

Arbeitspapiere

AP_US84

Morikazu Ushiogi

16 JOB PERSPECTIVES OF
COLLEGE GRADUATES
IN JAPAN

1984



WISSENSCHAFTLICHES ZENTRUM FÜR BERUFS- UND HOCHSCHULFORSCHUNG

Arbeitspapiere des Wissenschaftlichen Zentrums für Berufs- und Hoch-
schulforschung an der Gesamthochschule Kassel

Nr. 16

Morikazu Ushiogi

16 JOB PERSPECTIVES OF
COLLEGE GRADUATES
IN JAPAN

1984

Wissenschaftliches Zentrum für
Berufs- und Hochschulforschung
Gesamthochschule Kassel
Henschelstraße 2
D-3500 Kassel
Tel. 0561 - 804 24 15

Morikazu Ushiogi ist Professor für Erziehungssoziologie an der Universität Nagoya (Japan). Er schrieb diesen Beitrag während eines Studienaufenthalts in Kassel, der vom Deutschen Akademischen Austauschdienst gefördert wurde.

Contents

	p.
1. Introduction	1
2. The Changing Occupational Structure	4
3. Vertical Substitution by College Graduates	8
4. The Controversy over Educational Expansion	10
5. The Wage System	20
6. Job Satisfaction of College Graduates	25

1. Introduction

Japan's system of higher education has become a mass education system more similar to that of the U.S. than to European systems. At present 38 % of a given age group receive some form of college education which is almost twice as many as in the F.R.G. Moreover, more than three times as many college graduates enter the working force in Japan than in Germany i. e. 423,000. Now this raises the question of how and why the Japanese economy can absorb so many college graduates. This paper will attempt to give an answer.

At present almost all industrialized nations have come to face the problem of having to supply jobs for an ever increasing number of college graduates, whereas Japan had had to cope with this situation in the 1930's. In those days already Kotschnig wrote a book entitled "The Unemployed Learned Profession" in which he pointed out that Eastern Europe had a more serious unemployed problem than the U.S. The reason lies, according to Kotschnig, in the different social background of the students. In Eastern Europe university students tend to come from the upper or upper-middle class thus expecting to find employment in the traditional academic fields, while in the U.S. they come from more diverse social backgrounds and are therefore more flexible in their job expectancies. They are, for instance, in spite of their college education, willing to take jobs previously held by non-college graduates.

Simplifying his argument, we might state that the absorption problem depends on the job expectancy of the college graduate which in turn depends on his social background. This, in my opinion, still holds true, even though we have to take various other factors into account. In this paper I shall discuss two such factors:

- the wage system
- the work structure

drawing my examples from the Japanese experience.

Before going into detail, let us compare some basic data of Japan and Germany. In 1981 130,000 students graduated from institutions of short-cycle higher education (two-year colleges) and 294,000 from four-year colleges and entered the labor force in Japan. On the other hand only 45,000 graduates

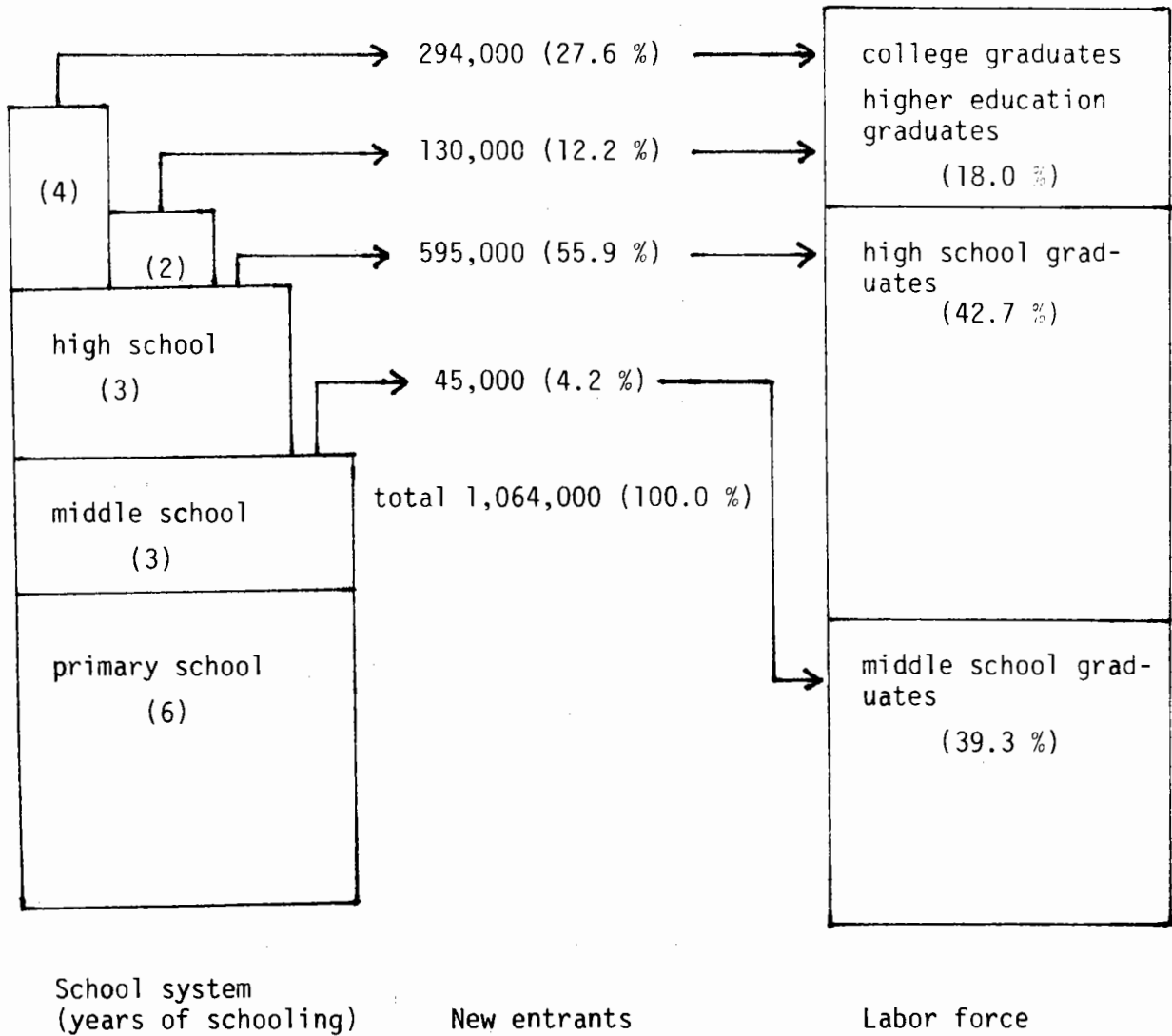
from middle schools and 595,000 from high schools entered the job market. Thus, 40 % of the entrants to the work force were college graduates of some kind, 56 % were high school graduates and only 4 % were middle school graduates. (See table 1, fig. 1). While in Germany more than 100,000 college graduates entered the labor force or around 0.3 % of the total working population as compared to 0.7 % in Japan. On the other hand, the educational background of the total working force in Japan is as follows:

- 39 % middle school graduates
- 43 % high school graduates
- 18 % college graduates.

Table 1: Survey of Japanese and German Higher Education

	Japan	Germany
Total population (1980)	116,916,000	61,658,000
Enrollment at institutions of higher education (1981)		
Total	2,194,500	1,121,600
University	1,822,100	897,000
2-year colleges	372,400	224,700
Number of graduates (1981 in Japan; 1980 in Germany)		
Total	552,800	122,100
University	386,100	87,400
2-year colleges	166,700	34,700
Working population (1981)	57,070,000	27,992,000
Percentage of college graduates in the labor force (1979 in Japan; 1980 in Germany)		
Total	18.0 %	8.5 %
University		5.6 %
2-year colleges		2.9 %

Figure 1: Comparison of Educational Attainment of New Entrants and Total Labor Force in Japan 1981



If we assume that the replacement ratio corresponds to the education of the job seekers, then the mismatch between supply and demand becomes apparent. The "over-educated Japanese" is as much a reality as the "over-educated American."

How and why does the Japanese economy cope with so many college graduates? Let us start with the simplest factor.

2. The Changing Occupational Structure

In Japan, as in other industrialized nations, the occupational structure of the labor force has undergone important changes; the most remarkable being the decrease of farmers and fishermen (see table 2). In 1950 they comprised almost 50 % of the total labor force which has diminished to only 12 % by now. On the contrary the proportion of white collar jobs, namely professional and technical workers, managerial, administrative, and clerical employees has almost doubled in the last 30 years. Along with the rapid increase of white collar workers the proportion of sales personnel and production process workers has also increased.

Among those occupational changes the expansion of the white collar groups has been important for the labor market of college graduates because these occupations tend to depend on college graduates more than others. For instance in 1960 52.4 % of the professional and technical employees and 31.8 % of the managerial and 17 % of the clerical ones were college graduates (see table 3). Thus this change in the occupational structure opened a larger number of job opportunities for college graduates.

At this point we might ask to what extent this pattern can explain the actual increase of college graduates in the working force. To answer this question we can apply the same method that is used in job market prognosis not in order to predict future trends but rather to explain past ones.

Let us assume that the percentage of college graduates within each occupation remains constant, then how many new openings have been created for college graduates through such an occupational change?

My calculation shows that between 1960 and 1970 60 % of the increase in college educated workers can be explained by the change in the occupational structure, while the remaining 40 % are the result of the educational upgrading in each occupation.¹⁾ Between 1970 and 1977 43 % were due to struc-

Table 2: Occupational Structure of Total Labor Force in Japan 1950 - 1977 (Percentage)

Year	Profes- sional and technical workers	Managers and officials	Clerical and related workers	Sales- men	Farmers lumber- men and fisher- men	Workers in mining and quarrying occupations	Workers in transport and com- munication occupations	Craftsmen and pro- duction process workers	Service workers, protective service workers	Others	Total %
1950	4.4	1.8	8.0	8.4	47.8	1.2	2.1	22.0	0.9	3.3	100.0
55	4.8	2.1	8.2	10.7	40.4	0.9	2.7	24.0	1.1	4.9	100.0
60	5.1	2.2	10.3	10.6	32.4	0.8	3.4	28.7	1.1	5.4	100.0
65	5.5	2.9	13.1	11.7	24.5	0.5	4.3	30.3	1.2	6.0	100.0
68	6.2	2.8	15.3	12.3	21.9	0.4	4.6	30.0	0.9	5.5	100.0
70	6.6	3.9	14.0	12.0	19.2	0.3	4.5	31.8	1.2	6.5	100.0
71	6.8	3.2	16.2	12.5	17.2	0.2	4.6	32.0	1.0	6.1	100.0
74	7.2	3.9	16.9	12.6	14.1	0.2	4.8	32.6	1.1	6.6	100.0
75	7.6	4.3	16.7	13.3	13.8	0.2	4.5	31.2	1.4	7.0	100.0
77	8.0	3.8	17.1	13.3	12.2	0.1	4.6	32.4	1.1	7.4	100.0

Table 3: Percentage of College Graduates in the Total Labor Force in Japan 1960 - 1977 According to Occupations

	1960	1968	1970	1971	1974	1977
Total	6.7	10.3	10.6	12.0	14.5	14.7
Professional and technical workers	52.4	58.2	58.8	61.2	63.6	61.5
Managers and Officials	31.8	37.2	37.6	36.3	38.1	34.6
Clerical and related workers	16.9	18.4	18.1	20.3	22.7	23.3
Salesmen	5.9	10.4	11.1	12.6	16.0	16.7
Farmers, lumbermen and fishermen	0.5	0.9	0.9	1.1	1.7	1.2
Craftsmen, workers in transport and communication and production process	1.9	3.0	2.5	3.3	4.7	4.4
Service, protective service workers	2.6	5.1	4.1	5.6	7.6	5.3

tural change and 67 % to educational upgrading (see table 4). Recently a similar analysis was done by the Ministry of Labor; limited to male workers it showed that between 1968 and 1974 41 % of the increase in male college graduates on the job market were caused by the changing occupational structure, between 1974 and 1979 it was 34.9 %. From these figures it can be seen that: (1) the change in the occupational structure has created a larger job market for college graduates, and (2) that the educational upgrading of various professions has been to the advantage of the college educated. These studies have also shown that the educational upgrading is most noticeable among sales personnel and production process workers. My own research shows that for the period between 1970 - 1977 only 23 % of the increase of college graduates in sales personnel were due to the quantitative expansion in that field, while the remaining 78 % were due to the replacement of non-college graduates by college graduates. Table 4 shows that a similar trend can be found for production process workers (including transport, communication, farming and fishing professions).

Table 4: Increase of College Graduates by Occupational Groups in Japan

	1960-1970			1970-1977		
	Actual increase	"Educational constant" component	"Educational upgrading" component	Actual increase	"Educational constant" component	"Educational upgrading" component
Professional-technical	895,000 (100.0 %)	676,000 (75.5 %)	219,000 (24.5 %)	477,000 (100.0 %)	469,000 (98.3 %)	8,000 (1.7 %)
Managerial	448,000 (100.0)	329,000 (73.4)	119,000 (26.6)	26,000 (100.0)	-16,000 (-61.5)	42,000 (161.5)
Clerical	548,000 (100.0)	460,000 (83.9)	88,000 (16.1)	794,000 (100.0)	318,000 (40.1)	476,000 (59.9)
Sales	423,000 (100.0)	97,000 (22.9)	326,000 (77.1)	421,000 (100.0)	83,000 (19.7)	338,000 (80.3)
Manual, other	322,000 (100.0)	22,000 (6.8)	300,000 (93.2)	511,000 (100.0)	-63,000 (-12.3)	574,000 (112.3)
Total	2,635,000 (100.0)	1,584,000 (60.1)	1,052,000 (39.9)	2,229,000 (100.0)	791,000 (33.3)	1,438,000 (66.7)

3. Vertical Substitution by College Graduates

Let us now look at the replacement of non-college graduates by college graduates in jobs hitherto reserved for the lesser educated. Table 4 shows that the educational upgrading is particularly strong in sales and production process. In 1960 the percentage of college graduates among the total number of sales personnel was only 6 %, by 1977 it had increased to 16.7 %. Although the number of college graduates is still small in production process, an upward trend is certainly noticeable from 1.9 % in 1960 to 4.4 % in 1977.

There are various reasons for the heightened attraction of college graduates to those occupations. The quality of the job has changed particularly in sales which includes selling department store commodities, automobiles, computers or other complicated machines which require technical knowledge and skill. Still only part of the increase of college graduates can be explained by the steadily more complicated technology of the merchandise, for a sales position is often used as a first step on the career ladder in Japan.

College graduates may start as salesmen or production process workers but not necessarily finish their career in these positions. Most of them are assigned to those positions at the beginning of their career in industry or with a certain company. This policy has a long tradition in Japan, where those just out of college are offered a lower position with a company in order to gain the experience necessary for a later higher position in management. Let us look at the educational structure of college graduates according to age. In 1979 26 % of the college graduates between the ages of 25 to 29 were clerks and 23 % salesmen, but only 15 % of the college graduates between 50 and 54 were clerks and only 9 % were salesmen.

Although the data are sufficient to separate career patterns on the one hand and historical changes of the occupational structure on the other, they suggest that young college graduates start their career mostly as clerks in the lower ranks and are gradually promoted to higher positions. This has been a traditional career pattern of college graduates in Japan. However, recently the traditional pattern has gradually changed. Previously, most college graduates began their careers as clerks in an office, but recently, because of the increased number of college graduates, they have been forced at the beginning of their career to start in the sales or the production process departments.

Looking back on the past, one can conclude that Japanese industry has been forced continuously to rearrange its job organization replacing workers with a lower education by those with a higher one. The first such substitution process took place in the late 60's and early 70's, when middle school graduates were replaced by high school graduates. Table 5 shows that up to 1965 half of the entrants to the labor force were middle school graduates. However, as a result of the expansion of secondary education the number of middle school graduates entering the labor force decreased noticeably. In 1960 58 % of the pupils completing compulsory education continued on to high school, whereas 40 % entered the labor force directly. 10 years later, however, 82 % of the middle school graduates continued on to high school leaving only 20 % to enter the working force, which diminished even further in 1975 to only 9 %. So that since 1970 it can be said that college graduates outnumber middle school graduates as entrants to the job market.

Table 5: Educational Background of Entrants to the Labor Force in Japan 1960 - 1980 (Percentage)

Year	Middle school graduates	High school graduates	University and college graduates	Total	Absolute number
1960	49.7	41.6	8.7	100.0	1,375,648
1965	41.6	46.7	11.7	100.0	1,500,450
1970	19.8	59.6	20.6	100.0	1,370,582
1975	9.0	56.9	34.1	100.0	1,039,321
1980	6.1	54.5	39.4	100.0	1,100,534

This remarkable change of manpower supply has forced industry to rethink its recruitment policy. Formerly, the manufacturing industry hired a large number of middle school graduates as production process workers. However, responding to a decreased supply of middle school graduates, employers have recruited more and more high school graduates (see table 6). In 1955 only 14 % of the high school graduates started out as production process workers while it increased to 31 % by 1970.

Another interesting factor is the ratio of middle school graduates to high school graduates in the production process. In 1955 the ratio was 4.9 to 1, in 1960 3.3 to 1, in 1965 2.4 to 1, in 1970 0.7 to 1, and finally in 1975

Table 6: Occupations of Recent High School Graduates in Japan 1955 - 1980
(Percentage)

Year	Clerical	Sales	Production process	Service	Others	Total	Absolute number
1955	33.5	15.2	14.4	3.7	33.2	100.0	340,529
1960	39.0	17.0	21.7	3.9	18.3	100.0	572,502
1965	40.7	16.4	23.3	3.3	16.3	100.0	700,261
1970	34.3	17.0	31.3	4.1	13.4	100.0	816,716
1975	39.1	15.3	27.6	5.5	12.5	100.0	591,437
1980	34.1	17.8	28.8	7.6	11.8	100.0	599,693

0.4 to 1. At present most production process workers are recruited from high school graduates because middle school graduates have almost disappeared.

In sales the vertical substitution has proceeded much faster (see table 7). In 1955 60 % of the new employees were middle school graduates, while 38 % were high school graduates. However, as early as 1960 the percentage of high school graduates increased to 57 % and that of middle school graduates decreased to 37 %. At the same time the proportion of college graduates in that profession increased from 12 % in 1965 to 34 % in 1975.

4. The Controversy over Educational Expansion

Of course there were many heated discussions regarding the opening of high schools to a larger number of students. The political party in power, the Liberal Democratic Party, representatives of employers' interest groups, as well as the Ministry of Education did not support this plan, whereas the opposition party and the teachers' union reacted favorably to it. The Ministry of Education insisted that admittance to high school should be limited to those students able to master the high school curriculum, but the Ministry did not or could not work out and offer any criteria for determining just who would be able to master the curriculum or what curriculum was to be mastered. The teachers' union on the other hand demanded open admission for all students who wanted to enter high school, but they also failed to offer any concrete expansion plans. Thus the discussion focussed on basic principles without ever becoming concrete. Most symbolic

Table 7: Educational Background of Entrants to Sales Occupations in Japan
1955 - 1975 (Percentage)

Year	Middle school graduates	High school graduates	Junior college graduates	University graduates	Total	Absolute number
1955	59.2	38.2	0.5	2.2	100.0	135,091
1960	37.0	56.8	0.6	5.6	100.0	171,204
1965	24.2	63.4	1.3	11.1	100.0	181,341
1970	6.2	69.2	2.9	21.8	100.0	200,700
1975	3.6	62.9	2.6	30.9	100.0	143,946

was the procedure of discussion in the Commission of Economic planning in the 1960's. In this process, the Ministry of Economic Planning worked out a tentative admission plan, setting the target quota of persons transferring to high school at 82 % in 1970. At the time the plan was formed the actual enrollment was still less than 60 %. Once this target was made public, many objections were raised, although it was based on a mere extrapolation of regression between the enrollment ratio and the GNP per capita. Employers criticized the proposal because they feared a shortage of middle school graduates manpower, while the Ministry of Education feared the increased financial burden caused by the expected high school expansion. After considerable debate a compromise was reached and the Commission set the target enrollment at 72 % for 1970.

Crucial for high school policy was the fact that the final decision did not lie with the central government but rather with the prefecture. The influence of the central government was only indirect, and each prefecture made its own final decision. The debates on the prefectory level had a completely different tendency than those on the central level, i.e. all the political parties even the Liberal Democratic Party supported the expansion plan or at least did not oppose it, which reflects the political and social situation of those days. The 1960's were a time of economic expansion, incomes increased and most parents wanted their children to receive a high school education. As a result the high school expansion policy became a useful slogan for most parties out to get the political support of the voters.

Consequently, ignoring the debate on the central level, each prefecture began to extend the capacity of its high schools on its own. As a result, the

capacity expanded by 60 % from 1960 to 1964 and the enrollment increased from 57.7 % in 1960 to 69.3 % in 1964. Taking into consideration the receding birth rate of the age group in question enrollment in 1974 exceeded 90 %.

In short, the high school expansion is primarily the result of an educational policy based on the "social demand approach" and to some extent the outcome of incidental demographic factors, while the manpower requirements of employers were not reflected in the process of educational decision making.

As mentioned above, employers viewed high school expansion rather suspiciously because they feared a decrease in cheap labor. Traditionally, they hired 15 year old middle school graduates, trained and used them as production process workers. Now, however, as high school enrollment increased, employers realized they could not attract middle school graduates unless they provided them with the opportunity to continue their education at least part-time. Middle school graduates have become a kind of minority in a high school educated society. Thus, most companies were forced to set up a continuing education program in co-operation with an external high school which meant additional expenditure for the training and welfare of middle school graduates. Finally, employers realized that middle school graduates were not cheap laborers any more and thus they changed their recruitment policy to hiring high school graduates rather than middle school graduates as production process workers. This policy was facilitated by the fact that, as we shall discuss later, the wages between the two groups did not differ substantially.

The debate on the expansion of higher education followed a different course, because of the considerable number of private colleges and universities which have only recently come to be under direct supervision of the Ministry of Education.

From 1955 to 1980 the total number of students enrolled in 4-year colleges and universities increased 3.5 times and 81 % of this increase was in the private educational sector (see table 8). This phenomenon can be explained by the special relationship between these private institutions and the Ministry of Education.

Each new university or department within a university, be they private or public, needs to be approved by the Ministry of Education. Prior to this approval the Ministry of Education asks the University Chartering Commission

Table 8: University Students by Establishing Body in Japan 1955 - 1980
(Percentage)

Year	State	Municipal	Private	Total	Absolute number
1955	35.6	4.8	59.7	100.0	523,355
1960	31.0	4.6	64.4	100.0	626,421
1965	25.4	4.1	70.5	100.0	937,556
1970	22.0	3.6	74.4	100.0	1,406,521
1975	20.6	2.9	76.4	100.0	1,734,082
1980	22.2	2.8	75.0	100.0	1,835,312

to examine each application on the basis of the established standards. Important from the viewpoint of educational planning is the fact that the work of this Commission is limited to the chartering phase and it is not entitled to supervise the quantitative expansion of higher education. Once approved, private colleges and universities could set the enrollment targets by themselves taking the market situation into account. They were only required to report any changes in the number of admitted students, yet these were no longer subject to the approval of the Ministry of Education. Such a lenient policy of no-control, no-support on part of the government regarding the private sector of higher education continued until 1975.

Another factor which accounted for the rapid expansion of the private educational sector was its open admission policy. Contrary to Germany where only Abiturienten, i.e. less than one fourth of a given age-group, are admitted to universities, in Japan all high school graduates are eligible to take the entrance examination. If they are interested in getting a college degree and can manage it financially, then 90 % of an age-group can theoretically enroll in any of the given institutions of higher learning. Whereas the aim of higher education planning in the Federal Republic of Germany is to offer almost a guaranteed opportunity to enroll to a select group of the population, Japan's universities provide the service named higher education for an indefinite customers' market.

This flexible structure, based on the mechanisms of the free market system, made it very difficult for the central government to conceive a general plan for higher education. There have been several attempts made to predict the future demand for higher education, but they remained predictions without

ever becoming concrete objectives. The central government could only make up for the deficit in the development of the private sector by supporting the development of the public universities. In fact, in the 1960's it increased the number of engineering students in the public universities. This occurred as a response to the increasing demand of industrial corporations, and since the private universities did not expand these expensive departments significantly. This holds true also for the medical departments and the departments of teachers' training at public universities. The Ministry of Education was willing to support expansion programs for these departments as the future need for these graduates can be easily determined, while the "soft" departments such as humanities or social sciences were left to the private institutions. The result of this division of labor or "market sharing" can be seen on table 9 where the number of students in the different fields are listed. In short, the function of the Ministry of Education as a

Table 9: University Students by Field of Study and Establishing Body in Japan 1981 (Percentage)

	State	Municipal	Private	Total
Humanities	6.3	21.8	15.7	13.9
Social sciences	14.7	34.2	47.3	40.1
Natural sciences	6.2	3.5	2.4	3.2
Technology	26.7	10.9	17.7	19.4
Agriculture	7.8	2.5	2.3	3.4
Medical	8.2	10.4	2.9	4.2
Health sciences	1.4	3.2	2.6	2.3
Home economics	0.3	5.7	2.1	1.8
Education	23.8	3.3	3.5	7.7
Fine arts	0.6	4.1	3.0	2.6
Others	4.0	0.5	0.7	1.3
Total	100.0	100.0	100.0	100.0
Absolute number	360,377	46,587	1,318,850	1,725,814

planning agency has been marginal, and it has never been in a position to conceive a comprehensive plan covering both the public and the private sector so as to control the total system of higher education.

However, 1975 was a turning point in the policy of higher education. In that year Parliament passed a law called the Promotion Law for Institutional Aid to Private Schools by which private universities and colleges were put under the control of the Ministry of Education in exchange for financial aid from the central government.²⁾ This law also stipulated that the Ministry of Education could not establish any new universities, colleges or new departments, nor could students' enrollment in private institutions be increased over the next five years (1975-1980) except in special cases. This policy was dictated by the fear on the part of the Ministry of Education and the central government that there would be endless expansion in the private sector of education which in turn would lead to unlimited investment of public funds, unless some brake were put on.

Concurrently with this restriction policy the central government started a comprehensive plan covering both the private and public sector for the first time since World War II. The First Plan was set up in 1976 by the Advisory Committee for Higher Education (Kōtō Kyōiku Kondankai) for the period from 1976 to 1980, and the Second Plan by the University Chartering Commission in 1979 for the period from 1981 to 1986.

The objectives of the First Plan were as follows:

(1) A moderate expansion in higher education. This Plan aimed to increase the admission capacity of universities and junior colleges from 608,000 in 1975 to 640,000 in 1980. Thus, the enrollment ratio to the population of 18 years old would be raised from 38.8 % in 1975 to 40.3 % in 1980 as compared to the actual increase from 24.2 % in 1970 to 38.4 % in 1975.

(2) To restrict the expansion of the private institutions and to support instead that of the public ones. This Plan aimed to increase the share of the public sector from 17.5 % in 1975 to 18.5 % in 1980. More concretely it planned to increase the capacity of admission by 10,000 in state, by 1,500 in municipal and by 20,000 in private colleges and universities.

(3) To limit the expansion of new institutions of higher education in urban areas but to support their foundation in other areas instead; this was meant to change the geographical distribution of higher educational institutions and to decentralize educational opportunities.

(4) To officially acknowledge the status of "Senshū gakkō", which may be defined as a "practice and vocation-oriented short cycle post-secondary education of a non-university type."

Hitherto schools of this type had been classified as "miscellaneous school" and were not covered by the laws for the "regular school system." The law of 1974 stipulated that Senshū-gakkō can offer three types of courses, namely:

higher courses, professional courses, and general courses; the first being for middle school graduates, the second for high school graduates, and the last for adults irrespective of their educational background. According to the new law the professional courses were included in the category of "post-secondary education," because they were oriented towards high school graduates. Most of them provided a one or two-year (partly a three-year) full-time training program for example in computer science (operation, programming), car repairing, bookkeeping, medical care, nursing etc. In 1981 around 356,000 students attended professional courses of Senshū-gakkō, compared to the around 367,000 students enrolled in junior colleges during the same year. Most of the Senshū-gakkō are private institutions, and 27 % of the students take courses in medical care and related fields, 19 % are enrolled in industrial courses like computer programming and operation, car-repairing, machine-maintenance, and 18 % in home economics.

This law aimed at making the system of post-secondary education "more flexible and diverse." An attractive vocation-oriented short cycle post-secondary education was expected to provide high school graduates with a fourth choice along with the traditional university, junior college or a job. Moreover, it was expected to compete with the traditional institutions by providing a more market-oriented and more flexible type of training. Suddenly the traditional anti-reformers in higher education found themselves in competition with the short cycle practice-oriented post-secondary education.

It is time now to evaluate the outcome of this Plan for the period of 1975 to 1980. Although generally it is believed to have been successful, it can also be considered from another perspective.

Table 10 compares the objectives of the Plan and its actual achievements. First of all, the central government succeeded in expanding the capacity of the state universities as planned. However, the aimed for capacity in the private institutions was not reached, on the contrary, the number of freshmen dropped by 39,000 in absolute numbers during the five years of this Plan. This decrease was caused neither by the closure of any private institutions, nor by capacity reduction of individual private institutions, but rather by a changed admission policy of individual private institutions.

Table 10: Outcome of the First Plan for Higher Education (from 1976 to 1980):
Number of Newly Admitted to Higher Education (4 Year University
and 2 Year Junior College in Thousand)

	Total	State	Municipal	Private
Actual number in 1975	608	87	20	501
Target for 1980	640	97	22	521
Actual number in 1980	599	97	20	482
Difference between target and actual achievement	-41	±0	-2	-39

For many years the private institutions tended to accept more students than the officially authorized number. For example, in 1975 the private sector accepted 1.79 times as many students as the officially authorized capacity called for. Needless to say that teaching conditions worsened in the private sector, so that the central government and its affiliated organization (Shigaku Shinkō Zaidan), since 1976 being authorized to distribute funds to private institutions, tried to convince their representatives to adhere to the recommended admission capacity in the interest of improving teaching conditions. In the long run this gentle pressure affected the admission policy of individual institutions, so that the "over-admission rate" of private institutions went from 1.79 in 1975 down to 1.43 in 1979.

Originally the Plan meant to reduce this "over-admission" rate to less than 1.5 until 1980. Our data show that this part of the Plan was achieved, but at the cost of a quantitative expansion of the private sector. One can say that this reduction of students in private institutions was a result of an "overreaction" of certain private institutions, which simply shifted from meeting their costs through students' tuition fees to federal aid programs, so that less enrollment to improve teaching conditions did not mean less income.

In short, the First Plan was successful as far as the expansion of the public sector was concerned. As for the private sector, the target enrollment was not attained, because the new system of public funding for the private sector generated an unexpected reaction on the part of its representatives. It is still hard to determine how effective the second objective of this Plan was, namely the competition of short term vocationally-oriented schools with traditional institutions. It is true that the enrollment in these schools

has increased steadily; in 1978 17.8 % of all the high school graduates chose one of these vocational short term schools, while in 1981 it was already 21.2 % that made that choice. There are many who argue that the increasing popularity of these two-year vocational schools and the decreasing enrollment in the traditional ones are a sign of a general weariness of higher education, yet it seems too early to tell if this is true or how serious a threat to traditional education these vocational schools are.

The Second Plan for the period of 1981 to 1986 should be considered from several perspectives. First of all it was conceived in a different spirit from the First Plan. During the last four years economic stagnation was felt by all, even the central government whose revenues no longer increased so that a cut in spending or at least a freeze seemed an appropriate way to react. This meant, however, that the expansion of the public educational sector, planned in 1976, was endangered if not made impossible by the changed financial situation.

On the other hand there is a serious demographic problem. The First Plan was conceived for a constant population of 18-years old while the Second one had to take into account a population expected to increase by 16 % within the six years of the Plan. This means that if the enrollment ratio of the Plan is to be maintained, then expansion must be carried out on a large scale so that the Plan called for the expansion of the two-year vocational schools and the Open University. While the latter has not gotten off to a start yet because of budget cuts in recent years, the former have expanded steadily.

Both institutions are often referred to as "by-pass" institutions, since they were founded with the aim of preventing the traditional schools from becoming overcrowded during the years when the peak of 18-years old will reach college age, expected to last until 1992.³⁾ It is still too early to tell if students will prefer a non-traditional education with more emphasis on practice to a traditional one. The same holds true for the employers' opinion which is still uncertain in spite of the all-out campaign of the central government. At present it might be said that the competition between traditional and non-traditional education may be realized in the future. For universities and junior colleges the Second Plan basically follows the same principle as the First. It aims at an annual increase of 2.300 in the public sector and 400 in the private one. If this is achieved, then the

enrollment ratio in 1986 will be 37 % which is almost the same as the ratio for 1981. Clearly the basic philosophy of the Second Plan is that universities and colleges have reached the limit of their capacity, so that the problem of future students will be how to get into college being given the large number of students knocking on college's door. However, even this defensive policy seems to be practically bankrupt, at least as far as the public sector is concerned. For the fiscal year of 1981, the first year of the Second Plan, the Ministry of Education succeeded in increasing the admission capacity of state universities by 1,130. In the second year of the Plan, however, the number of students was increased by a mere 590 instead of the proposed 2,300, clearly a result of the restrictive fiscal policy of recent years. Taking these facts into account, the Second Plan faces an uncertain future. The steadily growing number of 18-year olds, the increasingly difficult entrance examinations, and finally the retrenchment policy of the central government all add up to making the future of the Plan a difficult one.

The response of the employers to both expansion plans of the government has been rather ambivalent.⁴⁾ On the one hand they criticized repeatedly: "over-education," "mismatch of supply and demand," "loss of quality among college graduates," "waste of public funds," and so forth, on the other hand they continued to recruit large numbers of college graduates. For instance the Toshiba Company, a top manufacturing company, hired 496 university graduates in 1972, 519 in 1973, 530 in 1974, and 540 in 1975. Fujitsu, a top computer company, hired 411 university graduates in 1972, 520 in 1973, 764 in 1974. According to a survey by the Nihon Recruit Center 81 of the top companies hire on the average around 100 university graduates a year (prior to the oil shock it was more than 200).⁵⁾

In Japan only 10 % of the college graduates find jobs in public administration, roughly another 10 % in teaching which means that the remaining 80 % are absorbed by the private sector. Accordingly, if there were no active recruitment on part of the private sector a high unemployment of college graduates would have been unavoidable.

Why is private industry so interested in hiring college graduates? What advantages do they expect to gain by this policy? In order to answer these questions we have to look at (a) the wage system and (b) the personnel structure of Japanese industry.

5. The Wage System

If we look at income differences by educational attainment in most industrial nations, we will find that in Japan the difference is very small.⁶⁾ In Germany for instance according to Clement, Tessaring and Weißhuhn the average income of university graduates is 2.43 times as high as that of workers without completed vocational training⁷⁾, whereas in Japan the average income of university graduates is only 1.2 times higher than that of middle school graduates.⁸⁾ However, it is misleading to compare the average income of the two countries, for the age-income scale is completely different. As is shown in figure 2, the age-income scale in Germany levels off after age 30, and the age-income of workers without completed vocational training never reaches the starting salary of university graduates. German university graduates between 35 and 60 earn over twice the income of workers without completed vocational training.

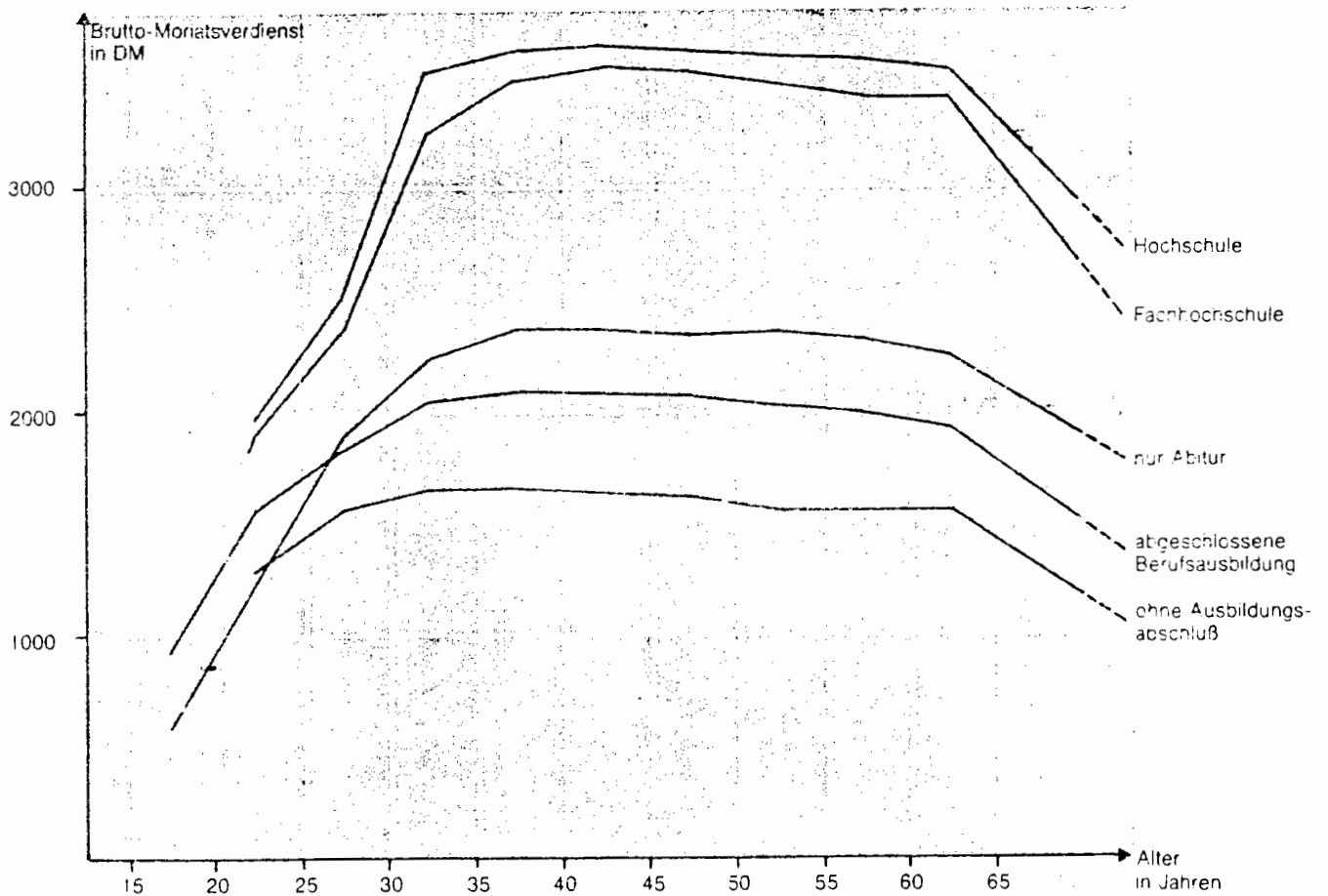
By contrast, the Japanese age-income scale shows that up to the middle thirties a university graduate does not earn substantially more than a middle school graduate. At 40 a university graduate earns around 1.5 times more than a middle school graduate, and between 50 and 55, where the difference becomes largest, he earns around twice as much as a middle school graduate (figure 3).

Previously, college graduates enjoyed a relatively good salary, but now with more highly educated people on the job market, their chances for higher incomes have declined.

During the last 20 years we have experienced several changes in the distribution of income. (1) The starting salary of high school graduates has approached that of college graduates. In 1965 college graduates started with an income that was 40 % higher than that of high school graduates, now it is only 23 % higher (table 11). (2) The life-time earnings of college graduates and high school graduates are almost the same. The calculation of life-time earnings of high school graduates was 70 % of that of college graduates, in 1981 it reached 81,6 % already (table 12).

Here we can find one of the reasons why employers like to recruit college graduates. If the salary difference between college and non-college graduates were substantial, then employers would hesitate to hire so many college graduates, and they would never think of letting them work in sales or

Figure 2: Age-income Profile in Germany



Source: Werner Clement, Manfred Tessaring, Gernot Weißhuhn:
Zur Entwicklung der qualifikationsspezifischen Einkommens-
relationen. In: Mitteilung aus der Arbeitsmarkt- und Berufs-
forschung, 2/80

Figure 3: Age-income Profile by Educational Attainment in Japan (1981)
Monthly Income of Male Employees in all Branches of Industry

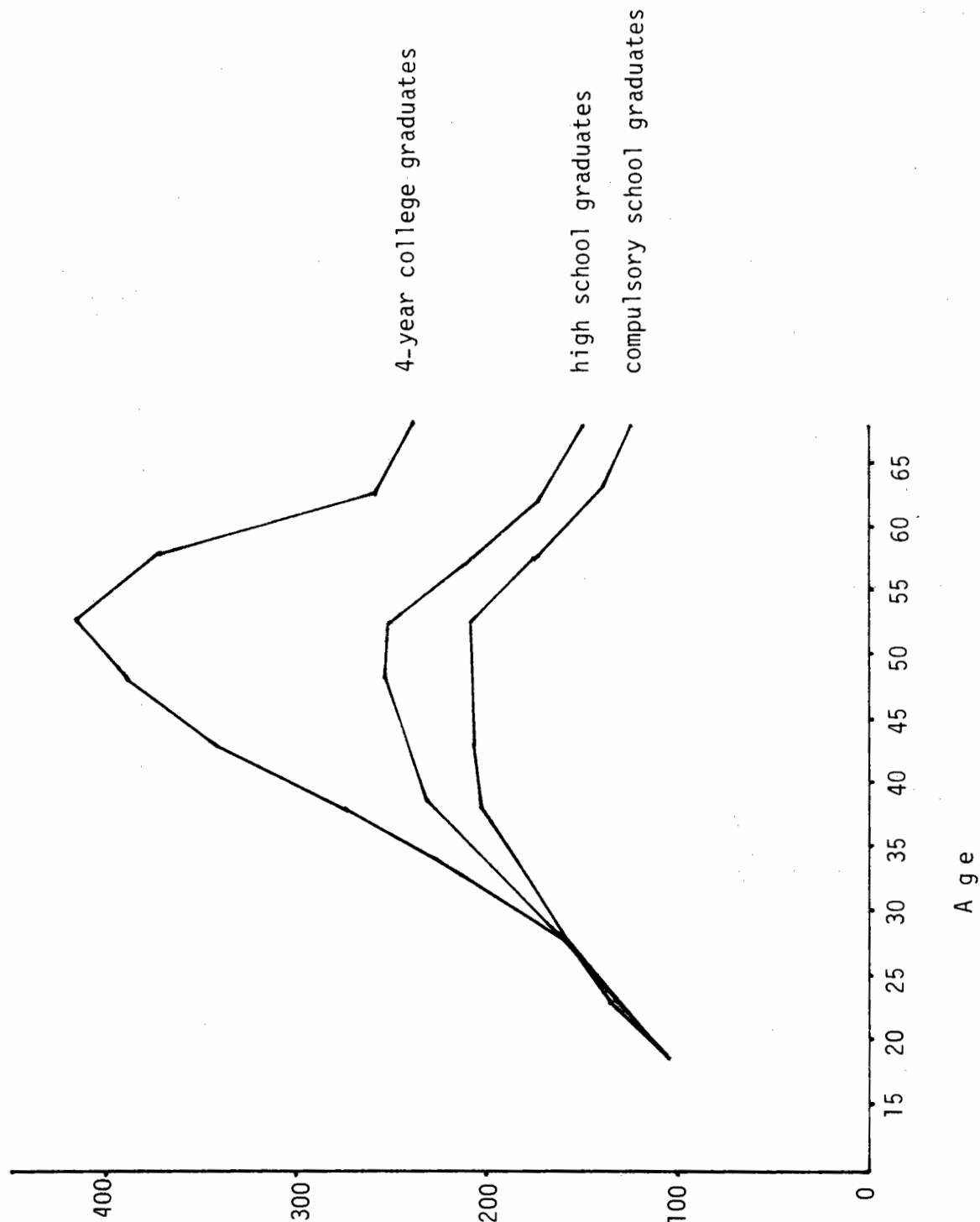


Table 11: Starting Salary of Male University and High School Graduates in Japan 1965 - 1980

(1) Year	(2) 4-year-college graduates	(3) High school graduates	(4) Ratio (2)/(3)
1965	22,980 Yen	16,430 Yen	1.40
1970	37,400 "	28,400 "	1.32
1975	83,600 "	70,400 "	1.19
1980	114,500 "	92,800 "	1.23

Source: Annual Labor Statistics

Table 12: Life-time Income of Male 4-Year-University Graduates and High School Graduates Employed in the Manufacturing Industry in Japan 1965 - 1980 (in million Yen)

	1965	1970	1975	1980
(1) High school graduates	23.1	43.7	93.1	127.4
(2) University graduates	33.7	59.2	120.2	156.7
Ratio (2)/(1)	1.43	1.36	1.29	1.23

production process. However, if the salary of college graduates differs only marginally from that of high school graduates, then it is to the advantage of employers to hire college graduates. Just what are these advantages:

(1) Generally high ability: it is indeed doubtful whether a college education is useful in developing the skills which employers expect. In fact, they always complain about the declining general ability of college graduates. However, it is true that college graduates have passed an entrance examination and 4 years of college so that employers can use college and universities as a screening device for hiring, thereby minimizing selection costs of future employees.

(2) Social maturity: while high school graduates are only 18 years old, college graduates are already 22 or older. While high school graduates are

still rather young and immature, college graduates have had a chance to acquire social maturity. Although we cannot tell if this maturity is the direct result of a college education, formal or informal, or merely due to age, it is, however, understandable that employers prefer the socially matured college graduate to the rather young high school graduate. This practice can be seen clearly in the recruitment policy for sales personnel. The high school graduates hired in previous years needed a long time of training before they could work independently. By contrast, college graduates, because of their age and schooling, do not need to be trained for a long time, so that employers can minimize the training costs by hiring college graduates rather than high school graduates.

(3) Professional knowledge and skill: in spite of their repeated criticism of college education employers expect professional knowledge and skill from college graduates. It is indeed hard to determine to what extent the college experience is useful and relevant to the future job these students will have to hold. It seems common to all industrial nations that there is a systematic discrepancy between the education and the work system. Yet it should not be over-looked that employers still demand professional knowledge and skill from college graduates.

A survey carried out by the Ministry of Labor in 1978 asked employers why they assigned college graduates to certain work units. Here are their answers: 21.8 % assigned college graduates to positions where specialized knowledge and skill were indispensable and necessary; 29.3 % to positions which demanded relatively high knowledge and skill and for which college graduates were more suitable; and finally 26.5 % to positions where no specialized knowledge and skill were necessary, but college graduates were expected to manage the job better. Although these answers are subjective, they still reflect job reality.

In short, from the employers' viewpoint college graduates are cheap in terms of salary and training costs and better qualified than high school graduates for the job. Although it is not certain if this higher qualification is the actual outcome of a college education, employers can still minimize the selection and training costs by depending on universities to do this preliminary work for them.

6. Job Satisfaction of College Graduates

In past years, most college graduates could start their careers as white-collar workers or engineers. Recently, however, a large number of them have had to start as salesmen or even production process workers. According to a survey about the intentions of employers hiring college graduates, 20 % of them replied that they meant to hire these graduates as sales representatives or production process workers. Although most employers still hire college graduates as a reserve for managers or at least middle-rank supervisors, table 13 shows that there could be a trend toward hiring college graduates for nothing more but a position in sales or production process practiced by one out of five employers already. At this point we might ask how satisfied are college graduates with these positions and how willingly do they take them.

Table 13: Intentions of Employers in Recruiting College Graduates:
Survey Conducted in 1979

Job tasks	Percentage of replies
Future managers	51.9
Future middle rank supervisors	78.9
Specialists	41.9
Gray- or blue-collar workers in sales or production	20.2
General white-collar workers	28.4

Source: Nihon Recruit Center Chōsa Sōran 1980
Kigyōnai Jinji-Kyōiku hen (1980)

Nihon Recruit Center took a poll among college students asking them about their attitude towards taking over so-called "gray-collar" jobs. 25 % rejected it, 38 % said they would take one provided there was a chance for a promotion and 11 % answered they would take one on any condition.¹⁰⁾ This means that one out of four students is clearly opposed to taking a "gray-collar" job, while the rest is not necessarily against it.

From this we can deduce that the job expectations of college students have become more realistic, because 20 years ago none could have imagined accepting such positions.

There is, however, another fact: a fairly high percentage of college graduates now working in transportation, sales, or production process express the wish to change their present job. According to a survey done by the Ministry of Labor in 1979, more than 15 % of the college graduates now working in gray- or blue-collar jobs, want to change jobs, this is twice as high as for all the other occupations and educational backgrounds put together.¹¹⁾ A high desire for job fluctuation could be an indicator for low job satisfaction.

At present, most college graduates in sales and production process expect to be promoted to white-collar jobs sometime in the future. Employers are beginning to feel the pressure of the expectation in every sector of the industry. Most of them complain that they cannot create enough positions in the upper ranks for the increasing number of college graduates. Furthermore, they claim that in the future it will be impossible to continue the present salary and promotion system which depends to a large extent on age or the years of experience with the company, instead they insist on the necessity of introducing a stronger meritocratic element into promotion and salary decisions concerning college graduates.

According to an estimate made by Shigeru Yamada, 15 years from now only 27 % of the college graduates aged between 40 and 44 will be promoted to a supervisor's position, as compared to the 53 % promoted in the corresponding age-group today. His estimate is based on the assumption that those positions will increase by 2.3 % annually. In spite of the expected increase in positions, there will be inevitably a mismatch between the number of candidates eligible for promotion and the number of positions available. The main reason for the incongruity lies in the age structure of the college graduates in private companies. Table 14 shows that at present around 203,000 male college graduates aged between 40 and 44 are working in private companies with more than 100 employees, and 53 % of them hold a supervisor's or a higher position. However, there are 558,000 college graduates aged between 25 and 29, who in 15 years time will reach the age when traditionally they are promoted to higher positions. 152,000 available positions for 558,000 college graduates means a 27 % possibility for promotion as compared to the 53 % chance of 1977.¹²⁾

In spite of such a pessimistic occupational perspective, college graduates still view the expanded higher education as something quite positive. Roughly 60 % of young college graduates who entered the labor force between

Table 14: Percentage of Male College Graduates Holding Positions of Supervisors and Above in Companies With More Than 100 Employees in All Branches of Industry in Japan, 1977

Age	(1) Number of college graduates	(2) Supervisors and higher position holders	(3) Percentage (2)/(1)
20-24	189,510	60	0
25-29	558,120	1,980	0
30-34	378,690	19,450	5
35-39	283,470	72,920	26
40-44	203,420	108,130	53
45-49	112,650	65,220	58
50-54	54,180	32,730	60
55-59	19,410	9,070	47
60-	14,940	2,960	20
total	1,814,390	312,520	17

Source: Survey of Ministry of Labor. In: Shigeru Yamada: Responses of Enterprises to the Educational Expansion. Tokyo 1980.

1973 and 1977 evaluated it positively. The most frequent response they gave, was that college life itself is meaningful, and that the intellectual level of society as a whole will be raised by increased educational chances for a wide population. The major drawbacks they saw were (1) that many who did graduate from college lacked the knowledge and skills they were supposed to have; (2) and the gap between a theoretical education and the practical job situation (table 15).

In short, the major response given by young college graduates was that their education had given them the opportunity to enjoy college life and a freedom which they could get nowhere but in college. This seems to mean that colleges in mass higher education are increasingly expected to fulfill "custodial" functions rather than mere teaching and training functions. The identity conflict of colleges between their custodial and teaching functions is another important problem which cannot be discussed here in detail.

In conclusion, it can be said that the Japanese economy has adjusted flexibly to the new situation of an increased number of college graduates. My

assumption is that the main reason for this flexibility lies in the relatively low salary of young college graduates which makes it possible for personnel offices to recruit college graduates and assign them to positions previously held by non-college personnel. This vertical substitution was a reasonable step for employers to take for it enabled them to cut training costs.

Now, however, they have to face the task of rearranging the job structure and changing the present salary system to fit the many college-educated employees, a problem which will have to be resolved in the next 15 or 20 years.

Table 15: Response of Young College Graduates to the Expanded Higher Education Systems - Survey 1978 (Percentage)

<u>Positive:</u>	58.5
College life itself is meaningful	32.7
Level-up of general intellectual standard	18.5
Only education is national resource	4.3
Others	3.0
<u>Negative:</u>	21.9
Financial burden for nation and household	1.4
Too many college graduates lacking skills	12.8
No relevance for job	6.9
Others	0.8

Source: Ministry of Labor: Kōgakurekisha Syugyō Jitaichōsa Hōkoku, Tokyo 1978

Notes

- 1 Morikazu Ushiogi, "The Japanese Student and the Labor Market." in: Changes in the Japanese University: A Comparative Perspective, ed. by William K. Cummings, Ikuo Amano and Kazuyuki Kitamura. New York: Praeger, 1979, pp. 107-126.
- 2 Kazuyuki Kitamura, "Mass Higher Education," in: Changes in the Japanese University, ed. by W. K. Cummings, I. Amano, and K. Kitamura. New York: Praeger, 1979, pp. 77-79.
- 3 ABV Management Service GmbH & Co., Eingliederungsprobleme von Absolventen tertiärer Bildungsgänge beim Übergang vom Ausbildungs- zum Beschäftigungssystem in ausgewählten Ländern. Bonn: Bundesminister für Bildung und Wissenschaft, 1976, pp. 69-70 (Bildungswesen im Vergleich; No. 8). Daigaku-setti-shingikai, Koto Kyoiku no Keikakuteki Seibi nitsuite. Tokyo, 1979.
- 4 The acceptive response of employers to the higher education expansion is discussed intensively in: Ulrich Teichler and Yoko Teichler-Urata: Der Arbeitsmarkt für Akademiker in Japan. Göttingen: Schwartz, 1975, pp. 136-149.
- 5 Nihon Recruit Center, Recruit chōsa Sōran 1980. Shinki gakusotsu rōdōshijōhen, Nihon Recruit Center, 1980, p. 32.
- 6 G. Psacharopoulos, K. Hinchliffe, Returns to Education. An International Comparison. Elsevier, 1973.
- 7 Werner Clement, Manfred Tessaring, Gernot Weißhuhn, "Zur Entwicklung der qualifikationsspezifischen Einkommensrelationen." Mitteilungen aus der Arbeitsmarkt- und Berufsforschung, 2/80, p. 200.
- 8 Ministry of Labor, Rōdō hakusho for 1982, Nihon Rōdō Kyōkai, 1982.
- 9 Ministry of Labor, Kōgakurekisha shūgyō jittai chōsa hōkoku, Tokyo, 1978.
- 10 Nihon Recruit Center, Recruit chōsa Sōran 1980. Shinki gakusotsu rōdōshijōhen, Nihon Recruit Center, 1980, p. 135.
- 11 Ministry of Labor, Rōdō hakusho for 1982, Nihon Rōdō Kyōkai, 1982, pp. 121-123.
- 12 Shigeru Yamada, "Kōgakurekika ni tomonau kigyō no taiō," in: Kōrei kōgakureki shakai e no taiō, 1980.

