation, both Japan and Korea experienced a far more great structural changes in their occupational structure than their Western counterparts.

This is a well known fact, and probably not so surprising. But when we add one more important aspect of social change, expansion of education, to this well known fact, an interesting contrast among societies will appear.

Figures 2-a to 2-f show shares of nonfarm workers, non-manual workers, manual workers, and enrollment ratio of secondary education in the same nations. Configuration of three graphs in each figure differs and it indicates that both Japan and Korea experience coincident increases of nonfarm share in labor force and secondary education enrolment. For other Western societies, although secondary education enrolment increased along with increment of nonmanual share, nonfarm share as a whole preceded secondary education increase.

What does this contrast mean? First, rapid decrease of agricultural sector clearly coincided with increase of secondary education in Japan and Korea. Especially in Japan, two lines in the graph overlaps, indicating that education expansion was interweaved with this surprisingly rapid structural change from agricultural to industrialized society.

Secondly, it is obvious that in these Western societies, manual workers, or working class, already constituted almost 50% of work force before secondary education enrolment reached 50%. But in Japan and Korea, educational expansion took place along with the formation of sizable manual workers in the labor force as well as increase of non-manual share. This suggests that education *produces* rather than *reproduces* class structure in these two societies by providing a pathway to become either blue or white collar employees from farmer origins.

Thus, from these brief comparisons of social changes and educational expansion, we hypothesize that education played an important role in Japan particularly, with regard to formation of industrialized occupational structure and transformation from agricultural to employees' society.

Such a relationship between education and social class formation is often explained by technical-functionalists, who assume that industrialization creates more demand for higher skilled workers, therefore education, which increases "human capital," expands according to the process of industrialization.

However, as Dore (1976) pointed out, particularly in lately developing countries, education expands much faster and often far greater than increase of demand for higher skilled workers, resulting in mismatching between education and jobs. Dore depicts how this mismatching took place in Sri Lanka and Kenya, where high unemployment rate of educated people occurred. I shall add Korean case to the same group of societies, suffering from education and job mismatching. These frictions in labor market appear to be evidence against the technical-functionalist theory.

In contrast, as I shall show later, Postwar Japan did not experience the same problems as other lately developed societies did. But by showing this, I do not contend that Japanese case fits functionalist theory. Rather, I focus on other aspects of school education, which provides not only training but also a substan-

tial pathway to employment.

2. An Institutional “System” for Job Placement Service

Postwar Japan changed its educational system greatly, under the influences from the US occupation. Reforms of secondary education were a main part of such changes. Compulsory education was extended to the end of newly established junior high school, which covers from 7th to 9th grade without any ability or curriculum tracking. Different types of secondary school in the prewar system were integrated into senior high schools. This American modeled educational system was very egalitarian, even if we compare it with other Western societies.

In this section, I will clarify the meaning of this reformed secondary education system for the rapid occupational structure change. First, I will pay attention to junior high school, then to senior high school.

1) Junior High School and Public Employment Service Offices

From my view, junior high school was a great invention in a simple and often neglected, but very important sense. That is, junior high school raised graduates' age from 12 to 15 when they finish education and were ready for entering the labor force.

In the older education system, compulsory education ended at age 12, although almost three quarters of youth entered higher primary schools, whose education ended at age 14. Thus, graduates from new junior high schools were one to three years older than those from these older lower schools.

Table Age of School Graduates when they obtained First
Full-time Jobs by Education
(Male, excluding those entered agricultural jobs)
Data:SSM 1975

	Age of Graduation	Mean	Std Dev	Cases
Lower Primary (prewar)	12	15.11	2.66	87
Higher Primary (prewar)	14	16.56	3.06	295
Junior High School (Postwar)	15	15.86	1.86	401

The above table, using a nationally sampled social stratification and mobility survey in 1975, indicates the average age of Japanese men when they began their first full-time work after schooling by types of their graduating schools. First, we find the means of ages among three groups are not so different, although the age of graduation differs. This finding suggests employment usually

began around age 15 or 16. This happened probably because labor related laws and regulations prohibited employers to hire workers younger than age 15 for manufacturing jobs with danger, long working hours, or night shift. Therefore, under the prewar system, we find, Japanese men did not start their full-time work career light after graduation, instead they waited for two or three years before they entered full-time jobs.

Contrary for those from new junior high schools, who are old enough to be a full-time worker, there is no time lag between their graduation and the beginning of full-time work. And as its standardized variation shows, most of postwar junior high school graduates did so. One or three year longer education may increase human capital, but extension of compulsory education also gets new graduates older, old enough to be blue collar workers. As a result, time lag between end of schooling and start of full-time work reduced to zero, and graduates begin their first full-time jobs light after graduation.

This is very important change, because job search period began and finished while students were still in school. In fact, junior high schools took a position to place students into jobs, with collaboration with public employment offices (PESO).

2) The PESO and Junior High School Collaboration

Raised age of graduation created a baseline for junior high schools to become an important agent for labor allocation. Based on this age change, new employment policies lead junior high schools to become a good partner of newly established public employment offices.

Postwar's new employment stability law and its related regulations prohibit employers to directly approach individual junior high school students for hiring in order to protect young job seekers. Employers are not allowed to visit students' house or school. Instead, all job offers are once submitted to local public employment service offices, then handed to each junior high school, and shown each student. Therefore, for supply side, junior high schools mediate between job seekers (their students) and PESO, who collected job offers from employers.

In fact, this new system worked enormously from the beginning. Figure 3 shows percentage of junior high school graduates who found their first employed jobs through this system (note:excluding those with agricultural jobs). From early 50's, almost 60 percent of new graduates each year used this system to find their jobs. Before the war, only 12% of primary school leaver used public employment services in 1936. So the use of PESO increased rapidly under the new job placement system.

There are several functions that this school-PESO collaborated system provides. First, the Ministry of Labor intended to reduce problems of unlawful employment for youth. All job offer forms were submitted to and checked by local PESO's, and PESO attempted to hand as desirable job offers as possible to schools.

Second, and very interesting for our purpose here, this system promoted labor mobility between prefectures, and therefore between occupations. Local public employment service offices collaborated together to make imbalance of supply and demand for labor in its jurisdictional areas adjust. Once or two times a year, national meetings of prefectural level PESO officers were held for adjusting supply-demand imbalance among different prefectures. If a prefecture had a shortage of job applicants from junior high schools, surplus job offers were provided to other prefectures at the meeting; and vice versa. Such meetings are called *ZENKOKU JUKYU CHOSEI KAIGI*, National Meetings for Supply-Demand Adjustment.

At the nation-wide level, information of job offers and job searchers was exchanged not through communication between individual employers and job seekers, but through mediation by PESO's.

Such meetings set highly regulated time schedule for vocational guidance and job placement in junior high school, because, to have meeting, information about job seekers had to be collected before the meeting. For this purpose, the Ministry of Labor even showed a model schedule for schools and local PESO's. Accordingly, all junior high schools in Japan provided vocational guidance and placement activities in a very similar schedule. This is really a "system" embedded in labor market for junior high school students.

A third function of this system contributed to stabilize employment after those graduates entered the labor force. Local PESO officers did follow-up and gave advice to new graduates after they began to work. They visited firms and met workers who were placed through this system, and listened to their complaints or problems in work place, and helped solve them. We do not yet know how effective such follow-up worked. But these activities, at least, suggest that the "system" attempts to take responsibility for their placement.

This system integrated sources of new labor supply from schools into one. Under this system, employers did not have to wait for individual job seekers' visit for new hiring. Even if they want to hire new workers from other prefectures, they can go to their local PESO, which then transmits job offers to PESO's in other regions. So that, it is obvious that the system gives employers great merit to reduce cost for hiring. For some large firms, this system even pre-screens applicants, although the final decisions were still in employers' hand.

For job searchers, the system also provides merit: it is easy to get job offer information from other areas, information is checked by PESO's, and they can find jobs before leaving school.

3) Outcomes

What outcomes did this new system for job placement produce? Did the system work to make labor mobility smoothly both geographically and occupationally? Here, I will show some evidence to answer these questions.

To begin with, let us look at how important these new junior high school graduates for labor mobility in 1950's and 60's. According to national statistics, out of newly employed workers, including those who were already in the labor force, new school graduates from junior and senior high schools and colleges shared about more than one third during this period. Especially as newly hired workers who changed residence, as shown in Table 1, junior high school graduates were the main body.

From the late 1950's to early 70's, Japanese economy entered the period of rapid, "miracle." growth. During this period, labor mobility from agricultural areas to urban industrial areas filled great demand of labor. And new school graduates were regarded as suitable labor force for this purpose (Ujihara and Takanashi, 1971).

To what extent did the PESO-junior high school collaboration contribute to this geographical labor mobility? Let us look at Table 2. This compares percentages of junior high school graduates who find jobs through this system between those within their residential areas and those in other prefectures. It is obvious that more graduates rely on this system when they find jobs in other prefectures.

Not only geographical mobility, but also occupational mobility proceeded. Unfortunately, there are no data to show directly how this employment service system worked for new graduates from different social background. But as Table 3 shows, we find the vast majority of new mobilized labor force are farm origin youth, especially those from junior high school. Thus, we assume that the PESO-junior high school collaborative employment services provided job lead for farmers' children to enter employment.

It is not easy to prove how this system produced smooth transition: One evidence is, as already shown above, that there is no time lag between graduation and beginning full-time jobs. Another way is to compare the Japanese case with other society's experiences. Here, briefly, I show different outcomes of labor entry between Japan in 1960's and Korea in 1980's, when each society experienced a rapid economic growth with drastic occupational structure change.

Unlike in Japan, Korea did not develop a similar system for job placement provided by public employment offices. According to statistics among total new hiring (that is, including not only new school graduates but those already in labor force), 24.4% used the PESO service, 21% school's 26% personal connections, 19% direct visit to employers in Japan in 1962. Contrary, in Korea in 1987, 57% used personal ties and only 6% used schools' and 2% public employment services.

No data so far are available to compare unemployment rates for new middle school graduates in these two societies. But we can compare upper secondary school graduates' unemployment rates. Here we calculate unemployment rates of vocational high school graduates, who mainly seek for employment rather than college education. In Japan, during the first five years in 1960's, unemployment rate are less than 5%. On the contrary, in Korea, its counterpart reaches 12 to 22% during 1980's. To explain this high unemployment rate, a Korean researcher mentions, "due to the fact that new graduates *must wait* before they obtain jobs," Korea had "unemployment problem of high school graduates." (Kim, 1990, p.257).

Because senior high school to work transition in Japan differs from that for junior high school graduates (schools are more involved in job placement, but still all job offers are once submitted to PESO and checked), this comparison is limited to conclude that graduates from lower secondary schools might have a similar result. However, although we need further research, we speculate that this is the case.

4) From Junior to Senior High School

The placement service system described above worked in a quite good way for labor mobility. However, ironically, this system's significance did not last long. As we saw at the beginning, senior high school enrolment rate increased very rapidly, and the number of junior high school graduates entering directly labor force declined swiftly.

Especially, farm origin junior high school graduates began entering senior high schools rapidly. Figure 4 shows high school enrolment rate of youth from different social background. From late 1950's, farm origin children entered high school rapidly.

There are several reasons why this happened: income increase of farmers, building new high schools in rural areas, and so on. But in the context of my argument, I assume that farm family's experiences during 1950's provide runway to encourage their children to go to senior high school.

As we showed, the vast majority of farm origin junior high school gradu-

ates entered employment, often leaving their farm land and family. Employee's society is very different in terms of the value of educational credentials from farming. Once farmers' family noticed its values through their children's experiences as employees with lowest education in work place, it may be very natural for them to consider more education is valuable to their younger children. Even if they do not have their own children gone to cities for work only with junior high school diploma, farm family can recognize from others' experiences in cities the value of education.

During the 1960's, more and more farm origin youth entered high schools, as less and less entered farming, as shown in Table 4. Furthermore, once they entered senior high school, their career after school were not farmers. Table 5 indicates first jobs of farm origin youth by cohorts and their education. Younger cohort shows that only 1.7% from junior high and 6.2% from senior high schools entering agriculture. Entering senior high school or higher education institutions was a way to enter employment status.

Such rapid increase of farm origin youth entering senior high school contributed to expansion of that level of education. During the 1960's, out of all new senior high school incoming students, farm origin youth constituted always 33% to 37%. If senior high school enrolment rate from farm origins had stayed at the same level of 1960 (i.e. 51.9%) for the rest of the period, it is estimated that high school enrolment rate in 1965 and in 1970 would have still been six and ten point lower than the real rates (66% vs. 72% in 1965; 72% vs. 82% in 1970).

As the enrolment rate of senior high schools increased, substitution of labor took place to fill the labor demand for manufacturing. As Figure 5 shows, in 1965, the majority obtained manufacturing jobs shifted from junior to senior high school graduates. Since then, "institutional linkages between high schools and employers" played a similar role to place graduates into jobs smoothly as the PESO-junior high school system did (for detail, see Rosenbaum and Kariya 1989, 1995)

3. Conclusion

Education played a great role for rapid occupational change in Japan, not only by increasing human capital, but also by providing a smooth pathway to employment. This job placement system seems to be deviant from "pure" market for labor transaction, where individual job seekers meet individual employers for hiring. However it is not perfect planned market either, where labor allocation is planned and implemented by the central government, because final decisions are still given to hands of job seekers and employers under this Japanese

system. Relying on such institutional arrangement, the huge labor mobility took place in 1950's and 1960's. Although we need further research to prove enough that this system reduced frictions caused by such massive occupational and geographical mobility, some evidence presented in this paper suggests it surely happened. If it is the case, postwar Japanese experiences in education and labor market could provide a model for other rapidly changing societies. Japanese education is often paid attention to by foreign observers as a good engine for industrialization. But the other aspect of education presented in this paper has not yet been known well.

Finally, let us consider theoretical meanings of the above analysis. First, we can state that institutional arrangements worked pretty well in postwar Japan in the field of labor allocation as well as other economic areas. Institution's involvement was not disliked. Rather, it was expected to smoothen transition from school to work, and from farming to employment. The evidence shown in this paper adds another example of institutional (with combination with market) mechanisms working in Japanese society.

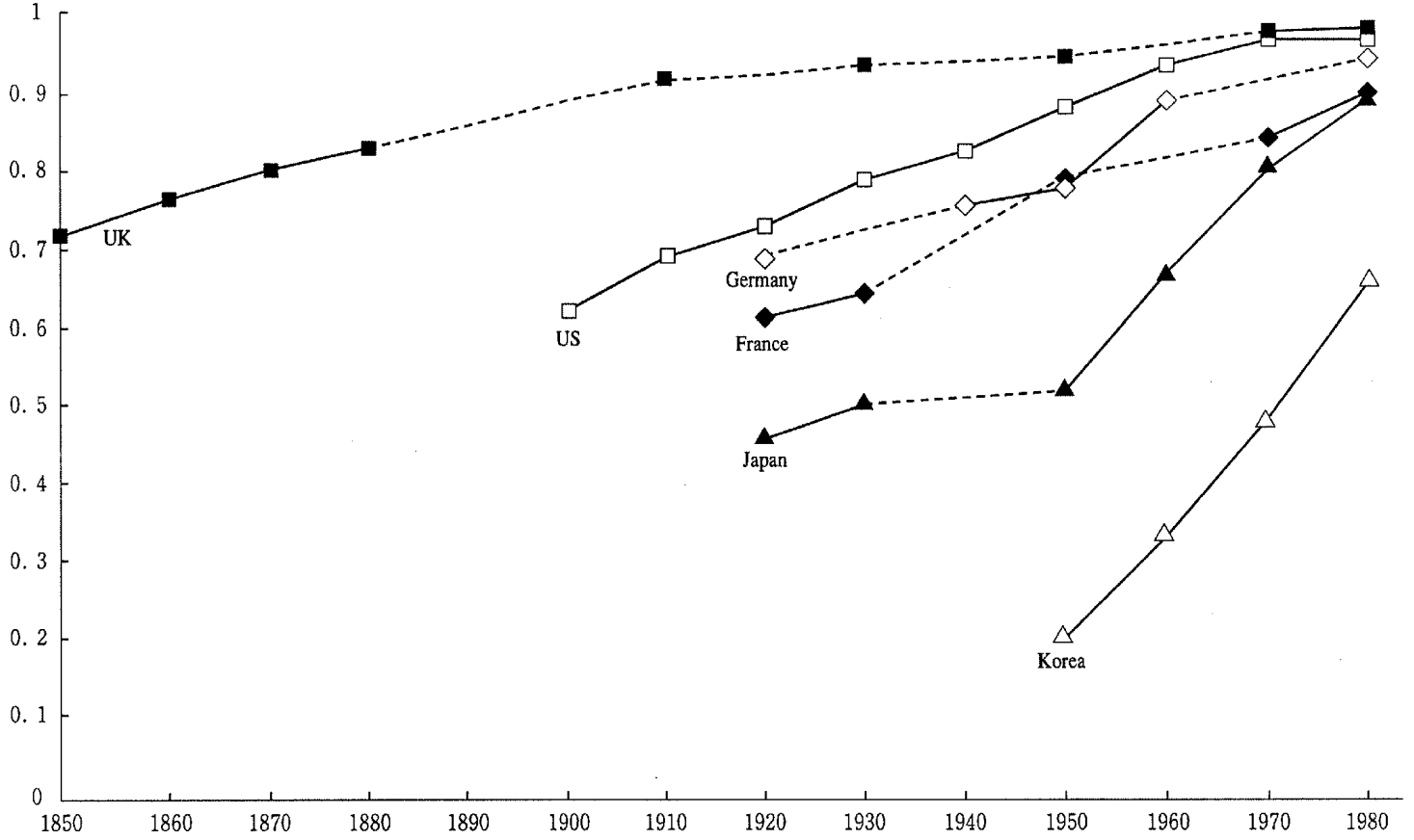
Second, if one can say that Japan achieved a smooth transformation from agricultural to employees' society for short period and with fewer frictions, such experiences could explain why class conflict did not appear significantly in Japan. Structural change was so great and rapid, therefore, many people could feel they attained socio-economic up-grading. Education is one good example of this, because most farmers in prewar period had only primary education, but now most of their children can enter senior high schools to obtain "good jobs" and urban life.

Rapid expansion of high school education, which offers entrance examination to applicants, also gives people a feeling that children's future socio-economic status is determined not by their social origins but by academic achievement in schools. As a result, meritocratic ideas were prevailed widely in Japan during the 1960's and 70's. High schools began to become a gigantic sorting machine to allocate people into different socio-economic positions, mainly based on academic achievement, which, indeed, is influenced by social origins. But influences from social origins are often neglected among educators, policy makers, and mass media, behind popular criticisms against "exam hells" (see Kariya, 1995 for detail).

With less differences in income, class culture, and education attainment, most Japanese identifies themselves as "middle." Thus, Japan becomes a mass society with mass education, whose combination I give the name "mass education society." Socio-economic background still influences children's achievement and therefore chances to enter prestigious universities, but, unlike in most West-

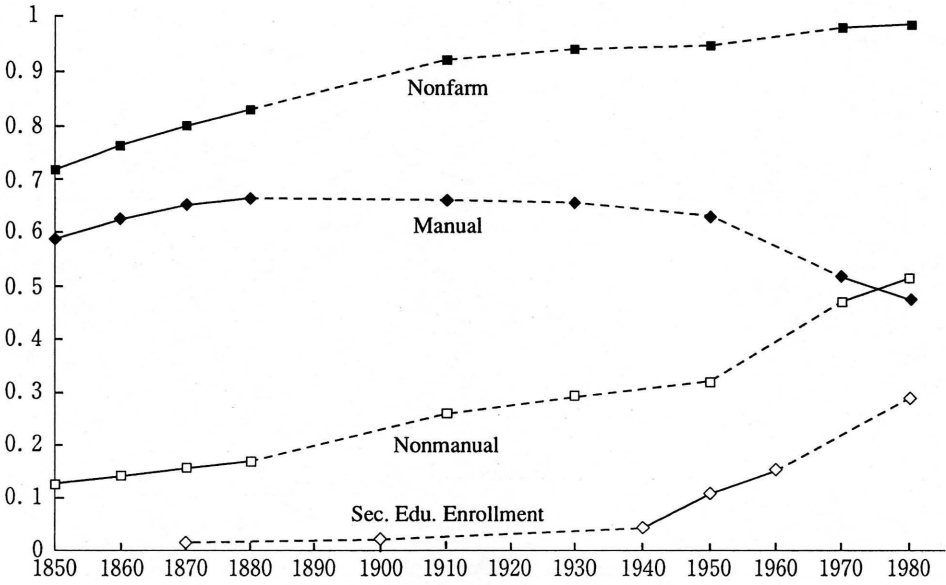
ern societies, such social class related issues (i.e. inequality of education) are rarely argued in education arena in Japan. Progressive educators even intentionally avoid such argument. There are many popular articles and books about “diploma society,” but far less about social class related issues. Hence we can state that smooth transformation of Japanese society described above was a way for Japan to become a mass education society, in which massive meritocracy is believed by majority as a decisive principle to maintain social formation.

Fig. 1. Share of Non-Farm Labor Force



from Gagliani, 1985

Fig. 2-a. U K



Sources for Secondary Education Enrollment in Fig. 2-a~2-d : Ringer, F. 1979, Korean Educational Development Institute, Korea

Fig. 2-b. U S

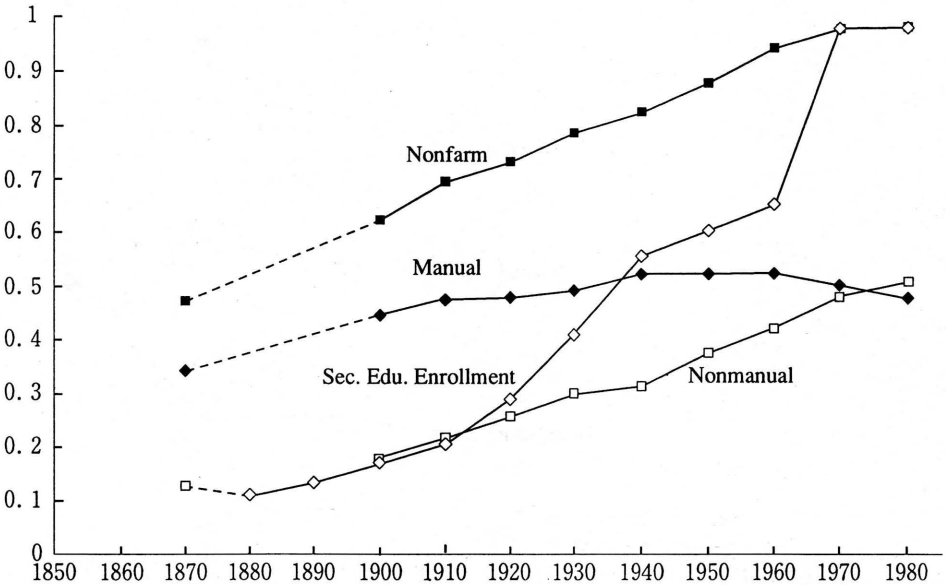


Fig. 2-c. France

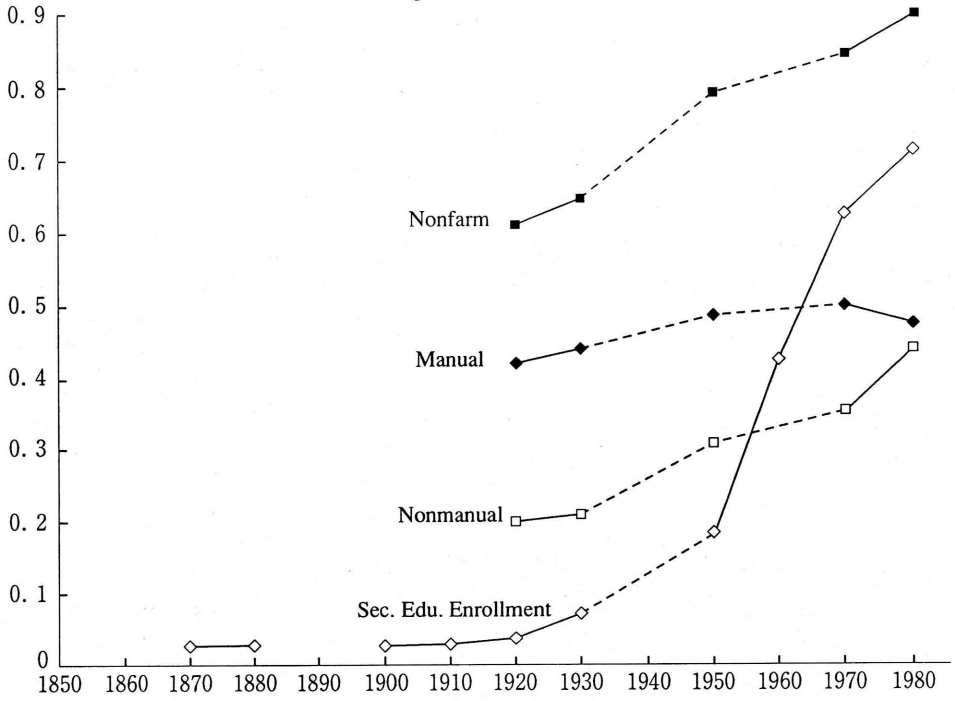
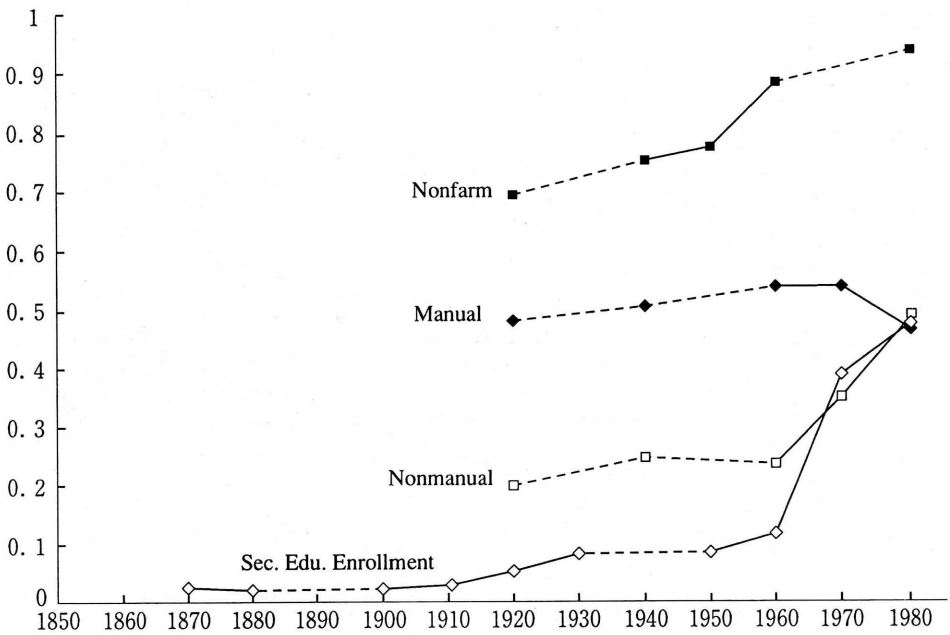
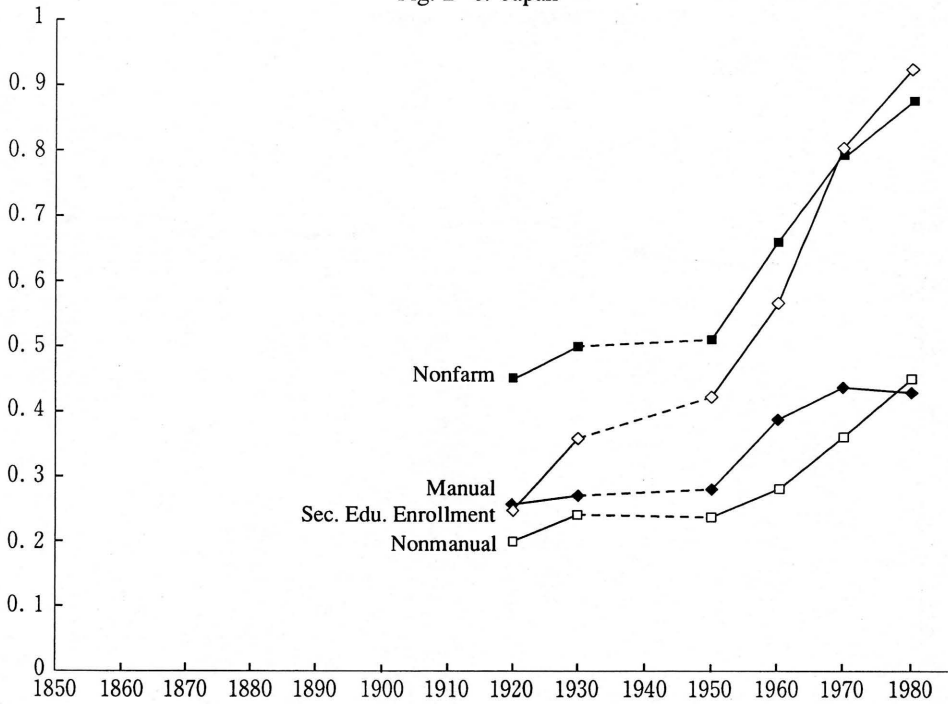


Fig. 2-d. Germany



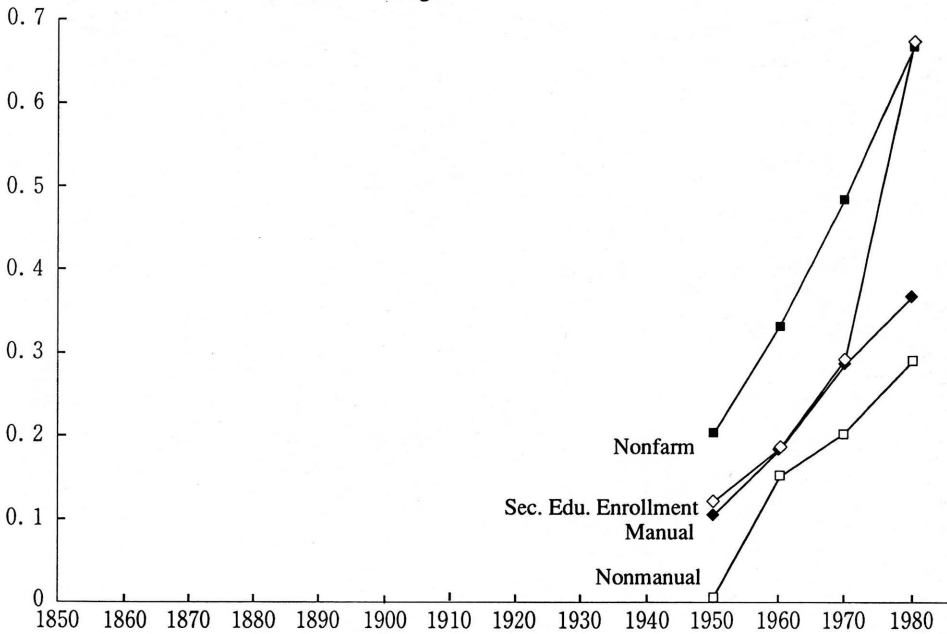
Japan's Postwar Experiences in Education and Labor Market:

Fig. 2-e. Japan



Sources for Sec. Edu. Enrollment : Monbusho

Fig. 2-f. Korea



Sources for Sec. Edu. Enrollment : Korean Educational Development Institute. 1986. Educational Indicators in Korea.

Fig. 3. Percentage of New Junior HS Graduates who got jobs thru PESO (excluding agriculture)

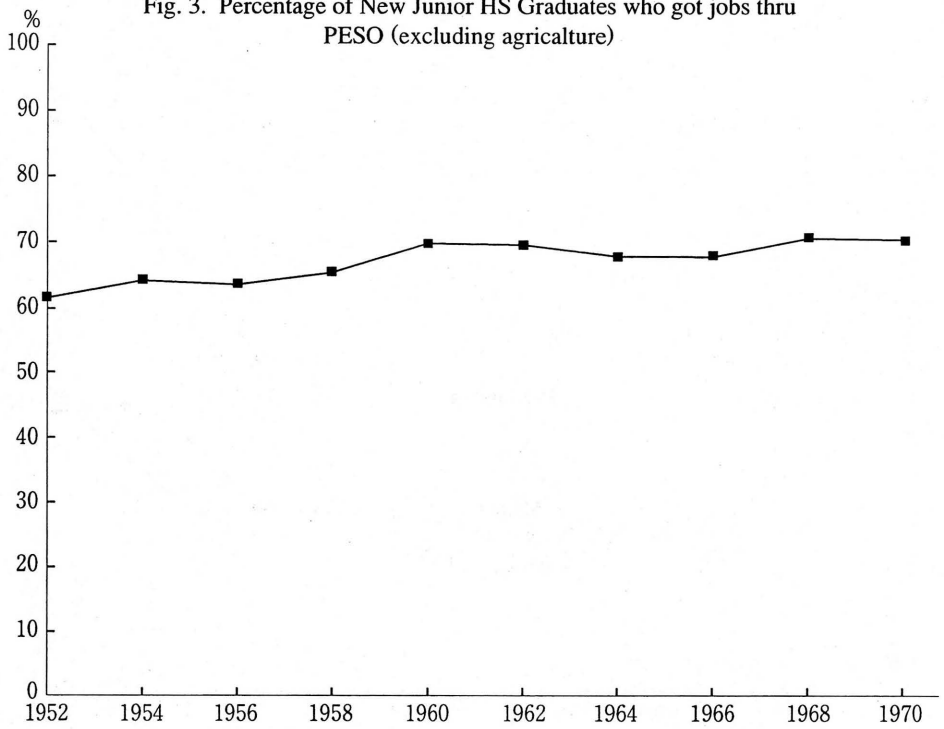


Fig. 4. High School Enrolment Rate by Father's Occupation by Cohort (SSM95 Data)

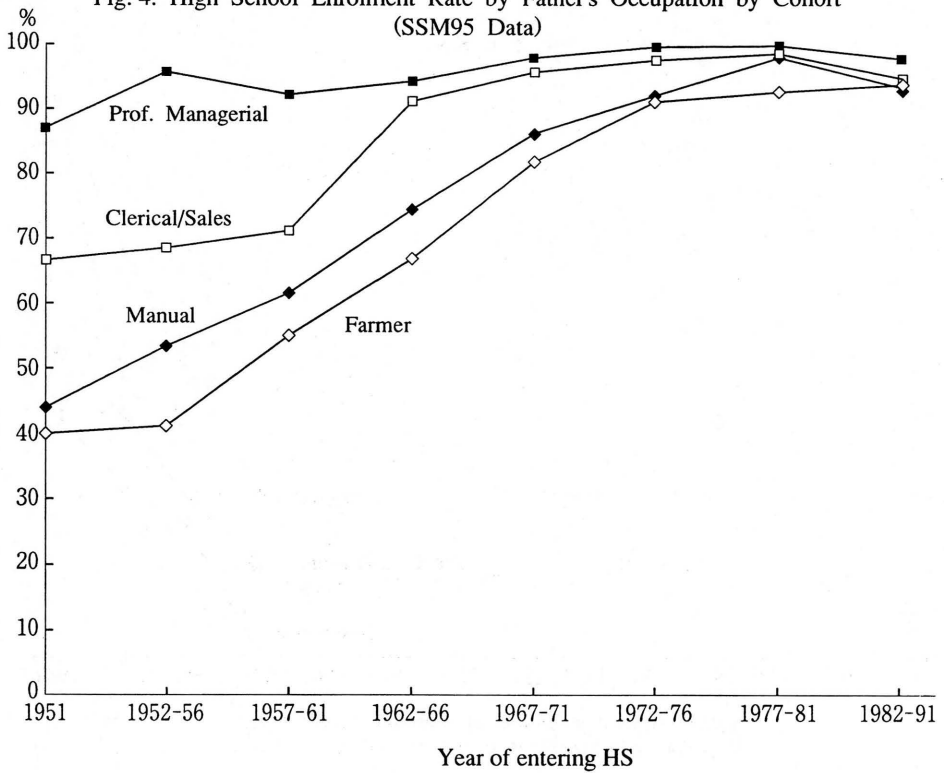


Fig. 5. New School Graduates who got jobs in other prefectures

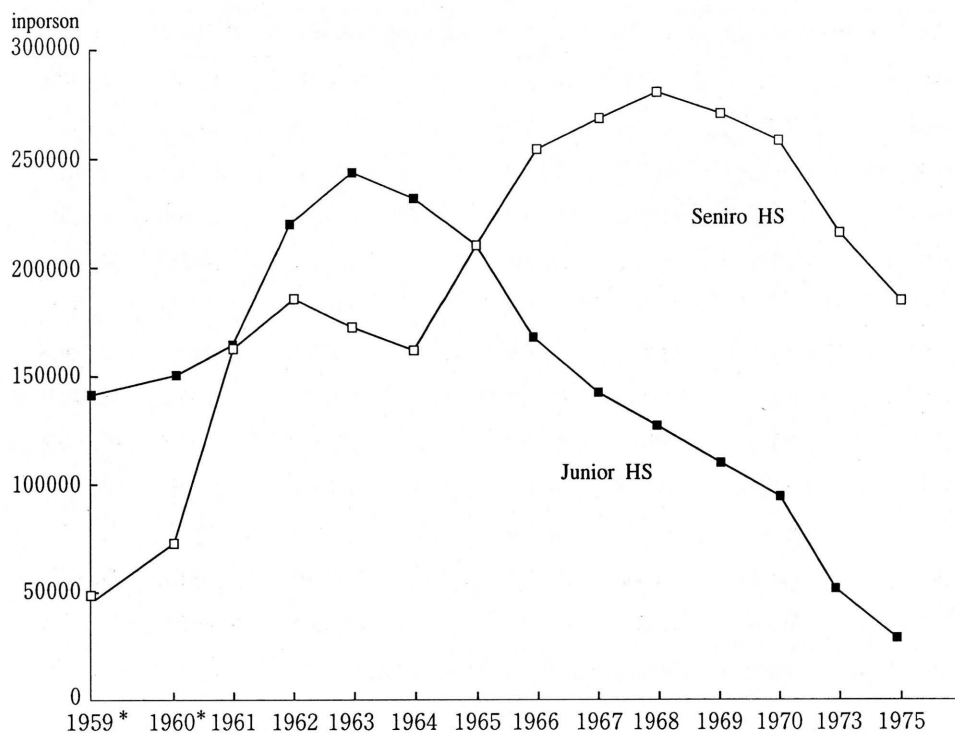


Table 1. Share of New School Graduates for Newly Employed Workers who got jobs in other prefecture from their residence

Year	Junior HS Grads	Senior HS Grads	Others
1959	54.8 %	18.6 %	26.7 %
1960	49.4 %	23.7 %	26.9 %
1961	38.4 %	26.8 %	34.8 %
1962	46.7 %	29.0 %	24.3 %
1963	45.9 %	22.2 %	32.3 %
1964	44.6 %	19.4 %	36.0 %
1968	30.0 %	40.4 %	29.6 %

Data: Rodosho Shokugyo Antei Gyomu Tokei

Table 2. The Role of Junior HS Graduates to get jobs in other prefectures

Year	To Other Prefecture(c)	By PESO(d)	(c)/(d)*100	Within Same Prefectures(e)	By PESO(f)	(f)/(e)*100
1953	99933	37840	37. 9%	629011	168552	26. 80%
1961	166778	125281	75. 1%	334086	204370	61. 17%
1962	218086	159907	73. 3%	434314	250213	57. 61%
1963	242040	171368	70. 8%	521804	287680	55. 13%
1964	231097	166573	72. 1%	466590	266242	57. 06%
1965	208224	155817	74. 8%	416507	257118	61. 73%
1966	165950	117013	70. 5%	356525	211080	59. 20%
1967	140342	99873	71. 2%	305339	190539	62. 40%
1968	124718	89764	72. 0%	260832	169541	65. 00%
1969	108146	80445	74. 4%	216116	147056	68. 04%
1970	91171	68681	75. 3%	180095	128253	71. 21%
1973	49847	40362	81. 0%	95208	68218	71. 65%
1975	28606	23452	82. 0%	65378	46682	71. 40%

Data: Monbusho Gakko Kihon Chosa, Rodosho Rodo Shijo Nenpo

Table 3. Share of Farm Origin New Graduates who moved to other prefectures to get first jobs

	From Farm Origin Graduates	From Junior HS	From Senior HS
1959	43. 3%	29. 1%	14. 2%
1960	57. 0%	34. 6%	22. 4%
1961	38. 9%	19. 5%	19. 4%
1962	41. 2%	23. 8%	17. 5%
1963	45. 0%	29. 8%	15. 2%
1964	48. 1%	27. 1%	21. 0%
1965	m. s	m. s	m. s
1966	m. s	m. s	m. s
1967	m. s	m. s	m. s
1968	39. 7%	14. 9%	24. 7%

Data: Rodosho Rodo Ido Chosa,
Norinsho Noka Shinki Gakusotsusha no Doko (each year)

Japan's Postwar Experiences in Education and Labor Market:

Table 4.1. Farmers' Children's Careers After Junior High Schools

	Male			Female		
	Enter High School	Agriculture	Employed	Enter High School	Agriculture	Employed
1960	52.1	m. s	26.0	51.6	m. s	25.8
1961	55.1	m. s	28.4	53.6	m. s	27.0
1962	61.3	6.4	30.1	61.9	6.0	29.1
1963	60.8	6.6	30.2	61.7	4.4	30.9
1964	66.2	4.8	27.1	64.6	2.9	30.2
1965	68.0	4.3	25.7	67.4	2.8	27.5
1966	70.0	4.2	23.4	70.3	2.5	25.0
1967	72.9	2.9	22.6	73.2	2.5	22.7

Table 4.2. Farmers' Children's Careers After Senior High Schools

	Male			Female		
	Enter College	Agriculture	Employed	Enter High School	Agriculture	Employed
1960	20.3	m. s	40.6	17.2	m. s	38.2
1961	15.6	m. s	51.4	12.7	m. s	54.3
1962	18.3	11.1	67.7	16.4	6.3	71.0
1963	21.4	9.2	64.4	17.0	5.0	70.8
1964	20.2	6.9	68.7	19.0	3.0	72.2
1965	22.5	8.5	64.7	20.2	3.8	69.7
1966	25.8	9.5	59.3	23.4	3.2	67.2
1967	25.1	8.4	61.2	23.4	3.8	67.4

Data: Nokashitei no Shinkigakusotsusha no Doko (Norinsho 1968)

Table 5. First Jobs for Farm Origins (Male)

Edu*1st Job	1936 - 45 Cohort	1946 - 55 Cohort
JrHS Farmer	12.6	1.7
JrHS Manual	31.5	22.1
JrHS NonManual	4.6	0.6
HS Farmer	13.7	6.2
HS Manual	20.6	30.5
HS NonManual	12.5	20.6
Coll NonManual	4.0	13.0
Total	99.5	94.7

Data: SSM95

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