

## Changing Expectations of Students and Industry for Japanese Higher Education

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◇ 에 관해서 폭 넓게 다룬 本稿는 貴重한 統計資料를 引用하고 있어 우 ◇  
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### I. Recent Trends of Japanese Higher Education

After a rapid expansion of student's enrollments and the creation of new types of institutions in the 1970s, Japanese higher education is now challenged by new problems connected with financial stringencies. The government passed a bill for administrative and financial reform to the Diet in 1982, whose purpose was designated to reduce expenditure so that the fiscal 1982-83 budget could be drafted without increasing taxes. This policy will result in a reduction in funds for welfare and education. Especially in the sector of higher education budget cuts are expected to be drastic. Important policy issues such as the establishment of the University of the Air and the expansion of a national subsidy system to private colleges and universities will suffer a great blow from these budget cuts. The temporary halt in the establishment of new faculties and institutions in national and public sector, student loans charging interest and the hiking tuition fees are also to be introduced.

Another recent phenomenon is a decrease in the rate of students entering colleges. According to a statistical survey (May 1982) published recently by the Ministry of Education, the percentage of students entering junior colleges and universities dropped 1.1 percent from a 37.4 percent level recorded in 1980. On the other hand, the same survey by the Ministry showed the employment situation for graduates of junior colleges, 4 year colleges and universities, improved to the level of the level of the pre-1973 oil crisis. 76 percent of students graduating from 4 year college and university and 78 percent of junior college graduates obtained em-

ployment last spring.

In this paper, we will overview the changing attitudes and expectations toward higher education from the perspective of students and industry (labor market) with the experiences of the 1970s.

## II. The Changing Motives and Expectations of Students

First, the kinds of post-secondary institutions which senior high school graduates desire to enter has been gradually diversifying. As shown in Table-1, a most remarkable change has been seen in the increase of the admission ratio of students to higher vocational training schools, which was established as non-university post-secondary institutions in 1976. This ratio (9.6% in 1981) is approximating that of junior college (11.1%). On the other hand the admission ratio to colleges and the university sector is slightly decreasing. Thus the so called "the trend away from university" becomes apparent.

Table-1 Changes in the Admission Ratio of Senior High School Graduates to Post-secondary Institutions.

|                                   | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|-----------------------------------|------|------|------|------|------|------|
| University                        | 27.3 | 26.4 | 26.9 | 26.1 | 26.1 | 25.7 |
| Junior College                    | 11.3 | 11.3 | 11.5 | 11.3 | 11.3 | 11.1 |
| Technical College                 | 0.6  | 0.6  | 0.6  | 0.6  | 0.6  | 10.6 |
| Higher Vocational Training School | 2.8  | 6.6  | 8.2  | 8.5  | 8.8  | 9.6  |
| Total                             | 42.0 | 44.9 | 47.2 | 46.5 | 46.8 | 47.0 |

Source: Ministry of Education, Science and Culture, *Report on School Basic Statistic*, 1981.

In connection with these changes in student's choices of post-secondary institutions, a local orientation in terms of the place of institutions which students desired to attend became noticeable. The "retention rate" meaning the percentage of students who are matriculated to colleges and universities in their own prefecture has been increasing in the past five years, from 36.3% (1976) to 38.2% (1981) for universities, from 58.2% (1976) to 59.5% (1981) for junior colleges. Generally the more the universalization of higher education, the greater the expectation of a local orientation. However the "retention rate" for 1981 varies from 76.1% in Tokyo to only 7.3% in Shiga prefecture. The prefectures with less than a 20% retention rate number twenty. The prefectures where more than half of applicants enter colleges and universities in their own area is only seven (Tokyo, Hokkaido, Aichi, Miyagi, Fukuoka, Okinawa, and Osaka).

These trends towards local orientation is one which parents favor. According to a survey (1979) by the Japan Recruit Center, 74 percent of parents wanted their children to be matriculated in their own prefectures. It has been said that these trends became more apparent after the oil crisis (which raised the cost of living in large metropolitan areas). On the other hand, it is more likely related to the fact that local economies have developed enough to absorb university graduates. Thus the modification of geographical distribution imbalance of

colleges and universities was one of the main tasks of central planning for higher education in the 1970s.

During the 1970s, the motive of students for attending college and universities has been changing as can be shown in Table-2. According to a nation-wide survey of 200,000 students by the Japan Recruit Center, "student motives" were classified into five categories.

- (1) Culture Type; to enrich their culture and views, and to form better character.
- (2) Study Type; to acquire special knowledge and skills
- (3) Career Type; to study for getting jobs and prepare for a secure life
- (4) Youth Type; to enjoy their youth and to devote themselves to extra-curricula activities
- (5) Other-Oriented Type; no particular purpose or forced by their parents and teachers

**Table-2 Motives of Students Attending Colleges and Universities Classified into Five Types (Multiple answers)**

|                     | Male  |       | Female |       |
|---------------------|-------|-------|--------|-------|
|                     | 1973  | 1980  | 1973   | 1980  |
| Culture Type        | 20.2  | 25.8  | 21.1   | 25.3  |
| Study Type          | 28.9  | 25.9  | 27.4   | 24.5  |
| Career Type         | 30.2  | 22.4  | 29.6   | 21.4  |
| Youth Type          | 15.5  | 13.6  | 15.3   | 14.4  |
| Other-Oriented Type | 5.2   | 12.3  | 6.7    | 14.4  |
| Total               | 100.0 | 100.0 | 100.1  | 100.0 |

Source: Japan Recruit Center, *A Survey of Motives for Going to Higher Schools*, 1974, and *Recruit Guide Book*, 1980.

According to this classification the top ranked motive in 1973 was "Career Type" for both male and female (male 30.2%, female 29.6%), followed by "Study Type" (28.9%, 27.4%) and "Culture Type" (20.2%, 21.1%). However in 1980, the "Culture Type" became dominant for females (25.3%) and second for males (25.8%). On the other hand, the "Career Type" dropped to the third rank (22.4% in males, 21.4% for females). Another substantial change was seen in the increase of "Other-Oriented Type". An increase in this type of students may cause serious problems for higher education in the 1980s.

The dominance of the "Culture Type" is also reflected in the consciousness of university graduates when questioned about their past college life. An international survey done by the Japan Research Institute for Young People (1978) showed that the most popular activities for students during their university days in Japan were expressed as "communication with friends (72.3%)", "hobbies (65.5%)", "attending lectures (64.0%)", "club activities (58.4%)". In the case of perceived usefulness of "specialized knowledge", "general knowledge", and "friendship" for their present job, "friendship (65.0%)" showed the highest percentage, followed by "general knowledge (61.6%)" and "specialized knowledge (39.7%)" in Japan, whereas in West Germany "specialized knowledge (74.6%)", and in the case of United States "general knowledge (62.5%)" ranked highest.

Although students enjoy their university life particularly for socialization, there seems to be little connection between what they have studied and their future jobs. In the stage of mass-

higher education, colleges and universities seem to be considered by many students as a social institution to simply pass through.

### III. Expectations of Industry Towards University Graduates

The expansion of higher education in the 1970s resulted in an increase in proportion of higher education graduates in the total work force from 10.3% in 1968 to 17.9% in 1979. The proportion of university graduates from 25-34 years old in middle-sized industries (200-900 employees) increased to 38.1% in 1979. This increase can be explained partly due to the fact that women with higher educational backgrounds are inclined to participate in working life. In the case of female junior college graduates, the employment ratio rose from 57% in 1965 to 73% in 1975, whereas that for female university graduates remained at around the 60% level. As to male university graduates, the employment ratio declined slightly from 86% in 1969 to 78% in 1975.

The relation between educational background and income has changed in accordance with the rapid quantitative development of higher education during the 1960s and 1970s as shown in Table-3.

Table-3 Starting Salary of Male Employees Classified According to Educational Background

| Year    | (index)                     |                       |                      |
|---------|-----------------------------|-----------------------|----------------------|
|         | Compulsory School Graduates | High School Graduates | University Graduates |
| 1 9 6 5 | 100                         | 124                   | 174                  |
| 1 9 7 0 | 100                         | 119                   | 157                  |
| 1 9 7 5 | 100                         | 121                   | 144                  |
| 1 9 8 0 | 100                         | 114                   | 141                  |

Source: Calculated from *Educational Standards in Japan (White Paper) 1975, 1980*, by the Ministry of Education, Science and Culture.

For example the difference in starting salary has lessened. In 1965 there was still a large difference in the starting salary of university graduates and compulsory school graduates. The former had starting salaries 1.7 times higher than the latter. But in 1980 university graduates gained only 41% more in starting salaries than compulsory school graduates, and 25% more than highschool graduates. With regard to the employment situation, Table-4 shows a breakdown of newly employed graduates classified according to occupation. As to the higher education graduates, "Clerical, technical and managerial" occupations which had been the major absorptive field for exclusively university graduates are still increasing, but in the case of junior college graduates a more dramatic increase can be seen (6.6% in 1965, 18.7% in 1976). However the most remarkable change was seen in the increase of university graduates for "Sales and service" jobs. It was 8.2% in 1965, and shot up to 17.9% in 1976.

In connection with these trends, the White Paper on Living Standards in Japan (1980) published by the Economic Planning Agency reported that 66.4% of university graduates were employed in so-called "white-collar" job in 1968, whereas half of them were recruited in 1979,

Table-4 Distribution of Newly Employed Graduates Classified by Types of School and Occupation.

|  | Agriculture, Forestry and Fishery |      | Production and Transport |       | Sales and Service |       | Clerical, Technical and Managerial |       |
|--|-----------------------------------|------|--------------------------|-------|-------------------|-------|------------------------------------|-------|
|  | 1965                              | 1976 | 1965                     | 1976  | 1965              | 1976  | 1965                               | 1976  |
| Compulsory, Lower Secondary School Graduates | 66.2                              | 15.7 | 67.6                     | 24.8  | 38.0              | 9.1   | 2.4                                | 0.2   |
| High School Graduates                        | 33.4                              | 77.7 | 32.0                     | 73.1  | 52.6              | 70.5  | 67.5                               | 44.4  |
| Junior College Graduates                     | 0.2                               | 3.0  | 0.1                      | 1.2   | 1.2               | 2.5   | 6.6                                | 18.7  |
| University Graduates                         | 0.3                               | 3.5  | 0.2                      | 0.9   | 8.2               | 17.9  | 23.5                               | 36.7  |
| Total  | 100.1                             | 99.9 | 99.9                     | 100.0 | 100.0             | 100.0 | 100.0                              | 100.0 |

Source: Calculated from *Educational Standards in Japan (White Paper)*, 1975 & 1980 by the Ministry of Education, Science and Culture, p. 140 (Appendix) & p. 368.

and as result the other half were classified as "blue-collar" and "grey-collar".

Nevertheless as shown in the annual poll (1980) taken by the Prime Ministers Office, 88% of Japanese adults questioned thought themselves to be of "the middle class". Therefore in Japan, university graduates recruited as blue or grey collar do not necessarily consider their jobs as inappropriate for university graduates.

In connection with the changing motives of students as mentioned above, what expectations and requirements does industry have towards university graduates when they recruit new employees? According to a 1979 survey of Japan Recruit Center (1,027 industries answered), the most popular way of selection was an interview and written test (adopted by 99.4% and 83.6% of the industries respectively). When they select new employees, they do not place a high value on their applicants' scholastic marks in college, but rather recruit them in their own way. Interview tests emphasized on "vitality (89.3%)", "teamwork (66.6%)", "busin esslike (65.0%)", "sense of responsibility (63.9%)", rather than "professional knowledge (35.0 %)" which is related with scholastic marks.

Among the industries adopting written tests, the content of examination consisted of "general knowledge (72.8%)", "written essay (65.4%)", followed by "foreign language (46.1%)", and "specialized knowledge (36.1%)". This probably means that Japanese industries prefer students with "general knowledge" and "vitality" to people with "specialized knowledge". In other words, what industries expect of new employees is not specialization in their major field, but their educability or potential ability. This tendency seems to be consistent with students' above described changing motivation.

Generally little relevance can be formed between speciality in university education and their present jobs among the graduates of social science and humanities. Also in the field of science and technological higher education, it seems that technical capabilities in a specified field in universities are not necessarily relevant to their professional activities as a specialist. As the survey<sup>1)</sup> (1377 samples) on the evaluation of the effects of scientific and technical higher education showed, 61.5% of graduates in the field of science and engineering (1963-73) answered that there was no relevance between their technical capabilities obtained during their

university education and their present professional activities. And the ratio of obsolescence of their capabilities acquired in universities was estimated at 34% in 3-10 years after their graduation.

The survey pointed out that many scientists and engineers were unable to cope with the rapid change of science and technology. This is the reason why Japanese industries put emphasis on company-based training, which is seen one of the fundamental characteristics of the Japanese employment structure. On-the-job-training within industry is also considered to have relations with the Japanese traditional way of employment like "recruitment of new graduates" and "life-long employment". These features of employment ensure returns from the investment of the on-the-job-training.

#### **IV. Future Prospects of Japanese Higher Education**

During the 1970s a series of important reforms and innovations has been introduced in the field of Japanese higher education. All of them were based on the Basic Guidelines for the Reform of Education which was published in 1971 by the Central Council for Education, an advisory organ to the Ministry of Education, Science and Culture. To elaborate the principles of the Basic Guidelines, the Planning Committee on Higher Education was established in 1972 for the first time since World War II.

The Committee formulated the First Five Year Plan (1976-1980) entitled "Systematic Planning and Administration of Higher Education" in March 1976. In the Plan, quantitative expansion in higher education should as a rule be restricted and efforts should be directed toward qualitative improvement, on the assumption that the 18 year-old population will remain at the same level during that period. Accordingly in the metropolitan area, the establishment of new institutions and an increase of students were not permitted, and growth should be limited to those sectors where it would help to rectify regional differences in quality and correct imbalance in field speciality. Secondly, reorganization of the higher educational structure should be envisaged in order to widen the spectrum of post-secondary education and to encourage flexibility.

However, as mentioned above, in this first five years new attitudes and expectations of students and industry became apparent. To cope with these changing situations the Second Six Year Plan (1981-86) has been formed. Generally in the Plan emphasis has been placed on qualitative improvement rather than on quantitative expansion. Continuing the policies of the First Five Year Plan, it also limits the establishment and increase of facilities within metropolitan areas, and encourages an increased capacity in local areas, as well as promoting a better balance in terms of fields of speciality. Furthermore the Plan urges the promotion of greater structural diversification and flexible management in higher education as follows;<sup>2)</sup>

- 1) to provide for credit exchange among universities.
- 2) to further university extension courses.
- 3) to revise entrance requirement and student selection method.
- 4) to revise recruitment methods of foreign teachers in order to internationalize Japanese higher education.

- 5) to inaugurate the University of the Air at an early date.
- 6) to improve course content and teaching methods in doctoral programs.
- 7) to facilitate the transfer of junior college graduates into universities.
- 8) to reorganize departments and junior colleges courses in line with various local needs such as vocational and professional training and higher education for women.
- 9) to improve the content and method of evening and correspondence courses of colleges and universities.

Finally, the Plan pointed out that the conditions surrounding higher education are very severe and flux. As mentioned in the introduction of this paper, the government is buckling down to the difficult task of "administrative and financial reform". It can be seen that this policy will result in reducing expenditures seen by a minus-based budgeting for the 1984 fiscal year. It should be said that we are challenged to pursue innovations in higher education in the time of financial difficulty. \*

#### Note

- 1) K. Arai, Research on Higher Education of Scientists and Engineers, *Research in Higher Education*, Vol. 5, 1977, pp. 23-44.
- 2) Ministry of Education, Science and Culture, *The Systematic Planning and Administration of Higher Education in Japan*, 1981, pp. 22-24.