U.S.–Japan Study Aim Is Education Reform

In search of improvements at home, each country looks for lessons in the experience of the other

AMERICAN and Japanese experts have recently completed reciprocal studies of each other's educational systems. The cooperative effort was carried out under government auspices in the cause of educational reform.

On the American side it is now widely accepted that Japanese education has been an important element in that country's current success in the world economy. In the U.S. report,* which was written for the Department of Education, Japan is characterized as a "learning society of formidable dimensions." The Japanese seem less impressed by American education, but are intent on finding ways to improve education to assure the future.

The Japanese are far from complacent about their system. Excessive centralization and a lack of diversity are regarded as serious shortcomings in Japanese schools, and problems with discipline and bullying among students in secondary education are causing increasing concern.

Dissatisfaction with the quality of higher education is even more pronounced. The quality of undergraduate education is affected by the low priority universities give the general education courses that dominate the first 2 years. The report notes that "As a result, the first 2 years have become a relaxing period during which students frequently cut classes, devote much of their time to clubs and other pleasurable activities that they had to forego during the grueling period in upper secondary school when they were preparing for university admission. Graduate education and research are underdeveloped in Japan compared with the United States in part because a rigid "chair" system modeled on the European tradition is still influential but also because job prospects for students with graduate degrees remain limited."

As the new U.S. report describes the Japanese discontent with higher education, "The current reform interest differs from that in earlier periods in that it has not been precipitated by a major breakdown in the system or by strong demand from the private sector for improvement. Rather, the current impetus stems from a growing sense that higher education is neither responding to new national needs in a changing world nor to the changing concerns of Japanese youth."

On the reform effort itself, the report observes, "The reform movement has developed considerable momentum over the past few years and education reform is now a major national issue. Political and business leaders believe that Japan is moving into a complex stage of economic and technological development that will require greater individual imagination, creativity, and sensitivity to international dimensions. Hence, current and future generations of youth must be prepared appropriately. Many Japanese also believe that education has been partly to blame for some deterioration in the nation's social fabric in the 1970s and 1980s."

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There is even some disquiet about the slight slippage in the performance of Japanese students in the 1981–82 Second International Survey of Mathematics Achievement. Japanese 13-year-olds again placed first or second in almost every category of mathematics skill tested, but their scores were lower than those achieved by their predecessors in the first test in 1964.

To explain the seriousness with which the Japanese regard reform, the report notes that education in Japan has been used successfully in the past century in transforming an isolated society into a major industrial power and, after World War II, into a leading technological economy.

Japanese education was heavily influenced by the U.S. system in its postwar reconstruction, but it is clear that the Japanese made fundamental adaptations to fit Japanese attitudes and social values. It has become commonplace to characterize the spirit of the two educational systems as fostering individualism in the American case and conformity in the Japanese. Certainly, the emphasis in Japanese society on harmony and order is strongly reinforced in the schools. But, as the U.S. report indicates, there are balances in the Japanese system that blunt the contrast.

It is true that Japanese elementary and secondary education differs from the American in being highly centralized in the sense that curriculum is set by the Ministry of Education and all schools cover essentially the same material at the same pace. Furthermore, an assumption that all students have the capacity to master a challenging academic curriculum means that there is little of the grouping by ability or special programs familiar in U.S. schools.

At the same time, proliferation of so-called *juku*, private tutorial schools which students attend after regular school hours, provide them with the opportunity to catch up if they fall behind academically and thus the *juku* support the egalitarianism and uniformity of the mainstream schools.

What may surprise American readers, in fact, is the degree to which Japanese education is a mixed public-private system. The compulsory 9 years of schooling is provided largely in public schools financed by national, prefectural, and local governments. But increasing numbers of students attend private secondary schools and even those who attend public high schools pay tuition. And a network of sophisticated private cram schools, *yobiko*, which prepare students for the crucial university entrance exams, are an integral part of the current system.

The report interprets this investment by Japanese families as evidence of a broad commitment to education by parents and children and of a willingness to accept a harsh competitive system in which performance on examinations determines admission to selective high schools, university placement, and, ultimately, career prospects.

As a comparative study, the new report is heavy on descriptions of educational organization and on educational statistics. As such, it provides interesting information on a system very different from the American one, but a fairly limited number of direct comparisons with American equivalents are made.

School teachers in Japan, on balance, seem to fare better in pay and social status than their American counterparts. Figures for 1983–84 indicated that average teachers' income in Japan gave them purchasing power roughly equivalent to American teachers. Long service, however, brings proportion-

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ately greater rewards in pay and assignments than in the United States. The teaching profession in Japan, in fact, is governed by the rule of seniority and the idea of merit pay or promotion is thoroughly alien. Salary ratios of teachers to other professionals and to production workers are more favorable in Japan than in the United States, according to the report.

If the social and economic status of Japanese teachers is higher, more is required of them. Schools in Japan operate 5½ days a week and the school year is longer than in the United States—some 210 days of instruction are required there compared to an average of 180 here. Japanese teachers are employed on a full-year basis. Japanese schools do not have the corps of specialist teachers and support staff found in U.S. schools and Japanese teachers are expected to handle a variety of supervisory and guidance functions that American teachers generally are not. Competition for teaching jobs is stiff. The report notes that prefectural schools have five applicants for each position.

About 41% of Japanese secondary school graduates go on to postsecondary education, with 29% of the total enrolling in 4-year undergraduate programs and junior college programs. The others attend special training colleges of various kinds. In the United States, about 55% of high school graduates proceed to study in 4-year or 2-year institutions.

About 37% of students in Japanese postsecondary education are women and only 40% of the women are in universities. In the United States, women now make up more than half the total of students in higher education and are fairly evenly represented in universities and other institutions. In Japan, employment opportunities for women in the professions, business, and industry remain limited; women are expected to marry and assume traditional domestic roles.

The underdevelopment of graduate education in Japan is indicated by the fact that enrollment at the graduate level is only 3% of total enrollment in universities and junior colleges. In the United States the corresponding figure is 11%. According to the report, "The major reason for the traditional resistance of Japanese students to graduate study has been the limited prospects for suitable employment upon completion of graduate work. Apart from the academic sector, relatively few jobs are available in the research laboratories of government institutes and large corporations. These positions are primarily for master's level graduates in engineering and basic sciences." Demand at the doctoral level is even lower. The report notes that firms that conduct research prefer to train their own researchers.

Although the report says that pressures for increased government support of research in universities are increasing, there has been no significant rise in actual funding in recent years. The report says that in 1983 about $500 million in such funds were available, about a tenth of the amount in the United States. Research cooperation between universities and industry has also been slow to develop in Japan.

On the other hand, linkages between universities and government and industry employers are extremely close, particularly in the case of the most prestigious on both sides. The education system, with its Darwinian examinations, is seen as continuing to provide recruits with the demonstrated intelligence and work ethic prized in the elite.

Now under growing pressure, however, is the system under which a relatively few students from a particular socioeconomic group have had access to a small number of public schools that practically guaranteed admission to the prestigious national universities, thus gaining a decisive advantage in the competition for the best jobs. The rapid growth of the private sector in education, from preschool education to the strong private universities, represents a direct challenge to the system.

The seriousness of intentions in pursuing comprehensive reform are indicated by the government's formation of a National Council on Educational Reform with the clear implication that major changes will be made.

The Japanese report on educational reform in the United States has been completed but is not yet available here. The Japanese are not expected to find much to emulate in U.S. education. Indications from the start were that Japanese experts found the cultural differences too great and would treat American examples as a "reference tool."

The American report itself offers no recommendations on what might be profitably adopted from the Japanese, but an "epilogue" to the report has been added by Secretary of Education William J. Bennett titled "Implications for American Education."

Bennett, who often takes controversial positions, in this case occupies a middle ground. He says that Americans should "seek to distill lessons for ourselves from the experience of Japanese education," but warns against trying "to mimic specific practices or imitate particular arrangements." Bennett particularly admires Japan's success in achieving both equality and excellence in education and he offers a dozen "principles" he finds in Japanese education that are compatible with American values. Many of these accord with his own personal prescriptions for educational improvement—greater parental involvement in education, creation of conditions that will produce a highly competent corps of teachers, and a stronger effort by schools to instill values and encourage ethical behavior are examples. But Bennett will probably get few arguments to his assertion that the main practical reason why American reformers should take the Japanese experience seriously is that "Japanese education works." ■ JOHN WALSH

NASA Announces a Plan to Reform Management Practices

On 9 January, as part of its continuing self-assessment in the wake of the Challenger accident, the National Aeronautics and Space Administration (NASA) announced a broad new plan to strengthen its management practices.

The plan was developed as a response to the report of the NASA Management Study Group, a 16-member panel that was convened last year under the auspices of the National Academy of Public Administration at the request of NASA Administrator James C. Fletcher. "NASA is fundamentally a sound institution," says panel chairman General Sam C. Phillips, former director of the Apollo program. Indeed, he says, many of the recommended steps have already been taken. Nonetheless, a number of issues need special attention. For example:

■ *Establish strong headquarters program direction for each major NASA program, with clear assignments of responsibilities to the NASA center involved.* Many observers saw this recommendation as an implicit criticism of the often bitter power struggles among Johnson, Marshall, Goddard, and other NASA field centers. Not only have center directors sometimes seemed to set policy like the heads of autonomous agencies, but NASA headquarters has often been led to keep the peace by dividing responsibility for high-profile programs such as the space shuttle, or the Hubble Space Telescope, in a way that suggests intra-agency pork-barrel-