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ABSTRACT

Based on 2 years of research, this comprehensive report of education in Japan is matched by a simultaneously-released counterpart Japanese study of education in the United States. Impressive accomplishments of the Japanese system are described. For example, nearly everyone completes a rigorous core curriculum during 9 compulsory years of schooling, about 90 percent of the students graduate from high school, academic achievement tends to be high, and schools contribute substantially to national economic strength. Reasons for Japanese successes include: clear purposes rooted deeply in the culture, well-defined and challenging curricula, well-ordered learning environments, high expectations for student achievement, strong motivation and effective study habits of students, extensive family involvement in the mission of schools, and high status of teachers. Problems and criticisms are noted, including inattention to variations in students' abilities and needs, rigidity and uniformity of the system, and insufficient concern for development of creative and independent thinking. Current education reform efforts are described. Implications of this report for U.S. education are discussed in a special Epilogue by U.S. Secretary of Education, William J. Bennett, who endorses several qualities of the Japanese system, such as high standards for all students, cultural literacy developed through the school curriculum, and strong parental involvement in the education of their children. A glossary and appendix containing statistical data, a bibliography, a list of papers commissioned for the United States Study of Education in Japan, basic references, brief facts about Japan, and a map of Japan conclude the document. Appended are the U.S. Press Release (dated January 3, 1987) announcing release of the report and the matching Japanese statement announcing release of the counterpart Japanese report entitled "Educational Reform in the United States." (JP)

日本教育の現状

Japanese

Some Highlights of this Report

Japanese education

- Japanese society is education-minded to an extraordinary degree: success in formal education is considered largely synonymous with success in life and is, for most students, almost the only path to social and economic status.
- Formidable education accomplishments result from the collective efforts of parents, students, and teachers; these efforts are undergirded by the historical and cultural heritage, a close relationship between employers and education, and much informal and supplementary education at preschool, elementary, and secondary levels.
- During 9 years of compulsory schooling, all children receive a high quality, well-balanced basic education in the 3 R's, science, music, and art.
- Both the average level of student achievement and the student retention rate through high school graduation are very high.
- Japanese education also distinguishes itself in motivating students to succeed in school, teaching effective study habits, using instructional time productively, maintaining an effective learning environment, sustaining serious attention to character development, and providing effective employment services for secondary school graduates.
- Japanese education is not perfect. Problems include rigidity, excessive uniformity, and lack of choice; individual needs and differences that receive little attention in school; and signs of student alienation. A related problem in employment is overemphasis on the formal education background of individuals.

Education reform in Japan

- Japan is concerned about its education system and is making extensive efforts to improve it. The reform movement includes vigorous public debate between proponents of change and defenders of the status quo.
- Reformers take a farsighted view of the national interest: they are coming to terms with societal needs in the 21st century while grappling with such complex issues as finding a new balance between group harmony and individual creativity in Japanese education.

Implications for American education

Some American education ideals may be better realized in Japan than in the United States. A close look at Japanese education provides a potent stimulus for Americans to reexamine the standards, performance, and potential of their own system. Some lessons worth considering:

- The value of parental involvement from the preschool years on;
- The necessity of clear purpose, strong motivation, and high standards, and of focusing resources on education priorities;
- The importance of maximizing learning time and making effective use thereof;
- The value of a competent and committed professional teaching force; and
- The centrality of holding high expectations for all children and a firm commitment to developing a strong work ethic and good study habits—recognizing that hard work and perseverance are essential elements in a good education.

A report from the

U.S. Study of Education in Japan

prepared by a special task force
of the OERI Japan Study Team:

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Robert L. August, *Senior Researcher*
Betty George, *Consultant*
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with contributions by Nobuo Shimahara,
William K. Cummings and Nevzer G. Stacey

and with an epilogue

Implications for American Education

by

William J. Bennett, Secretary of Education

Chester E. Finn, Jr.
Assistant Secretary and Counselor
to the Secretary

January 1987

Editor: Cynthia Hearn Dorfman

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Foreword

When President Reagan and Prime Minister Nakasone met in 1983, one result of their discussions was an agreement that a cooperative undertaking by Japan and the United States to study education in each other's country would be worthwhile. This was a timely conclusion because both countries were, and remain, engaged in serious efforts to improve their education systems. In the course of these endeavors, it was thought, the United States and Japan might each benefit from the experience of the other. That was the spirit that gave rise to the idea and that has continued to guide both efforts.

By mutual agreement, the two studies have been conducted under the general sponsorship of the United States-Japan Conference on Cultural and Educational Interchange (CULCON), a continuing, high level forum of government and private sector leaders to foster cooperation in education, culture, and public affairs. The U.S. CULCON chairman is Dr. W. Glenn Campbell, Director of the Hoover Institution at Stanford University. Dr. C. Ronald Kimberling, Assistant Secretary for Postsecondary Education, is the Department of Education's representative on both the U.S. CULCON panel and the Japan-United States Friendship Commission. Dr. Kimberling and I co-chair the CULCON Education Subcommittee, under whose direct auspices this study has been conducted.

The Japanese Ministry of Education, Science, and Culture *(Monbusho)* has assumed responsibility for carrying out Japan's study of American education. The U.S. Department of Education has been responsible for this examination of Japanese education. Each has been free to develop its own agenda and fashion a suitable approach. Both inquiries began in October 1984. Each side facilitated the work of the other as requested, particularly during trans-Pacific research visits. The Department of Education herewith expresses its deep appreciation to Monbusho, in general, and to Mr. Isao Amagi, leader of the Japanese team, in particular, for the fine cooperation provided to the U.S. team.

Within the Department of Education, the Office of Educational Research and Improvement (OERI) has been the unit responsible for conducting the study and preparing this report. OERI provided a team of researchers and also underwrote research on international comparisons in mathematics and science achievement that would contribute to the study.

Of special note is the valuable assistance that has been provided by the Japan-U.S. Friendship Commission, an independent Federal agency. The Commission contributed funds for out-of-pocket research costs, thereby making possible 18 commissioned papers, necessary planning and consultant conferences, advisory committee meetings, research travel by the study staff to Japan, and the initial printing of this report.

When the study needed a boost in early 1986, I turned to the Department of Education's senior career professional in international matters, Robert Leestma, to lead this important research undertaking to a satisfactory conclusion. Among other things, Dr. Leestma is a former chairman of the Education Committee of the 24-nation Organization for Economic Cooperation and Development and was a co-founder with Mr. Amagi a decade ago of the CULCON Education Subcommittee. Dr. Leestma and the special task force he assembled to prepare this report forged vigorously ahead, and this small band of able scholars produced the solid result you now hold. We are pleased to acknowledge the major professional contribution of the principal authors by their names on the title page.

There were important contributions by others as well. The chapter on the teaching profession is essentially the work of Dr. Nobuo Shimahara, that on higher education is primarily a contribution by Dr. William K. Cummings, and the chapter dealing with education and employment is based on an initial draft by Ms. Nevzer G. Stacey. Essential support service was provided by Ms. Charlene Medley. Special assistance was also rendered by Tetsuo Okada, Carol Foley, and Daniel Antonoplos. The full OERI Japan Study team is listed at the end of this report. I thank them all.

The team did not work alone. It benefited from the counsel of the U.S. CULCON Education Subcommittee, especially augmented for the study by additional leaders concerned with education in Japan and the United States. The members are named on the inside back cover. I am pleased and grateful to acknowledge their valuable contributions. I extend my special thanks to Professor Herbert Passin for his extensive review of the first draft and to Professor Herbert Walberg for his assistance throughout the study.

The task force also had the benefit of research papers by American and Japanese scholars that were prepared for this study. A complete list of these is included in the appendix; their texts will all be made available through the ERIC system.

At the manuscript review stage, in addition to helpful critiques from members of the Advisory Committee and constructive suggestions from Monbusho on one or another draft, the report also benefited from review by other scholars, particularly Professors Chalmers Johnson of the University of California, Berkeley; Robert J. Smith, Cornell University; John W. Hall, Yale University; John Singleton, University of Pittsburgh; Edward R. Beauchamp, University of Hawaii; Philip G. Altbach, State University of New York, Buffalo; and, especially, William K. Cummings, National Science Foundation and Harvard University. On behalf of the entire team, I thank them all.

Gratitude is also due to Jim Bencivenga, Suellen Mauchamer, Cynthia Dorfman, Phil Carr, and others in OERI's Information Services for special dedication in bringing this report into print on an exceedingly tight time schedule.

In addition to this general report, a volume of scholarly papers will be forthcoming later in 1987. Edited by Robert Leestma and Herbert Walberg, the second book will set forth some further background information and findings of this substantial study effort.

As readers will see, we have taken this special research opportunity seriously. We have tried to view Japanese education broadly and in some depth, to understand it in its cultural context, and to see the relationship of the parts to the whole. We wanted to find out how Japanese education works and why. Within reasonable limits, I believe the task force has succeeded. American education stands to benefit. Secretary Bennett's insightful epilogue suggests how.

In reading this report, the reader should bear in mind that schools in Japan are not carbon copies of one another. There is considerable variation among institutions at the same level or in the same category, albeit less so than in the United States. A similar statement can be made about teachers. But our quest was for the "norm" in Japanese education. Thus, this report is concerned with typical institutions, situations, and procedures; it does not deal with nuances, special cases, unusual variations, or minority problems. Read it to understand what is commonplace within Japanese education, not what is extraordinary.

Further, while the project was not designed initially in comparative terms, the task force has woven in some data on the United States where it seemed useful in providing perspective on the Japanese experience.

To ease the path for the general reader, we placed nearly all of the tables in the appendix. Those who want to peruse the details will find much helpful data in the tables. And finally, where conversion of yen to dollars is concerned, unless otherwise specified we used a rate of 160 yen to the dollar, the prevailing rate at the time the manuscript went to press.

This is an interesting report, and I believe others will find it as informative and helpful as I have. Speaking as one who has been involved in education reform efforts in the United States, I have garnered from this report a clearer understanding of the challenges facing Japanese educators and reformers as 1987 dawns. This, in turn, helps me to understand more clearly some of the risks and opportunities facing American education. And that, after all, is one of the reasons we undertook the project in the first place.

Chester E. Finn, Jr.
Assistant Secretary and Counselor to the Secretary

Japanese Education Today

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Introduction

It is no secret anymore that Japan has achieved world status in education. Indeed, some of Japan's contemporary accomplishments in education—as in economic development—are literally in a class by themselves.

Japanese education provides all children with a high quality, well-balanced basic education in the 3-R's, science, music, and art through 9 years of compulsory schooling. The average level of student achievement is high by international standards. So is the retention rate: virtually everyone completes the 9 compulsory years and almost 90 percent of the students graduate from high school. Japan has also succeeded in:

- Motivating students to learn and teaching them effective study habits;
- Creating and maintaining a productive learning environment, which includes effective school discipline;
- Using time productively for educational purposes in and out of school;
- Sustaining attention to developing character and desirable attitudes and behavior (according to Japanese norms) throughout the elementary and secondary years;
- Developing a professional teaching force that is competent and committed, well respected and well remunerated; and
- Providing effective employment services for secondary school leavers and graduates.

These accomplishments result from several interwoven factors, including:

- A preschool experience (much of it parent financed) for more than 90 percent of children;
- An effective public school system, particularly during the compulsory attendance period, supplemented at elementary and secondary levels by
- An informal, but symbiotic set of private (parent financed) education programs responsive to the needs of individual students.

All of the foregoing are undergirded by strong parental commitment to and sustained support for the education of the child during the entire time he or she is in school. Education is reinforced at every turn by the historical and cultural heritage, community consensus, government policy, and the needs and employment practices of business, industry, and government.

Japanese education has produced multiple benefits for the nation as well as for its individual students. These benefits include a well-educated citizenry which strengthens national democracy; an adaptable work force capable of high productivity in a competitive world economy; the opportunity for individual social and economic mobility; and an improved general quality of life.

Despite these achievements, the system is not perfect. The Japanese know better than most foreign observers that there are significant costs as well as benefits associated with the choices they have made and the results achieved. Some difficulties appear before the end of elementary school and are compounded in secondary education. Higher education is in many respects the weakest part of the entire system even though, paradoxically, it continues to exert a commanding influence on the elementary and secondary levels that feed it. The problems are widely acknowledged in Japan and are currently the subject of concerned scrutiny in and out of government.

In trying to understand how the Japanese accomplish what they do in education, how and why the system works, and some of its dynamics, one finds that more than the school system is involved. The home environment for the student, home-school relations, unofficial education programs outside the school (particularly the *juku*), the relationship between industry and education, especially at the postsecondary level—all have to be taken into account along with history and culture.

For Westerners, Japanese education is fascinating and complex. Its achievements appear to be as much a product of the nation's unique historical and cultural foundations and parental commitment as of pedagogical policies and practices. Indeed, several specific factors that contribute to educational achievement may not be readily exportable, so tied are they to the Japanese context.

While this report devotes some attention to problems and to the current reform movement that aims to solve them, it focuses primarily on understanding Japanese education—formal and informal—in its cultural context. The goal is to present enough information in sufficient perspective that Japanese education can speak for itself. Japanese terms are introduced where useful, and a glossary is included.

The report also sketches—primarily in Secretary Bennett's epilogue—some possible implications for improving American education. These points are not prescriptive. They are intended to stimulate the reader to examine the doctrines, values, performance, and potential of American education in a light refracted through the prism of Japanese experience. In the United States, it is up to those directly responsible for education—state, local and private authorities and individual citizens—to draw their own conclusions about the relevance of Japanese experience to their own situations.

The Context

In Japan, as in most countries, education is best understood in its historical and cultural context. Indeed, sometimes education cannot be meaningfully separated from its social foundations. This is particularly true for Japan, both because much of the nation's history and culture is not widely known in the United States and Western Europe and because enduring cultural values strongly affect so much of contemporary Japanese education. While justice cannot be done to Japanese education's rich historical and cultural background in brief summary, some basic context is essential for understanding Japanese education today.

Historical Background

Not all of Japanese education is homegrown. Japan is unusual in its long record of interest and initiative in learning from other countries. Most modern nations, including the United States, have been the beneficiaries of education ideas from other countries, but Japan has been more active in deliberately seeking ideas from abroad to help solve its education problems as it perceives them and less self-conscious in adapting those which seem useful.

While contemporary Japanese education has been widely praised, especially because of outstanding results demonstrated in international comparative studies of school achievement in science and mathematics, it is not well known that Japan's record of distinction in education has roots that go back over a hundred years. Indeed, in some important respects education in Japan today is heir to a legacy of ideas whose origins long predate the century of modern Japanese history.

Premodern times

Chinese civilization was particularly influential in the formation of Japan's culture, and Chinese philosophical and literary influences have remained strong throughout Japanese history. Along with Buddhism, which came to Japan in the sixth century A.D., came the Chinese system of writing and its literary tradition. So, too, came Confucianism, its respect for learning, the Confucian classics, and its philosophical traditions. Among other things, the Confucian heritage emphasized respectful and benevolent hierarchical relationships, harmonious social relations, and morality. Chinese ideas and systems were modified to suit Japanese circumstances and ideals, and were interwoven with Japanese philosophical and literary traditions.

As the European nations began to expand their empires to Asia, Japan experienced an intense period of contact with the Western world from 1540 to 1640. Japan's traditional focus on the Asian continent was broadened to include commerce with Portugal, Spain, the Netherlands, and England, the great seafaring trade and colonial powers of the age. Concurrently, Japan was in the final throes of a period of civil wars, and the Japanese were quick to acquire and exploit Western weapons and other new technology for internal purposes. Jesuit missionaries, who arrived with the Portuguese traders, were active printers.[1] Besides religious materials, they also published Japanese dictionaries, grammars, and textbooks for use in church schools and helped the Japanese add European scripts to their printing capability Some Japanese travelled to Europe in this era. There was even a noteworthy mission to the Vatican.[2]

In 1603, after unifying the country, the Tokugawa family established a government headed by the *shogun* (military ruler). Four decades later, to consolidate power further, the shogun banned Christianity, prohibited virtually all foreign trade and contact, and closed Japan to the outside world. The nation then entered a period of isolation and relative domestic tranquility which was to last for 200 years.

Education was very important for the warrior samurai, the most powerful class in Japanese feudal society. The samurai functioned as government administrators during this period. The curriculum for the samurai was based on both military and literary studies. The literature was primarily Confucian classics, large portions of which were memorized and recited. Study of the martial arts consisted of swordsmanship and military tactics.

Commoner education was generally more practically oriented. It centered around providing basic training in reading, writing, and arithmetic, emphasizing the use of the abacus and calligraphy. Much of this education was conducted in so-called temple schools *(terakoya)*. It is estimated that by the end of the Tokugawa period there may have been more than 14,000 such schools in Japan.[3] They were often one-room private schools, usually with one teacher and a group of students of mixed ages and abilities. Teaching techniques included reading from various textbooks, as well as memorizing and repeatedly copying Chinese characters and Japanese script.

From the 1790's on, Japan began once again to have contacts with other nations and felt renewed foreign pressures to open her doors to the outside world. By 1853, when Commodore Matthew Perry arrived requesting that Japan establish formal diplomatic and trade relations with the United States, Japan was neither ignorant of world affairs nor inexperienced in dealing with other nations.

At the start of the Tokugawa period, reading and writing were largely the province of the priesthood and the nobility. Most of the population was illiterate. By the end of the era, however, there had been such a dramatic growth in education that the level of schooling and literacy compared favorably with that of England and France.[4] According to the best estimates, by the end of the Tokugawa period almost all of the children of the court nobility and the governing samurai had some school experience, and probably 40 to 50 percent of commoner boys and 10 to 15 percent of girls of school age received some schooling.[5] Under subsequent Meiji leadership, this foundation would facilitate Japan's rapid transition from feudal country to modern nation within a relatively short span of time.

Meiji period (1868-1912) to World War II

In 1868, after a decade of bitter internal discord, the Tokugawa government was overturned by a loose alliance of internal opponents who restored political power to the Emperor.

The new leadership rapidly set Japan on a modernization course. They began to study not only the nature of Western society, but Western education methods as well.

The Meiji leaders realized from the outset that education had a major role to play in nation building and modernization. The government consciously set out to create a public education system that would help Japan catch up to the West. Missions were sent abroad to study the education systems of leading Western countries. In due course, Western advisors were invited to Japan to help devise new approaches for Japanese education.

While the new system built atop the education base laid down in the Tokugawa period, it was quite different from the old. Public schooling was systematically introduced throughout the country. It was open to girls as well as boys and to lower as well as upper classes. The new system endeavored to tap all the nation's human resources in support of national objectives.

Ronald Anderson briefly summarizes the resulting evolution to World War II:

> The Meiji leaders...borrowed selectively from the West, leaning primarily on the United States as a model for the initial modern school system. After almost a decade of American influence, however, Confucian sources were once again consulted for educational guidance and Germany was found to be a model more congenial to their own traditions and goals. They codified a nationalist educational philosophy in 1890 in the famed Imperial Rescript on Education, which was the basis for Japan's ideology until 1945. The Imperial Rescript stressed Confucian precepts, particularly those concerning the hierarchical nature of human relations, service to the state, and the pursuit of learning and morality. Besides the exposure to an egalitarian American influence in the first decade of the Meiji period, Japan experienced a second transmission of democratic American educational influence in the so-called "liberal 1920's" when the philosophy of John Dewey and the progressive education movements became popular. Though widely accepted at normal schools and the elementary level, this approach was suppressed by the militarists when they rose to power in the late 1930's. During World War II, education was characterized by authoritarianism, indoctrination, and thought control.[6]

By the end of the war Japanese education was devastated. Students were not attending school with any regularity, if at all, and many school buildings had been destroyed. With defeat came the bankruptcy of much of prewar thought. A new wave of foreign ideas was introduced during the postwar military occupation period.

Postwar era

Occupation policymakers were determined to democratize Japan. The United States Education Mission, which arrived in 1946, believed that a complete reform of Japanese education was necessary to help achieve this objective. The Mission made a number of recommendations for major changes in the Japanese education system along American lines. Some of the resulting changes included the institution of the 6-3-3 grade structure; the revision of curriculum and textbooks, including the abolition of moral education courses (which had become highly nationalistic in the decade leading to the war); reforms in the writing system; the establishment of coeducation; the introduction of university-based teacher education; and support for equal access to higher education. There was also an attempt to transform the centralized prewar system into a decentralized system based on the American model with elected local school boards.

After the restoration of full national sovereignty in 1952, Japan immediately began to modify some of the education changes introduced during the Occupation period. These modifications more clearly reflected Japanese ideas about education and educational structure. The Ministry of Education regained a great deal of power. School boards reverted to being appointed, rather than elected. A moral education course was reinstituted in modified form, despite substantial initial concern that it would lead to a reintroduction of prewar nationalism into the schools.

By the 1960's, postwar recovery and accelerating economic growth brought increased demands on the education system. In addition, there were strong disagreements between the government and the teachers' union. This was also a period of great turbulence in higher education. All this fueled confrontation and debate about education reform. Some aspects of Japan's current reform movement can be traced back to the late 1960's.

The Japanese education system has grown rapidly since 1960. According to Morikazu Ushiogi, from 1960 to 1982 the proportion of the high school age group enrolled in high schools increased from about 58 percent to 94 percent, while the proportion of those of college age enrolled in higher education institutions increased from about 10 percent to 36 percent.[7]

Today's system still reflects the long-standing cultural and philosophical ideas that learning and education are esteemed and are to be pursued seriously, and that moral and character development remain intimately related to education. A meritocratic legacy stemming from the Meiji period endures, as does a centralized education infrastructure and an orientation toward viewing education in the service of national development as well as of personal benefit. The interest remains in investigating alternative education models abroad, as does a continuing capability to adapt foreign ideas and methods to Japanese traditions.

Some Cultural Foundations

Japanese education is a powerful instrument of cultural continuity and national policy. The explicit and implicit content of the school curriculum and the manner in which teaching and learning are accomplished impart the attitudes, knowledge, sensitivities, and skills expected of emerging citizens of Japanese society. These lessons are further reinforced in the context of family and society.

Linguistically, racially, and ethnically, Japan is a comparatively homogeneous nation with a strong sense of cultural identity and national unity. But Japanese society is not monolithic, and

there is considerable individuality. There are also finely calibrated distinctions in status based on age, gender, employment, and social and educational background.

Despite these differences, however, the Japanese prefer to define themselves in a manner which emphasizes their core of commonly held beliefs and values. While popular culture and lifestyles have undergone some dramatic changes since World War II, there remains a high degree of public consensus regarding societal values, appropriate standards of behavior, and the importance and goals of education.

Importance and purposes of education

The origins of the Japanese commitment to education lie in the Confucian and Buddhist heritage in which great respect is accorded learning and educational endeavor as means to personal and societal improvement. Today, there is a clear consensus that education is essential for both individual and national development and that it requires active, sustained commitment of energy and resources at all levels of society. Parents and children take education seriously because success in school is a crucial determinant of economic and social status in adult life. Government policymakers and business leaders view the content and quality of public education as central to national cohesion, economic development, and international relations.

To the Japanese, education has always had important goals in addition to acquisition of academic knowledge, intellectual growth, or vocational skills. Moral education and character development are also among the central concerns. There is a strong consensus that schools have the obligation and authority to impart fundamental Japanese values as the foundation of proper moral attitudes and personal habits.

Respect for society and the established order, prizing group goals above individual interests, diligence, self-criticism, and well-organized and disciplined study and work habits are all traits which are believed to be amenable to instruction. The child's learning experiences at each level from preschool through 12th grade reinforce their acquisition. Japanese teachers believe that the proper development of these values, attitudes, and habits is fundamental to success in the classroom as well as in adult life.

Harmonious relations and central role of the group

Japanese society places a high value on harmony in interpersonal relations and the ability to cooperate with others. The Japanese believe that being a member of a well-organized and tightly knit group that works hard toward common goals is a natural and pleasurable human experience. Schools reflect this cultural priority. Classroom activities are structured to encourage or require participation in group activities, to emphasize the responsibility of individual students to the class as a group and the school as a whole, and to develop group loyalty.

Particularly in elementary school, classes are organized into small groups which are the basic units of instruction, discipline, and other activities. Teachers attempt to foster group cohesion and a strong group spirit by avoiding overt recognition of differences in individual ability and minimizing one-against-one competition. Daily life in a Japanese classroom requires considerable mutual assistance and adaptation of individual views and interests to group goals and standards of behavior. The heavy emphasis on group activities and social consensus results in considerable conformity in behavior. There is a strong tradition of viewing conformity and group orientation as demonstrations of moral character.

To most Westerners, a high degree of behavioral conformity is typically associated with top-down control. However, Japanese teachers are not typically authoritarian nor is harshness a characteristic of classroom life in Japan. Instead, the cultural emphasis on harmony and hard work requires that each individual within the system be a willing contributor to the group effort. Group leadership, Japanese style, orchestrates the members' motivations and expectations so that order and discipline, both in the classroom and the larger society, are natural outgrowths of achieving a high degree of individual identification with group goals.

Hard work, diligence, and perseverance

The Japanese believe that hard work, diligence, and perseverance yield success in education as well as in other aspects of life. A certain amount of difficulty and hardship is believed to strengthen students' character and their resolve to do their best in learning and other important endeavors.

The amount of time and effort spent in study are believed to be more important than intelligence in determining educational outcomes. Most Japanese parents and educators are unshakably optimistic that virtually all children have the potential to master the challenging academic curriculum, provided they work hard and long enough. Some teachers and students are less sanguine. The educational results achieved by most Japanese students in international comparisons provide considerable support for the beliefs and expectations of the majority, particularly in light of the fact that there is no credible evidence that Japanese children have a higher level of native intelligence than, for example, American children.

A recent comparative study by Robert Hess and others provides interesting confirmation of the Japanese belief in the efficacy of effort:

> In Japan, poor performance in mathematics was attributed to lack of effort; in the United States, explanations were more evenly divided among ability, effort, and training at school. Japanese mothers were less likely to blame training at school as a cause of low achievement in mathematics...Their children generally shared this view of things.[8]

Parents and teachers encourage regular study habits from the 1st grade on. A careful, reflective approach which achieves accuracy and precision rather than speed or intuitive insight is emphasized, particularly during the early years. Repetition and memorization continue to be important in the learning process, particularly in preparation for the arduous and important high school and college entrance examinations.

Motivation

The cultural emphasis on student effort and diligence is balanced by a recognition of the important responsibility borne by teachers, parents, and schools to "awaken the desire to try." Japanese teachers do not believe that motivation is primarily a matter of luck, family background, or personality traits. They believe that the desire to learn—like character itself—is something which can be shaped by teachers and influenced through the school environment. Students are unceasingly taught and urged to "do their best," in groups and as individuals.

A major method of motivating students is the encouragement of group activities, which are believed to be more enjoyable for students than solitary endeavor. Motivation through group activity is accomplished by promoting a strong sense of shared identity and by allowing individuals opportunity to influence group goals and activities. Wearing school uniforms, rotating student monitors, and planning and staging class and school activities all contribute to the process.

Particularly at the secondary level, entrance examinations provide special motivation for study. Students know that their scores on high school and university entrance examinations will strongly influence their future life path. Parents reinforce this concern by urging their children to study hard, by providing a home environment conducive to study, and by financing extra lessons and tutorial assistance.

Legacy

Japanese history and cultural values permeate Japanese education. The heritage is reflected in the national consensus on the importance of education, its role in character development, and the willingness of both parents and children to sustain effort and sacrifice year after year to achieve success in school. It helps form the invisible foundation of the contemporary education system.

An Overview of the Formal Education System

Japan's education system today has its legal basis in the post-World War II Japanese Constitution and national laws. The 1947 Constitution provides for free compulsory education for all children "correspondent to their ability." Two laws passed in 1947, the Fundamental Law of Education and the School Education Law, provide the remainder of the basic legal foundation for the education system.

The Fundamental Law of Education clarifies the aim of education and establishes national policy on such core issues as free compulsory education, equality of opportunity, and coeducation. It sets forth the central importance of education in its opening lines:

> Having established the Constitution of Japan, we have shown our resolution to contribute to the peace of the world and welfare of humanity by building a democratic and cultural state. The realization of this ideal shall depend fundamentally on the power of education.[1]

The School Education Law provides general regulations for the operation of the system at all education levels. In addition to provisions on establishment, staffing, and operation of all types and levels of schools, the law emphasizes the importance of creating moral and capable members of society.

The structure of the official education system is summarized in figure 1. Its elementary and secondary portion is organized along the lines of the common American 6-3-3 model. The total structure includes the following types or levels of institutions:

- preschools *(yochien)* and daycare centers *(hoikuen)*,*
- 6-year elementary schools *(shogakko)*,
- 3-year lower secondary schools (sometimes called middle school, *chugakko*)—corresponding to junior high school in the United States,
- 3-year upper secondary schools (sometimes called high school, *kotogakko*)—corresponding to senior high in the United States,
- schools for the handicapped (various terms are used depending on the type of school),
- 4-year colleges and universities *(daigaku)*, many of which also have graduate programs,
- 2-year junior colleges *(tanki daigaku)*,
- technical colleges *(koto senmon gakko)* offering 5- and 5½-year technical programs, which span the upper secondary and 2-year college levels,
- special training schools *(senshu gakko)* offering vocational training at both the upper secondary and 2-year college level, and
- miscellaneous schools *(kakushu gakko)* offering practical or vocational courses. (Note: This is the most variable institutional category, embracing diverse subjects for varying lengths of time at the upper secondary or postsecondary levels.)

Japan has both public and private schools at each level of education. There are few private schools for the 9 compulsory grades, but the private sector becomes increasingly significant at the upper secondary and postsecondary levels. Public schools fall into two categories: national schools, established and funded by the national government, and local public schools, established by either the prefectural or municipal government and funded by all three levels of government.

Table 1 shows the total number of education institutions of each type by administrative category: national public, local public (prefectural and municipal), and private. Table 2 shows total enrollment by type of school and percentage distribution by administrative category. Table 3 shows enrollment by type of school and gender.

Compulsory education

Compulsory education begins at age 6 and lasts 9 years, encompassing the 6-year elementary and 3-year lower secondary school period. It is characterized by a high degree of uniformity and equality of opportunity. Curriculum standards are specified in a national Course of Study, and textbooks are government approved. Generally speaking, students throughout the country in the same grade study essentially the same material at approximately the same time and pace. Schools are similar in facilities, standards, and teaching methodology. In short, the same basic education is provided for all for the first 9 years.

During the compulsory school years Japanese education assiduously avoids making distinctions between students on the basis of ability or achievement. There are no separate tracks, ability groupings, remedial programs, or student electives. Promotion from grade to grade is virtually automatic as long as the student is attending classes. Students are almost never retained in grade or skipped ahead.

Compulsory education for blind and deaf children began in 1948. Coverage was broadened in 1979 to include other categories in special education. Students with major disabilities are educated in special schools, almost all of them public. Students with minor disabilities are educated in regular schools, either via mainstreaming or in special classes. In 1984 approximately half of the elementary schools provided special classes.

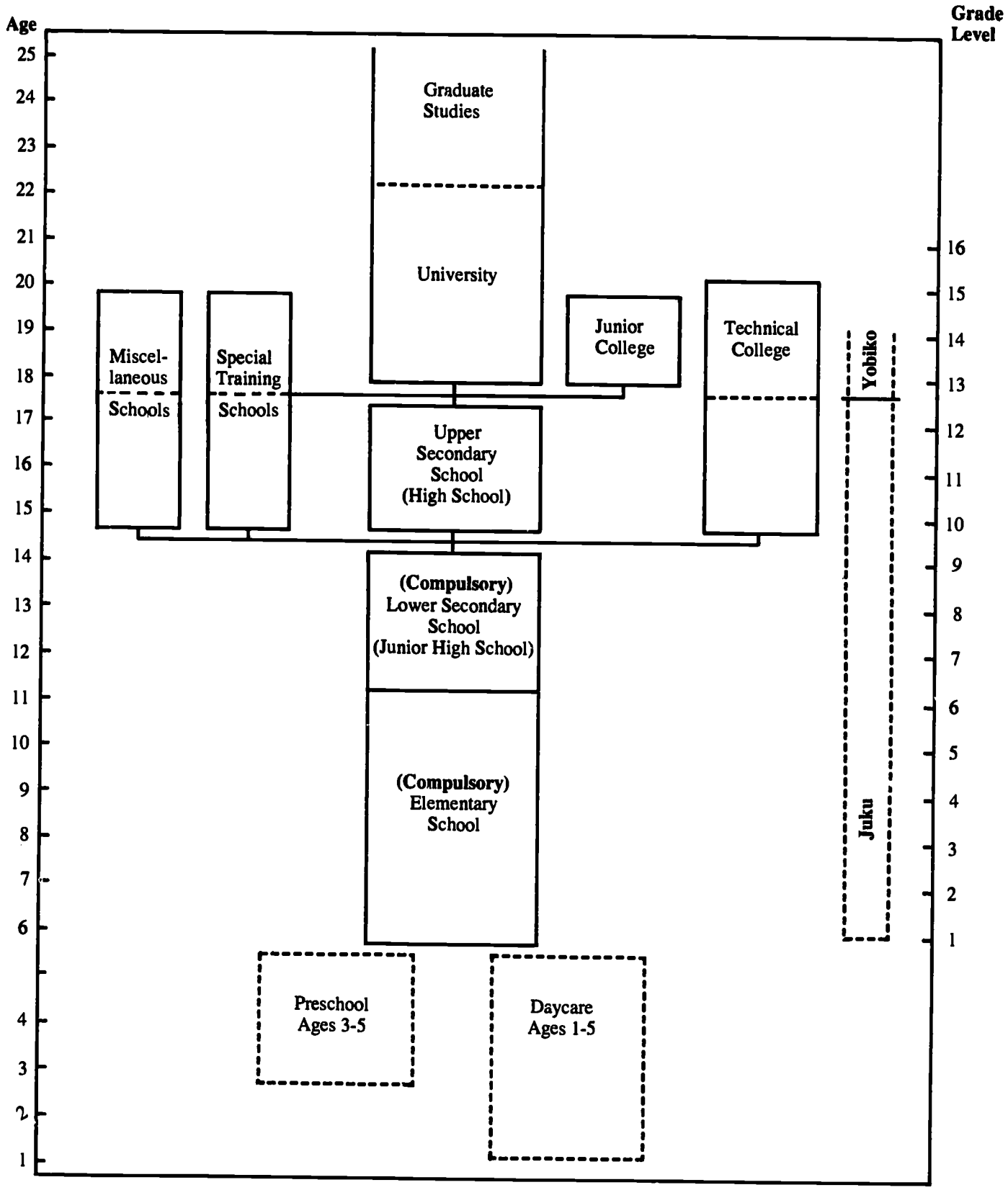
Upper secondary and higher education

Educational uniformity diminishes beyond compulsory schooling, and there is some ability grouping at the upper secondary level. There are growing costs for parents at the senior high school level and beyond and restricted enrollment opportunities in public higher education.

According to public perception, each institution at the upper secondary and higher education levels fits into a hierarchy. Which high school a student attends is determined by academic achievement confirmed by an entrance examination. University

**Yochien* are under the purview of the Ministry of Education, while *hoikuen* are the responsibility of the Ministry of Welfare.

Figure 1: Structure of the Education System



admission is determined largely by highly competitive examinations open to all applicants nationwide. These examinations are famously rigorous, and a student's performance on them has a heavy impact on future social and economic status. In order to surmount the examination hurdle, a substantial proportion of students undertake remedial education, supplementary instruction, or special examination preparation assistance in private education programs.

Enrollment and advancement rates

Student participation rates are high and dropout rates low at all stages. Practically all—over 99 percent—of the children of compulsory school age are enrolled in school. Although preelementary and upper secondary schools are neither compulsory nor free of charge, more than 90 percent of Japanese children in the respective age groups attend them. After compulsory education in the 9th grade, over 94 percent of the students go on to full-time study in one or another form of upper secondary education and another 2 percent continue part-time (table 4). The number of upper secondary school graduates in 1984 was 88 percent of the number of lower secondary graduates in 1981.[2] Over 29 percent of high school graduates enter a university (18 percent) or junior college (11 percent). Another 25 percent enter a vocational education program of one sort or another (table 5). The great majority of those who enter these programs graduate.

Governance and administration[3]

Japan has a three-tiered structure for governing and administering education with national, prefectural, and municipal components, all under the general supervision of national authority, the Ministry of Education, Science, and Culture, commonly shortened to Ministry of Education *(Monbusho)*. The relationships among the various components are summarized in figure 2.

Education policymaking at all three levels is systematized and consensual. At the national level, Monbusho draws on the advice and recommendations of 13 standing advisory councils, members of which are appointed by the minister from a broad spectrum of specialists outside the ministry. The Central Council for Education is the most powerful of the group and is concerned with fundamental policy issues. Its members are appointed by the minister with the consent of the cabinet.

The Minister of Education is appointed by the Prime Minister, who is an elected member of the Diet (the popularly elected national legislature). Seldom does an Education Minister serve for more than a year or two, since cabinet posts are frequently shifted under Japan's parliamentary system.

Monbusho is involved with the Cabinet and the Diet in developing budget estimates and drafting national legislation for education in Japan. In addition to its education responsibilities, Monbusho has overall responsibility for administering government services for science and culture, including all national museums and national art galleries and some national research institutes. The range of its functions is illustrated in figure 3.

The Ministry of Education wields a considerable measure of national authority over the entire official system of education, particularly at the elementary and secondary school levels, by:

- prescribing curricula, standards, and requirements;
- approving textbooks;
- providing guidance and financial assistance to the prefectures and municipalities;
- authorizing the establishment of colleges and universities;
- operating national education institutions, primarily universities, junior colleges and technical colleges;
- providing general supervision of private institutions of higher education;
- regulating establishment of private schools;
- investigating and issuing directives to local boards of education for corrective action, as occasion may demand.

Each of the 47 prefectures has a 5-member board of education appointed by the governor with the consent of the prefectural assembly. Prefectural boards of education are responsible for:

- appointing the prefectural superintendent of education (with the approval of Monbusho);
- operating schools established by prefectures, primarily upper secondary schools;
- licensing teachers and, with municipal recommendation, making appointments to the various municipal elementary and lower secondary schools;
- providing advice and financial assistance to municipalities on education matters.

The prefectural governor is responsible for operating prefectural postsecondary institutions and supervising the administration of private schools.

Each municipality has a 3- or 5-member municipal board of education, appointed by the mayor with the consent of the municipal assembly. These boards are responsible for:

- operating municipal public elementary and lower secondary schools in their jurisdictions;
- adopting textbooks for compulsory school use from Monbusho's approved list;
- making recommendations to the prefectural boards of education on the appointment and dismissal of teachers.

The municipal superintendent of education is selected from among the board members with the consent of the prefectural board of education.

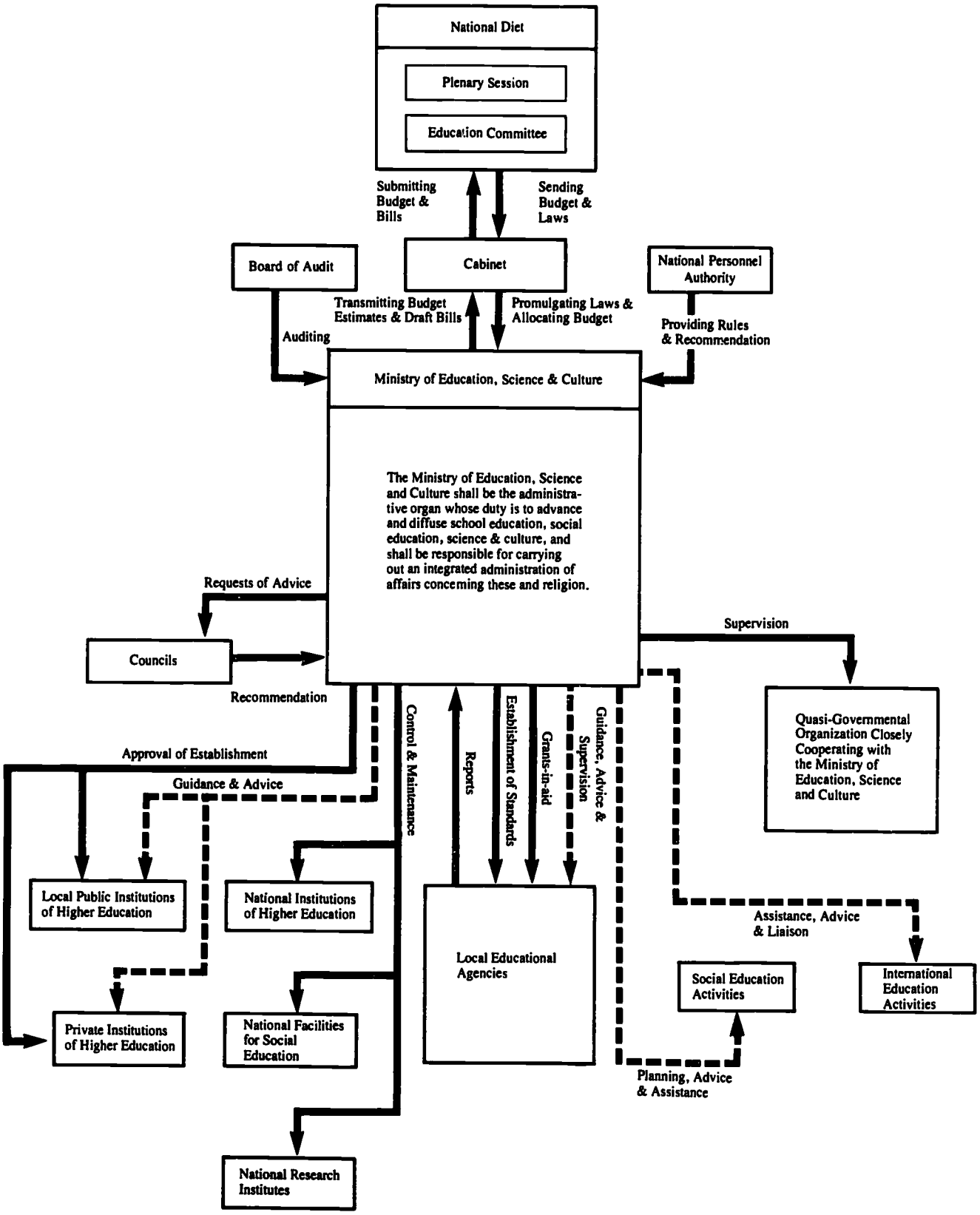
The mayor is responsible for operating municipal postsecondary institutions.

Finance

The cost of public education is shared by national, prefectural, and municipal governments, augmented at upper secondary and higher education levels by tuition from parents. Private institutions are established as nonprofit corporations which derive their income from student tuition and subsidies from national and local governments, sometimes augmented at the postsecondary level by contributions from business and industry.

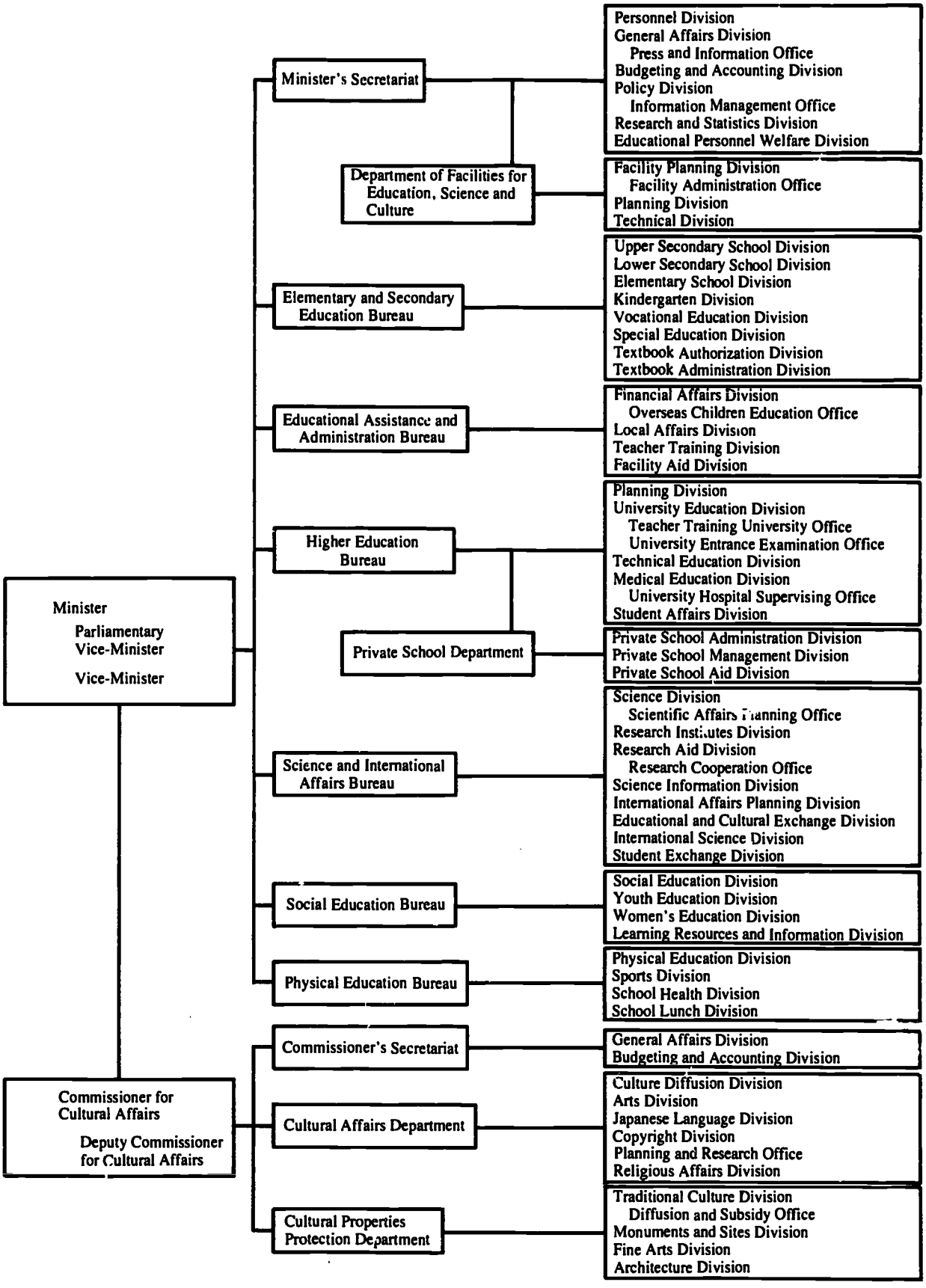
The national government provides almost half of total public

Figure 2. Operating Relationships of National Educational Agencies



Source: Ministry of Education, Science and Culture. *Education in Japan. A Graphic Presentation.* Tokyo: The Ministry, 1982. p. 31.

Figure 3. Organization of Monbusho



Source: Ministry of Education, Science, and Culture. *Education in Japan: A Brief Outline*. Tokyo: The Ministry, 1986. p. 17.

expenditures on education.[4] It funds the more than 600 "national" education institutions at all educational levels (table 1). It also provides subsidies for educational purposes to private institutions, prefectures, and municipalities. These include:

- subsidies to prefectures to cover half the cost of salaries and allowances of educational personnel at compulsory schools and schools for the handicapped;
- subsidies to prefectures and municipalities to cover half the cost of teaching equipment for public compulsory schools; and
- subsidies to prefectures and municipalities to cover one-half or one-third of the cost of construction of public elementary and secondary schools.

The national government also makes local allocation tax grants to prefectures and municipalities in order to reduce financial inequalities among them, and a portion of these grants is used for education.

Prefectural governments provide funds for prefectural education institutions and services; salaries and allowances of teachers at municipal elementary, lower secondary, and other schools; and subsidies to municipal elementary and lower secondary schools.

School year

The Japanese school year begins in early April and is organized into trimesters that run from April to July, September to December, and January to March. The principal long vacation takes place from mid-July to the end of August. There are shorter vacation periods at other times. In higher education, the academic year has two semesters.

The Japanese elementary and secondary school year is usually reported as being 240 days long, including Saturdays. This figure is somewhat misleading. Monbusho requires a minimum of 210 days of instruction, including a half day on Saturdays. Local boards can add more time at their discretion. They commonly specify 240 days. This permits 30 days for such school activities as field trips, Sports Day, cultural festivals, and graduation ceremonies. Adjusting for the half days on Saturdays, the Japanese school year contains the full-time equivalent of about 195 days of classroom instruction. The average length of the school year in the United States is 180 days, and this total usually contains some days of activities comparable to those for which the Japanese local boards add extra days.

On a cumulative basis this difference means that by the time of high school graduation, Japanese students have been in school for at least the equivalent of one American school year longer than students in the United States. The difference in time devoted to education is actually greater because of the more effective use that Japanese teachers make of time in school, the larger amount of time Japanese students spend in study outside of school, and the number of days in the American school year given over to nonacademic pursuits.

The 5½-day school week, the shorter summer vacation, and the additional time spent in study outside of school, in homework, tutoring, or *juku*, all combine to make education a continuing aspect of Japanese children's lives, somewhat analogous to a full-time job for adults.

Other dimensions of education in Japan

Japan is a learning society of formidable dimensions. The strong commitment to education and self-improvement extends beyond the official school system through a variety of institutions, programs, and opportunities. For example, there is a vast publishing industry which provides a wide range of general reading and education material for the highly literate Japanese public. The several national newspapers which report in depth on national and international affairs have a combined morning and evening daily circulation of more than 40 million.[5] High quality educational television is extensively developed and widely available. Other educational opportunities are found in diverse places, including cultural centers, department store clubs, and correspondence schools.

Of special significance for school age children are the juku—the unofficial, ubiquitous, parent-financed schools which supplement the official system. From the government point of view, the juku are not a healthy phenomenon. Yet they seem to meet important educational needs for many families.

Juku

Juku is the Japanese term for a large and diverse group of private, profitmaking tutorial, enrichment, remedial, preparatory, and cram schools found throughout the country. Most juku operate after school hours and on weekends. Juku parallel the official school system in a somewhat interdependent relationship. The Japanese scholar Kazuyuki Kitamura provides an insightful, though perhaps overstated, perspective on the relationship between juku and the regular school system:

> The dominant values of the Japanese public primary school are egalitarianism and uniformity: Pupils are not classified according to their academic ability because all pupils are supposed to keep up with the progress of the class. There they are taught by means of a nationally controlled, uniform curriculum. Despite its principles of egalitarianism and uniformity, however, the school inevitably must produce high achievers and low achievers. The school and its teachers are unable to counter these disparities because they are bound by the two mandatory principles. So...high achievers who are dissatisfied with the progress of the school class...attend a...school... where they can take more advanced classes, while...[students with learning problems can attend] another type of...school offering remedial classes. Then, thanks to the existence of these...supporting institutions, the formal school can continue to function according to the principles of egalitarianism and uniformity.[1]

The juku can be categorized into academic and nonacademic. The latter offer instruction for general enrichment purposes in a wide variety of subjects such as piano, the arts, abacus, and calligraphy. They are more extensively attended by younger children. The academic juku are the more prominent kind and assume increasing importance with each successive grade level.

Academic juku

Academic juku are a response to several realities in Japanese education:

- the need for supplementary instruction to enable many elementary and secondary students to keep pace with the demanding school curriculum,
- the need for remedial instruction to help those who have fallen behind to catch up, and
- the need for special assistance in preparing for entrance examinations for senior high schools and universities.

Academic juku offer instruction in school subjects such as mathematics, Japanese language, science, English, and social studies. They help students review and prepare for regular school lessons as well as advance to the next level through preparation for entrance examinations. Many juku provide both kinds of services as well as remedial assistance for those having difficulty with their school studies. The *yobiko* is a special category of juku which specializes in preparing high school students and graduates for university entrance examinations. It is described further in the section on upper secondary education.

Academic juku vary greatly in philosophy, ownership, physical plant, and scale of operation. There are one-room juku as well as chains, some with branches enrolling more than 1,000 students and employing a faculty of 50 or more. The major corporate chains have immense total enrollments—at least one has more than 1,000,000 students nationwide. Some juku have gained reputations as elite institutions in their own right, and some of these even have entrance examinations, although usually more for class formation than for student selection. The typical juku is operated by a private individual with one or a few teachers. The most common form is essentially a one-room, one-teacher school.

The juku enterprise today is a recent phenomenon, paralleling the expansion and development of secondary and higher education. The growth during the past two decades has been dramatic. A national survey conducted in 1976 found that 60 percent of the juku had been founded in the preceding decade. Fully 70 percent of today's juku have been founded since 1976, nearly half of them since 1981. Estimates of the current number of academic juku differ widely, but recent Japanese figures put the total at at least 35,000.

Attendance patterns

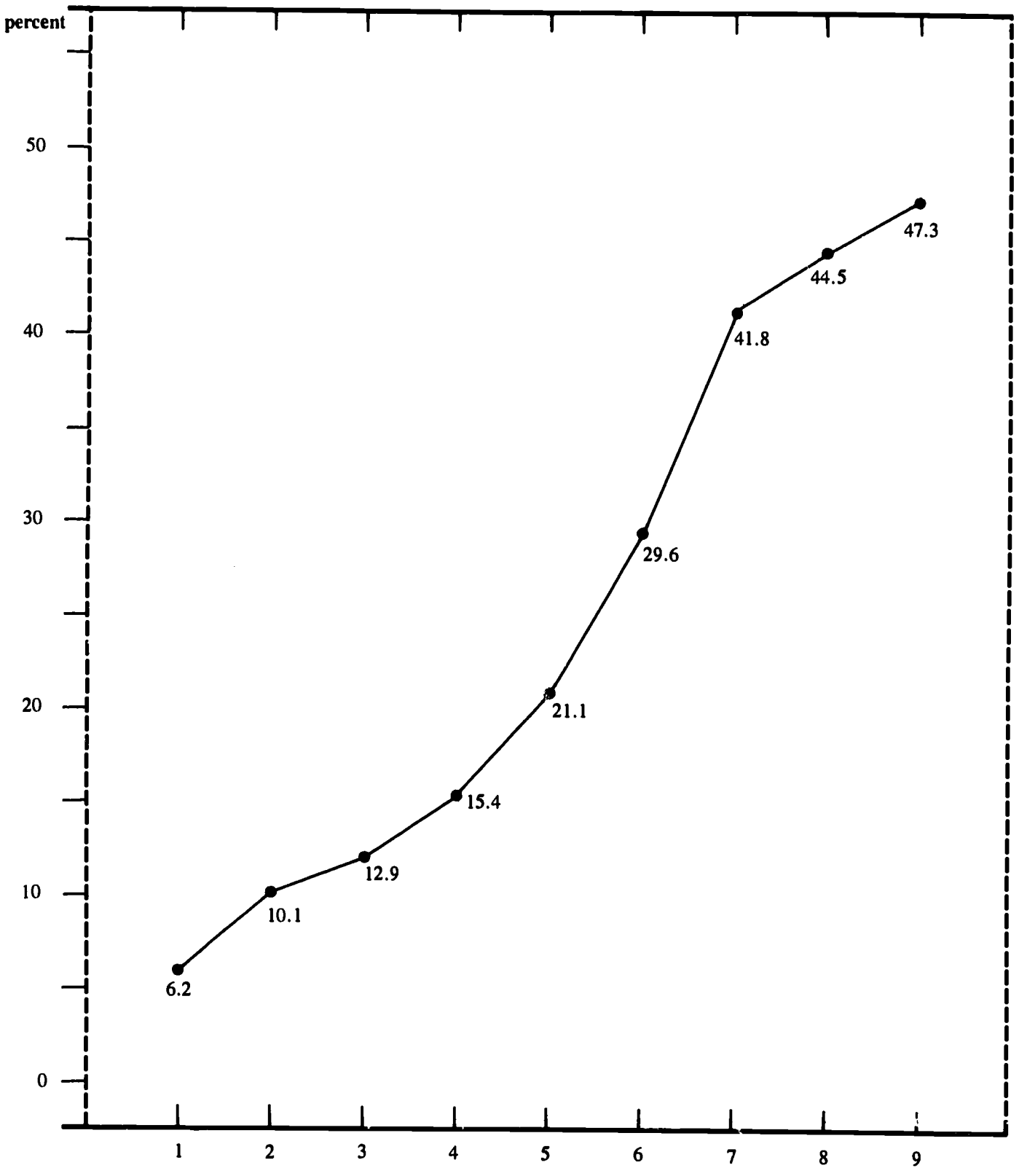
Juku attendance has risen at all grade levels in the last decade.[2] Participation rates increase with grade level throughout the entire compulsory school period. National average attendance rates rise from 6.2 percent of all children in the 1st grade of elementary school to 47.3 percent by the 3rd year of lower secondary school, with figures for large urban areas even higher. The figures for attendance by grade level are given in figure 4. Comparable detail is not available for the upper secondary years, but the overall participation rate is lower, in part because almost 30 percent of the students are now in vocational education programs and, thus, out of the university entrance marathon.

Except for 9th graders, during the compulsory school years more students are enrolled in either a "catch-up" program or one which helps students review and prepare for regular schoolwork than in one geared to examination preparation and advancement to the next higher educational level. As students advance through the higher elementary grades and into lower secondary school, there is a tendency for more students to enroll in preparatory and examination programs. By the last year of lower secondary school (9th grade), half of those enrolled are engaged in courses which help prepare them for high school entrance examinations.

Juku also perform an important social function for young people, providing opportunities for contact with peers outside their regular school context. The most common reason parents give for sending their child to juku is that the child wanted to attend. Many youngsters ask to attend because their friends or other neighborhood children do. Almost 40 percent of the children who go to juku say that one reason they like going is because they are able to make friends with other boys and girls.

Juku operators, too, often point to the opportunity children have to make new friends outside the school circle as one of the merits of attendance. Besides peer contact, many children see

Figure 4. Juku Attendance Rates by Grade Level Through Compulsory Education



Source: *Showa 60 nendo jido, seito no gakkogai gakushu katsudo ni kansuru jittai chosa sokuho* [Preliminary report on Students' Out-of-School Learning Activities 1985.] Tokyo: Monbusho, 1985.

juku as a positive experience because they are able to have more personal contact with their teachers.

In listing the education benefits of juku attendance, about half the students placed "gaining a better understanding of school work" at the top of their list. About half of all elementary and lower secondary school students report that their main reason for attending is "preparation and review" of school studies.

Teachers

Juku teaching is usually a part-time proposition, but many juku employ some full-time teachers. In many cases, it is the more senior and experienced full-time teachers who teach the critical examination preparation classes or the courses in a juku's particular specialty. A juku's faculty and reputation are strong drawing cards.

Approximately one-third of all juku teachers are university students. About 4 percent are teachers in high schools or institutions of higher education. Only 1 percent are elementary or lower secondary school teachers (a decline from 6 percent a decade ago, reflecting strong Ministry of Education admonitions to regular full-time teachers against also serving as juku instructors). About half of the remaining faculty members earned a teaching certificate during their university study, but have no teaching experience in regular schools. Some apparently prefer employment in juku. Others may have been unsuccessful in securing a regular teaching position.

Why juku flourish

Beyond meeting the three academic needs noted earlier, juku provide a socially acceptable way for parents to fulfill their educational responsibilities as the child advances to a point in schooling where they can no longer provide adequate assistance at home. At the same time, juku offer parents, particularly mothers, an opportunity for their children to receive additional educational and social benefits in a supervised environment after school hours.

Few parents wish to deny their offspring the opportunity to attend juku when the children of other parents are attending. Some parents feel they would be derelict in their duty as parents if they did not send their children to juku. This tendency reflects the values of the parents, and in many cases, the children, in wanting to participate in an activity recognized by peer groups as important.

There are reports of neighborhoods devoid of children after school because the youngsters are all in juku. Some regular school teachers complain that children no longer stay around after school because they have to go to their juku lessons. A child who does not attend may have no one to play with and may therefore ask to be sent.

To some observers, juku represent an attempt by parents to exercise and by some educators to provide meaningful measures of choice in Japanese education, particularly for children attending public schools. Some juku offer subject matter not available in the public school curriculum while others emphasize a special philosophical or ethical approach. A small number feature programs that are almost spartan in their demands, presumably appealing to parents who want their children to be exposed to the most rigorous standards of discipline and self-denial.

Most juku, however, differ from public school practice primarily in the extent of personal attention provided. Juku are not limited to standardized or lockstep instructional approaches, but may use whatever methods they believe are most effective. Many juku pride themselves on approaches which emphasize individual attention to student needs. In sharp contrast to standard public school practice, some juku even stress individual recognition as a motivational device. The free market in which juku operate provides a strong incentive for improving instructional effectiveness: better instructional performance produces more fee-paying students.

Class organization is one area where juku exploit their flexibility. Not being required to keep all students of the same grade together, they often group students by ability rather than grade level. Some juku regroup students frequently on the basis of periodic assessments of progress.

Some juku emphasize self-instruction. They may use a programmed instruction approach where the student progresses at his or her own pace. In these schools, classes typically consist of children working by themselves while sitting together in the same room.

Many juku are run by dedicated teachers who feel quite strongly that they offer a valid educational supplement to the instruction provided in public schools. Some juku might even be considered a form of experimental school run by professionals who develop original curricular materials and innovative approaches to teaching and learning.

The marketplace

The juku industry has become a big business. It has reached the 800 billion yen level annually (about 5 billion U.S. dollars) and is still growing.[3] Because of the commercial aspect of most juku, some critics have argued that they have profit rather than education at heart.

Juku operators acknowledge that their schools operate in the marketplace, but point out that they have a legitimate range of educational services to sell for which there is great demand. A sizable proportion of parents obviously believe that juku are providing services which the public schools do not provide, which the parents believe their children need, and for which they are willing to pay. Parents are free to go elsewhere if a juku is not meeting their needs or living up to its claims.

Criticisms

Since juku attendance costs money, not all students are able to obtain their services. Hence juku introduce some inequality into what is nominally an egalitarian education system. Yet while some juku are expensive, most are affordable for most families. Juku cannot afford to price themselves beyond the reach of their potential clientele. Japanese parents are very concerned about doing whatever they can for their child's education. If the rising enrollments in juku are any indication, cost is not yet a limiting factor for most parents. Juku clearly are given some priority in family budgeting.

Juku fees depend on the grade level of the student, number of courses taken, and the amount of individual instruction involved. In 1985 the average family with one elementary child attending a juku paid an estimated 2 percent of family income in juku fees. For families where children took four courses, the fees averaged about 3.5 percent of family income. For students of lower secondary school age, the costs averaged about 2.4 percent of family income. Home tutors tend to be considerably more expensive, and the number of families employing them is only a fraction of those sending their children to juku.

Some criticism has been expressed that when juku teach material in advance of the time it is taught in school there can be a disruptive and negative effect on the classroom situation. But recent studies do not substantiate this view. Rather, in some areas of mathematics, for example, students who have attended juku do better than those who have not. However, in other areas of mathematics there is little or no difference in performance between the two groups of students.[4]

Occasionally some juku, especially those oriented toward examination preparation, have engaged in deceptive advertising or made false claims concerning their ability to qualify students to pass entrance examinations. Other juku, anxious to enroll more students, have sometimes tried to steal away talented students or teachers on the theory that the presence of a particular "star" at their school would attract other students and parents. Such unethical behavior has reflected on juku overall. However, most juku reputations are gained from legitimate achievements.

Maintaining perspective

Throughout the entire elementary and secondary school span, over half the parents do not send their children to juku, some for reasons of cost, but probably more because they do not feel the need for juku. The latter group believes the schools do an adequate job and that such supplementary services and expense are unnecessary. Many of these parents also feel that children ought to have more time at home to play when young and that they, the parents, are capable of providing whatever additional assistance the children may need with their studies.

If a student is not in juku, it does not mean that he or she is necessarily at a disadvantage in school. Other avenues of assistance are available. For example, self-help literature or supplemental texts and study guides, some produced by publishing houses associated with juku, are widely available on a commercial basis. Most items are moderately priced, generally in the range of 5 to 10 U.S. dollars. There is also a complete Correspondence High School of the Air course broadcast almost daily on the Japan Broadcasting Company's educational radio and television channels. These programs are essentially free for the listening and many students do, in fact, use them to supplement their studies.

In school and juku as well as in study at home, Japanese children learn good study habits, strong self-discipline, and persistence on school achievement matters. But Japanese children do not study all the time nor do juku function solely as educational institutions. Many children enjoy their lessons and friends in juku and have further social contacts with peer groups in clubs and other activities outside of study situations. Japanese children watch television, read comic books, and enjoy pop music. But they clearly work hard on their education both in and out of school.

The Teaching Profession

Japanese teachers are an essential element in the success story. Japanese society entrusts major responsibilities to teachers and expects much from them. It confers high social status and economic rewards but also subjects teachers to constant public scrutiny.

Because Japanese culture views the school as a moral community and a basic training ground for becoming a good citizen, teachers have broad responsibility for moral education and character development and for instilling fundamental Japanese values, attitudes, and "living habits" in students at all levels. These responsibilities are equal in importance to the academic roles of developing student motivation and helping students meet the high academic standards required for success in secondary school and university entrance examinations.

Teachers are expected to infuse cultural values throughout school activities and to be concerned about students' lives both in and out of school. Their efforts and influence often extend into the home and the community.

Long an attractive profession in status terms, the appeal of teaching as a career has heightened further during the past decade because of a substantial increase in remuneration. The average salary of teachers is now higher than that of other public employees and compares favorably with salaries of other professionals in the private sector.

The salary increase, coupled with the depressing effects of the 1973 oil crisis on industrial employment, led to a dramatic rise in applicants for teaching positions. The total number of applicants taking prefectural appointment examinations nearly doubled between 1974 and 1975 (from 128,000 to 245,000) although the number of positions increased only 13.5 percent. The number competing for teaching positions reached its peak in 1979 and has declined since to the present level of about 200,000.

Competition for entry into the profession continues to be intense. The 200,000 applicants now vie annually for approximately 38,000 vacancies in the public school system.

Composition and qualifications of teaching force

In 1984, Japan's school system was staffed by approximately 1,000,000 full-time teachers at the elementary and secondary levels. In addition, about 99,000 teachers served in preschools under the Ministry of Education, about 38,000 in schools for the blind, deaf and otherwise handicapped, a total of about 50,000 in technical colleges, special training schools and miscellaneous schools, and another 128,000 in universities and junior colleges (table 6).

Teaching is one of the few lifetime professional career opportunities readily available to women in Japan. The percentages of women full-time teachers in each type of institution are:

All institutions	41.9
Preschools	93.8
Elementary schools	56.0
Lower secondary schools	33.5
Upper secondary schools	18.3
Schools for the handicapped	48.5
Technical colleges	0.8
Special training schools	57.4
Miscellaneous schools	40.5
Junior colleges	39.1
Universities	8.5

Ninety percent of all new teachers now have 4-year college degrees, with most having majored in fields other than education. In 1985, more than 37 percent of the available positions in the nation's public schools were filled by applicants having bachelor's degrees from colleges of education while more than 53 percent were filled by applicants with a baccalaureate from other types of colleges. About 6 percent were filled by junior college graduates and the remaining 3 percent by master's degree holders.

While most new teachers in recent years have had at least 4 years of university work, there are still substantial numbers of older Japanese teachers with less than a baccalaureate degree, as a recent study indicates:

> In 1983-84...approximately 41 percent of elementary school teachers, 24 percent of lower secondary teachers, and 11 percent of upper secondary teachers had not earned bachelor's degrees...In contrast, 99.6 percent of all U.S. teachers, as of 1980-81, had at least a bachelor's degree...In the same year, 56 percent of U.S. high school teachers, 47 percent of middle school and junior high school teachers, and 45 percent of elementary teachers held at least a master's degree whereas the corresponding percentages in Japan in 1983-84 were only 4.9 percent, 1.1 percent, and 0.3 percent, respectively.[1]

The Japanese elementary and secondary teaching force is more experienced than its American counterpart. In 1983-84, the average number of years of experience of Japanese elementary and lower secondary teachers was 16.8 and that of upper secondary teachers 17.5, compared with an average of 13 years for American elementary and secondary teachers in 1981 (the last year for which such data are available). Moreover, in 1980-81 more than 40 percent of the teachers in Japan had been teaching at least 20 years, compared with 22 percent in the United States.

Preservice education

After World War II, the Japanese Education Reform Committee, following recommendations of the United States Education Mission, incorporated teacher education into the university system. This strengthened its academic component and led to a broader education, including the liberal arts, in a program not directly controlled by the central government.

The Japanese term this approach the "open system," meaning that faculties or departments in universities other than colleges of education, and institutions without colleges of education, even junior colleges, can develop and offer teacher preparation programs. By 1979, about 84 percent of all colleges and univer-

sities and 84 percent of the junior colleges were helping prepare teachers.[2] The more than 800 institutions involved in teacher preparation now graduate nearly 175,000 students annually with teaching credentials. This figure represents approximately one-third of the total number of college and university graduates in Japan.[3]

There are currently 65 colleges of education, of which 58 are affiliated with national universities and 7 with private institutions. These colleges are primarily engaged in preparing elementary and lower secondary school teachers. They produce 31,000 graduates annually, almost 18 percent of all who leave higher education having met certification requirements for teaching.

In 1985, more than half the college of education graduates were employed as teachers (46 percent in the public schools and another 9 percent in private schools). However, most teachers received their preparation in other than colleges of education. The proportion of those hired who were not graduates of colleges of education increased with school level: they filled one-third of the openings at the elementary level, two-thirds at the lower secondary level, and nearly nine-tenths at the upper secondary level.

Table A. Requirements for Teaching Certificates*

Teaching Certificate	Requirements		
	Basic Qualification	Credits	
		Professional Education Subjects[a]	Teaching Subjects
Preschool			
First Class	Bachelor's degree	28	16
Second Class	2 years post-secondary study, 62 credits	18	8
Elementary			
First Class	Bachelor's degree	32	16
Second Class	2 years post-secondary study, 62 credits	22	8
Lower secondary			
First Class	Bachelor's degree	14	40[b] or 32[c]
Second Class	2 years post-secondary study, 62 credits	10	20[b] or 16[c]
Upper secondary			
First Class	Master's degree	14	62[b] or 52[c]
Second Class	Bachelor's degree	14	40[b] or 32[c]

*Actual requirements set by the training institutions themselves can be higher. The requirements of national colleges of education range from 124 credits (the total number normally earned in 4 years) to 159 credits. To obtain more than one teaching certificate, students usually take even more credits, averaging between 160 and 180 and exceeding 200 credits in extreme cases.

[a]Including 2 credits, equivalent to 2 weeks, for student teaching, in both secondary education programs and 4 credits, equivalent to 4 weeks, in the elementary program.

[b]To teach social studies, science, homemaking, industrial arts, and vocational education subjects.

[c]To teach Japanese, mathematics, music, art, physical education, health, English and religion, and to provide guidance and counseling.

There are different legal requirements for certification to teach in preschool, elementary school, lower secondary school, and upper secondary school. For preschool, elementary, and lower secondary teachers, the basic qualification for a first class certificate is a bachelor's degree. The basic qualification for a second class certificate is 2 years of study (the acquisition of 62 credits) in a university or other postsecondary institution. For upper secondary school teachers, the basic qualification for a first class certificate is a master's degree. The qualification for a second class certificate is a bachelor's degree. The first class certificate is now the preferred credential at all levels.

In addition to the length of study and degree qualifications, prospective teachers must earn a prescribed number of credits in education studies and in the subjects to be taught. At the secondary level, a larger number of credits are required for certain subjects (including social studies and science) than for a second group of subjects (including Japanese, mathematics, and others). Table A shows the basic qualifications and the number of credits in professional education subjects and in teaching subjects required for first class and second class teaching certificates at each of the four school levels.

A typical 4-year course for elementary and lower secondary school education majors in a national college of education includes the following credits:

	Elementary	Lower secondary
General education	48-52	48-52
Humanities	12[a]	12[a]
Social sciences	12[a]	12[a]
Natural sciences	12[a]	12[a]
Foreign languages	8-12	8-12
Physical education	4	4
Teaching subject	16[b]	40-50[c]
Professional education studies (including social and philosophical foundations of education, psychology of education, child psychology, moral education, teaching methods, practice teaching)	32-36[d]	18-26[e]

[a]Minimum.

[b]Legally required number of credits.

[c]Legally required number is 32 for one group of subjects and 40 for the remaining group of subjects.

[d]Legally required number is 32.

[e]Legally required number is only 14, including 2 credits in practice teaching. National colleges of education require an average of 4-5 credits in practice teaching in the lower secondary education program.

Minimum requirements for student teaching are 4 weeks (4 credits) for the elementary program and 2 weeks (2 credits) for secondary. However, national colleges of education require students preparing to teach in lower secondary schools to have at least as much student teaching experience as those preparing to teach in elementary schools. Since 1954, certification requirements for work in the areas of academic specialization have increased while requirements in the professional education component have decreased.

Becoming employed as a teacher

While minimum requirements for teacher certification are determined by national law, prefectural boards of education may add requirements. A prospective teacher meets the formal academic requirements through successful completion of prescribed courses of study in a postsecondary institution. However, no matter how good one's academic record may have been, graduation from a university is not sufficient for appointment to a teaching position.

Most public school teachers are prefectural employees, even though three-fourths of them teach in municipal schools. Prefectures, therefore, play a significant role in the selection of teachers for employment. In addition to completing required university coursework, a prospective teacher must receive a license to teach from a prefectural board of education. Such a license is awarded on the basis of the prefectural board's review of the work the applicant has completed in higher education. A license awarded by any prefecture is valid in all prefectures. However, the applicant must also take prefectural appointment examinations which help ensure that all applicants compete on equal terms for any teaching vacancies.

Given the attraction of teaching as a career and the intense competition for positions, passing the prefectural appointment examinations has become a primary goal of aspiring teachers, one for which applicants work hard to prepare. The examinations are given in two stages. The first consists of written tests in general education and specialized fields and skill tests in such areas as physical education, music, and art. All applicants for lower secondary teaching jobs are required to take a test in physical fitness. The second stage consists of interviews.

Age is an important consideration. More than half of the prefectures require applicants to be under the age of 30. Only two prefectures have no age limit. This practice is more liberal than that of Japanese industry where, for white collar jobs and high level technical positions, large corporations typically recruit only new university graduates.

In 1985, graduates fresh from colleges and universities filled 59 percent of the new openings. The remaining 41 percent were filled by a combination of the previous year's graduates who had failed the appointment examination the first time around and applicants with work experience in other fields. The latter had earned appropriate credits in education during their university study but had initially chosen to work in other fields. Now they were switching to education.

With more than five applicants for every position, prefectural boards of education can select able individuals from a large and diversified pool. However, no suitable data base permits comparison of the intellectual and technical competence of teachers with those who enter other occupations.

Once applicants gain entry to the teaching profession, they are assured of lifetime employment. They are promoted essentially on the basis of seniority, as in all public sector and most major private corporation employment. The seniority concept is strongly entrenched in Japan. The idea of performance-based merit pay is not a live issue or feasible option. Partly because of the lifetime employment policy, all prefectural and municipal boards of education are very careful in selecting new teachers. Dismissals are extremely rare and normally occur only for unethical conduct.

Teachers are rotated from one school to another within the prefecture on various schedules. This contributes to equalization of faculty resources among the prefecture's public schools.

Inservice education

Need and types. Continuing education on the job reflects Japan's cultural commitment to self-improvement as well as a response to perceived weaknesses in preservice education. More than two-thirds of Japanese teachers who responded to a 1978 survey expressed the view that preservice teacher training was inadequate.[4] Prefectural and local boards of education are not wholly satisfied with preservice teacher preparation either, and the Ministry of Education has reservations as well. Hence, Monbusho requires first-year teachers to receive a minimum of 20 days of inservice training during that year.

Under the direction of the Ministry of Education and prefectural and municipal boards of education, inservice training is offered for public school teachers at all levels and at various career stages. It takes five forms in Japan:

- Inschool training;
- Informal inservice training carried out by teachers themselves in district-wide study groups;
- Training given at the local (prefectural or municipal-equivalent) education center (see below);
- Training given to principals, vice-principals, and curriculum consultants by the Ministry of Education at a national training center;
- Two-year training given to a few hundred teachers annually at three nationally funded institutions established since 1978 for the purpose of providing graduate professional education for experienced teachers. These teachers are selected from all over the country.

The three graduate institutions—Hyogo, Joetsu, and Tokushima "education universities"—were created by Monbusho because university graduate schools in Japan traditionally concentrate on preparing researchers and few offer relevant advanced study for practicing teachers. Teachers who complete the special graduate education program receive a master's degree and return to the classroom. However, because of their small number of graduates, these three institutions have had only a limited impact upon the teaching profession to date.

One of the commendable characteristics of the teaching profession in Japan is the extent to which inservice education is teacher initiated and directed. Teacher organizations also sponsor training and research related activities.

Much of the 20 days of inservice training required of new teachers takes place in the schools where they teach and is carried out under the supervision of *shido shuji*, expert experienced teachers on leave of absence from their schools to serve as the functional equivalent of what American education would call a master teacher, curriculum consultant, or teaching supervisor. Teachers, including novices, also participate in citywide study group meetings organized to discuss a variety of concerns including teaching methods and curriculum. One common train-

ing method is for teachers to conduct demonstration classes before their colleagues and a shido shuji, followed by feedback sessions.

Education centers. A major source of inservice training is the local education center, which also provides counseling and guidance services and conducts some research. Each of the 47 prefectures and 10 large municipalities (with status comparable to a prefecture) has an education center.

The Hiroshima Municipal Education Center is typical. It is financed by the municipal board of education and staffed by 28 full-time specialists (including five administrators), most of them shido shuji, to serve teachers and administrators in its area. In 1985, the Hiroshima Center offered 159 separate training programs in 21 different categories. Its programs last 1 to 5 days and cover such categories as subject matter knowledge, pedagogy, school administration, educational technology, student guidance, and class management.

In addition to full-time shido shuji, the center training staff includes selected university professors and some community resource persons such as judges and industrial managers brought in as guest speakers. Japanese teachers and school administrators do not consider most university professors particularly useful in inservice training because of their relative unfamiliarity with classroom instruction and administrative practices.[5] For their part, education professors question the approach of using other teachers and administrators to retrain practitioners at the school level. This difference in perspective helps sustain the controversy—now so familiar to Americans—over the role of higher education, particularly colleges of education, in preservice and inservice teacher education.

Various segments of the teaching force are scheduled for training on a periodic basis. For example, all sixth-year teachers are supposed to spend 3 days at the center for refresher retraining in selected aspects of their work.

There is also a program at the Hiroshima Education Center for school administrators, with emphasis on new principals. Administrators are expected to undertake training for 4 to 8 days a year. A typical training session consists of lectures, discussion, and case studies.

The center also offers a 6-month program for six selected teachers who work full-time on special projects of their own choice, and a 3-month program for 22 teachers who are granted released time from their schools to work on their projects.

Related concerns. Prefectural boards of education urge teachers to use inservice training opportunities to master the holistic role of a teacher. The boards' concern reflects the abiding Japanese cultural view that schooling is not only a cognitive enterprise for the transmission of knowledge and acquisition of skills, but also a vital process for developing morality, character, and basic life attitudes and habits.

Generally, inservice training at education centers and individual schools is believed to be successful. In a recent survey, two-thirds of the teachers who participated in center programs for the first time considered the training useful.[6]

It is interesting to note that in Japan, in contrast to the situation in the United States, institutions that provide preservice education have little involvement in the continuing education of teachers. Further, while the level of inservice activity is high, little of it carries college credit or culminates in a graduate degree.

Japan Teachers Union

No account of the teaching profession or postwar education development in Japan would be complete without attention to the Japan Teachers Union (JTU), *Nikkyoso* in Japanese. The JTU is the dominant organization of educators (there are a number of smaller ones), the second largest public sector union, and a very influential member of *Sohyo*, the General Council of Japanese Trade Unions.

The JTU is a national federation of prefectural unions, each of which has considerable autonomy. The membership encompasses teachers and other education personnel at all levels, including college professors and clerical and support staff, in both public and private institutions. However, JTU's members are predominantly teachers in the public elementary and secondary schools. The membership has declined in recent years. In 1985, the number dropped below 50 percent of all public school teachers for the first time since the union was established in the immediate postwar period.[7]

The JTU has been an active force in educational and political matters for almost 40 years. It has been at odds with Monbusho on most matters during virtually the entire period. The government has often been characterized as "conservative" and the union as "radical." Neither label is necessarily helpful in cross-cultural translation.

Shortly after the restoration of Japan's sovereignty in 1952, Japanese education underwent a kind of "counter reform." The national government regained much of its former power over the education system that had been curtailed by the Occupation. Nikkyoso, however, remained a strong proponent of many Occupation reform policies and thus was often in sharp conflict with the government. Some of the education issues about which Nikkyoso continues to feel strongly include decentralization of control, school autonomy, freedom of teachers to write and choose textbooks, student centered education, greater teacher participation in decisionmaking, and comprehensive high schools for all youths. The Ministry of Education has considerable interest in all these matters, but usually from a different perspective.

Fundamental philosophical differences between the government and the JTU transcend the education sector. The government views teachers as neutral professionals who perform a duty for the government, while the JTU regards teachers as workers and participants in broad political and economic struggles. The JTU interprets its relation to the government in labor-management terms and takes strong stands on many government policies, including sensitive domestic and international matters that have little or no relationship to education.[8]

JTU is well to the left on the Japanese political spectrum. Its leadership has strong links to the Socialist Party. Some leaders are members of the Japanese Communist Party. Thomas Rohlen provides this perspective on the situation:

> The majority of teachers do appreciate the union: 1) for obtaining improved wages, benefits, and working condi-

tions, and 2) for serving as a counterweight to right-wing influences and governmental authority. Even among those who find the union's politics offensive, there is general agreement with these points.... Most teachers are relatively liberal in their social opinions but rather conservative in their preference for orderly, smoothly run schools.[9]

In brief, there is a long history of conflict between JTU and the government, with many complex political ramifications not readily apparent or easily understood by those outside Japan. Many teachers have been simultaneously loyal to and skeptical of both JTU and the government. Nikkyoso continues to pursue its manifold interests in the current national debate on education reform.

Social and economic status

No recent survey adequately compares the prestige of the teaching profession to other professions and occupations. However, a 1975 Japanese study of social stratification and social mobility provides evidence on the situation at that time. It included relevant data on the prestige ranking of elementary and lower secondary school principals and elementary teachers.[10]

According to the 1975 survey, elementary principals and teachers ranked 9th and 18th in public esteem, out of 82 occupations. Principals' prestige was higher than that of department heads of large corporations, public accountants, and authors. Elementary teachers enjoyed higher prestige than civil and mechanical engineers, white collar employees in large firms, and municipal department heads. University professors were ranked third, below court judges and presidents of large companies, but above physicians.

It would be interesting to see what changes would turn up if a similar study were conducted today. While the criticisms of the past decade might well lower the ranking of educators somewhat, teaching in Japan clearly remains a socially respected occupation and an attractive career. The continuing strong competition in prefectural examinations—more than five candidates, most of them not education majors, competing for every classroom opening—dramatizes the continuing allure of the profession.

To be sure, the economic status of Japanese teachers is comparatively high, and the monetary rewards provide a strong incentive to pursue a teaching career. Yet this is a relatively new situation. As recently as 1970, a teacher with 20 years of experience earned much less than did the average worker in the private sector.[11] But by 1984, the beginning salary of a Japanese high school teacher with a bachelor's degree was 15 percent higher than the starting salary of a white collar employee with an equivalent degree in a private company, and 12 percent higher than the starting salary of an engineer with a bachelor's degree.[12]

First-year teacher salaries are generally higher than those of other professions such as businessmen, engineers, pharmacists, etc. At mid-career, their salaries are approximately equal. Beyond age 53, however, teacher salaries are again higher. The incentive to remain in the profession is strong because of the cumulative effect of seniority and generous retirement benefits.[13]

A teacher's total compensation is made up of a base salary specified in a schedule; a broad range of allowances,* which are equivalent to almost one-fourth of the base salary; and an annual bonus equivalent to nearly 5 months' pay (about 41 percent of the base salary). The allowances include provision for dependents—as is true in the public service salary schedules of many countries. Other factors being equal, a married teacher with children receives a higher pay than a married teacher without children or an unmarried teacher.

The salary structure for public school teachers is established by the Japanese National Personnel Authority. While legally applicable only to national schools, in practice this structure provides the model on which salary structures of public schools throughout the country are based. Local deviations are minor and variance among prefectures rare. Within this structure, there is one set of salary schedules for teachers in elementary and lower secondary schools and another for teachers in upper secondary schools.

The base salary of a Japanese teacher depends heavily on seniority. While the Japanese salary schedule starts lower than the typical schedule in the United States, it continues to rise after the U.S. schedule levels off. Unlike the salaries of American teachers, which tend to reach their peak between the 10th and 15th years of service, salaries of Japanese teachers continue to increase with seniority for 39 years—throughout the teachers' careers. The salary ratio between a teacher at the top of the seniority scale and a beginning teacher with the same training is approximately 3 to 1.

Salary is initially affected by the teacher's degree and certificate level, but seniority counts more as years of service accumulate. The differential between salaries of teachers with a master's degree and those with a bachelor's degree is initially about 17 percent. The differential between salaries of teachers with a bachelor's degree and those with a 2-year degree is initially about 16 percent. In both cases, however, the differential diminishes to about 3 percent at the end of the professional career.

The following examples of annual salaries, allowances, and bonuses† according to the 1985 schedule clearly illustrate the effect of seniority:

- A newly employed unmarried 23-year-old teacher with no dependents:
  2.5–2.9 million yen ($15,600–$18,100)
- A 40-year-old head teacher with a spouse and two children:
  5.3–5.8 million yen ($33,100–$36,200)
- A 55-year-old principal with a spouse and no dependent children:
  7.8–8.7 million yen ($48,800–$54,400)

To finance retirement benefits, teachers contribute 8.87 percent of their salaries and their employers (national, prefectural, or municipal government) pay an additional 10.92 percent into

*Allowances include, where applicable, family allowance for dependents, high cost-of-living allowance, housing, commuting costs, head teacher allowance, and administrative expenses (for principals and vice-principals).

†Unless otherwise noted, all calculations are at the exchange rate of 160 yen to the dollar, the approximate rate of exchange at the time the report went to press.

a teacher retirement fund. Besides medical insurance and survivor annuities, the major retirement benefits consist of a lump sum cash payment and an annual pension:

- *Lump sum cash payment*—All public employees are entitled to a lump sum cash payment upon retirement. A teacher retiring at age 60 would normally receive an amount larger than 2-years' salary.
- *Annual pension*—Teachers and other education personnel are eligible for retirement at age 60. The pension is a percentage of the last year's total compensation based on the number of years of service. The basic formula is as follows:

Length of Service	Percent of Last Year's Total Compensation
20 years	40.0
25 years	47.5
30 years	55.0
35 years	62.5
40 years	70.0

For example, a teacher or principal who retired at age 60 after 35 years of service would receive 62.5 percent of his total compensation as an annual pension in addition to a lump sum payment of approximately $153,000 at the time of retirement.

A study comparing teacher salaries in Japan and the United States, recently completed under contract for the U.S. Department of Education, reports these major findings:

- The average salary of Japanese teachers and the average salary of American teachers were nearly equal in purchasing power in 1983-84. The former, converted into "equivalent dollars" on the basis of a purchasing-power-parity (PPP) exchange rate, was $20,775 and the latter $21,476. This near equality between the average Japanese adjusted dollar-equivalent salary and the average U.S. salary at that time is the result of two factors: 1) the steeper Japanese salary schedule, and 2) the heavier concentration of Japanese teachers in the highest seniority brackets where Japanese dollar-equivalent salaries are higher than dollar salaries in the United States.
- The dollar equivalent salaries of Japanese teachers in their early years of teaching were below the salaries of their U.S. counterparts, but the salaries of senior Japanese teachers were substantially higher than those of their American counterparts. The shift in relative position occurs at about the 20th year of service.
- The salaries of Japanese teachers were substantially higher than those of U.S. teachers when related to national indicators of per capita economic activity. The average teacher's salary in Japan was 2.4 times the per capita income, compared with 1.7 times per capita income in the United States. The average teacher in Japan could buy a significantly larger share of his country's goods and services than could the average teacher in the United States.
- The ratios of the average teacher's salary to the average wage in manufacturing, to average salary in all nonagricultural activities, and to salaries in various other occupations, are all higher in Japan than in the United States.[14]

Caution is required in using these comparisons because of the different conditions of employment in the two countries. The Japanese teacher works a longer school year than the American teacher. As a full-year employee, the Japanese teacher works when school is not in session and has shorter vacations than the American teacher. Teachers in Japan also have a wider range of functions than teachers in the United States. They assume many responsibilities that in the United States are borne by counselors and curriculum coordinators, for example. And they apparently spend more time meeting with parents.

Moreover, pupil-teacher ratios and class size are considerably larger in Japan than in the United States. For example, in 1982, the average elementary class in Japan had about 34 pupils and the average lower secondary class about 36. For the same year in the United States, the National Education Association reported an average class size of 25 at the elementary level and 23 at the secondary level.[15]

Home, Family, and Pre-Elementary Education

As essential as the professional teaching corps is, the Japanese child's first teachers and most important supporters are the parents, primarily the mother. The educational role of home and family, both before the child enters school and throughout the school years, is as fundamental a determinant of Japanese success in education as any factor could be.

Japanese family and parental roles

Japanese families are stable. Divorce rates have increased since the 1960's, but remain relatively low. In 1980 the number of divorces was 1.2 per thousand people, while the comparable figure for the United States was 5.2 per thousand.[1] Just 6 percent of all Japanese families are headed by a single parent.[2]

Roughly half of all households in Japan are made up of a two-parent family and children. This typical family unit is smaller and more urban than that of a generation or two ago. More than half the population now lives in large urban areas, and only one family in six includes three generations.[3]

Most homes, apartments, and condominiums are smaller than their American counterparts because of the high cost of urban land. For the most part, residences are comparably modern and are filled with common consumer products. Most Japanese children grow up taking television and the latest toys and gadgets for granted.

There is a strong consensus regarding roles and the appropriate division of labor within the family. A man's primary focus is the workplace, which often includes extensive work related socializing with male colleagues during the evening hours. In contrast, a woman's primary focus is her home and family, with particular attention to the rearing of children. The family-centered role of women is reinforced by their relative lack of longterm career opportunities outside the home.

While most Japanese subscribe to the view that a woman's place is in the home and that work should not interfere with her primary responsibilities to children and husband, women nevertheless make up almost 40 percent of the labor force. More than half of these women are married.[4] Many mothers with small children work only part-time so they can be at home when their children are not in school. The extra income generated by mothers working outside of the home is often used to help meet the cost of their children's education.[5]

Spouses generally agree about their respective parental roles and share a belief that the children are at the center of their marriage. Thus, the education of children becomes one of the most important family functions.

In earlier times, Japanese fathers were regarded as severe and as having great authority. Indeed, there is an old Japanese saying that there are four things to be feared in life—earthquakes, thunder, fire, and fathers. Mothers may indicate to children that father will discipline them if they do not behave, but it appears that the father's authority in childrearing has decreased over the past generation.

In many white collar families, the father is a proverbial "guest" in his own house, returning home most evenings after the children have gone to bed. Although fathers provide children with certain role models and many take an active interest in education matters, the task of attending to the child's upbringing and education is usually left to the mother. Mothers take that responsibility seriously. Research indicates that Japanese mothers place the subject of childrearing at the top of their worry list.[6]

Mothers and their children are especially close. Japanese mothers seldom confront their preschool children. Rather, they attempt to appease the child and foster an intimate, dependent relationship. The purpose of this approach is to get the child to comply willingly with the mother's wishes and to shape behavior gradually over the long term. Another goal of early training is to instill in the child a deep sense of responsibility to the mother and family. This becomes an important factor in developing motivation for school achievement in Japan.

The Japanese believe that the home should be a relaxed place where children are free of constricting requirements for emotional control and good behavior expected in formal social situations. Early childhood training includes attention to manners and proper social behavior required outside of the home, but there is little actual exposure to group situations beyond the family until the preschool experience.

Much of a mother's sense of personal accomplishment is tied to the educational achievements of her children, and she expends great effort helping them. In addition, there is considerable peer pressure on the mother. The community's perception of a woman's success as a mother depends in large part on how well her children do in school.

Some Japanese mothers have gained a reputation for extraordinary concern and involvement with their children's education. Stories about overzealous mothers abound. In part, this phenomenon may stem from the sharply defined role distinction between spouses. Indeed, some Japanese note that fathers should shoulder a fair share of the blame for these maternal excesses, since the father's typical preoccupation with matters outside the home forces the mother to bear near total responsibility for managing the education of the children.[7]

Formal pre-elementary education

The initial transition from indulgence at home to the institutional demands of formal education constitutes a radical change in environment for the Japanese child. The difficulties are resolved for most children through some form of preschool experience, wherein the child is socialized in the ways of a group. The transition from the more or less self-centered focus of home life to the shared needs and group responsibilities of school life occurs through the socially oriented preschool experience.[8]

Japanese parents are strongly committed to early education, though pre-elementary education in Japan is not a part of compulsory education nor is it linked, like American kindergartens,

to the formal school structure. Virtually all Japanese pre-elementary education takes place in one of two types of institutions: preschools and daycare centers. Preschools (*yochien*, often translated as "kindergartens"), which operate under Monbusho supervision, enroll children primarily between ages 3 and 5. They are in session approximately 5 hours per day. Daycare centers (*hoikuen*, sometimes translated as "nursery schools"), established by the Ministry of Welfare, are primarily for the children of working mothers. They accept children from infancy through age 5 and are in session 8 hours per day. In most other respects the two types of institutions are similar in physical facilities, curricula, teaching styles, and classroom activities.

A very high percentage of Japanese children are enrolled in pre-elementary education. Forty percent of all 3-year-olds and 92 percent of all 4- and 5-year-olds attend either preschools or daycare centers (table 7). Japanese parents rarely withdraw their children once they are enrolled.

Both types of pre-elementary institutions require tuition. In the case of daycare centers, parents are assessed charges in accordance with their income. In addition to income from tuition, pre-elementary institutions receive subsidies from all three levels of government in varying amounts.

Teachers and school environment. Japanese preschools are staffed by licensed professional teachers. Virtually all are women under the age of 25 who have graduated from a junior college. Their preparation includes training in teaching as well as in relevant subject areas. The former includes such topics as principles of education, child psychology, and practice teaching, and the latter such things as music, physical education, and the arts. Although serious and enthusiastic about their work, many women leave preschool teaching after marriage in order to raise children of their own.

During most of the day, Japanese preschools and daycare centers are relaxed, boisterous places. Parents and teachers prize high spirits in their preschool children, and the yard and building usually resound with enthusiastic voices and great activity.

Preschool classes are large by American standards, averaging 30 students (and just one teacher) per class.[9] This large class size is preferred by many Japanese teachers who believe that it gives children an opportunity to learn to interact in a group and generates more enthusiasm for the activities. Teachers refrain from overt direction of group activities, preferring to encourage the class to learn to function as a group.[10]

Teacher strategies for gaining compliance from the child and for inducing proper behavior have considerable similarity to maternal strategies and techniques. That is, they emphasize persuading the child to understand and comply willingly with demands for particular behavior rather than forcing the child to obey.

Teachers do not rush to intervene or correct occasional misbehavior. They encourage other students to become involved in solving problems.[11] Working through the group to resolve individual behavioral difficulties is believed to be an important part of the social curriculum, even at this early stage.

Curriculum. The curriculum of preschool is largely nonacademic. Interaction with other children is stressed over interaction with materials. Cooperative activities, games, free play, and chores form a substantial part of each day. Children are encouraged to accommodate themselves to the activities of others around them. Great emphasis is placed on social development and training in proper habits and attitudes.

Instruction in letters and numbers and other prereading skills is absent from the formal curriculum guidelines set forth by the Ministry of Education and the Ministry of Welfare. These guidelines contain six content areas to be emphasized in classroom activities: health, social life, nature, language, music and crafts.[12] Most preschools and daycare centers follow these guidelines.

While explicit teaching of reading and writing skills is uncommon, children are encouraged to speak and comprehend language by becoming familiar with illustrated stories and picture books. Self-expression and the correct use of spoken language are emphasized.

In music, the children sing and become acquainted with simple musical instruments. In most preschools, each class spends several weeks preparing to stage a yearly show for parents and neighbors. Miniature operettas, complete with costumes, scenery, and piano accompaniment, are among the most popular presentations.

Traditional paper folding, or *origami*, is an important element of craft instruction. Even 3-year-olds are considered old enough to learn to make airplanes, boats, and cups. Older children learn more sophisticated folding techniques, producing penguins, cranes, and a wide variety of objects.

Throughout Japanese pre-elementary education, children learn to function as members of a group. Major goals are to interest children in school and their classmates and to provide an orientation to school life. This focus on the group is carried throughout the school years and ultimately into adult life.

Although unrestrained voices and physical activity are encouraged during play periods, the day is interspersed with brief periods of solemn ritual when the entire class learns to stand quietly with attention focused on the teacher. Children learn to distinguish among the various levels of order and discipline appropriate at different times during the school day.

Japanese preschools thus provide important preparation in the habits and routines of elementary school life. Children learn to be orderly and neat, to manage their personal school supplies, to take care of their personal needs, and to wear school badges, hats, or uniforms according to school custom.

Nonformal early education

Preschool and daycare institutions are not the only sources of pre-elementary education in Japan. Children often attend enrichment lessons in addition to preschool. Swimming, gymnastics, and piano lessons are popular. Mothers believe that these lessons provide enjoyable opportunities for their sons and daughters to be with other children and to participate in physical exercise.

In comparison with typical preschool activities which emphasize social skills, the enrichment lessons provide a more structured and focused learning experience. The Suzuki method of music teaching is one example of these types of lessons. Such lessons are the forerunners of similar out-of-school enrichment

classes and related remedial and cram courses which become more widespread during the later elementary and secondary school years.

Preschool and family

The close nature of the mother-child relationship and the strong cultural and parental commitment to education enable the mother to provide a strong foundation for the child's entry into elementary school.

During the preschool years, mothers provide informal learning opportunities such as drawing, making simple toys with paper, paste, and scissors, and various activities related to basic reading and counting skills. Most mothers encourage their child's natural interest in letters and numbers, although few undertake a concerted program of instruction in reading and writing. By answering questions, purchasing readily available children's magazines and activity books, and playing traditional letter recognition and phonetic children's games, mothers stimulate their children's interest in basic reading skills. This preschool home environment is largely responsible for the fact that many Japanese children enter the 1st grade already able to read and write the 48 basic Japanese phonetic symbols.

An important outgrowth of preschool and daycare experience is that Japanese mothers develop the habit of providing considerable assistance for their children in the schooling process. Japanese preschools require a large investment of maternal energy. Numerous articles such as book bags, lunch box wrappers, and the like must be handmade according to certain specifications. Each day the child must be personally taken to and from the school gate or bus stop, often on the back of mother's bike or motor scooter.

Mothers are also directly involved with the school in various ways. Each day the child carries a notebook back and forth between mother and teacher which is alternately inscribed with notes regarding the child's health, mood, and activities at home and during the preschool day. Usually twice a month there are PTA meetings or mothers' club meetings. There are also frequent meetings of committees of mothers working on various special projects for the school such as gardening and hot lunch preparation. With all of these additional school related responsibilities, enrolling a child in preschool has only a small time-saving effect for Japanese mothers.

Although daycare centers, which are designed for working mothers, require somewhat less intensive involvement, they also require considerable maternal participation.

In contrast to many preschools in the United States, Japanese parents never function as assistant teachers or aides in the classroom. Their role is to provide auxiliary support for the child's activities and visibly to demonstrate their support and interest. These parental—largely maternal—habits and attitudes will be maintained throughout the child's school career.

Pressures on pre-elementary education

Pre-elementary education in Japan is beginning to reflect the pressures of parental concern with academic achievement in the school years ahead. A growing minority of parents are concerned that the traditional nonacademic focus of the official preschool and daycare curriculum is insufficient. They worry that their children may not be able to keep up once they enter school. They see the pre-elementary years as crucial in giving their children an academic head start as well as helping them develop social skills. Thus, some preschools and daycare centers are beginning to provide instruction in basic reading and writing skills.

Another factor contributing to the gradual introduction of explicit instruction in pre-elementary education is increased competition among preschool and daycare centers to maintain enrollments. One successful way of developing a competitive edge is through providing some instruction in recognizing letters and numbers. Other preschools create distinctive programs through weekly instruction in art, judo, calligraphy, or other special subjects.

This trend toward introduction of academic instruction in preschools is not regarded in an entirely favorable light by elementary school officials and social commentators. Emphasis on academic training at this stage is seen as interfering with proper development of children's social skills and daily habits. Further, it is believed that having some children enter 1st grade with academic skills while most have not had a comparable opportunity to acquire them causes teachers difficulties that could be avoided if the entire group entered 1st grade with no previous academic instruction.

Paradoxically, the children who have had the advantage of preschool instruction sometimes endure difficulties of their own. Since Japanese elementary schools do not separate students according to ability, the better prepared students often suffer some months of boredom waiting for the rest of the class to catch up.

The combination of more instruction in basic reading and writing skills at home, virtually universal participation in preschool education, and growing enrollments in enrichment lessons, have created an increasing discrepancy between the official guidelines for pre-elementary education and the actual experience and capability Japanese children bring to the 1st grade.

Compulsory Education

Elementary School (Grades 1-6)

Entrance into elementary school is a major step in a child's life. Preparation begins several months in advance. A mother attends meetings sponsored by the school that her child will attend. The school specifies what it expects the child to know and be able to do upon entry. Well-organized personal habits, polite use of language, and traffic safety are among the matters emphasized.

Families make much of the new 1st grader's symbolic entry into a more grown-up world. Congratulations and gifts are in order. Virtually all children are outfitted with a personal desk and chair at home, a regulation hard-sided leather backpack (which costs parents from $75 to $150), school hats and insignia, and various supplies specified by the school.

The formality and seriousness of the matriculation ceremony for 1st graders underscores the transition the children are making and the importance that school will have in their lives. Fifth and 6th graders join school officials and community representatives in welcoming the new 1st graders and their parents. Mothers and children dress in their best attire. Speeches from city and school board officials and the principal emphasize the importance of the child's first symbolic step into society.

Facilities

Japanese school buildings are plain, but functional. Generally, they are three-story, rectangular, concrete structures which lack central heating or air conditioning. Room stoves are commonly used in cold weather. The lack of decoration and furnishings is believed to help the child focus on learning and building character. Yet all schools have excellent educational facilities, including libraries, music rooms, art rooms, gymnasia, and playgrounds. Seventy-five percent of public schools have swimming pools.[1] Music rooms ordinarily include electric organs, pianos, xylophones, percussion instruments of various kinds, and often a ruled blackboard suitable for teaching music reading. Science and art rooms are similarly well equipped.

The principal's office and teachers' room are on the ground floor. The desks in the teachers' room are arranged so that the teachers of a given grade sit facing each other with desks touching. When not in their classrooms, teachers work and relax in this face-to-face situation. This facilitates cooperation and coordination of effort among teachers of the same grade.

Each grade occupies a separate section or floor of the building, with each class assigned its own room. Classrooms are uniformly rectangular with windows on one side and a doorway on the other that opens to a hallway running the length of the building. The rooms are crowded with desks. Decorations are usually limited to a display of recent pupil artwork or perhaps a tank of goldfish.

Desks are typically arranged facing the blackboard. The rows are two seats wide and each pair of seats is usually occupied by a boy and a girl. Also, teachers may have students rearrange their desks into a U-shape to facilitate class discussion or into clusters of 4-6 desks for collaborative activity in small groups.

Most public elementary schools do not have uniforms, but all require something to identify the child as attending that particular school, such as a school cap or badge. Some schools require students to purchase identical athletic apparel, which is often worn during regular classes as well.

Administration and staff

The principal and the head teacher occupy the two primary leadership positions. Ninety-eight percent of elementary school principals are men, and three-quarters of them are over age 55.[2] The principal is responsible for all school activities and plays multiple leadership roles. Much of his time is devoted to representing the school with local authorities, the PTA, and various outside groups. Through regular weekly addresses to the student body, he also symbolizes the school's authority and expectations.

The daily life of the school, however, is usually directed by the head teacher. Ninety-seven percent of elementary school head teachers are men, and most are between the ages of 50 and 55.[3] The head teacher is thoroughly knowledgeable about the entire school and its activities. He manages the implementation of policy in regular school activities, special projects, and other programs of the school. His main responsibilities are administrative. He teaches only about 3 hours per week.[4] Head teachers get paid very little extra; the short term reward is in the honor and respect of one's peers.[5] Longer term, head teacher experience is an important part of the career path to a possible principalship.

Each class is headed by a single teacher who, with rare exceptions, is responsible for all subjects. Teachers average 22-23 hours per week in direct teaching activities.[6] They also spend considerable time working and planning together outside their classrooms.

Approximately 60 percent of elementary school teachers are women. Two-thirds of all teachers are under the age of 40.[7] More than one-half (58 percent) of the faculty have 4-year degrees, and approximately one-third have graduated from a junior college. Fewer than 1 percent of the teachers have graduate degrees.[8]

Teachers teach a different grade level each year, thus gaining broad experience with the curriculum and characteristics of all six grades. It is common for a given teacher to teach the same group of students for 2 years in a row. Talented and experienced teachers are more frequently assigned to the 1st grade because that stage is considered critical in establishing children's attitudes and learning habits for the rest of their school lives.

In all but the smallest schools, each grade level forms a working unit for administration, instructional planning, and informal inservice education. Teachers meet once or twice a week in grade level committees to discuss the coming week's teaching

schedule and other activities. Each grade is led by a grade level head teacher who takes the lead in helping new or weaker teachers with practical suggestions for improving instruction and classroom management. Each committee prepares and distributes a weekly or monthly newsletter to the parents of children in that grade. The newsletter includes a report on the class's recent activities, a detailed schedule of curriculum material to be covered, and an inspirational message from teachers to parents.

School calendar

The Japanese school year provides numerous opportunities for the entire student body to participate in special events and ceremonies. These are carefully planned and highly organized. They are managed primarily by the student council and classroom representatives, with the guidance of teachers and school tradition. Through these activities, students work together and develop class and school identity. Classes spend considerable energy in planning and practicing these activities. For some time prior to such events, the regular class schedule is relaxed to allow the necessary time for preparation.

In May, it is common to have an all-school trip to a nearby park or cultural monument or even an overnight field trip for all students of a given grade level. The goal is to broaden student knowledge about nature and the world around them in an enjoyable, memorable fashion, as well as to train students in appropriate public behavior.

The 6-week summer vacation occurs from the middle of July until the end of August. During this period, teachers take their own holidays, but frequently come to school to engage in in-service education and supervise students' club activities. Student sports clubs continue to meet, and the swimming pool may be open for student use. Although classes are not in session, vacation homework and individual research assignments ensure that instructional continuity is not broken. The school also provides an extensive set of rules and recommendations to families concerning student behavior, daily study, and play schedules during the vacation. This guidance fosters continuity in self-discipline and other desirable personal habits.

Autumn in Japan is closely associated with school athletic festivals. Children eagerly anticipate their school's annual Sports Day. The entire student body practices intricate choreographed cheers and marching maneuvers. On the day of the event, parents and the neighborhood are invited to watch each class compete in races and other track and field events. All are encouraged to do their best, both for their own class and to help the school put its best foot forward. The goals of Sports Day are to build class and school solidarity and to encourage wholehearted individual effort and perseverance.

The Culture Festival in the late fall or spring is another high point. On that occasion each classroom plans and rehearses skits or other performances and every club demonstrates or displays examples of its activities. Every child is involved in one or more of these activities. Families and the community are invited to attend and the entire school endeavors to do its best.

The school year ends in March with a formal graduation or end-of-year ceremony which is somewhat less significant than the matriculation ceremony at the beginning of the year. Japanese culture places more emphasis on congratulations and encouragement at the outset of a child's educational career than upon its successful completion.

Daily schedule

The school day begins with a 10-minute faculty meeting in the teachers' room. Meanwhile, halls and classrooms are filled with the clamor of students arriving and preparing for the day. Generally speaking, children meet to walk to school together in neighborhood groups led by the 6th grade children.

Two or three times a week, following the teachers' meeting, the entire school gathers, either to perform morning exercises on the athletic field or have a short assembly and receive a brief inspirational message from the principal. Classroom activities begin at 8:30 a.m. with a 15-minute morning class meeting which is led by student monitors. Then two class periods are followed by a 25-minute recess and two more class periods.

Lunch at 12:30 p.m. is followed by a recess which lasts until 1:40 p.m.. Almost all Japanese elementary schools have a mandatory school lunch program for which parents are assessed a minimal fee. Students generally eat in their classrooms and take turns serving their classmates. Teachers remain with their classes during lunch.

After lunch and recess, in most schools the student body spends 20 minutes cleaning and sweeping the hallways and classrooms, an activity deemed important for character development. (In other schools, cleaning takes place at the end of the day.) Then, after two periods of afternoon classes, the day ends with a 10-minute class meeting. Following this, students pack their textbooks, notebooks, and other materials into their backpacks to carry home. No books or notebooks are left in students' desks.

At 3:50 p.m., students scatter to school organized clubs, private lessons, or home. Club activities include sports, music, and crafts. On weekdays, teachers often remain until 5 or 6 p.m. to plan lessons, lead club activities, or attend meetings. On Saturdays, school ends at noon, after three class periods.

Education philosophy and teaching practices

Two important assumptions underlie much of Japanese elementary and secondary education practices. One is that virtually all children have the ability to learn well and to master the regular school curriculum. The second is that certain habits and characteristics, such as diligence and attention to detail, can be taught. The premise is that all children have equal potential. Differences in student achievement are thought to result largely from the level of effort, perseverance, and self-discipline, not from differences in individual ability. Hence, students in elementary schools are not grouped according to ability.

Promotion to the next grade is not based on academic achievement, but is automatic. Neither is classroom instruction individualized according to ability differences. However, Monbusho encourages teachers to give extra attention and encouragement to weaker students. Students also supplement their school work at home and at juku.

The classroom teacher capitalizes on the 1st graders' feeling

of self-importance and awe at being in school by carefully instructing them in proper behavior and classroom routines during the first weeks of school. These include how to rise and bow at the beginning of class, how to sit, and how to arrange the desktop for study. In the Japanese view, this lays a proper foundation for desirable attitudes and habits which will continue throughout the child's school life.

Teachers in the early elementary years are not directly influenced by the entrance examination pressure which students will face in entering high school and college. Thus, they have more freedom in instructional approach than their secondary school colleagues who must prepare students to pass entrance examinations.

Almost all elementary schools use educational television broadcasts by NHK, the Japanese National Public Broadcasting Service. Science, social studies, and ethics programs are the most popular. Programs are broadcast weekly for each different grade level and are 15 minutes long. Yearly programming schedules are issued before the beginning of the school year so that teachers can use them in developing lesson plans. Each trimester, NHK also publishes a teacher's text, which contains a detailed description of each scheduled program and notes concerning how to use it in the classroom, for each grade level. These texts are widely available in local bookstores.[9]

The students' attention centers around teacher and textbook. Students learn to take notes in the 1st grade. A separate notebook is maintained for each subject, and in it the student records the lecture or classroom activity. Written examinations are given frequently, and homework is assigned routinely. Report cards are issued three times a year.

Each lesson is planned according to the sequence of material in the textbook, the teacher's manual, and the school's instructional guidelines which in turn are based on the Monbusho course of study. Teachers are required to cover all of the material that the course of study mandates for each grade level.

A basic characteristic throughout elementary and secondary education is the continuing emphasis on science and mathematics. The Japanese consider these subjects the basic building blocks of technology, and curriculum requirements ensure that all children receive extensive grounding in them. Mathematics is one of the required subjects on university entrance examinations and, hence, receives continuing attention through all grades.

Classroom management and school life

Japanese classes are large by American standards. In 1983, the average class size was 34 students and the legal maximum was 45. Hence 45 students may be assigned to a single class before two smaller classes are formed. Monbusho is now midway through a plan to reduce the maximum permitted class size from 45 to 40 by the year 1991.[10]

Within each classroom, students are organized in small, mixed ability groups called *han*. These groups of 4-6 students are cooperative study and work units. Teachers frequently ask the class to divide into han to work on specific assignments and have them report the results to the class. The han is also the primary unit for discipline, chores, and various other classroom activities.

Student monitors are an important part of Japanese classroom management. Each day or two, a different pair of students is in charge of calling the class to order, assisting the teacher in administrative tasks, and encouraging classroom discipline. The monitor role is rotated frequently so that every student in the class has the opportunity to serve in this capacity.

Through the use of han and monitors, teachers delegate much responsibility for classroom management and discipline to the students themselves. Through frequent rotation of roles and responsibilities, all students have the opportunity to gain leadership experience and develop first-hand understanding of the importance of cooperation and mutual effort in achieving a smoothly run classroom.

All schools have active student governments composed of elected representatives from each 4th-6th grade class. Student government activities reinforce school policies and give students experience in large scale planning. Although meetings and activities are supervised by teachers, students lead the organization. Participation in student government also provides experience in representing one's peers, in group decisionmaking, and in assuming responsibility.

While Japanese classes are larger than American ones, Japanese classrooms are more orderly. Students are more attentive and better behaved and transitions between activities are more rapid and orderly. The net result is significant: Japanese students spend about one-third more time during a typical class period engaged in learning than American students do during a typical class period.[11] It is important to note that this high level of organization and discipline is achieved without strong direct exercise of authority by the teacher.

The Japanese approach to classroom management and discipline is to provide extensive training from the first day of a child's school career in the routines and rituals which make up the classroom day. Coming to order, preparing one's desk for study, and lining up for dismissal are practiced repeatedly as separate routines until the entire class can perform them quickly and automatically. The daily monitor cues the class to perform the various routines. The teacher is, thus, freed from the necessity of personally managing transitions. These routines allow students to see themselves as responsible for their own behavior and help them develop pride in conducting themselves in an orderly, efficient manner.[12]

Japanese teachers rarely reprimand individual children. Instead, they prefer to guide the class in such a way that students assume responsibility for correcting each other's behavior. Rather than calling an inattentive child by name and encouraging him to hurry, the teacher typically remarks that a particular han is not ready and allows the child's han-mates to exert peer pressure to encourage the child to take or complete the necessary action.

In Japan, "student guidance" refers to the direction provided by the classroom teacher to help students establish fundamental attitudes and behaviors necessary for successful school life. Its scope is broad, ranging from study habits to academic counseling, social behavior, and character development. The influence of student guidance is evident during classroom instruction and also at daily morning and afternoon class meetings,

school events and ceremonies, and periodic teacher visits to students' homes.

Curriculum

Curriculum content and the sequence of instruction for each subject and grade level are specified in considerable detail by Monbusho. Teachers are free to incorporate supplementary teaching materials if they believe they enhance coverage of prescribed course content. Textbooks are written and published by commercial publishers, although the content is based closely upon Monbusho guidelines. After careful review to assure conformity with the prescribed courses of study, the Ministry of Education approves textbooks for use in elementary schools. Schools then select from among the books on the approved list. These are purchased by the government from the commercial publishers and distributed free of charge to children in both public and private schools. The books become the personal property of the students.

The elementary course of study and the required number of class periods devoted each week to each subject are summarized in table B.

Table B. Required Number of Class Periods Per Week and Year in Each Subject at Each Elementary Grade Level*

Subject	Grade					
	1	2	3	4	5	6
Japanese	8 (272)	8 (280)	8 (280)	8 (280)	6 (210)	6 (210)
Social Studies	2 (68)	2 (70)	3 (105)	3 (105)	3 (105)	3 (105)
Arithmetic	4 (136)	5 (175)	5 (175)	5 (175)	5 (175)	5 (175)
Science	2 (68)	2 (70)	3 (105)	3 (105)	3 (105)	3 (105)
Music	2 (68)	2 (70)	2 (70)	2 (70)	2 (70)	2 (70)
Art & Handicraft	2 (68)	2 (70)	2 (70)	2 (70)	2 (70)	2 (70)
Homemaking	–	–	–	–	2 (70)	2 (70)
Physical Education	3 (102)	3 (105)	3 (105)	3 (105)	3 (105)	3 (105)
Moral Education	1 (34)	1 (35)	1 (35)	1 (35)	1 (35)	1 (35)
Special Activities	1 (34)	1 (35)	1 (35)	2 (70)	2 (70)	2 (70)
Total number of required class periods	25 (850)	26 (910)	28 (980)	29 (1015)	29 (1015)	29 (1015)

*Each class period is 45 minutes long. Numbers in parentheses are number of class periods required per school year.

Sources: Okuda, Shinjo. "The Curriculum and its Contents in Secondary Education." Paper presented at International Seminar on Educational Reform, National Institute of Multimedia Education, Kyoto, Chiba, October 14-17, 1985, and Ministry of Education, Science, and Culture. *Course of Study for Elementary Schools in Japan*. Tokyo: Monbusho, 1983, p. 122.

Japanese language.[13] Japanese children spend one-fourth of their time in elementary school mastering their own language. This is an arduous, complex task. Written Japanese is a mixture of Chinese characters and Japanese phonetic symbols. Three separate writing systems must be learned. Two of these consist of 48 phonetic symbols each. The third system is composed of approximately 2,000 Chinese symbolic characters, each of which can be read or pronounced in several ways, depending on its context. These characters usually are visually complex units requiring from one to twenty brush strokes each. In regular text, Chinese characters are combined with the phonetic symbols according to carefully prescribed rules to form words and sentences. While the Japanese phonetic symbols have little ambiguity in pronunciation, the Chinese characters almost invariably have two or more possible pronunciations.

Two additional features of the Japanese language compound the difficulty for learners. Individual words are not visually separated from each other, and children must learn to intuit which symbols must be grouped together to form a word. Furthermore, there are two different styles of following text. The first is to read from left to right, horizontally, as in Western books. The second is to read columns vertically from top to bottom, starting with the column on the far right, in traditional Japanese style. In Japanese language classes, textbooks are printed vertically and children write their compositions in similar form. In arithmetic and science, textbooks are printed horizontally, and notebooks for these subjects must be kept in similar fashion.

During the first year of elementary school, children learn to read and write the two 48-character phonetic systems and a few Chinese characters. Each year thereafter, approximately 200 Chinese characters are added, along with their various readings and rules of spelling for common words. It is not until the end of the 9-year compulsory period that children have mastered the approximately 2,000 characters necessary to basic literacy—enough to permit the reading of newspapers, for example. In learning to write, proper shaping of letters and characters is stressed at all levels. To this end, formal training in calligraphy, using traditional brushes and ink, is begun in the 3rd grade. The complexity of the Japanese writing system is illustrated by figures 5 and 6, which show the Japanese phonetic letters and the Chinese symbolic characters to be learned in the first 3 grades.

In addition to reading and writing, Japanese language classes emphasize other important skills. Practice in public speaking, speaking calmly and succinctly before a group, is a regular part of the curriculum, starting in 1st grade.

Formal grammar is taught beginning in the 3rd grade, and by the 6th grade has advanced through auxiliary verbs, prepositions, and conjunctions. Thirty percent of the time in language class is devoted to composition. Composition is taught beginning with the combination of subject and predicate in the 2nd grade and advancing by 6th grade to alternative styles and ways of expressing the same thought.

Social studies. The social studies curriculum stresses the interdependence of all levels of society and the responsibility of each individual for the collective welfare. In the 1st grade, the

Figure 5. The Two Systems of Japanese Phonetic Letters

Table 1. THE SYLLABARIES

HIRAGANA
(used for Japanese words)

ん	わ	ら	や	ま	は	な	た	さ	か	あ
		り		み	ひ	に	ち	し	き	い
		る	ゆ	む	ふ	ぬ	つ	す	く	う
		れ		め	へ	ね	て	せ	け	え
	を	ろ	よ	も	ほ	の	と	そ	こ	お

KATAKANA
(used primarily for foreign words)

ン	ワ	ラ	ヤ	マ	ハ	ナ	タ	サ	カ	ア
		リ		ミ	ヒ	ニ	チ	シ	キ	イ
		ル	ユ	ム	フ	ヌ	ツ	ス	ク	ウ
		レ		メ	ヘ	ネ	テ	セ	ケ	エ
	ヲ	ロ	ヨ	モ	ホ	ノ	ト	ソ	コ	オ

Source: Hadamitzky, Wolfgang, and Mark Spahn. *Kanji and Kana: A Handbook and Dictionary of the Japanese Writing System*. Rutland, Vermont, and Tokyo: Charles E. Tuttle Co., 1981. (Copyright 1981: Used with the permission of the Charles E. Tuttle Company.)

Figure 6. Chinese Characters To Be Learned in the First Three Grades

GRADE 1	一 右 雨 円 王 音 下 火 花 学 気 九 休 金 空 月 犬 見 五 口 校 左 三 山 子 四 糸 字 耳 七 車 手 十 出 女 小 上 森 人 水 正 生 青 夕 石 赤 千 川 先 早 足 村 大 男 中 虫 町 天 田 土 二 日 入 年 白 八 百 文 木 本 名 目 立 力 林 六 (76 characters)
GRADE 2	引 雲 遠 何 科 夏 家 歌 画 回 会 海 絵 貝 外 間 顔 汽 記 帰 牛 魚 京 教 強 玉 近 形 計 元 原 戸 古 午 後 語 工 広 交 光 行 考 高 黄 合 谷 国 黒 今 才 作 算 止 市 思 紙 寺 自 時 室 社 弱 首 秋 春 書 少 場 色 食 心 新 親 図 数 西 声 星 晴 切 雪 船 前 組 走 草 多 太 体 台 池 地 知 竹 茶 昼 長 鳥 朝 通 弟 店 点 電 冬 刀 当 東 答 頭 同 道 読 南 馬 買 売 麦 半 番 父 風 分 聞 米 歩 母 方 北 毎 妹 明 鳴 毛 門 夜 野 友 用 曜 来 楽 里 理 話 (145 characters)
GRADE 3	悪 安 暗 医 意 育 員 院 飲 運 泳 駅 園 横 屋 温 化 荷 界 開 階 角 活 寒 感 館 岸 岩 起 期 客 究 急 級 宮 球 去 橋 業 曲 局 銀 苦 具 君 兄 係 軽 血 決 県 研 言 庫 湖 公 向 幸 港 号 根 祭 細 仕 死 使 始 指 歯 詩 次 事 持 式 実 写 者 主 守 取 酒 受 州 拾 終 習 週 集 住 重 所 暑 助 昭 消 商 章 勝 乗 植 申 身 神 深 進 世 整 線 全 送 息 族 他 打 対 待 代 第 題 炭 短 着 注 柱 帳 調 直 追 丁 定 庭 鉄 転 都 度 投 島 湯 登 等 動 童 内 肉 農 波 配 畑 発 反 坂 板 皮 悲 美 鼻 氷 表 秒 病 品 負 部 服 福 物 平 返 勉 放 万 味 命 面 問 役 薬 由 油 有 遊 予 洋 葉 陽 様 落 流 旅 両 緑 礼 列 路 和 (195 characters)

Source: Monbusho. Course of Study for Elementary Schools in Japan. Tokyo: Monbusho, 1983. p. 24.

focus is on the child's own school and family. In the 2nd, the emphasis shifts to the community. At subsequent grade levels the scope expands to encompass the city, the prefecture, the nation, and foreign countries. In the 6th grade, students receive an overview of Japanese history and the modern Japanese political system. They are also briefly introduced to world geography and Japan's relations with other nations. Learning to understand maps, graphs, and tables is stressed throughout the elementary school period.

Arithmetic. Children in Japan are introduced to many concepts such as decimals, fractions, and geometric figures earlier than their American counterparts. Accuracy in computation is stressed more than the ability to estimate.[14] More emphasis is placed on geometry, ratios, proportions, and reading charts than in most American elementary schools.

Japanese arithmetic textbooks are succinct and provide little repetition or review. Concepts and skills are typically presented only once. The emphasis is placed on proper initial instruction and elaboration by the teacher. It is assumed that the child will persevere in drill and study until the concept is mastered. Teachers pace their coverage of the material so that the entire course of study and textbook have been covered by the end of the year and the class can proceed to the next grade level uniformly prepared.

The number of hours devoted to arithmetic in the elementary school curriculum is more than in American elementary schools, but not dramatically so. Japanese children spend considerably more time studying arithmetic, however, because of more efficient use of the class hour and more time devoted to out-of-school effort through a combination of homework, private tutors, and remedial or cram schools. These factors combine to help Japanese children achieve their competitive edge in international comparisons of achievement in mathematics.

Science. The science curriculum aims to help children develop the ability to observe, conduct simple experiments, and learn to appreciate and enjoy nature. Several core areas are restudied at successive grade levels with increasing sophistication and detail. Biology studies include the life cycle of plants and their relationship to soil, water, and air, as well as basic anatomy and the life cycle of animals, fish, insects, and humans.

Matter and energy are explored through the study of the properties of gases and solutions, combustion, magnetism, light, sound, and electricity. The earth and the universe are studied through weather and atmospheric phenomena, geology and erosion, and the movements of the heavenly bodies. By the end of the 6th grade, students have learned to design and execute simple experiments and to record and describe their observations.

Music. Music is an integral part of the elementary school core curriculum. It includes singing, instrumental performance, and appreciation of both Western and Japanese music. From the 1st grade, children learn to play melodies and simple harmonies on small keyboard and wind instruments. They also receive formal instruction in reading music. Musical expression and improvisation of simple accompaniments are encouraged through the use of various percussion instruments. All children are exposed to a common core of Japanese and Western classical works, including Bach, Handel, Beethoven, and Schubert.

Arts and handicrafts. The Japanese arts curriculum provides an organized approach to the acquisition of some fundamental artistic skills and to the process of artistic creation. Instruction in drawing and painting proceeds from the use of pastel crayons to the use of watercolors in the upper grades. Training in formal composition and the use of special techniques such as perspective, depth and dimension, and light and shadow begins in the 3rd grade. Printmaking starts with paper prints in the 1st grade and culminates in carved woodblock prints in the 5th and 6th grades. Sculpture is approached in a similar fashion. Beginning in the 3rd grade, students are taught to make preliminary sketches and later to draw plans or make models for objects they wish to construct.

Homemaking. In the 5th and 6th grades, Japanese boys and girls receive 2 hours of instruction per week in basic homemaking skills. The goal is to deepen children's appreciation of and participation in family life. Children practice basic meal planning and learn how to prepare and serve simple foods. They learn to take care of their own clothing, including handwashing of various articles, sewing buttons, and mending seams. They also practice making simple articles like bags and aprons and decorating them with simple embroidery.

Physical education. The Japanese value sports and exercise, and the government actively promotes lifelong sports activities. The goals of the elementary school physical education curriculum are to help children learn to enjoy games and physical exercise, grow in strength and perseverance, and develop athletic skills, as well as become knowledgeable about achieving and maintaining good health.

The sports program includes track and field activities, marching and drill, soccer and basketball, gymnastics and dance. Swimming instruction is common, and three-quarters of all elementary schools have a pool. By the 6th grade the majority of Japanese children are competent and confident in the water. In the cold and snowy areas of the country, ice skating is encouraged during the winter months on rinks created by flooding portions of the school grounds.

Health also receives considerable attention. The School Health Law provides for annual physical examinations for all students. The health curriculum emphasizes proper nutrition, traffic safety, and a healthy lifestyle. In the 5th grade, students study physical growth and the changes associated with puberty.

Moral education. Although occupying only 1 class hour per week, moral education has a fundamental role in Japanese education. It is a distinct area of instruction at every level of compulsory education, and attitudes, habits, and behaviors which are consistent with the Japanese value system are infused throughout the curriculum.

The Japanese concept of moral education is far from vague or formless. Twenty-eight themes in six categories are covered at the elementary level, among them:

- Importance of order, regularity, cooperation, thoughtfulness, participation, manners and respect for public property;
- Endurance, hard work, and high aspirations;
- Freedom, justice, fairness, rights, duties, trust, and conviction;
- The individual's place in groups such as the family, school,

nation, and world;
- Harmony with nature and its appreciation;
- Need for rational and scientific attitudes toward human life.

In addition to the prescribed content, each school annually identifies two or three central goals in moral education to be emphasized during the year. For example, in 1985, one elementary school chose thoughtfulness and endurance as its foci and requested all teachers to collaborate in reinforcing these. Individual teachers, too, often develop goals for their own classes in addition to the school's goals. While teachers do not necessarily share a single view of moral education, they readily accept their responsibilities in this curriculum area.

Unlike other subject areas in the curriculum, no textbooks are used in moral education. Many teachers use educational television programs expressly developed for moral education, as well as commercially available materials, to promote student discussion on moral issues. There is considerable latitude in this area for teachers to develop their own approaches.

Special activities. Special activities occupy approximately 10 percent of the elementary and secondary school program: 1 hour per week for the 1st-3rd graders and 2 hours per week for the 4th-6th graders. These activities include all-school events such as sports and cultural festivals, excursions, and ceremonies, as well as pupil activities such as classroom meetings, student council meetings, and club activities.

Many of what are termed "special activities" in Japanese education are similar to those categorized as extracurricular activities in American education. However, in Japan these activities are more closely integrated with the formal curriculum, tend to involve all students, and are directed more toward character development. The overall objective is to use these experiences to promote the internalization of cultural values and to cultivate attitudes and habits which lead to the individual's responsible contribution to cooperative group effort.

Home-school relations and home environment

The Parent-Teacher Association is an important locus of activity for parents involved in the school life of their children. Mothers are expected to attend PTA meetings. The PTA functions as a forum for the school to explain its policies and expectations to parents and to organize parental assistance for school activities. It rarely contradicts the school's administration. In addition to meeting in large, all-school forums, parents meet as a group with the classroom teacher. Annual PTA dues range from about $9 at a public elementary school to about $30 at a private high school.[15]

During the first weeks of school every year, teachers visit the home of each of their pupils to understand the family situation and study environment. Parents visit and observe the classroom and consult with teachers on specific days that are scheduled for such meetings. Parents are guests at the various festivals and ceremonies held throughout the year.

Schools not only train children in the norms and routines of school behavior, but are also responsible for teaching children habits expected in the adult world, such as punctuality, neatness, and respect for authority. Japanese parents support this function.

The school is not reticent about communicating to parents its beliefs regarding proper parental roles in education and in childrearing. For example, schools often set boundaries for children's movements within the neighborhood or recommend evening curfews. During summer vacation, the PTA newsletter typically contains guidelines for parents on the times their children should get up and go to bed and when and how long they should study.

Studying is encouraged and supported in the Japanese home. Ninety-eight percent of all elementary school children have their own desks in designated study areas.[16] Many mothers work with their children on a daily basis, helping with homework or drilling on lessons to be learned. Inexpensive home study guides and drill books for all grade levels and subjects are available at local bookstores. These are designed to supplement the government approved texts and are indexed to pages and chapters in the official texts.

The mother-child bond provides strong emotional support for the child, particularly in the upper grades, as the child becomes progressively more aware of the importance of academic achievement and the severity of education competition. The mother reinforces this awareness by encouraging the child to study and inducing the child to realize that academic success is important to her and of great concern to the family.

Educational pressures

The Japanese elementary curriculum is cumulative and demanding. At each grade level, children are required to learn large quantities of new material and proceed quickly from one new concept to the next. Although most children manage to keep reasonable pace with the instructional objectives, some fall behind. The plight of children who have fallen seriously behind in their studies is much discussed in Japan. These children are termed *ochikobore*, literally, those who have "fallen to the bottom" of the system. Although detailed evidence is scarce, the problem clearly exists and receives considerable sympathetic attention in the mass media and from the public.

Some evidence regarding the extent of the problem is found in a recent comparative study of reading achievement among 1st- and 5th-grade children in one city in Japan, one in Taiwan, and one in the United States. Results for the Japanese sample showed that although most children enter 1st grade well prepared in reading, by 5th grade a significant number of them have fallen seriously behind.[17] Four months after entering 1st grade, 86 percent of the children in the sample were reading at 2nd grade level or above. However, over the next 4 years this initial lead in reading sharply diminished. When tested in the 4th month of the 5th grade, only 27 percent of the children were still reading above grade level, while 25 percent had fallen 2 or more years behind. Ten percent were reading at only 1st- or 2nd-grade levels. Two important findings of this study by Harold Stevenson and his collaborators were: "There *are* Japanese children with serious difficulties in learning how to read, and the severity of their problems is at least as great as that of American children."[18]

A demanding curriculum and the small amount of remedial attention in school are not the only causes of ochikobore. As in

all countries, there are diverse reasons why some children have difficulty keeping up with their schoolwork. Differences in intellectual ability, family environment, and personality characteristics are among the familiar factors which account for the variation in academic achievement. The lack of individualization of instruction compounds the plight of the slow learner or those with other scholastic problems. Although some teachers do provide individual assistance outside of class time for the slowest learners, the burden of remedial education falls directly on the family.

Parents concerned with maximizing their children's chances for success in school and in subsequent higher education and employment provide whatever help with homework they can and then pay for outside assistance as necessary. In Japan this usually takes the form of either hiring a private tutor or, more commonly, sending the child to juku. For many, juku provide the necessary reinforcement which enables Japanese children to keep abreast of the demanding curriculum.

Out-of-school education

In the elementary school years, juku attendance rates rise from 6.2 percent of all 1st grade children to 30 percent of all 6th grade children.[19] Attendance rates continue to increase through lower secondary school as well.

A 1985 survey of juku by Monbusho reports that half of the elementary school students who attend juku take one subject and almost 30 percent take two. The subjects most frequently studied are Japanese language and arithmetic. Just over 10 percent of all elementary school students attending juku study four subjects. In effect these children are studying the basic academic curriculum twice, once in school and then again in juku. It is interesting to note that about 25 percent of all elementary school students in juku are estimated to be studying English, although it is not a required subject in elementary school.

The majority of elementary school students who attend juku attend at least twice a week, but study for less than 1 hour at each session. Students in the upper elementary grades have longer lessons, although generally under 2 hours per visit.

At the elementary level, the majority of students are enrolled in either a catch-up or preparation and review program. For many children, the juku provide important educational services that complement instruction provided by the formal school system.

Children returning from abroad

Japan's increasing involvement in the international community has created problems for school-aged children who go abroad with their parents and then re-enter the Japanese education system upon return. Not only have they fallen behind in such academic subjects as Japanese language, mathematics, and science, but they no longer display traditional patterns of behavior expected in Japanese classroom life. They are also at a disadvantage in preparing for or taking entrance examinations for high schools and universities in Japan. This makes overseas assignments a source of considerable anxiety for parents of school-aged children.

Many families faced with an overseas assignment for the father resolve the potential problem by having the mother remain in Japan with the youngsters so they can stay on course in the Japanese education system. Some families take their children with them initially, but send them home before the crucial high school or university entrance examination years. Continuity in school and with one's group of classmates is considered important, especially when the examination preparation stages are reached beyond elementary school. The number of youngsters returning to Japanese elementary and secondary schools in 1982 was 9,600.

The Ministry of Education has taken steps to deal with the problems of students returning from abroad. In 1983, there were 74 full-time Japanese schools worldwide (including one each in New York and Chicago) and 95 Saturday schools (33 in the United States). Although these schools provide a basic Japanese curriculum, most returning children still experience difficulty in readapting to Japanese schools. Hence the Ministry of Education has also encouraged the establishment of special programs to assist in the reintegration of children who have returned from abroad. In 1982, there were 124 schools in Japan with such special programs, most of them located in Tokyo, Osaka, and the surrounding metropolitan areas.[20]

Lower Secondary School (Grades 7-9)

Entering lower secondary school (the equivalent of junior high school in the United States) is another major stage in coming of age in Japan. For the first time, public school students are required to wear uniforms. Other aspects of personal appearance are also regulated, including hair style and accessories. These changes symbolize the seriousness of secondary education and the expected attitudes and demeanor. Though elementary school is serious and disciplined, the atmosphere of lower secondary school is more so. There is greater emphasis on academic subjects and concerns. Education goals and procedures focus more narrowly on the transmission and acquisition of factual knowledge and on the further development of basic skills.

Completion of lower secondary school marks the end of compulsory education. It is the point of departure for entry into employment, for the few so inclined at this stage, and for the first competitive sorting of those who go to senior high school and beyond.

Facilities

Public lower secondary school buildings and grounds are usually separate from those of elementary and upper secondary schools, but are often similar in design with comparable facilities for learning.

In the classroom desks are arranged in rows, and each pupil has a chair and desk where books are stored during the day. Rooms are generally spare, often with a single poster indicating the classroom cleaning schedule for students or the weekly list

of scheduled classes. The lack of displays and decorations signals that serious study is the primary purpose of the room. Computers and other technical learning devices are not evident in the Japanese classroom; in 1983 only 3 percent of lower secondary schools had a personal computer, and few were used for instruction.[1]

Organization and staff

The administration of lower secondary schools is similar to that of elementary schools, with the principal and head teacher at the top. Almost all of these positions are filled by men. The majority of head teachers are more than 50 years old, and most principals are more than 55.[2]

About one-third of lower secondary school teachers are women.[3] Three-quarters of the teachers at this level have bachelor's degrees, while only 1 percent have graduate degrees.[4] The average number of teaching hours per week is about 22.[5] Average class size is 36 students.[6]

Each class has it own room where it remains all day. The teachers, not the students, move between classrooms. This helps maximize learning time. The room, and its daily maintenance, is the responsibility of the students who occupy it; it is not the responsibility of the teachers who come there to lecture. (This is also the situation at the upper secondary level.)

Each class is assigned an advisor, *tannin*, whose duties combine those of homeroom teacher and counselor in the United States. This advisor is a teacher who is responsible for the academic and social guidance of the members of the class, including counseling on personal and behavioral problems. The advisor is present at daily and weekly homeroom meetings and handles various class administrative matters. For 9th graders, tannin guides each student in selecting the appropriate upper secondary school.

Instruction and evaluation

A basic characteristic of Japanese secondary education and high school and university entrance examinations is adherence to the view that there is only one right answer. Generally speaking, the premium is on mastery of factual material, often through drill and memorization, rather than on analysis, investigation, and critical thinking.

Instruction is based heavily on lectures which adhere closely to the textbook and course content specified by Monbusho. The teacher's main concern is to cover the prescribed material thoroughly. Instruction in most subjects is teacher-centered and takes place in a straightforward manner, usually through lectures and use of the chalkboard. Students are frequently called on for answers and recitation. They stand to respond.

Other methods of instruction are also employed, including field trips, student projects, and laboratory work in science. Two-thirds of all Japanese lower secondary schools use some educational television as part of their instructional program, and about 20 percent use educational radio.[7]

As in the elementary school, students are treated uniformly and are not assigned to separate classes or groups on the basis of ability. Students are still commonly divided into small groups for classroom duties, but the elementary school emphasis on han as basic units for instruction largely disappears. Students take tests at the end of each of the three trimesters of the Japanese school year, and their performance is recorded for parents on report cards which contain test scores, comments on the student's day-to-day performance, and the teacher's general evaluation.

By the 9th grade, impending high school entrance examinations impart a sense of urgency to studying. In-class drilling for these examinations is rare in public schools, however.

Curriculum

In addition to the required subjects of the core curriculum, the lower secondary school introduces the study of English. The typical number of class periods per week for the full curriculum is shown in table C.

Table C. Required Weekly Class Periods per Subject, by Grade Level.*

Subject	First Year (Grade 7)	Second Year (Grade 8)	Third Year (Grade 9)
Japanese language	5	4	4
Social studies	4	4	3
Mathematics	3	4	4
Science	3	3	4
Music	2	2	1
Fine arts	2	2	1
Health and physical education	3	3	3
Industrial arts or Homemaking	2	2	3
Moral education	1	1	1
Special activities	2	2	2
Elective (usually English)**	3	3	3
Additional elective hour***	0	0	1
Total	30	30	30

* Each class period is 50 minutes long.

** Electives are assigned at the principal's discretion. The entire grade level is required to take the same elective. English is the almost universal elective.

*** The additional elective hour in the 3rd year is typically assigned by the principal to one of the more difficult subjects such as mathematics or English.

Source: Ministry of Education, Science, and Culture, Japan. *Education in Japan: A Graphic Presentation.* Tokyo: The Ministry, 1982. p.59.

Japanese language. Lower secondary students study Japanese at an accelerated pace. In addition to a review of the 1,000 characters covered during elementary school, they learn to read and write another 1,000 characters, thus completely covering the 2,000 characters required for basic literacy in Japanese. Students continue to study composition, grammar, and calligraphy and are introduced to classical Japanese and Chinese literature, learning to read short, easy passages in archaic language and literary style.

Social studies. In the first 2 years of lower secondary school, students restudy Japanese history and geography at a more

sophisticated level. They also study world history and geography in terms of other countries' relations with Japan. In the third year, students learn the fundamentals of Japanese civics, including the principles of the constitution and legal system, and the interrelationships of local, prefectural, and national government. Considerable attention is devoted to economics, including taxes, insurance, savings, price determination, trade unions, and international commerce.

There is strong emphasis on reading and interpreting statistics, maps, and tables of all types. In addition, students learn to make observations, conduct surveys, and summarize their results in a formal report. A study comparing Japanese secondary school social studies textbooks to those of the United States found that Japanese textbooks present more complex vocabulary, more data, and a broader range of points of view than American texts do. American textbooks include more case studies, inquiry exercises, and reflective thinking activities.[8]

Mathematics. In addition to completing the study of basic arithmetical concepts and skills, principles of algebra and geometry are taught at each grade level of lower secondary school. In the 2nd and 3rd years, probability and statistics are covered. By the end of the compulsory curriculum, all Japanese students have studied algebra through the factoring and plotting of quadratic equations and the geometry of circles, the Pythagorean theorem, and some basic solid geometry.

According to an analysis by Bruce Vogeli of Teachers College, Columbia University, the normal pace in these subjects (and most others) for all Japanese students is roughly equivalent to "the fast track in a good suburban school system in the U.S." Vogeli further observed that in the United States, "junior high school mathematics is primarily a review of arithmetic, while in Japan it is oriented around basic algebra and geometry."[9]

Japanese mathematics textbooks at the lower secondary level are much shorter than similar textbooks in the United States, and their prose style has been described as "terse." The texts are written with the assumption that the teacher will provide whatever further explanation and elaboration may be necessary to fully convey the concepts. Problems in the textbooks are more complex than in American textbooks. End-of-chapter drills and extra problems are fewer and rarely include answers.[10]

Mathematics teachers do not typically assign a great deal of homework, but it is assumed that students will spend considerable time reviewing and studying on their own. Japanese 7th-grade teachers report that they assign 1.7 hours of mathematics homework per week in comparison to 2.6 hours per week reported by U.S. teachers.[11] Yet, when the time spent on homework is combined with juku classes and/or private tutoring, Japanese 7th grade students report spending 4.7 hours per week studying mathematics outside of class in comparison to 2.9 hours per week at the equivalent level in the United States.[12]

Like other subjects, mathematics is taught in a well-organized systematic fashion. Let's look at a typical lesson:[13]

The teacher arrives in the classroom a few minutes after the bell rings, signalling the end of the 10-minute break between classes. The day's student monitor calls the class to attention. All students rise and bow.

Instruction begins almost immediately with a 5- to 8-minute review of the previous lesson and its homework problems. The latter, with their solutions, have already been written on the chalkboard by students assigned this task the previous day.

The teacher then introduces the new material to be covered and assumes that the students already have looked over the new section in their textbook before coming to class. The teacher refers to related topics covered at earlier levels, provides definitions and explanations, and writes key points on the chalkboard as the lesson evolves.

Students are expected to take notes in their mathematics notebooks as the lesson proceeds. Teachers collect the notebooks periodically for inspection, as is done in other subjects. All notebooks contain a dated entry followed by a complete record of what the teacher has written on the board, as well as supplementary notes. Problems worked in class are entered, followed by homework assignments and any additional home study. When teachers evaluate students' homework, the entire notebook is collected. Very little work is done on separate sheets of paper.

After explaining the new material, the teacher works some sample problems on the chalkboard. Then the students are assigned one or two problems to solve at their desks. Students are free to discuss these problems with their seatmates. The solutions are finally settled through explanation at the board.

As the end of the class period approaches, the teacher reviews the important points of the day and describes the topic that the next lesson will cover. One or two homework problems may be assigned, and the students who will put them on the board the next day are designated. When the bell rings, students again rise and bow, and the teacher returns to the teachers' room.

Science. During the 1st year, students study the properties of substances and their reactions, characteristics and measurement of force, plant and animal ecology, and the solar system. During the 2nd year, the curriculum covers atoms and molecules and their influence on chemical reactions, electrical circuits, cellular processes and microscopic organisms, and the mechanisms involved in weather changes. By the end of the 3rd year, students have studied the interrelationship of motion, energy and work, ions and ionic substances, ecology, photosynthesis and bio-organic processes, and rock types and geologic formations. Scientific observation, laboratory experiments, and fieldwork are part of the curriculum at all levels.

Music. The music curriculum continues to emphasize vocal and instrumental performance and appreciation. Students learn to sing in a chorus and play musical instruments in an ensemble. A full complement of treble, mid-range, and bass parts is included, and attention is paid to sophistication of tone quality and phrasing. Music appreciation includes a broader acquaintance with classical Japanese music, world folksongs, and classical and modern Western orchestral and solo music. Basic music theory and history are also covered. Students compose simple works for voice or instruments and perform them as a group.

Fine arts. The middle school curriculum continues training in painting and sculpture and adds graphic design. Students plan and construct larger works. They make a diagram, develop a production schedule which accounts for the required tools and steps in completing the project, make a model, and finally pro-

duce the finished product. Students also learn about various periods and styles of paintings, sculpture, design, and craft work.

Health and physical education. Physical education encourages students to be interested in and develop their ability to participate in individual and team sports, including exercise, gymnastics, swimming, volleyball, soccer, and basketball. Boys are trained in traditional Japanese martial arts such as judo and fencing. Girls study expressive dance. For both sexes, planned individual programs to increase physical skills are emphasized.

Twenty percent of class time is devoted to the study of health, including physical and mental growth and development. Topics include prevention of disease and accidents, first aid, and the interrelationship of health and daily habits.

Industrial arts and homemaking. In lower secondary school, most boys are trained in industrial arts and most girls in homemaking, though boys and girls can choose to take either subject. The general purposes are to help students acquire practical skills, to become accustomed to using them, and to develop appropriate attitudes toward work and home life.

The industrial arts curriculum includes woodworking, metal working, machine and engine maintenance, wiring and electrical circuitry, and agriculture and crop cultivation. The homemaking curriculum covers clothesmaking, cooking, nutrition, housing and interior design, and infant and child care.

English. According to Monbusho requirements, English is an elective subject, one of several foreign languages approved for study at the lower secondary level. As noted earlier, in Japan most "electives" are not choices left to the student, but are courses selected by the principal according to prefectural guidelines. Nearly all lower secondary schools follow a policy of requiring 3 years of English language instruction involving 105 class hours per year. The choice is not surprising, in part because English is one of the required subjects on university entrance examinations.

The purpose of the English curriculum is to train students to read and write English, relying on grammatical analysis and translation to and from Japanese as the primary methods. Instruction includes grammatical explanation, practice with basic sentence patterns, and memorization of vocabulary. Each year approximately 350 words are studied in addition to various idioms and grammatical forms. Brief passages are read and translated and students practice writing short compositions in English.

Although there have been various efforts over the years to provide more experience in listening to and speaking English, these dimensions remain underdeveloped. The English portions of the university entrance examinations have focused exclusively on the written rather than spoken language, and instruction at the secondary school level is primarily geared to what will be tested in the university entrance examinations. Moreover, few Japanese teachers of English have substantial proficiency in conversational or idiomatic English.

Moral education. This core educational concern continues to be addressed along the lines and themes summarized in the elementary school curriculum section. Self-control is emphasized in a broader human and social context. The course is taught by the classroom advisor. Character development is stressed by all teachers in and out of formal classroom situations.

Special activities. Two class hours per week are devoted to special activities which, as in elementary school, consist primarily of ceremonies, field trips, all-school events, and required club activities. Teachers continue to emphasize student guidance in both cognitive and behavioral matters and encourage the development of group awareness, cooperative attitudes, and proper behavior.

Class trip. Each May, all Japanese 9th graders go on an extended field trip. For 4 days and 3 nights, teachers and students tour one or another of Japan's famous cultural and historical metropolitan areas. Kyoto, Tokyo, and Hiroshima are favorites. The purposes of these trips are to broaden students' experience with a region of the country other than their own and to create an enjoyable, shared memory of school life. Another important goal is to train students in public manners and group etiquette. Students are expected to conduct themselves with dignity. Maintenance of school reputation is a serious matter.

Students and teachers spend a great deal of time in cooperative planning and preparation for this major event in class history. Many students carefully save money to help finance their expenses. Families contribute most of the costs, and assistance for needy students is usually available.

Clubs. All students are required to participate in a school club during one of the special activities hours. There are clubs for the arts and several academic areas as well as for sports.

The vast majority of students also belong to an after school club. These clubs are school based, but largely student organized and run. Athletic clubs are the most popular. Club activity starts when school ends shortly after 3 p.m. and continues until 5 or 6 p.m., depending upon the season of the year.

Two-thirds of all Japanese students in the three grades of lower secondary school report that they actively participate in the voluntary clubs. Many students would likely engage in club activities every day, but school regulations generally limit the number of days a club can meet each week. In Japan, the better a student's academic record, the more likely the student will be active in a sports club.[14]

Juku

Lower secondary school students attend juku after school on the average of two and a half times per week. They average 2 hours of lessons per regular visit or 5 hours total per week. Juku students today have somewhat longer lessons and heavier courseloads than their predecessors did a decade ago.[15]

Of all lower secondary school students attending juku, the largest group, 42 percent, is studying two subjects each week, which are, almost without exception, English and mathematics. Twenty-five percent of all third-year lower secondary school juku participants take five subjects.

The number of juku that concentrate on examination preparation has increased in recent years. Currently the educational goals stated by juku operators for their lower secondary school programs are evenly divided between giving students a better understanding of ongoing school work and preparing them for entrance examinations.[16]

Problem areas

The demanding curriculum is difficult for slow learners. Three aspects of education policy compound this problem: the view that effort alone can compensate for differences in ability; little provision for diagnosis of learning disabilities and individualized remedial assistance; and automatic promotion, which increases the pressure on students who have fallen behind (ochikobore) as they face an increasing burden of academic demands. Inevitably, the number increases with grade level, accompanied by attendant disaffection from school.

There is some school violence in Japan, though its extent, both in degree and frequency, is much less than that experienced in the U.S. However, because violence is considered a serious aberration of school and societal norms, it is a source of public concern and receives extensive coverage in the mass media.

In Japan, "school violence" usually means violence directed against teachers, student violence against other students, and vandalism. It rarely includes teacher violence against students. The number of schools in which incidents of student violence occurred declined between 1982 and 1984. In 1984 about 11.5 percent of public lower secondary schools experienced some form of school violence.

The related problem of *ijime*—"bullying," the intimidation or tormenting of individual students by others, especially by groups of students—has become the subject of serious concern and widespread media coverage throughout the country. Bullied students are said to have some characteristics which set them apart from the rest of the students. From all accounts, the problem has been increasing in recent years and is more serious at the junior high than at the senior high school level.

Monbusho has set up a program to make teachers sensitive to such behavior and its symptoms, and the police have established a special unit, including a telephone hotline, to deal with such incidents. In the first half of 1985, approximately 1,000 students were involved in bullying incidents which required police intervention. The Tokyo hotline received over 1,300 calls in 6 months, mostly from lower secondary school students who were victims of bullying.[17]

Transition to upper secondary school

In Japan, the passage from compulsory education to senior high school is not automatic. It requires formal application and entrance examinations, which are given in March. Preparation for these examinations becomes the dominant concern of most students in 9th grade. Changes in participation patterns in sports clubs and juku dramatize the shift in use of discretionary time.

In July, at the end of the first trimester, third-year students begin to withdraw from active participation in clubs and enrichment activities and increasingly focus their out of school time on preparation for the entrance examinations for upper secondary school. The participation rate in clubs drops sharply from over 90 percent of students in 7th and 8th grades to just under half of the students in 9th grade.

Of students attending juku in the 7th grade in 1985, about 62 percent were enrolled in a program geared toward reviewing and supplementing regular classroom instruction, while approximately 24 percent were engaged in an examination preparatory program. For 9th-grade students facing high school entrance examinations, the pattern changed considerably. The proportion of juku attendees engaged in examination preparatory programs more than doubled, to 54 percent, while the proportion engaged in review and supplementary study programs dropped off somewhat to a still high level of 43 percent. There was a related decline in the proportion of students taking nonacademic enrichment lessons, from approximately 36 percent of 7th-grade students to only 20 percent in 9th grade. These shifts reflect the preoccupation of third-year students with the challenge of gaining entry to a senior high school of their choice.

The 6-week summer vacation and New Year's holidays are times of particularly intense study and preparation. High school entrance examinations are given in March.

Upper secondary school hierarchies. In public perception, each of the high schools in an attendance area is ranked in a hierarchy. This perception is based largely on each school's record of success in sending its graduates to prestigious institutions of higher learning—the traditional standard of excellence in Japanese upper secondary education. Historically, public schools have enjoyed greater status than private schools, but the situation is undergoing some change. The majority of private schools and public vocational schools still occupy the middle and lower rungs of the hierarchy. Recent scholarship indicates that part-time, correspondence, and night schools or programs are usually perceived to be the least prestigious form of upper secondary education.[18]

The school hierarchy has remained stable. Thomas Rohlen, who has done the most thorough study of Japanese secondary education by a foreign scholar, explains why:

> ...Reputation is a self-fulfilling prophecy. The school drawing the best applicants has no trouble retaining its high reputation, and the schools at or near the bottom can do very little to change their destiny.... New public high schools, for lack of reputation, take their place at the bottom of the ladder in their category (academic or vocational). The rule among public high schools is that status and quality are functions of relative age.[19]

Most students and their parents aspire to a public high school with a college preparatory program for reasons of status, further education prospects, and cost. While public schools generally have the edge. the number of students they accept is limited. Thus, students in the middle and lower levels of classroom achievement must adjust their aspirations to less prestigious institutions, often a private school or one with a vocational curriculum. Despite the higher cost of private secondary schools, there is no guarantee of higher quality.

Children who do not perform well academically, and their families, usually pay a heavy price in more ways than one. The youngsters end up in less prestigious high schools with all that foreshadows for future social status and career prospects, and many of the parents have to pay the higher costs of private education. Rohlen notes a further family burden for many parents whose children make up the lower third of the class academically: "Because there is a solid correlation between

poverty and poor school performance, it follows that the costs of private schooling are likely to fall heavily on families least able to afford them."[20] Those who do not succeed in gaining entry to a public or private high school for academic or economic reasons usually turn to public vocational schools. For those students not gaining admission to the lowest ranking vocational schools, the principal remaining alternatives are night school or employment.[21]

Entrance process. The entrance process for upper secondary schools is carefully shaped to avoid a free-for-all competition at examination time. Admission is influenced prior to actual examinations by a form of guided placement at the application stage.

Advisors counsel each student regarding schools where he or she is likely to be admitted. The advice is based on the student's overall record, grades, scores on commercial achievement tests (and sometimes on aptitude tests), and the aspirations of student and parents. The commercial tests are used as indicators of likely success on the various high schools' entrance examinations. Yet, in the final analysis, the main criterion for entrance into upper secondary education is the extent to which the course of study for lower secondary education has been mastered; this is what the examinations confirm.

As is the case 3 years later for entry to the higher education level, a large commercial publishing industry supplies examination preparation books and related study material such as practice examinations. The books and study guides are often detailed. For example, they report kind and frequency of questions likely to be faced, provide practical drill questions, explain special problems that students should prepare to meet, and give specific advice on strategy and tactics for examination taking.

All public high schools in a particular prefecture administer the same test, although tests vary from prefecture to prefecture. The examinations usually contain questions in three subject areas—Japanese language, mathematics, and English. Recently some prefectures have added science and social studies. The examinations cover the work of all 3 years of lower secondary school, but frequently half of the questions involve material learned in the 3rd year.

For a small percentage of the best students, the classroom advisor's recommendation and the student's lower secondary school record may suffice in assuring admission to an appropriate upper secondary school. These students are spared the pressure of entrance examinations. This form of early selection is partly based on the predictability of the examination results if the conventional path were to be followed. But it also reflects an emerging, liberalized trend in high school admissions that is beginning to take into account a broader range of abilities than examination results alone.

Although there is some variation by prefecture, the common pattern is that students can apply to only one public upper secondary school. (The entrance examinations of private high schools are usually available to anyone who wishes to apply, so a student can apply to both a public and a private institution concurrently.) Schools choose from among the applicants on the basis of their scores on the entrance examination and their lower secondary school record. The school record usually includes a description of the student's special activities, an evaluation of personality, work habits, and behavior, and the school attendance record.

The advisor's recommendation is seriously given and usually followed. Most students take the entrance examination of the highest ranking school which their advisors believe they are likely to be able to enter, and succeed in gaining admission. Rohlen reports that a modicum of affirmative action on behalf of students from poorer sections of the district sometimes occurs in the process on an unofficial basis.[22]

The fit between the number of openings in a given school, particularly in the better academic high schools, the number of applicants, and the qualifications of individual students is so carefully worked out by classroom advisors that the final ratio of applicants to places in each of the upper secondary schools is kept very low, commonly not above 1.2 to 1 and often under 1.1 to 1. Some close, informal, district-wide coordination with the admissions officials of the higher ranked public high schools seems apparent.[23]

Essentially, then, especially for the academic high schools, entrance examinations serve more to confirm the lower schools' advice and recommendations than to rigorously select a few students from among many applicants. (Indeed, given the low ratio of applicants to openings, the examination process could be viewed as a mechanism for excluding rather than including a very small proportion of the applicants). The high school examinations' major influence is motivational: it provides a powerful influence on students to study seriously during the late middle school years—and in the earlier years as well.

Girls do as well as boys in the high school entrance competition, but their subsequent institutional enrollment pattern at the postsecondary level differs significantly, reflecting different cultural norms and subsequent employment realities. A smaller proportion of girls continue their education in universities.[24]

The results of the March entrance examinations are announced later the same month. The small number of students who do not gain admission because of their own miscalculation in selecting a school to apply to, poor examination performance, or because they were misadvised, can take a second-round examination at another school. The second examination opportunity takes place shortly after the results of the first examination are known.

Net results. The basic lesson regarding high school entrance is, as Rohlen puts it, "work very hard in school or you will have to end up having to pay for private schooling just to get a diploma, or even worse, miss the chance for college altogether."[25] But regardless of level of school achievement, cost, or prospects for postsecondary education, the great majority of students continue on to senior high school.

By the end of 9th grade, all students who desire to continue their schooling have been successfully matched with an upper secondary level school. As shown in table 4, approximately 94 percent of all Japanese children advance to full-time enrollment in one or another kind of upper secondary school and about 2 percent enter some type of part-time education program. Approximately 3 percent take a full-time job. This leaves less than 1 percent unemployed or otherwise out of school.

The facts that nearly all Japanese junior high school students

continue their education in one or another form of upper secondary education, that 28 percent of the full-time high school students attend private schools, and that about 93 percent of those who enter 10th grade graduate from 12th grade indicate the great importance that Japanese culture places on securing at least a high school diploma. These facts also dramatize the determination and sacrifice of parents at all levels of society to provide for their children's education at least through high school graduation.

Upper Secondary Education

(Grades 10-12)

High school entrance is the critical juncture at which the Japanese education system begins to reflect major differences in ability and socioeconomic background. The hierarchical ranking of the high school that a student attends is closely related to future employment and career path. With high school entry, a student already has a fair idea of his or her likely future status. Thomas Rohlen summarizes the enormous significance of high school ranking and attendance:

> Although the attention of Western scholars has focused primarily on the problem of college entrance in Japan, and particularly on the formation of future elites, the time of high school entrance represents an even more crucial juncture in the total process of educational stratification. Virtually the entire youth population is involved, and the educational tracks into which students are shunted at this stage are both more diverse and more fundamental than at the college stage to the overall structure of society. The ranking of high schools in a given locality is as clear—if not clearer—to all citizens as is the ranking of universities on a national scale. At the local level, which high school a person attends carries lifetime significance, and the finely etched stereotypes of student character associated with each high school become an indelible part of individual identity.[1]

For most students, the even more serious atmosphere of upper secondary school and the growing pressure of impending college entrance examinations makes high school a low point in the life of many Japanese youth.[2] On the other hand, the drive for good secondary school credentials and university admission provides most high school students with a clear sense of purpose and goal orientation during late adolescence.

Some characteristics of upper secondary education

All Japanese high school students are enrolled in either an academic or vocational program, but the course work in the first year is the same for all students. The academic program is the college preparatory track. In 1984, approximately 70 percent of all Japanese high school students were enrolled in this track. In the second and third years, students in academic programs have the choice of specializing either in literature or science. Within each specialization, students are sometimes further separated by ability levels. In the second and third years of the vocational program, about one-third of the student's time is devoted to vocational education. The rest is spent on the standard academic subjects.

One objective of the Occupation's education reform was to promote comprehensive secondary schools, yet the comprehensive model did not become dominant. Today, about 49 percent of the upper secondary schools provide the academic program, 23 percent are vocational high schools, and only 28 percent are comprehensive—offering both types of programs.[3]

The Occupation had better success with its coeducation objective. Four out of five Japanese high schools are coeducational. About 90 percent of the public schools, but only 37 percent of the private schools, are coeducational.

Although private schools are rare at the elementary and lower secondary levels, 24 percent of upper secondary schools are private. These schools enroll 28 percent of all Japanese upper secondary school students.[4]

Both public and private high schools charge tuition. A family with a child in public high school can expect to spend about 5 percent of its income for school expenses. The average cost for a family with a child in private high school would be 10 percent or more.[5] In addition, there are other education expenses incurred by many families, such as supplementary books, juku tuition, or private tutoring costs. Juku tuition would require another 3 to 5 percent of family income per child.

School status and selection

Established public high schools have long enjoyed the most prestige. However, over the past decade, redistricting and other attempts to discourage one or two high schools in an area from enrolling a disproportionate number of the best students have been made, but reform is often not a simple matter. Some reform efforts to reduce the preoccupation of public schools with preparation for university examinations have backfired, as parents with university aspirations for their children have shifted their patronage to private schools. There are natural ripple effects in juku. Currently, depending on the educational situation in a given locality, the "best" high school in the area may be either public or private.

On a national basis, between 50 and 100 of the 1,300 private secondary schools have developed fine reputations because of the success of their graduates in gaining entry to the most prestigious universities. Some of the most prestigious private institutions are 6-year schools that encompass grades 7-12. They structure the 6-year program so that the regular secondary school curriculum is covered in 5 years, leaving the final year for full-time preparation for university entrance examinations.[6]

In some cities, elite private high schools send the highest number of graduates to elite universities. Ikuo Amano, a professor at the University of Tokyo, summarizes the dominance of private high schools in the battle for admission to his institution:

> Currently 351 high schools, including 74 private schools, send graduates to the University of Tokyo, which is the most selective university in Japan. But the top 20 high schools, those sending the largest number of entrants to the University of Tokyo, are private schools. Most of these private 'prep' schools are located in metropolitan areas, and in those areas the children who seek admission to them have to start preparing for the schools' entrance examina-

tions when they are in the fourth or fifth grade of primary school.[7]

Although most students aspire to enter the best local high school, only the strongest students in each age group can achieve this distinction. The rest of the good and average students enter other academic high schools which correspond to their level of scholastic achievement. Students of lesser school achievement may have to choose between maintaining a future option on a possible university education by paying more to attend a private academic high school, or attending at lower cost a public vocational school.

Facilities and staff

Facilities. Japanese high schools resemble their lower secondary school counterparts. They are unadorned multi-story rectangular or U-shaped concrete structures, equipped with laboratories, libraries, and the like. Vocational schools have specialized classrooms which are equipped for practical training in mechanics, electronics, business, and other fields. Most schools have gymnasiums, athletic fields, and swimming pools. Upper secondary schools also have audio-visual equipment, including cassette tape recorders, and 90 percent have color television sets. Over half have personal computers, although inclass use of these devices is not widespread.[8]

Staff. As in lower secondary schools, each upper secondary school has a principal and head teacher, again almost always men. Indeed, 83 percent of Japanese high school teachers are men. Women teachers tend to teach such subjects as home economics and girls' physical education.

In addition to the principal and head teacher, there are grade level head teachers and department heads, vocational guidance counselors, and disciplinary officers who oversee general student conduct and provide liaison with police and other assistance for students who get in trouble. Teachers with reduced course loads carry out the vocational guidance and disciplinary functions on behalf of the entire school. While all teachers assist in helping students find a job or apply to higher education institutions, the homeroom advisor and the teacher responsible for vocational guidance have actual day-to-day responsibility in these areas.

As in lower secondary schools, the teaching staff is organized administratively both by grade level and subject. The teachers' room is arranged so that the desks of all homeroom advisors for a given grade adjoin those of the counselors and the head teacher responsible for that grade level.

Although students in the same grade are assigned to different class groups each year, the faculty remains largely the same and teachers move up with the age group until graduation. Thus, over the 3-year period teachers come to know most of their students well. This helps teachers provide instructional continuity, occupational guidance, and promote student character development.[9]

Within the academic department framework, a head teacher helps the faculty in that subject coordinate decisions about the content and pace of instruction, plans and conducts inservice training, and provides guidance and assistance to new or weaker teachers. Frequent citywide departmental seminars, study meetings and regular teacher transfers between schools create a strong, informal city or prefecture wide network of friendships between teachers of the same subject.[10]

In high school, teachers' regular teaching duties average about 15 hours per week.[11] About 40 percent of all teachers are assigned homeroom advisor responsibilities.[12] The homeroom advisor for each group of students plays an important role in providing individual guidance on the selection of higher education institutions and counseling students with personal, social, or delinquency problems.

School calendar

As in elementary and junior high schools, the yearly calendar is divided into 3 semesters. All-school celebrations such as Sports Day and Culture Festival continue to be important occasions for building school pride and unity. Second-year students go on a 3- or 4-day class field trip to a cultural or historic area of the country. The experience serves the same purposes as the school trip at the lower secondary level.

For students who plan to take university entrance examinations, the third year of high school is a time of self-imposed withdrawal from clubs, hobbies, and most leisure pursuits. Students study as much as possible, often focusing more attention on tutorial and juku-related assignments than on regular classroom instruction. As March examination season nears, there is a perceptible change in classroom atmosphere. Student attention is concentrated totally on the impending exams. Once the examinations are over and the next year's course has been determined, the last few weeks of high school are casual and relaxed.

Daily schedule

In a typical high school, teachers gather each morning at 8:30 a.m. for a brief meeting. Students meet at 8:35 a.m. for a 5-minute homeroom period. Regular classes begin at 8:45 a.m. and there are four 50-minute classes before lunch. High school students eat in their homeroom. Two afternoon periods are followed by school clean-up and a 5-minute homeroom meeting, after which students are dismissed at 3:30 p.m. On Saturday the day ends after four periods, at 1 p.m. Club activities are held after school and run until 5 or 6 p.m. One hour per week is devoted to mandatory club activity. Other club activity is voluntary.

An hour-long homeroom period occurs once a week. This provides an opportunity for teachers to concentrate on student guidance. Typical activities include helping students develop greater awareness of themselves as high school students, encouraging them to reflect on their summer vacations, or perhaps asking them to contemplate the forthcoming advancement from one grade to another. These discussion topics are planned by teachers and scheduled in advance for the entire school year.

Instruction

Although fewer than 1 in 5 high school students actually continue their education at a 4-year university, the entrance ex-

aminations exert a strong influence on everyone's instruction. Most strong academic high schools are more a downward extension of higher education concerns than an upward extension of compulsory school philosophy. In both academic and vocational programs, the tenor and pace of instruction are geared to covering large quantities of factual information likely to be tested on entrance examinations. Students in the university-bound academic track feel the pressure and understand the importance of studying hard for examinations long before they enter their senior year.

Both vocational and college preparatory programs are primarily academic in nature and designed to maintain a challenging pace of advancement through new material. Even in the vocational schools, instruction in academic subjects rarely deviates from straightforward lectures. Good teachers are considered those who carefully and conscientiously cover the material outlined in the course of study. Enriching the required information with audio-visual materials or commentary on the facts presented in the textbooks is permitted, but given little priority by most teachers. There is scant time for such supplementary attention anyway. Student questions or challenges are uncommon and not encouraged. Some teachers, however, not only exhibit an exceptional command of the factual material, but also are talented in stimulating student imagination.

Curriculum

During the 10th grade, the program is virtually identical for all students, whether they are in the academic or the vocational program. The Japanese student faces a demanding course of study in the required core subjects of Japanese language, mathematics, science, English, and social studies.

All first year students study "Japanese Language I," "Contemporary Society," "Mathematics I," "Science I," "Art," "Physical Education," and "Health."[13] They also take a course in the arts (painting, music, calligraphy, etc.) and English as an "elective."

"Japanese I" provides continued practice in reading contemporary literature and composition. Students study some classical Japanese and Chinese literature, as well as archaic language and literary forms.

"Contemporary Society" is a survey of contemporary national and international issues and problems, with an emphasis on politics, economics, and personal ethics.

"Mathematics I" includes further work with the quadratic formula and higher order equations, graphing of quadratic equations, introductory trigonometry, complex numbers, sets, and algebraic proofs.

"Science I" covers laws of transformation and conservation of energy, basic chemistry and computation of chemical formulas, embryonic development, evolution, and Mendelian laws.

Many students have difficulty with the content and pace of the curriculum. Some fall far behind and lose interest. In one recent survey students were asked what kind of school they would like to attend. The overwhelming majority selected the response "one with lessons which are easier to understand."[14]

Academic program. At a typical academic high school, the students' 3-year course of study and the number of class hours per week devoted to each subject would be:

FIRST YEAR	
All Students	**Weekly Hours**
Japanese I	5
Contemporary Society	4
Mathematics I	6
Science I	4
English I	6
Physical Education and Home economics*	4
Health	1
Music or Calligraphy	2
Homeroom	1
Club activities	1
Total class hours per week	34

*Boys take 4 hours of physical education and girls take 2 hours and 2 hours of home economics.

SECOND YEAR			
Literature Majors	**Weekly Hours**	**Weekly Hours**	**Science Majors**
Japanese II	5	4	Japanese II
Classical Literature	2		Japanese History
Japanese History	2	3	or World History
World History	3	3	Algebra & Geometry
Basic Mathematical Analysis	3	3	Basic Mathematical Analysis
Biology or Chemistry	3	4	Physics
English	7	4	Chemistry
		5	English
Physical Education and Home economics*	4	4	Physical Education and Home economics*
Health	1	1	Health
Music or Calligraphy	2	1	Music or Calligraphy
Homeroom	1	1	Homeroom
Club activities	1	1	Club activities
Total class hours per week	34	34	Total class hours per week

*Boys take 4 hours of physical education and girls take 2 hours and 2 hours of home economics.

THIRD YEAR			
Literature Majors	Weekly Hours	Weekly Hours	Science Majors
Modern Literature	4	3	Modern Literature
Classical Literature	4		Japanese History
Japanese History	3	2	or World History
World History	3		Integral and Differ-
Ethics or Politics	3	5	ential Calculus
			Probability and
Basic Mathematical		5	Statistics
Analysis	2	4	Physics
Biology or Chemistry	2	4	Chemistry
English	8	6	English
Physical Education	3	3	Physical Education
Homeroom	1	1	Homeroom
Club activities	1	1	Club activities
Total class hours per week	34	34	Total class hours per week

The Japanese high school student does not assemble an individual class schedule from a large menu of possible electives. Extras such as driver education, drama, or psychology are not offered.

Except for two courses per year in which students are allowed to choose between options to fulfill a specific requirement (such as selecting music, fine arts, or calligraphy to fulfill the arts requirement), each class takes the same courses and remains a unit for the entire day. For students in the academic curriculum, the choice among these options is frequently based on the characteristics of the university entrance examination for which one is preparing. Students whose interests or educational objectives are not satisfied by the established curriculum turn to after school clubs, out of school enrichment classes, or academic juku.

Although moral education as a formal subject in the curriculum disappears at the upper secondary level, student guidance and character development continue to receive attention. The emphasis shifts, however, from the training in fundamental living habits and classroom behavior of the lower grades to the further development of a disciplined attitude toward work and study.

In the academic program, only 9 class hours per week are devoted to nonacademic subjects. During this time, boys receive 4 hours of physical education and girls receive 2 hours of physical education and 2 of home economics. Both boys and girls take 1 hour of health and 2 hours of fine arts. The weekly schedule also includes an hour each of homeroom and faculty-led club activities.

Vocational programs. Almost 30 percent of all full-time Japanese high school students are enrolled in a vocational program. The vocational curriculum is career oriented, but not job-specific. The occupational areas include commerce, industry/technology, agriculture, home economics, fisheries, and health. Enrollments in vocational programs are shown in table 8.

Within each vocational major the curriculum follows a predetermined sequence. In comparison to regular academic programs, less class time is spent in studying academic subjects and the textbooks are less difficult. However, students are still required to spend 16 to 18 hours a week in each of the 3 years studying Japanese, mathematics, social studies, and English, as well as science during 2 of the years. As in the academic program, 9 hours per week are devoted to physical education, home economics, health, music or art, homeroom, and club activities. Only 9 to 11 hours per week are actually devoted to vocational education. The incentive to study is not as great in vocational schools because for most students, there are no university entrance examinations to prepare for and the academic record may not be given as much weight by the employers likely to hire from these schools.[15]

Clubs. Clubs are an important part of Japanese high school life. Activities after school are strongly encouraged and over half of Japanese students are active in one or more clubs. As in lower secondary school, sports clubs are the most popular. Most are organized and run by the students themselves.

Meetings are held from 3 to 5 or 6 p.m. There is interscholastic club competition in some sports, particularly soccer and baseball. Japan's largest amateur sporting event is the annual National High School Baseball Summer Tournament. Club activities provide recreation opportunities for students while fostering social relations and group solidarity.

University entrance

Importance of a university education. In Japan, university graduates have a lifetime advantage over those without a university degree. The education credential, not the individual talent, determines initial employment with the more prestigious companies and remains a major consideration in any advancement. It is uncommon for a nonuniversity graduate to move ahead of a university graduate in such firms. With little chance to return to formal education, the adolescent depends on doing well in school, first to enter a good high school and then a good university. More than any other single event, the university entrance examinations influence the orientation and life of most Japanese high school students, even for the many who do not go on to postsecondary education. For university aspirants, it is literally the last major hurdle to be successfully negotiated on the way to adulthood and preferred employment.

In Japan, one's university largely determines one's prospects for the best careers and jobs. Career patterns of the graduates of various universities are widely known, and institutions are informally ranked according to the success of their graduates in securing prestigious employment. It is very difficult to secure high status, white collar employment with the government or a major firm unless one has graduated from a top ranking university.

It is not primarily the specific coursework or other academic preparation which students receive at these institutions which is so highly valued by employers. Rather, it is the ability to learn what is taught, work hard, and persevere, all demonstrated by success on the rigorous university entrance examinations, which indicate to the prospective employer that the student will be a

good risk as a career employee. Thus, the competition to enter the best institutions is especially severe. The number of applications to openings for institutions as well as constituent academic units are published annually, and students take these into account in deciding where to apply.

Preparation for entrance examinations. For students aspiring to enter the more prestigious universities, exam preparation is an arduous and painful task which often begins in earnest in lower secondary school. In its most extreme form, the long, intense period of study followed by the stress of the examination itself is referred to as "examination hell." A common slogan is "4 hours pass, 5 hours fail," referring to the presumed relationship between the amount of time a student sleeps each night and the prospect for success or failure on the examination. Apocryphal or not, the catch phrase dramatizes the rigor of the regimen in which the student is caught.

Scores on entrance examinations to the better universities have been increasing. Students, therefore, have had to work harder to gain admission, especially to the top schools. Many students who fail the examination to the university of their choice will spend a year or more in intensive study and then try again. Monbusho data show that in 1984, 36 percent of all entrants to 4-year universities had spent at least 1 year in extra study.[16] For entrance to the most prestigious facilities of the best universities, this percentage is even higher, and it is not uncommon that almost half of the students who are admitted are taking the examination for the second (or third) time.[17]

Even mastery of the high school curriculum may not be sufficient to pass the very difficult examinations of the better institutions or more specialized faculties. Helping fill the gap between what students learn in school and what they must know to pass the examinations of a specific institution or constituent academic unit is a sizeable private sector cram school industry, *yobiko*.

Yobiko. These are a specialized extension of the juku system. There are local yobiko in each prefecture as well as some regional and national chains of schools. These sophisticated cram schools offer intense training for the entrance examinations, often tailored specifically to the requirements and examinations of individual institutions or groups of universities with common characteristics.

Although there is a nationally administered standardized entrance examination available in Japan, many universities depend instead upon one of their own design. Some institutions use the results of the national examination as a general screening device and consider only those applicants whose scores are above a certain cut-off point. The institution's own examination is then used to select students for admission. Whatever the nature of the exams, the yobiko aim to prepare students to pass them.

Each year, there are about 200,000 *ronin*, (literally, "masterless samurai")—students who have failed the exams for admission to the school of their first choice and who have elected to spend a full year preparing to take the examinations again. Many of the ronin enroll in a full-time examination preparation program at a yobiko. There are over 200 yobiko in Japan.[18] The number of students enrolled in them very nearly approximates the number of ronin. In addition, there are high school students who attend yobiko-sponsored programs after regular school hours and on weekends. Although some yobiko have programs geared to high school students, the hallmark of yobiko is the full-time, year-long examination preparation programs for ronin. Given the fact that so many university entrants have had the ronin experience, secondary education in Japan is often called a 3-3-1 or -X system to reflect the extra year or more of study that many students engage in after high school graduation.

Not many female high school students attend yobiko, and male ronin outnumber female ronin more than 10 to 1. These participation patterns again reflect the different institutional objectives of girls in postsecondary education.[19] Female students account for less than 25 percent of university enrollments. Their professional career opportunities are limited.

The yobiko develop and administer model examinations against which students can chart their progress and estimate their chances of gaining admission to a particular institution. These practice exams are given several times during the year and are also open periodically to the general public for a fee. The latter event is often a means by which students first come to a particular yobiko. Many of the large yobiko also maintain sophisticated information gathering operations to collect data on the content and results of the most recent university examinations.

Yobiko also publish a wide variety of books and study aids, which they sell commercially. Texts they create exclusively for their own students are a big drawing card for the school, since they are often prepared by professors and teachers intimately familiar with the entrance examinations, and they are not usually available in the bookstores. Faculty of these yobiko include both full-time and part-time teachers, with many of the part-timers drawn from various university faculties and other educational institutions. Yobiko often have their own entrance examinations, but like those of the juku discussed earlier, these exams are often used for class organization and ranking as much as for entrance.

The cost of yobiko for a year's full-time study approximates that of tuition and fees for some private universities, although most private universities cost more. The average cost is about one-third higher than tuition and fees at a national university.

Suicide issue. Worry about examinations is a continuing reality for most Japanese high school students and their families, but—dramatic media coverage notwithstanding—it is not true that large numbers of disappointed youth are driven to take their own lives because of their failure to pass the entrance examination to elite universities. While school related factors are clearly among the important causes of adolescent suicide, examinations per se are not the dominant factor: "...maladjustment to school...lack of motivation, dislike of school, and trouble with homework—are more prominent than failure in exams or the pain of exam preparations..."[20]

The suicide rate for Japan for the 15 to 19 age group dropped 43 percent during the 1975 to 1984 decade while that for the United States increased 17 percent and surpassed Japan's. A comparison of youth suicide rates in Japan and the United States in three age brackets over the past 20 years is presented in table 9.

Student life

Although the classroom and study out of school occupy the main portion of high school students' days, recent data show that Japanese students still enjoy leisure activities. High school students watch TV, listen to the radio or read newspapers and magazines an average of about 2 hours per day, engage in sports for almost 1 hour per day (more on the weekends), and find another hour a day for some other form of relaxation.

Teenage social life in Japan is focused on school, clubs, and school-sponsored activities. Although most high school classrooms are coeducational, boys and girls display shyness in public social relationships. While each sex is interested in the other, close opposite-sex friendships and dating are rare. Most students do not begin dating until after high school.

Japanese high school students are not encouraged to experiment with adult fashions, pastimes, and responsibilities. Students are not allowed to drive automobiles until they are 18 years of age. Although 16-year-olds may obtain a license to drive small motorbikes, three-quarters of all high schools prohibit or severely restrict their use. Many students must commute as much as 45 minutes or more to school, and most students use public transportation or a standard three-speed bicycle.

Part-time jobs are also discouraged or prohibited by most high schools. A large scale comparative study of high school students in Japan and the United States found that only 21 percent of Japanese high school students worked part-time during the school term, compared with 63 percent in the United States. Schools and parents discourage students from working on the grounds that it distracts them from study and exposes them to dubious influences in the adult community.[21]

Students are often further restricted by school regulations regarding inappropriate activities, regulations which remain operative even after students leave the school grounds. Curfews, dress codes for after school hours, and prohibitions regarding the frequenting of game parlors, coffee shops, and other undesirable neighborhood attractions are common. In some schools, parents cooperate with the teacher in charge of student behavior in patrolling the neighborhood after school and on weekends to monitor student behavior and encourage observance of school rules.

Student delinquency

Juvenile delinquency in Japan has increased over the past decade. It is widely publicized in the mass media and is a growing source of national concern clearly reflected in the current reform movement. Yet, by comparison with various other industrialized nations, including the United States, delinquency in Japan is mild and infrequent. This is not just because Japan is a homogeneous, highly disciplined society. It is also partly because Japanese youth are more closely supervised. They spend a greater proportion of their time at home or in school. Further, many major factors commonly associated with juvenile delinquency and crime, such as poverty, divorce, and adult crime, occur less commonly in Japan than in many other major nations.[22]

In explaining the apparent reasons for the relative confinement of adolescent experience to home and school and some basic differences between Japanese and American values and priorities concerning adolescent sexuality, Thomas Rohlen writes:

> . . . Americans have found a new morality to suit our increasingly precocious individualism, whereas in Japan, urbanization, industrialization, and prosperity have drawn nearly the entire population into a middle-class pursuit of educational achievement. The postponement of independence and adult sexuality appears to be a by-product. Japan is not puritanical about sex, but it is very middle-class about getting ahead and very aware of propriety and status. Adolescent romance and sex are still improper.[23]

Adolescent rebellion commonly takes the form of small but significant alterations in school uniforms and regulation hair style. Boys express delinquent tendencies through widening the trouser legs of their school uniforms, or wearing sandals rather than regulation footwear. Girls lengthen their skirts beyond the regulated norm or have their hair dyed brown or set in a permanent wave.

Cigarette smoking is considered a serious form of delinquency among high school students. Although smoking on school premises is rare, some teenagers smoke on the streets or in private. When caught in the act, they are taken to the station and admonished by police. Repeated offenses are grounds for expulsion from school.

Substance abuse takes the form of sniffing glue or paint thinner and ranks as a relatively serious manifestation of adolescent anti-social behavior. Although the subject of considerable media attention, the problem remains small in statistical terms. Nationwide in 1984 there were only 15,000 lower and upper secondary school students who were admonished by the police for this act.[24]

There is little adolescent drinking, and marijuana and hard drugs are virtually unavailable. Coupled with the fact that car ownership or regular use by high school students is virtually nonexistent, Japan is spared some very serious, often interrelated problems that are common in some other industrialized nations.

Serious forms of delinquent activity that do occur include shoplifting or theft, usually of bicycles and motorcycles. While there are some motorcycle and automobile hot rodding gangs, the total number of these is relatively small.[25]

Schools of good academic standing typically are less plagued by problems of delinquency and find it easier to require students to conform to the rules. As noted earlier, vocational and other schools near the bottom of the hierarchy enroll more disaffected and disadvantaged youth. In these schools, teachers typically are more tolerant in enforcing the letter of the school's regulations. When student delinquency occurs, schools are usually involved along with the parents and police.

When delinquent students are apprehended by neighborhood police for such offenses as smoking, shoplifting, or motorcycle hot rodding, both the school disciplinary counselor and the students' parents are commonly required to come to the police station and take subsequent disciplinary action. In some cases, the school's response is so predictably prompt and severe that the police may attempt to protect a contrite first offender caught smoking by notifying only the parents and not the school.[26]

What high school graduates do next

In Japan. In 1984, 1,482,312 students graduated from upper secondary schools. More than 29 percent of these went on to university undergraduate and regular junior college programs (18 percent to university and 11 percent to junior college programs). In addition, almost 12 percent went on to postsecondary courses in special training colleges. Thus, approximately 41 percent of the graduates proceeded to one or another of these types of postsecondary education.

Another group of the graduates, almost 14 percent of the total, went on to other kinds of vocational courses, primarily those in that category of institutions known as "miscellaneous schools."

Approximately 41 percent of the total number of graduates (including 1 percent working and studying) found employment. Details of the total distribution of students after graduation are presented in table 5.

In the United States. In 1985, 2,666,000 students graduated from high school.[27] About 58 percent went on to full-time or part-time study in 4-year and 2-year colleges. (This was a record; the proportion had been in the range of 50 to 55 percent for most of the 1970's and early 1980's.) Of the 1,539,000 who went to college, 593,000 were also working. (Information on the number going on to various vocational programs other than in junior colleges is unavailable.)

Of the 42 percent of all graduates who did not go to college, 26 percent were working, 8.5 percent were unemployed, and the remaining 7.5 percent were not in the labor force. The total number of 1985 graduates employed, including those who were also attending college, was 1,292,000 or 48.5 percent.

Higher Education

Topping off Japanese education today is a large, diversified system of higher education consisting, in 1985, of 461 universities, 543 junior colleges, 62 technical colleges, and various other postsecondary institutions and programs.

By the start of World War II, Japan already had a higher education system equal in scale to that of the leading European nations. The major functions of its universities were training elite leadership for government, business, and society in general and the conduct of research to serve national needs. Technical and scientific subjects received heavy emphasis.

After World War II, the Occupation authorities instituted a major reform of higher education. Among other things, they granted university status to a number of lesser institutions, thus greatly expanding the postsecondary universe, and promoted inclusion of a strong general education component in university undergraduate education. They also introduced the junior college concept. Many other postsecondary institutions came into being after the Occupation.

Since the war both the number of higher education institutions and their total enrollments have increased dramatically. From 1950 to 1984, the number of students in universities and 4-year colleges increased from 225,000 to 1,843,000, while the number enrolled in junior colleges rose from 15,000 to 382,000.

Structure and Basic Data

Types of institutions and programs

Postsecondary institutions are either national public (established, funded, and operated by the national government), local public (prefectural or municipal), or private. Private institutions have been the most responsive to increased popular demand for higher education. They now outnumber public institutions and serve the majority of students. Yet national universities are generally more prestigious and, because of greater resources, usually provide a better quality education at lower cost to students.

Public and private postsecondary institutions are of five major types: universities (a term that in Japan is traditionally applied to all postsecondary academic institutions of 4 years or more, hence corresponding to the combined "college and university" phrase commonly employed in the United States), junior colleges, and three types of technical and vocational institutions described in the next chapter. Table 10 shows the number of institutions in each of the five types, by control category (public or private). Table 11 shows enrollments by type of institution and kind of course.

There are also a few new types of institutions, including two technological universities which mainly serve graduates of the technical colleges who enter in the third year and can complete both bachelor's and master's degrees in curricula "consistent with their previous educational experience."[1]

The *universities*, led primarily by the national universities, sit at the apex of the hierarchical structure of the postsecondary system. They offer a regular undergraduate degree program, normally 4 years in length.* There are 6-year programs in medicine, dentistry, and veterinary science. Postgraduate options include 2-year master's degree programs, and 5-year doctoral programs. More than half the universities have graduate programs and two-thirds of these offer both master's and doctoral level work.

The highly ranked institutions provide a passage to good positions in government and large corporations, and their entrance examinations mold most of secondary education and some of what precedes it. The universities usually considered at the top of the prestige structure include Tokyo, Kyoto, Tokyo Institute of Technology (national), and Keio and Waseda (private).

Junior colleges received their major impetus from postwar Occupation policies concerned with fostering democracy through broadening educational opportunity. They offer 2- and sometimes 3-year programs, most of which are designed for women. Most of the institutions are small, with a limited range of subjects. In fact, three-fourths of them have only a single curriculum, which can have as concentrated a focus as music, painting, or English literature.[2] In Japan, junior college education, indeed higher education for women in general, is commonly considered as preparation for eventual marriage and homemaking, rather than as training for long-term professional employment in business and industry. Less than 5 percent of junior college graduates go on to further higher education.

Enrollment

Almost 2.9 million students were enrolled in postsecondary education in 1984, making the Japanese system the fourth largest in the world (after the United States, the Soviet Union, and India). While the educational standards in many parts of the system leave something to be desired, a high proportion of those who enter postsecondary education complete the program they enter. Ikuo Amano reports that almost 75 percent of university students graduate in 4 years and 87 percent graduate eventually.[3]

Of the nearly 2.9 million students in postsecondary education, about 64 percent are in universities, mostly in undergraduate courses, 13 percent in junior colleges, 14 percent in special training colleges, almost 8 percent in miscellaneous schools, and only .6 per cent in the fourth and fifth years of the 5-year courses in technical colleges.

Thirty-seven percent of the total enrollment in Japanese higher education is female. Of the total female enrollment, 40 percent is in universities, 32.3 percent in junior colleges, and 22.5 percent in special training schools. Table 12 shows female enrollment in the different types of postsecondary institutions.

Distribution of enrollment by fields presents some interesting patterns. For example, although Japanese higher education confers only 40 percent as many bachelor's degrees as the U.S., it

*This requires a minimum of 124 credits, of which 36 are in general education, 8 in foreign languages, 76 in the major, and 4 in health and physical education.

produces as many engineers, because nearly 20 percent of Japanese university students specialize in engineering compared with only 7 percent in the United States.

As explained below, graduate study in Japan is relatively underdeveloped or underutilized and enrollment patterns reflect this. Enrollment at the graduate level is only 3 percent of the total enrollment in universities and junior colleges. The comparable figure for the United States is approximately 11 percent (of which a substantial portion is foreign students.) The low proportion of students enrolled in graduate programs in Japan shows even in key fields.

Administration

As usual, general policy and administration are under the jurisdiction of the Ministry of Education. Monbusho has the authority to approve the establishment of all new institutions, both private and public; has direct control over the budgets of all national universities, colleges, junior colleges, and any associated research institutes; provides subsidies to private and prefectural institutions; prescribes minimum standards for universities with respect to curricula, number and qualifications of teachers, and size of buildings and grounds; and provides research and foreign travel support to individual scholars. While individual universities can exercise autonomy in many matters, particularly if they are very prestigious, private or both, the Ministry retains primary influence over the development of higher education in Japan.

Major Issues

Entrance examination system

While the present examination system has a pragmatic origin, it also reflects a basic characteristic of Japanese culture: to impose strict screening before the initiation of a social relationship (whether friendship, marriage, or lifelong employment), but once the relationship has been established, to invest much trust and energy in its maintenance. University affiliation falls within this pattern.

The examination system arose largely from the need to deal with uncertainties accompanying the rapid expansion of secondary education and the establishment of many new universities. In the old system, reputable schools with rigorous programs (most at upper secondary level, some with a year beyond) were the principal preparatory institutions for the universities. A close ratio was maintained between the number of students in those schools and the number of places in universities. Only in a handful of university faculties where applicants significantly outnumbered places were entrance examinations critical in selecting students. During that period, entrance examinations were more important at the stage of passage from the middle schools into the higher secondary preparatory schools than in gaining university entrance.

With the inauguration of the new system by the Occupation, the traditional transition process from preparatory school to higher education was thrown into disarray. A larger number and more diverse range of preparatory schools were producing graduates intent on seeking admission to a larger and more varied group of universities.

In the hierarchical Japanese society, the status of the new institutions at both levels was, predictably, lower and more uncertain than that of institutions with established reputations. Hence the most prominent universities were flooded with applications. They developed rigorous entrance examinations to maintain quality control of their admissions. The new, lesser universities, even when they had fewer applications than places, felt compelled to develop their own entrance examinations in order to maintain the appearance of similarity to leading institutions. Today, in addition to their student selection function, examinations also provide a source of income for various private institutions because of the fees charged to take the examinations.

High stakes competition. Unlike the application management system used at the local level in the high school entrance examination process, the university entrance examinations are rigorous national competitions among many students contending for a limited number of places in the more prestigious institutions. The stakes in the competition are high, given the great lifelong advantage traditionally enjoyed by those who graduate from a prestigious university.

Since professional education generally starts at the undergraduate level, students need to choose their fields of study before they apply for admission. Because requirements vary by field or faculty, the examination is usually given by the faculty concerned, rather than by the university in general. Faculties differ in their requirements and standards, and there is little opportunity to transfer from one field or faculty after admission. To change fields or institutions normally requires dropping out completely and starting the demanding entrance process all over again.

Thus, selecting an institution and faculty to apply to is a serious and complex matter that has to be faced at the outset of the examination preparation process. Because of the hiring policies and practices of the more prestigious employers in both public and private sectors, many academically talented students pay more attention to the status of institution and faculty than to the field itself.

Consequences. Many secondary school graduates who fail to gain admission to their preferred institution try again the following year and commonly devote full time to the preparation process. The large number of experienced university entrance examination takers who are trying again—ronin—makes the competition that much more difficult for first-time contenders, as well as the ronin. According to Monbusho figures, 24 percent of all males seeking university admission in 1983 were 1-year ronin and 8 percent were trying for the second or third time. About two-thirds of the 1983 high school graduates who failed the entrance examination tried again in 1984. The figures rise with institutional prestige. For example, Ikuo Amano reports that "51 percent of those admitted to the entering 1984 class of Tokyo University and 48 percent of these admitted to medicine were ronin."[4]

Preparation. By the mid-1950's a variety of mechanisms emerged to help young people gain a more realistic sense of their

chances in the examination competition. This was especially desirable because examinations are so scheduled that no student can sit for the examinations of more than two national universities. To begin with, the secondary school sector has become increasingly differentiated with some schools maintaining an extremely high academic standard, attracting students of outstanding ability, and producing an enviable record of student success in entrance examinations to the top universities. Most secondary schools have developed a fairly accurate sense of how their graduates rank competitively in the annual contest for entry to various institutions. Guidance programs in all schools help students make reliable estimates of their chances of success in entering specific institutions. Students can draw upon a large number of annual publications which give examination questions and answers and study suggestions for the exams of more than 400 universities and faculties.

There are a variety of mock entrance examination tests administered by commercial companies. The results are evaluated against a large and growing data base which provides young people with indications of their performance relative to others aspiring to their preferred institutions. Further, special after school preparatory courses and tutors are widely available for remedial work or cram purposes. As noted earlier, the yobiko specialize in preparing youth for university entrance examinations.

On the institutional side, an important development has been the common examination, the Joint Achievement Test, administered by the Association of National Universities as an initial screening mechanism prior to the examinations given by individual institutions. The exam covers five subject areas: mathematics, Japanese, English, natural science, and the humanities. Factual knowledge and problem-solving skills are emphasized, especially the former. Multiple choice and short answer questions are the primary means employed to cover the massive amount of detail. The examination process takes two days.

Students can gain admittance to some institutions on the basis of their performance on this examination. Other institutions use the results of the common examination to establish the cutoff point to qualify a much smaller number to compete on their own proprietary examinations. The examinations test knowledge of facts, not aptitude or IQ. Such measures of student performance as high school grades, teacher recommendations, or extracurricular activities are not usually considered.

However, an increasing number of universities, especially private ones, are beginning to admit students without examination, on the basis of recommendations from their high schools. In 1984, almost 20 percent of those gaining admission to private universities entered via recommendations rather than examinations. (Many of these were graduates of the admitting institutions' affiliated preparatory schools.) The recommendation route is much more heavily used by junior colleges—in 1983 more than 60 percent of first-year students were admitted via recommendations rather than examinations.[5]

While the negative aspects of the examination system are usually stressed, it should also be noted that entrance examinations make some positive contributions to the overall education system. They buttress academic standards and foster achievement throughout precollegiate education. Because the examination system tests primarily what is known rather than student aptitude, Japanese young people come to know a lot in a variety of fields. Their knowledge is not limited to rote learning; international comparative studies of school achievement indicate that Japanese young people also perform extremely well in solving difficult mathematical and scientific problems requiring advanced reasoning skills.

Preparation for the examination system requires sustained commitment and hard work. Thus, from a relatively young age, Japanese students learn values that will serve them well as they move into the labor force and adult life. While preparation for university entrance examinations entails sacrifices from all concerned, it also helps provide a common sense of purpose for students and parents.

Quality of undergraduate education

The postwar curriculum reform required that 36 credits of the 124 required for graduation in the 4-year curriculum be devoted to general education. Reformers hoped this would induce universities to liberalize their traditional specialized faculties and establish broader organizational units along the lines of the arts and sciences faculties in American universities. But most Japanese universities did not embrace the idea of general education.

Because of the low priority that university authorities have assigned to general education courses, students have also taken them lightly. As a result, the first 2 years have become a relaxed 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. Once admitted to a university, a student has had high assurance of graduation. Hence, there has been ample opportunity to ease off in college. The difficult part has been entry, not exit. In Edward Fiske's apt summary, "American students, by and large, take examinations to get out of school, Japanese take them to get in."[6]

Some sectors of Japanese higher education do take general education more seriously. Especially in the faculties of engineering, science, agriculture, and medicine, there is a reasonable level of integration or coordination between general and special education. In these fields the general education courses are sometimes spread across the 4 years rather than concentrated in the first 2 years. Thus, students are more likely to study seriously throughout the entire undergraduate period. In addition, student-teacher ratios are lower in these faculties. Graduate students, who are more numerous in these fields, assume important roles in guiding their juniors through the requirements of specialized course work and related laboratory experience.

Ezra Vogel summarizes some of the common problems in Japanese universities:

> Universities have an important function in certifying students, but faculty devotion to teaching and to students is limited, student preparations are far less than prior to the entrance examination, analytic rigor in the classroom

is lacking, and attendance is poor. University expenditures per student are unreasonably low...The Japanese student in his essays is more likely to follow guidelines than to develop his originality.[7]

Edwin Reischauer's criticism is even sharper: "The squandering of four years at the college level on poor teaching and very little study seems an incredible waste of time for a nation so passionately devoted to efficiency."[8]

Japanese university educators are well aware of such deficiencies in undergraduate education and anticipate changes in the years ahead. The potential for change is found partly in pending reform efforts and partly in demographic realities. After 1992 the supply of college age people will decline sharply and many institutions will have to compete for students.

Graduate education and research

Since the beginning of the modern education system, the leading universities in Japan have been viewed as places for advanced study and research, although on the eve of World War II only four universities had graduate schools, and these lacked prescribed programs of study and fixed periods of residency. Students pursued their own research under a senior professor in a master-disciple relationship. Most aimed at academic careers.

Following the European tradition, faculties were organized in "chairs" consisting of a senior professor and one to three subordinates responsible for research in the chair's field. Each chair as a matter of course received an annual research budget to use as it deemed appropriate. Only where research needs exceeded the annual budget did the chair have to apply for special funds.

Professors and other staff members were expected to provide lectures for undergraduate students. However, their most satisfying educational responsibility was the direction of long research theses which students were required to produce for graduation. The postwar reforms sought to "modernize" this traditional apprentice system of academic training by establishing formal graduate programs with systematic course work leading to master's and doctoral degrees. Master's degrees were first offered in the mid-1950's and doctorates in the early 1960's.

The new universities were especially eager to obtain recognition as places for graduate training, for this conferred status as well as some budgetary advantages. Hence many of the new universities sought and received permission to establish graduate schools. However, students have shown little interest in attending them. In 1984, private institutions granted only 33 percent of the 18,493 master's and 4,090 doctoral degrees awarded, while the national universities granted 63 percent. (Local private universities granted the remainder.)[9]

Graduate enrollments in Japan are thus concentrated in a small number of institutions. While almost 60 percent of the universities have graduate programs and 40 percent offer doctoral level work, half of the master's candidates and two-thirds of the doctoral candidates are concentrated in two dozen institutions—5 percent of all universities.[10]

Only about 65,000 students, 4 percent of total university enrollment, are enrolled in graduate studies in all fields in Japan, compared with over 1.6 million in the United States. The ratio of graduate to undergraduate university students in Japan is about 1 to 26, compared with 1 to 9 in the United States. In general, much graduate study remains primarily "in-service training for university careers."[11]

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. Firms that conduct research generally prefer to develop their own researchers in-house. The demand is even lower at the doctoral level.

Because of the limited job prospects for students with graduate degrees, few well-established universities have devoted serious effort to further development of graduate programs. In many instances, the old apprentice system was merely masked by introduction of new courses that lacked overall program coherence.

While the scale of graduate education in Japan remains small by U.S. standards, job prospects for graduate students are beginning to improve as national needs, strategies, and policies change. Consequently, the number of students seeking advanced training is increasing. Education planners looking to the 21st century, when Japanese industry expects to be solidly based on the new capital of knowledge, anticipate the demand for better qualified personnel will increase.

The growing interest in improving graduate education will press universities to modernize and expand their research efforts. The strength of Japanese industry to date has been in acquiring fundamental knowledge from other countries, adapting or improving it, and designing, manufacturing, and marketing the resulting products. The strategy has been eminently successful. However, as Japan increasingly competes in fields in which the state-of-the-art is evolving rapidly and in which organizations that do basic research and development have a competitive edge, its strategy is changing. More attention is now being given to advancing the state of knowledge through an increase in basic research.

In 1985, according to Monbusho data, universities employed 40 percent of the nation's researchers and accounted for "about half of the government's research expenditure related to the advancement of science and technology" and 22 percent of the total national research expenditures. Health is the most active field of university research (39 percent of the researchers), followed by engineering and the humanities (14 percent each).[12]

All Japanese universities routinely allocate a portion of their budgets to faculty research. At national universities, almost all research funds are provided by the government, which is more likely to support basic research. At private unversities, which educate the majority of students, but where less research is conducted, research funds come from nongovernment sources, largely student fees and income-producing assets (land, small business, etc.).

Research is conducted not only within universities, but also through associated research institutes. There are also 12 national

inter-university research institutes in various fields of science (for example, high energy physics, polar research, space and astronautical science, and genetics). They have the same legal status as universities and are open to visiting researchers. Their facilities are much superior to those found in individual institutions. Staff members have faculty ranks, but no teaching responsibilities. The general criteria for the establishment of inter-university institutes include the need for large scale research facilities and equipment, the systematic collection of data, and/or large scale team research. These institutes also have special responsibilities for international cooperative research programs.[13]

Research cooperation between universities and industry is a relatively recent development. The creation of Tsukuba Science City in 1973 has been the most impressive single effort to improve research linkage between industry and academia, integrate general and specialized education, and innovate in the management of higher education. Tsukuba was planned and built by the government to promote research and education activities in a comprehensive, integrated fashion. The city includes two universities, 46 national research centers, 8 private research centers, and a growing number of technology-dependent firms located in an industrial park. Tsukuba University maintains close linkages to the national and private research centers.

There is no shortage of faculty desire to pursue advanced research, but over the past decade the resources available for the purpose have not increased significantly. Indeed, when adjusted for inflation the amount routinely allocated to a chair for research has declined substantially, and the difference has barely been matched by the increase in separately budgeted grants. In 1983, the amount available to Japanese university professors for basic research in science and engineering fields was approximately $500 million, or about one-tenth the sum available in the U.S.

Despite financial shortages, Japanese university researchers have increased their share of the world's production of significant scientific literature. Whereas in the 1960's, they contributed only 4 percent, today they are contributing 10 percent or more in many fields, and an increasing number of Japanese researchers are being recognized as international leaders in their fields.

The Japanese Council of Science and Technology recently recommended a major increase in funds for fundamental research, pointing out both the practical need for new knowledge and the responsibility Japanese science has to increase its contribution to world science. This recommendation was strongly endorsed by key corporate and political leaders.

The increased attention to graduate education and research is part of a national effort to strengthen Japan's capabilities in science and technology in order to maintain economic growth and the quality of life. While there have been major obstacles in securing or using funds from external sources, recent modification of regulations is leading to more private support for university research via donations, contract research, and cooperative research with industry.[14] In a time of financial constraint, however, it remains to be seen whether increased support for these objectives will come at the expense of other university programs such as philosophy, social science, and the arts.

Continuing education for adults

Traditionally, apart from ronin, Japanese education does not feature a second chance. There are few opportunities to go back to school. There is now growing interest in improving opportunities for further education for adults. Yet, virtually all of the formal higher education institutions admit students based on their performance in entrance examinations. The traditional cycle of Japanese education has young people peaking in their exam-taking capabilities at the conclusion of high school. When adults consider going back to formal schooling, they face the prospect of competing against young people who are in their prime for competitive examinations.

This prospect, plus the strong university tradition of seeing its clientele as young undergraduates, has discouraged most adults, as can be seen from the small percentage of persons above 25 years of age who are in school. This situation differs from the current age profile of students in American higher education, where, by 1983, almost half of the student body was 22 years of age or older, and where, by 1985, nearly 38 percent was 25 years of age or older and 13 percent 35 or older. Most continuing education for adults in Japan takes place in private, profit-making institutions.

In recent years, national policymakers in Japan have become increasingly concerned about such emerging major problems as the aging of the population, the anticipated labor shortage, and the need to re-educate middle-aged and older people if the labor force is going to remain flexible and productive. Such factors have given rise to educational alternatives such as the University of the Air which uses flexible standards in accepting applicants. A wide range of courses is beginning to be offered via television and radio. The University opened on an experimental basis in April 1985 with a first-year enrollment of 17,000 students. This innovative institution for working people and others interested in continuing their education adds another dimension to the Japanese higher education system.

International education

Until recently, foreign nationals could not hold a regular position in a national university, and even today the foreigners holding such positions can be counted on the fingers of two hands. Most foreign faculty members are found in private institutions, but their total number is still less than 2 percent of the national professoriate.

Foreign students are rarer still. Whereas foreign students constitute 5 to 10 percent of higher education enrollments in many Western European countries (and about 3 percent in the United States), in Japan they amount to only one-half of 1 percent. Indeed, there are more Japanese students studying in the United States than the total of all foreign students studying in Japan.

In 1984 there were just 10,700 foreign students studying in Japan, 80 percent of them from other Asian countries and 8 percent from North America. In contrast, there were approximately 339,000 foreign students studying in the United States, more than 13,000 of whom were from Japan.

The dominant factor limiting foreign study in Japan is, of course, the language requirement. Virtually all university in-

struction is in Japanese, and there is little opportunity to learn or use the language outside Japan.

Private higher education and national policy

While some of the oldest universities were established under private auspices, since the late 1870's the central government has viewed the public (primarily national) university sector as the main vehicle for its purposes. Indeed, during the late nineteenth century the government appeared determined to eliminate private higher education before finally changing course and acknowledging its value. Until the early 1970's, the government then maintained a neutral stance, neither supporting nor particularly controlling the private sector. The higher education policy was essentially one of devoting public funds to public institutions to insure quality in that sector while letting private institutions cope with social demand for expansion of opportunity in postsecondary education.

In the absence of government support or direction, the private sector has been especially sensitive to market demand. As illustrated in table 2, the private sector has created most educational opportunities in universities, junior colleges, special training schools, and miscellaneous schools. About 73 percent of university students and 90 percent of those in junior colleges are now enrolled in private institutions. This contrasts with the United States where public institutions enroll about 68 percent of the college and university students and about 94 percent of those in junior colleges.

However, private higher education tends to concentrate on the less costly curriculum areas. For example, private universities emphasize humanities and social science faculties where expenditures are lower rather than the more expensive laboratory sciences.

The gap between the public and private sectors began to widen in the mid-1950's as popular demand for higher education grew rapidly, but public institutions provided only modest increases in enrollment opportunity. Private universities began to increase their enrollments relative to their resource base of staff, buildings, and campus space. Student-teacher ratios in private institutions came to exceed 30 to 1. In certain faculties, the ratio soared above 200 to 1.

Many of the more prestigious private institutions sharply increased their fees and tuition. For example, at one stage some private medical faculties charged entrance fees in excess of $30,000. While some increases in revenue were clearly needed to provide more facilities and staff and to raise salaries, some of these actions were exploitative. Student protest mounted over the imbalance between higher education supply and demand. By 1969 the entire system of higher education was severely disrupted by this issue and others, including controversial national political matters. There was a student protest movement of formidable proportions. At one point some 160 institutions were closed.

In response to the private university crisis, the Japanese government sought to achieve better balance between the public and private sectors. The major vehicle has been the Private School Promotion Foundation, a government-funded program directed by a board of private university officials, retired civil servants, and leading citizens. The Foundation now furnishes approximately 30 percent of the operating expenses of qualified private universities according to a formula which favors lower student-teacher ratios and increased course offerings in critical fields such as science and engineering.

Other vehicles of government policy include special grants to private institutions, aid to students (mostly in the form of loans), and research grants to the faculty of private institutions. The government also has increased the tuition at public universities to reduce the cost differential to students between public and private institutions.

Yet, private universities still operate at a considerable disadvantage in resources. They are sometimes known as "one-third" universities because of the disparities in resources and quality indicators when compared to national universities. There are significant differences in expenditures per student, building and campus areas per student, and student-faculty ratios.[15] Large class enrollments and high student-teacher ratios commonly result in little or no student participation in class, infrequent personal contact with instructors, little written work assigned, and a shortage of books and seats in university libraries. It is also interesting to note that in 1984, only 2.7 percent of baccalaureate graduates from private universities undertook advanced study while 15.9 percent of those from national universities did.

Equality of opportunity

Because of its substantial size, the Japanese higher education system is not without a significant measure of equality of opportunity. Children from families in the lowest 20 percent income bracket have a 1 in 3 chance of attending a university compared with a 9 in 10 chance for those from the top 20 percent income bracket. This situation does not compare unfavorably with the situation in most other major nations.

Yet the class differentials at leading institutions are much greater. Four of every 5 students at the University of Tokyo come from professional or executive homes. Few working class youth are represented. Special treatment for students from poor families or other disadvantaged groups is not a matter of national policy.

Cost of higher education. The cost of higher education is a significant factor. While public education is less expensive and more prestigious than private higher education, access to it is more limited and difficult.

The average cost (tuition, fees, and living expenses) for a year of higher education in 1982 was Y 1,230,500. This amount represented 25 percent of average family income at that time.[16] Parents contributed about 80 percent of that sum. Private colleges, which are more expensive than public ones, cost Y 1,436,400, equal to 30 percent of annual income, of which parents contributed 76 percent. For 1 year at a junior college, a family paid an amount equal to 20 percent of its annual income.[17]

Yet public provision for student financial aid is not as extensive in Japan as in some countries (in the United States, for

example, more than 50 percent of all students in higher education receive some form of federal assistance), and most of it takes the form of loans rather than grants. In 1986, the Japan Scholarship Foundation provided loans to about 430,000 students.[18] Thus, for most families the cost of providing postsecondary education is a heavy financial burden. Many students work part-time, often as private tutors or juku teachers, particularly for precollegiate students preparing themselves for entrance examinations.

Status of women. Japanese women are almost as likely as men to enter a higher education institution. However, their enrollment pattern differs significantly, reflecting societal expectations and occupational realities. For example, women comprise less than 10 percent of the enrollment at the University of Tokyo. Nationally, there is a strong tendency for them to major in home economics, the arts, or social sciences. Only 3 percent of the engineering students in universities are female, compared to about 14.5 percent in the United States.

Urban-rural differential. The urbanized prefectures are more likely to send students to higher education, but this differential is accounted for by their families' occupational and income distribution, as well as by more extensive secondary school opportunities and the geographic distribution of postsecondary institutions. Indeed, the Tokyo metropolitan area alone accounts for 30 percent of the students and at least 15 percent of the nation's total population, depending upon how the metropolitan area is defined.

All things considered, the Japanese higher education system has made important progress toward equality of opportunity in a relatively brief span of years. However, there is a potentially serious problem in the apparent trend towards monopolization of the most prestigious universities by children from the highest socioeconomic levels. While these young people gain admission on the basis of their outstanding performance in the examinations, some Japanese social critics worry that the related phenomena of elite high schools, family tutors, and the best juku which help make such performance possible are more accessible to affluent families. They foresee the possibility that if such a trend were to continue, it could undermine the legitimacy of the entrance examinations as an objective, meritocratic filter for entry into higher education.

Linkages among the university, government, business, and industry hierarchies

The close linkage of university affiliation and career opportunity has been a characteristic of Japanese higher education since the government established Tokyo Imperial University in 1877. The imperial universities had gained prominence through their virtual monopoly in supplying recruits to the higher civil service, then and still a career second to none in prestige in Japan. As recently as 1982, for example, approximately 60 percent of those who succeeded in the higher civil service examination were graduates either of the University of Tokyo or Kyoto University.[19]

The linkage persists in no small part because employers can know that, given the severe competition for admission, anyone who is accepted into a top university has a high level of scholastic ability, intelligence, perseverance, and capacity for effort, qualities much valued in leadership positions in both public and private sectors. The view that these and other relevant qualities also can be developed and identified in other ways, places, and stages of life is simply not part of the Japanese tradition.

One of the major objectives in creating a large number of 4-year universities after the war was to broaden opportunities for higher education and in the process dilute the dominance of the small number of elite universities. Indeed, because of the heavy expenditures involved in building up the large number of new universities throughout the country, the University of Tokyo's share of the government higher education budget decreased somewhat in the early postwar years.

However, the reforms failed to uproot the university prestige system—the special ties of the top institutions with government and the most attractive employers in the private sector, particularly financial institutions and major industries. In the nongovernment sector, the leading national universities share the limelight with a small number of prominent private universities. While more universities are now producing graduates, the most prestigious large private sector employers continue to turn to their favored universities for their preferred recruits. Many companies restrict their recruiting efforts to a few institutions.

The evidence of concentration is strong, particularly in major firms in mature industries. As summarized in a recent analysis by Japanese business consultant, Akira Esaka:

> There are more than twice as many presidents of companies listed on the Tokyo Stock Exchange from Todai [Tokyo University] as from second place Keio University, and twice as many executives from Todai as from second-place Kyoto University...the four ' national and private universities account for 27 percent of department and section chiefs in listed companies.[20]

Because of this pronounced preference by major public and private employers for the graduates of a few high status universities, these favored institutions have enjoyed the greatest success in enrolling able young students. In the postwar period the leading universities have seemed even more eminent because of the increase in the number of lesser institutions to which they could be compared. Because of their early and continuing prominence, the leading universities remain comparatively successful in attracting funds to establish new research institutes and graduate departments when they are interested in doing so.

There is some evidence that the picture is beginning to change. While University of Tokyo graduates, for example, populate key sectors of government and business, there are few graduates of the traditional top ranked universities in the new generation of Japan's fastest growing companies, in part because the graduates prefer the firms with established prestige rather than those in the process of moving up. Influence is also increasing for younger graduates of private universities such as Nihon, Chuo, and Meiji, which are in the second tier of status. Akira Esaka writes:

> Todai heads the field for middle managers graduated between 1935 and 1944, but it comes in second for those graduated between 1945 and 1954 and third for those graduated after 1954.[21]

Tokyo University's hold on third place is far from secure. In a recent survey of the university backgrounds of employees promoted to middle management positions in 257 leading companies during the past 2 years, a key finding was that "Todai and Kyoto had fallen behind Waseda, Keio, Nihon, Chuo, and Meiji universities."[22] (University size is an important variable, however. Many of the top private universities have much larger enrollments and graduating classes than the prestigious national institutions.)

Concluding observations

Currently, the higher education system in Japan is the target of extensive criticism by various reform groups and the media. Among the most discussed issues are the examination system, the quality of undergraduate education, rigidities in the university-based research system, and the limited opportunity for graduate and continuing adult 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 corporate sector for improvement. Rather, the current impetus stems from a growing sense in Japan that higher education is neither responding to new national needs in a changing world nor to the changing concerns of Japanese youth.

The reform movement faces many obstacles. Some fundamental education issues are at stake in a time of growing economic constraint. Deeply rooted traditions, status systems, and vested interests are being challenged in the process. Any reforms that may be implemented are likely to have important implications for secondary and even elementary education, as well.

Education and Employment

Human resource development has been indispensable to Japan's success in the international marketplace and continues to be a crucial element in the strength of the Japanese economy. It takes place within and beyond the school system in a variety of public and private settings.

The needs and preferences of employers exert strong influences on the education system. The dynamic relationship between education and the economy is reinforced at every turn by the interwoven policies and practices of government, education institutions, business, and industry. Effective school based employment services play a significant role in matching non-college bound graduates with available jobs.

Large companies* with lifetime employment policies account for approximately 27 percent of the work force and are major providers of a wide range of continuing education and training opportunities for their workers.[1] However, the majority of the nation's labor force, employed by small business or self-employed, does not benefit from these opportunities.

Work preparation within the school system

Awareness of the world of work begins early in Japanese education and affects all students throughout the period of compulsory schooling. Students keep their school clean, serve meals, and engage in a variety of other group activities which foster a commitment to cooperative behavior. What the schools emphasize are basic attitudes about functioning effectively in organizations and behaviors believed necessary for success in the Japanese world of work.

About 8 percent of the lower secondary school curriculum is devoted to industrial arts and homemaking. Students take 70 hours of industrial arts or homemaking a year in the 7th and 8th grades and 105 hours in the 9th grade. Formal vocational education does not begin until compulsory education is completed.

Five categories of educational institutions prepare nonuniversity bound youth for entry into the labor market:

- upper secondary schools,
- technical colleges,
- junior colleges,
- special training schools,
- miscellaneous schools.

The fourth and fifth categories are less tightly controlled or influenced by Monbusho with respect to curriculum than the first and second. Most institutions in the last three categories are operated by private organizations.

Upper secondary schools. Within Japan's upper secondary school framework, both academic and vocational programs are available full-time, part-time, and by correspondence. Part-time and correspondence programs normally last 4 years. Vocational education is available both in comprehensive secondary schools and in separate vocational secondary schools. In both cases, vocational education courses are offered in the 11th and 12th grades.

In 1984, there were 4.9 million full-time and part-time students enrolled in upper secondary schools. Of this total, 97 percent were full-time and 3 percent part-time students. Of the full-time students, 72 percent were enrolled in the general or academic course while the remaining 28 percent were enrolled in vocational and other special courses (table 8).

All students at the high school level—whether in the academic or vocational curriculum—need a minimum of 80 credits to graduate. Students in the vocational track must obtain at least 30 credits in the vocational area.[2] The central feature of the high school vocational curriculum is that it is broad-based, not job-specific. It covers six areas: commercial, agricultural, technical/industrial, home economics, fisheries, and health courses.

In 1984 about 27 percent of the female students were enrolled in vocational courses, the largest numbers in the commercial course (about 399,000 or 16.4 percent of all female students) and the home economics course (about 135,000 or 5.6 percent). About 31 percent of the male students were enrolled in vocational courses, the largest numbers in the technical course (about 449,000 or 18.2 percent) and the commercial course (about 165,000 or 6.7 percent).

Technical colleges *(koto senmon gakko).* Technical colleges were established beginning in 1962 to produce skilled technicians for industry. About 93 percent of them are public institutions. Students are admitted in the 10th grade after completing compulsory schooling. These colleges offer a 5- or 5½-year program almost exclusively in engineering and merchant marine studies, mostly to male students. In 1985, 62 technical colleges enrolled approximately 48,600 students. No new technical colleges have been established since the mid-1970's. Total enrollment has been relatively stable for the past 15 years.

Special training schools *(senshu gakko).* This category of institutions was established in 1976 to help students develop abilities required for their vocation and daily life, and also to help improve their general education. Institutions in this category exist in two forms:

- Upper secondary special training school *(koto senshu gakko)*, offering 3-year courses to lower secondary school graduates.
- Special training college *(senmon gakko)*, offering 2-year postsecondary level courses to high school graduates.

These institutions also offer continuing education courses open to anyone. Special training schools may be established by the national government, local government, or a private individual. Almost 90 percent are private.

They offer a wide range of opportunities for skill acquisition in the fields of engineering, agriculture, medical care, nursing, health, commerce, home economics, and culture/liberal arts. Many of these courses are closely linked to the student's meeting occupational qualifications and certification.

The number of special training institutions has grown rapidly. In 1985, 3,015 such schools had a total enrollment of

*Defined as those with 300 or more employees and Yen 100 million or more in capital.

538,000. Approximately three-fourths of their students are enrolled at the postsecondary level. According to a 1981 survey conducted by the Japan Recruit Center, 65 percent of the 5,200 firms surveyed expressed a desire to recruit from these schools. The record to date indicates that they are filling an important need for both graduates and employers.

Miscellaneous schools *(kakushu gakko)*. These institutions provide vocational or practical training in such areas as bookkeeping, typing, automotive repair, computer techniques, dressmaking, and cooking. Courses are offered at both upper secondary and postsecondary levels and vary greatly in length. In 1985 there were 4,300 miscellaneous schools, almost all private. They enrolled about 530,000 students, nearly half of them female.

Junior colleges. Junior colleges provide both general education and vocational education courses, although primarily for women who, as indicated earlier, make up 90 percent of the enrollment. More than one-third of the students are in general education courses—humanities, social science, and general culture. The single most heavily enrolled vocational field is home economics, basically homemaking, which enrolls about 27 percent of all students. Other vocational areas include teacher education, with about 22 percent of enrollments, and engineering, agriculture, and health, which together account for 10 percent of enrollments. Teachers trained in junior colleges find most of their employment at the preschool level.

Statistical summary. In 1984, more than 2.7 million students were enrolled in the five categories of institutions. More than half of them were in upper secondary schools and 68 percent of the total enrollment was in programs at the upper secondary level.

The number of technical colleges, special training schools, and miscellaneous schools in 1985 is shown in table 1, together with the distribution by administrative category (national, local public, and private). The 1985 enrollment in each of these three types of institutions and the percentage distribution of enrollment by gender and control are shown in table 13. Enrollments at upper secondary and postsecondary levels in the five types of institutions offering vocational and technical programs are given in table 14.

Work preparation outside the school system

Postcompulsory vocational training is also offered outside the formal education system. Programs of Japan's large companies are of special significance. Although these companies make up only half of 1 percent of the total number of companies in Japan, they employ over one-fourth of the work force and produce nearly 50 percent of the nation's GNP.[3] The education and training they provide is designed to enhance the productivity and flexibility of their work force, particularly in meeting the changing demands of the marketplace and the national economy. Their investment in education and training is long term; it appears to increase during recessions.

Undergirding the formal and informal training provided by companies is management's view that employees have an obligation to develop themselves, often on their own time. However, employers' definition of what constitutes self-development is broad, ranging from attending public seminars to reading professional journals. Although self-development is not mandatory, employees know that their supervisors place a great deal of emphasis on it and will weigh employee efforts of this sort in the annual evaluation process.

Besides the various training programs of private employers, Japan has a national vocational training law with provisions for both public and private enterprises. Under it, the government provides a variety of incentives including training allowances for the unemployed, financial assistance to small and medium size firms, incentive grants for paid educational leave, and advisory and institutional services.

Through the Ministry of Labor, the government also sponsors basic training, skill improvement training, retraining for new occupations, and instructor training. In 1981 there were approximately 3,000 courses offered in about 400 public training centers for some 300,000 students. Yet, this program has not been particularly successful in attracting job seekers who want to learn new skills, largely because employers have not recruited heavily from these programs.[4]

Transition from secondary school to work

There are three main points of transition into employment for nonuniversity bound youth: at the completion of compulsory education, i.e. after 9th grade; at the completion of upper secondary school (equivalent of high school graduation in the United States); and at the completion of occupational training at the postsecondary level.

Only about 3 percent of students begin work directly upon completion of compulsory education. Such students have no vocational or occupational training. Among high school graduates, however, 40 percent enter the labor force directly, while about 55 percent go on to some kind of postsecondary education or training and about 5 percent are unemployed (table 5). A major factor in the smooth transition of students from secondary school to work is an effective job referral system.

This system is based on cooperation and trust between employers, schools, and the Public Employment Security Office (PESO) operated by the Ministry of Labor. It relies as well on the confidence of students in their teachers, advisors, and counselors. The underlying goal of the system is to minimize unemployment by giving every student a chance to be employed. A strong national economy with a continuing need for additional manpower during the past few decades has made the high employment rate possible.

The employment services system has its legal basis in the Employment Security Law of 1947. The underlying principle is that job placement assistance for youth should be supplied only by PESO and other nonprofit organizations, including schools. (This orientation stems from prewar experience with youth exploitation by various commercial forces.) Direct communication is prohibited between a company offering positions and high school students seeking employment. Actual contacts between them can only be made by PESO or by schools and other nonprofit organizations. In practice, because of the large number

of high school graduates and other demands upon PESO, the responsibility for maintaining contact with companies and assisting high school students in their search for employment is borne mainly by the schools.

The process begins with companies determining their manpower needs and preparing a recruitment card for each job to be filled. The card describes the job, the company, and the terms and conditions of employment. The card is reviewed by PESO for compliance with applicable standards, including wages and benefits. Cards approved by PESO are then used by the schools as the basis for job referral assistance. Many companies also send representatives to visit the schools and meet with placement counselors, but not with the students.

The schools devote much effort to placing students in suitable positions. They maintain placement offices where students can review the recruitment cards and other information on employers. Full-time or part-time placement counselors consult students about their job preferences and assist them in preparing personal histories, advise them on how to behave during interviews, and even conduct mock company entrance examinations and interviews. If two or more students at a school are interested in the same position at a company, the school staff confers and decides which students will apply in which order to take the company's examination. In making such a decision, the staff considers not only grades, but also the number of times a student has been absent and tardy, as well as other behavioral characteristics of importance to an employer. By mid-August the internal selection process in the school is completed.

Beginning in September of the April-March school year, 12th grade students submit their applications to the companies. Company entrance tests cannot legally be taken until October, and no employment decisions may be made until that time. The test may include a written examination, an IQ test, a physical examination, and an interview or some combination of these. Companies pay attention to grooming, general appearance, personality, and school records. Club participation is also considered important in many cases because similar group relationships exist in certain company situations.

By mid-November most students have found employment. According to a recent study, boys have an easier time than girls in being hired into good jobs directly out of high school.[5] Others whose initial applications were not successful are in the process of taking second or third company entrance examinations. The school continues to help students find jobs until the end of May, about 2 months after graduation. After that time, schools are prohibited from aiding students in their search for jobs. But by then the great majority have become employed. The rest continue the search on their own.

The employment process serves as both a learning and motivational experience for secondary school students. It provides a potent signal to all that by remaining within the school system the student has a better chance to get a job upon completion of his or her studies.

The program provides most students with useful and accurate information about specific jobs and with active assistance in the job search process. But schools do not feel any obligation to recommend a student whose record has not met the school's standards of academic performance and behavior, including attendance and punctuality. Generally speaking, students who choose not to participate in the system are likely to end up in less satisfactory jobs, often temporary ones at low wages.

The system is generally effective in placing noncollege bound youth in their first jobs within a few months after graduation. Among the factors contributing to its success are active involvement of employers; a common commitment and mutual trust among schools, employers, and PESO; reliable information exchange among the participating parties; clarity of mission and concentration of effort; focus on entry level jobs for young people with limited skills; and emphasis on opportunities in small business.

Employers are well aware of the status ranking of high schools and they compete to recruit from the top ranked institutions. Career counselors try to send their best students to the most desirable employers in order to maintain the reputation and placement records of their schools. The personal networks that link business personnel officers and school teachers and guidance personnel make their own contribution to the placement process in a fashion analogous to what occurs en route to higher education and subsequent employment for university graduates.

Transition from postsecondary education to work

Graduation from universities, as in the rest of the education system, takes place in March, but by agreement between the universities and employers the recruitment process officially begins the previous October. In years when economic prospects are bright and there is heavy demand for university graduates, the process begins even earlier.

Prospective graduates may apply to companies directly, through a university placement office, or through personal connections. The procedure used varies according to the department or faculty in which a student is enrolled, the status of the university he or she attends, the availability of university placement services, and the personal connections of family, friends or faculty mentor.

PESO is not a significant factor in placing university graduates, but there is a special public program to facilitate job search for university graduates who desire employment outside large urban areas. For this purpose, the Ministry of Labor and the prefectural governments operate 54 public placement offices throughout the country.

While direct application by students to employers is becoming common, the traditional pattern of direct employer to university faculty or department contact continues to be dominant where prestigious institutions, companies, and fields are concerned.

For example, when a major company seeks an engineering graduate from a top university, the company frequently taps its special connections with faculty members in that institution. This has the advantage of assuring the company that the student recommended is well-qualified, since the sponsoring professor does not want to damage his connections with the company, and

that the student will accept the position offered because the student traditionally has a strong, continuing obligation to his professor. In contrast, social science and humanities majors are more apt to apply directly to prospective employers or to work through university placement offices where they exist. Even when the more prestigious employers are willing to be approached by students directly, they may restrict acceptance of applications to graduates of particular universities or to specific academic units within a university.

Public universities seldom operate their own placement offices, but private universities often have active ones. The placement office screens the graduates, matching them by quality and quantity to a company's request. If the number and quality of referrals a company receives do not meet its needs, the company may not recruit from that university in the future. This is a serious matter for private universities whose reputations—and enrollments--are largely based on their success in placing graduates in good firms. It is at least as serious for the individual student whose choices for future employment are being determined by an institutional middleman.

Employers can initiate direct contact with college students on October 1 and begin their recruitment examinations November 1. The applicant is almost always given a written examination and an interview, but a detailed assessment of the student's professional knowledge is not particularly important to a company. The company believes it can judge the caliber of a potential employee by knowing which university he attended. In any case, the company expects to provide its own on-the-job training for all new employees. The purpose of the written test is to determine the extent of the applicant's knowledge of general information and current events. The interview is used to assess the applicant's personality, motivation, leadership potential, appearance, attitude towards business, and how well he will fit in with company culture and the other employees.

For most students, the company examination and interview are basically rituals that confirm decisions reached earlier as a result of a visit to the company the student may have made the previous summer or fall. It is not uncommon for students to visit several firms during the summer. The better candidates often receive informal confirmation of employment offers shortly after such visits.

There is intense competition for the best students, who often receive offers from several companies. Competition does not involve much difference in salary level but, rather, revolves more around the student's perception of the relative prestige and lifetime employment prospects of competing employers. Selection of the first employer is as important as selection of university, because after employment there is little opportunity for mobility between companies of comparable prestige in the same, or even in different, industries.

In 1985, over three-fourths of the prospective graduates had been informally notified by November 1 by the firms that would make them offers. By the end of November, 95 percent of the students have received firm employment offers.[6]

The majority of graduates recruited into large companies for lifetime careers generally come from the national universities or the most prestigious private institutions. University graduates going into small and middle-sized companies come primarily from the newer private institutions. A recent study effectively summarized the direct linkage between top ranked universities and companies: "If one desires a career in an excellent company, one first has to be admitted to a prestigious university. Thus labor market competition is transformed into college entrance competition."[7]

The transition to work for graduates of postsecondary institutions other than universities is similar in range and diversity to the pattern for universities. For example, placement services are normally available in technical colleges as well as in special training colleges. There are various patterns of direct contact between and among students, companies, and institutions. There is direct recruitment by companies in some situations as well as widespread individual student initiative in job search. Contacts through personal networks or those of family and friends often play a key role in preferred access to employment opportunities.

Role of employers

Employers play significant roles in education. They establish and maintain the value of education credentials through their employment policies and recruitment practices. Credentials, based essentially on the general reputation of the institution granting them rather than on the specific nature and caliber of the student's academic work, are utilized as a screening device. This is true not only for employment by the more prestigious companies, but also for most kinds and levels of positions in the public and private sectors.

Given the essentially linear and unforgiving nature of Japanese education and credentialism—with few alternative routes and second chance career opportunities (except to retake university entrance examinations)—the career prospect die is largely cast for the great majority of students when they enter high school.

Employers have been satisfied with the examination and credentials system because in their experience it effectively identifies employees who have demonstrated a high level of intellectual ability, diligence, and motivation. An example of recent confirmation of this concept is found in a 1983 survey conducted by the Hitachi Research Institute.[8] The results showed that 83 percent of management and 66 percent of union respondents believed that the existing system of recruiting university graduates would not be changed.

As noted earlier, large companies also provide extensive on- and off-the-job training for their employees. Most middle-sized companies and many of the smaller ones also furnish some measure of training. The point is that employees are kept up-to-date through company training programs, not through part-time study at postsecondary education institutions.

Finally, employers identify and articulate their needs so that the education system can respond to them. A major example of such responsiveness has been the creation of the special training schools to meet skilled manpower needs.

Concluding observation

In Japan, the relationship between education and the economy

appears to be closer and more effective than in most other industrialized nations. Japan does a very effective job of providing a flexible and productive labor force for its economy, in large part because of the pivotal roles played by a high level of basic education, disciplined work habits, and group cohesiveness—all school based or fostered. Indeed, the remarkable performance of the Japanese economy over the past 25 years provides compelling testimony to the fundamental contributions that education can make to national development and international competitiveness.

Education Reform

Japan is now engaged in a major education reform movement. Its scope is such that if most of the major proposals under consideration are adopted and implemented, the resulting level of change would rank with the two previous watersheds in Japanese education history—the Meiji and Occupation reforms. The continuing dynamic relationship between education and national need is apparent in the reform debate. Problems are being faced openly in public debate and political action, reflecting the impressive self-corrective potential of a parliamentary democracy in action.

Origins, concerns, and nature of current reform effort

The current effort can be traced back some 15 years through a number of often critical reports, some government initiated and some not. Separately and cumulatively, they have sparked much public debate. For example, in the late 1960's the Central Council for Education called for eliminating uniformity and promoting diversity in education. In 1970, the Japanese government called upon the 24-nation Organization for Economic Cooperation and Development (OECD) for an outside review of its education policies. The international experts provided by OECD lauded Japan's considerable accomplishments in education, but were critical of a number of policies and practices, including the extent of centralized control, standardization, conformity, institutional hierarchy, and the emphasis on university entrance examinations.[1]

Several subsequent reports, including one from the Japan Teachers Union in 1975, added impetus to the reform movement. Reports from various business groups, including one from the Japan Committee for Economic Development in 1979, urged greater creativity, diversity, and internationalism in education.

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 '80s. Yet it is understood that social tensions and labor market changes affect education. For example, some believe that home support for education has declined as a result of the increase in children from broken homes and families where both parents are employed away from home. The decline in student motivation for sustained effort on the examination treadmill is manifested in part in an increase in anti-social behavior in schools and the dropout rate.

Other concerns are turning up as well. In 1981-82, the Second International Survey of Mathematics Achievement was conducted in 24 countries under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). As in the first survey in 1964, Japanese 13-year-olds and high school seniors ranked first or second in almost every area of mathematics skills tested. (The performance of American students was well below the international average.) However, in this latest survey, the average achievement of the Japanese 13-year-olds was somewhat lower than their predecessors in the 1964 survey.* This is not the only sign of some educational decline. According to Kazuyuki Kitamura, other indicators include "the increasing number of low achievers in primary and secondary schools; increased school violence, especially at junior high schools; and the emerging phenomenon of voluntary dropouts from senior high schools."[2]

For these and other reasons, opinion polls have been reporting reduced public confidence in the education system. Some key findings from a May 1984 survey by a major Japanese newspaper include:

> . . .more than half (55 percent) of the adult respondents felt "unsatisfied" with the primary and junior high schools, whereas only 24 percent were "satisfied." (In a similar survey conducted in 1977, 49 percent of the respondents had been "satisfied". . .only 22 percent "unsatisfied.") . . . to the question, "Do you think school education has become better or worse when you compare it with your school days?" 32 percent of adults surveyed in 1984 answered "better," while 47 percent considered it "worse." (In 1977, 44 percent had said "better" and 32 percent. . . "worse.")[3]

Reformers are focusing on such issues as the enforced uniformity of schooling at elementary and secondary levels that is believed to stifle individuality, create frustrations and contribute to disorder in schools, and the heavy emphasis on university entrance examinations which is believed to hinder personal and intellectual development. Some problems, such as those stemming from standardization in compulsory education, are recognized as the other side of the coin of success in school achievement during the compulsory school years.

There has been considerable continuity in both debate and membership of various reform bodies over the past decade and a half. While heir to various concerns and debate since 1970, the present reform effort differs in two respects. It cuts nearer the core of Japanese education practice and challenges some basic principles that have governed the present system for the past 35 years. It has also had the advantage of strong political leadership from Prime Minister Nakasone himself.

The Prime Minister became actively involved in education reform during the 1983 election campaign for the lower house of the Diet. The extent of voter dissatisfaction with the education system led him to make reform of education one of three issues which he believes need priority national attention now and into the 21st century. (The other two are financial and administrative reform of government.)

A recent study group with special significance for Prime

*The scores of the U.S. 13-year-olds were also lower in 1981 than in 1964. But the scores for high school seniors in Japan and the U.S. were both higher in 1981 than in 1964.

Minister Nakasone's subsequent initiatives in education reform was the Conference on Culture and Education. This special advisory commission was established by the Prime Minister in June 1983. As chairman, the Prime Minister appointed the distinguished founder (now honorary board chairman) of the Sony Corporation, Masaru Ibuka, long a strong advocate of educational innovation, particularly in early childhood education. The group reported on a number of topics that remain matters of concern, including moral education, the emphasis on credentialism, university admissions policies, teacher education, and internationalism in Japanese education. The group hit especially hard at "the evil of uniform education" and concluded that the Japanese education system "must undergo a major reform so that every Japanese will grow more at ease with himself and able to cope with the future independently."[4]

On the eve of the general election of December 1983, the Prime Minister released a seven-point plan for reform that drew widespread media attention. Among other things, he proposed reform of the university entrance examination system and a reassessment of the 6-3-3 school organization. The Prime Minister's concern with education extended beyond schooling, as he made clear in a February 1984 speech to the Diet:

> It seems to me that postwar education has been heavily and exclusively dependent upon the schools, and we have tended to neglect the importance of comprehensive education from the broader perspective encompassing family education, social education and other educational forms, and that this imbalance lies behind the explosive increase in violence in the schools, juvenile delinquency and other contemporary problems. . . . I believe that the time has come to institute sweeping reforms across the entire educational spectrum in preparation for the 21st century.[5]

National Council on Educational Reform

The following month, Prime Minister Nakasone proposed to the Diet that an ad hoc council on education reform be established under his direct control. After extensive debate, such a body was established in August with a 3-year mandate to make a comprehensive study of various government policies and practices in education and related areas and to present recommendations for reform of the education system. The name was changed in April 1986 to National Council on Educational Reform.

The National Council reports directly to the Prime Minister, not to Monbusho. Vesting such responsibility in a body other than the Ministry of Education is a major change from standard Japanese practice.* Because of the Council's direct link to the Prime Minister, one leading Japanese scholar considers it to be the most powerful education advisory body since the postwar Reform Committee.[6]

Prime Minister Nakasone's vision for the Council was set forth in his brief speech at the Council's first meeting:

> Today we are facing dramatic changes in our circumstances, both domestic and overseas, as well as great changes in the times. I am convinced that the time has come to develop new policies for implementing the necessary reforms in political, economic, social, educational, cultural and other fields so as to adequately cope with these changes and thus safeguard the future of our nation. To this end, it is necessary for us, I believe, to reform our educational system with a long-term perspective and make this a responsibility of the entire Government. . .
>
> . . . It is my belief that educational reform should aim to preserve and further develop the traditional Japanese culture which we have inherited and to cultivate in children lofty ideals, sound physical strength, well-balanced personalities and creative power, as well as such moral and behavioral standards as are universally accepted in human society, so that these future Japanese citizens may be able to contribute to the international community with a Japanese consciousness. . . .
>
> Finally I should like to add that educational reform involves more than the reform of education alone. It will inevitably lead to reform of Japanese society itself. Bearing this in mind, I should like to ask you, Mr. Chairman and all members of your Council, to deliberate on educational reform so as to respond to the expectations of all segments of our population and take into account their opinions to the greatest extent possible.[7]

The Council has 25 general members and 20 specialist members, including representatives from elementary and secondary education, higher education, organized labor, and business and industry. All are proponents of education reform of one sort or another. The Council is chaired by the former president of Kyoto University, a longtime personal friend of the Prime Minister. The two vice-chairmen are the president of Keio University and a senior consultant for the Industrial Bank of Japan. Two-thirds of the group are graduates of national universities. Ten of the 25 members are alumni of Tokyo University.[8]

The Council identified the eight major issues to be considered:

1. *Basic Requirements for an Education Relevant to the 21st Century* (Aims of education; analysis of the past and present of education; and future prospects for education.)
2. *Organization and Systematization of Lifelong Learning and the Correction of the Adverse Effects of Undue Emphasis on the Educational Background of Individuals* (Correction of the adverse effects of undue emphasis of the educational background of individuals; development of a lifelong learning system; vitalization of formal education; and vitalization of educational functions of family and community.)
3. *Enhancement of Higher Education and Individualization of Higher Education Institutions* (Diversification and individualization of higher education institutions; scientific research and graduate schools; and the organization and management of institutions of higher education.)

*This extraordinary procedure has not been used in education since the Education Reform Committee, established almost 40 years ago during the Occupa-

dary Education (Basic direction of the substance of education; structure of the school system; moral education; health education; education of the handicapped; and class size and other educational conditions.)

5. *Improvement of the Quality of Teachers*
6. *Coping with Internationalization*
7. *Coping with the Information Age*
8. *Review of Educational Administration and Finance* (Distribution of functions between governments and nongovernmental bodies; responsibilities of the national and local governments and the distribution of functions between different levels of government; school administration and management; and educational costs and financing of education.)[9]

The Council identified these concepts in considering all the issues: emphasis on individuality, fundamentals, creativity, expansion of choice, humanization of the education environment, lifelong learning, internationalism, and dealing with the information age. Emphasis on individuality is considered the fundamental guiding principle.[10]

The Council has organized itself into four committees. Work is done in plenary sessions, too; and two dozen of these were held in the first year alone. The Council is taking the Prime Minister's charge to consider public expectations and opinions seriously. It has conducted public hearings in several prefectures throughout Japan, and has held special hearings to which key organizations were invited to express their views on education reform. The Council received written proposals and comments from approximately 100 organizations before the end of the first year of its work.

The Council has already produced two reports, the *First Report on Educational Reform*, presented to the Prime Minister in June 1985, and the *Second Report on Educational Reform*, submitted in April 1986. A third report is expected in 1987.

The first two reports provide an unusually candid summary of Japan's education problems as perceived by many leading Japanese. Many of the concerns will seem exaggerated to American readers, given the greater extent and severity of some related problems in the United States. However, the Japanese do consider their problems to be serious. This is clear from the urgent tone of these documents, the vigor of the ongoing debate, and the heavy attention that the mass media now give reform matters. The evidence makes a persuasive case that the Japanese believe their education system needs more than a simple tune-up, and that the prospect for some fundamental change is greater than it has been at any time since the war.

Council's diagnosis of education problems

The Council's *First Report* discussed the Japanese tendency to attach too much importance to the educational background of an individual, especially to graduation from certain prestigious institutions, and on excessive and prolonged competition in entrance examinations. Under the heading, "An educational wasteland," the Council's *Second Report* speaks of a "state of desolation" in Japanese education. It is conceivable tide of mediocrity" metaphor that helped galvanize education reform in the United States.

Three sets of reforms are articulated in the *Second Report*. The first concerns efforts to "invigorate education and inspire public confidence" in all sectors of the education system. The second centers around "coping with the changes of the times," and reintroduces the topics of internationalism in Japanese education and the "information age." The third area includes educational administration and finance.

The Council avers that the rigidity and uniformity of the system have created problems. It notes such manifestations of the "state of desolation" as bullying, school violence, juvenile delinquency, and the refusal to go to school. These phenomena are viewed as serious, deep rooted, and related to each other and to present conditions of the family, school, and community. The Council asserts that the rigid, uniform school programs, excessive controls on students, and other factors prevent sound character formation, increase pressures on children, and create frustration. Moral education, the Council says, has been downplayed, and there is an imbalance between assertion of rights and awareness of responsibilities.

The Council fears that an excessive emphasis on memorization has produced many conformist people who are unable to think independently and creatively. It also believes that some people do not understand traditional cultural values and lack a Japanese identity. The Council has been concerned about the quality of higher education, as well. Finally, in a thinly veiled reference to the Ministry of Education and the Japan Teachers Union, the Council notes that even within the education sector there is an atmosphere of serious mutual distrust and suspicion that must be rectified if public confidence in education is to be restored.

Council's recommendations

While phrased in general terms, the Council's recommendations to date have dealt with a number of fundamental issues, including diversification, decentralization, and moral education. The recommendations stress the importance of increasing individuality, choice, and flexibility throughout the education system.

The Council has said that centralized control over education should be loosened. National authorities should set minimum standards to maintain and improve the quality of education, but should allow for local innovation. At the elementary and secondary levels, national guidelines should emphasize basic knowledge and skills and moral education, but at the same time encourage development of school programs in accordance with local circumstances. The Council has also asserted that more importance should be attached to the role of private schools with their distinctive aims and principles and that consideration should be given to ways of facilitating the establishment of more private schools for the first nine grades.

The Council recommends further diversification of higher education, with each institution having greater freedom to develop its own programs. Admission to postsecondary institu-

requirements and entrance examinations. Regulations should be revised so that students can change institutions and departments more easily. Graduate education and research should be improved, ways of obtaining private sector funds found, and joint industry-government-higher education research expanded.

Among the measures proposed to improve teacher quality, the Council suggests that newly appointed teachers undergo a year of inservice training under the supervision of veteran teachers. In a related recommendation, the Council proposes that the ongoing program to lower the present pupil-teacher ratio in compulsory education should be fully implemented and the staffing situation further improved. The Council also calls for strengthening teacher training in moral education.

The Council recognizes the "bullying" problem as having reached a serious level and believes that all-out efforts are needed to eliminate it. It has encouraged parents to strengthen discipline at home and has stressed that efforts by home, school, and community are all necessary. It has suggested measures to achieve greater internationalization of education, such as steps to facilitate enrollment of foreign students and improve foreign language instruction. It has suggested reforms to cope with the development of information technologies. The Council also stresses the importance of developing a lifelong learning system, reducing the current emphasis on formal education credentials of individuals, giving additional opportunities to adults, and serving an aging population in the future.

The Council acknowledges the education problems of Japanese children living abroad as well as those who re-enter schools in Japan. The Council believes that children who return to education in Japan should be seen as an asset because of their experience abroad, and that special selection procedures and placement provisions should be developed to ensure equitable treatment in their admission to high schools and universities.

Concluding observations

In addition to being concerned over the challenge of meeting new national needs in science and technology to remain competitive in a changing world economy, the Japanese are alarmed by what they perceive as a growing sense of student disaffection from the education system. Anti-social attitudes and behavior by students strike at the heart of Japanese culture, attacking such core values as respect for authority and education and social harmony.

The growth of *ijime* (school bullying) is particularly upsetting to the Japanese because it represents group behavior gone out of control. However small the scale at present, the unwillingness of alienated students to participate constructively in formal education and to observe group norms is seen as a rejection of the larger social system which Japanese leaders and the public believe bodes ill for the future. Ijime is a vexing problem for a society that prizes order, harmony, and predictability. While disaffection appears to be growing in the face of the rigidities of the present system, there is understandable anxiety on the part of the authorities about opening the system to greater diversity and individualism—"liberalization"— because "liberalism" and coping with "individuality" is, therefore, heated and earnest.

Although several problems have come into clearer focus for the Japanese, there is not yet consensus on solutions. Considerable opposition to change exists in various quarters. A common concern is that, given the formidable successes of Japanese education, the baby not be thrown out with the bath water. Ken'ichi Koyama, a university professor and Tokyo graduate, summarizes some of the difficulties ahead, including inflexible adherence to the status quo and the national challenge of finding a new balance between group harmony and individuality in Japanese culture:

> Implementing educational reform will not be easy. Ironically, this is partly due to the very success Japanese education has had in assisting the catch-up process. As in the case of people who come to a bad end precisely because they were once winners, so successful systems and policies tend to become inflexible and invite disaster by clinging to tried and true methods. Japanese education may be on the verge of this sort of 'tragedy of the winner.'. . .
>
> Educators are inclined by nature to adopt a negative and passive stance on reform questions. The education system today, however, is suffering from a devastating blight whose symptoms are grueling exam-score competition, juvenile delinquency, and violence in the schools. If the cause of this disease is the uniform modern school system itself, medicine targeted only at the symptoms will have little effect. The responsibility of educators is to diagnose the disease from a long-term and comprehensive perspective and to implement a bold program of treatment.[11]

Broadly speaking, because (apart from higher education) Japan has essentially "caught up" with or surpassed the West in education performance, there are no longer any comprehensive foreign models likely to offer much help. Other nations are struggling with education problems of like complexity, trying to find solutions within their own contexts. The questions Japan is asking itself now are questions of culture as well as pedagogy:

> How will Japanese culture, which has traditionally placed paramount importance on the individual's place within the organization, adapt to the coming 'age of the intellect?' How can we achieve a balance among intellectual, moral, and physical education? How can we foster individuality and creativity while at the same time maintaining respect for harmony as part of our culture? These are among the questions that we must address as we face the monumental task of educational reform.[12]

While there may not be packaged solutions for cross-national import or export, there are still many ideas and approaches which nations can share and learn from each other. There are also some interesting analogies. For example, the powerful influence of Japanese higher education on secondary education will remind students of American education history of the battle cry

schools free!" This will be more difficult in Japan. While the higher education sector is by widespread agreement the weakest part of the Japanese system and not world class in educational terms, it is also the most resistant to change because of its status as the stronghold of tradition and of the national "power structure." Moreover, the American example of higher education reform shows how resistant to change this sector can be.

Perhaps the most remarkable feature for American observers of the current reform movement in Japan is that it is tending to move in the opposite direction from that in the United States. Education reformers in Japan are seeking some decentralization of control, greater diversification of institutions, less uniformity and standardization of curriculum, more flexibility in teaching, and more individualization of instruction.

Americans already have state and local control, great diversity in education programs at elementary and secondary levels, and an open, diversified higher education system. Having gone far toward providing pupil-centered instruction and a broad array of curricular choice, most serious American reformers are now seeking a greater measure of commonality in the curriculum and higher academic standards for all.

Educators, political leaders, and parents in both countries are more interested now than in the past in comparing educational perspectives, approaches, and achievements and welcome information that enables them to do so. This report by the U.S. Department of Education and the counterpart report on American education prepared by Japan's Ministry of Education are unusual examples of cooperative activity toward mutual understanding in education.

Will the combined effort genuinely assist those seeking better education for the children of the two nations? Will each nation find lessons of value for its own reform needs? Let's look at some possible implications of the Japanese experience for improving American education, as seen by Secretary of Education William J. Bennett.

Implications for American Education

Epilogue by Secretary William J. Bennett

What lessons might we draw for ourselves from a close look at Japanese education? It is scarcely a novel query. Japan, after all, has increasingly become a reference point or gauge by which Americans appraise our own education system.

At the same time, many American educators have tended to shun the "lessons" of Japanese education. "Their culture is so different," we are told, or "their society is so homogeneous," that nothing about their education enterprise could possibly be germane to the American experience. This stance seems somewhat peculiar for American educators, who generally want the lessons children learn in our schools to yield deep understanding and appreciation of other peoples and cultures. So it strikes me as odd that many educators have characterized Japanese education as interesting, perhaps in its own terms impressive, but fundamentally irrelevant to their lives and work.

Why should we Americans seek to distill lessons for ourselves from the experience of Japanese education? For two main reasons, the first practical, the second more idealistic.

Japanese education *works*. It is not perfect, but it has been demonstrably successful in providing modern Japan with a powerfully competitive economy, a broadly literate population, a stable democratic government, a civilization in which there is relatively little crime or violence, and a functional society wherein the basic technological infrastructure is sound and reliable. One may not attribute these accomplishments entirely to the education system, but it would be folly to deny that the education system has strongly reinforced them.

We Americans, being a pragmatic people, would therefore be well-advised to learn what we can from Japanese education if only because of its manifest success. But there is a more abstract reason, too: It is the American belief in the value of universal education that the Japanese have so successfully put into practice, and the American quandary over "equality" and "excellence" that the Japanese seem rather satisfactorily to have resolved. *Our* educational ideals are better realized on a large scale in Japan than observers have tended to realize.

This is not, to be sure, entirely coincidental. The structures, policies and practices of modern Japanese education have been influenced in no small part by that nation's remarkable knack for borrowing an idea and then adapting it, working it out in detail, and executing it with thoroughness and finesse in the Japanese context. And at least a few of the ideas and approaches used in education in Japan can be traced to American influence

What lessons, then, do I draw from Japanese education that American educators and policymakers may wish to consider? Not, let me be clear, that we should try to mimic specific practices or imitate particular arrangements. We would not, for example, want to emulate the basic organizational framework of Japanese education that relies heavily on direction and control from the central government.

Instead, we should look for principles, emphases and relationships in Japanese education that are compatible with American values, indeed that tend to *embody* American values (as well as many findings of education research), to see how we might borrow and adapt them for ourselves.

Let me offer a dozen such principles that *I* glean from the foregoing pages as well as from other accounts of Japanese education. I would note that none of these findings, conclusions, and impressions is uniquely the property of Japan. Rather, they are uncommonly well-displayed within modern Japanese education. Where appropriate, I have noted some agreements between Japanese practice and our own research findings.

1. Parental engagement with the education of their children, from infancy through high school, makes a big difference in how much and how well children learn. As we said in *What Works*, "parents are their children's first and most influential teachers." It seems to me that Japanese families have melded parenting and formal education in commendable fashion—and in many cases have accomplished this with only one parent "on the scene" much of the time. Yet it does not seem that Japanese families (or preschools and daycare centers) "hurry" young children into academic work. Instead, they do their best to equip the youngster with attitudes and habits that will stand him in good stead when formal schooling begins. And once it does, the parent stays in touch with the teachers, supervises the homework, arranges extra instructional help if needed, and buttresses the child's motivation to do well in school and beyond. Many American parents also do these things. More should.

2. Schools are clear about their purposes—and children and parents are, too. Though Japanese schools attend to character formation, physical health, and good behavior, and offer a wide variety of teams, clubs and other extracurricular activities, they nonetheless seem to remain well-focused on their central functions. They have not turned into societal multiservice centers, nor are they buffeted by pedagogical and curricular fads. They know their mission and role and, while these are not exclusively "cognitive," they are the objects of sustained and purposeful effort by everyone associated with the schools. To borrow once more from *What Works*, a great many Japanese schools seem to embody these characteristics that research has ascribed to "effective" schools: "places where principals, teachers, students, and parents agree on the goals, methods and content of schooling. They are united in recognizing the importance of a coherent curriculum, public recognition for students who succeed, promoting a sense of school pride, and protecting school time for learning."

3. Motivation matters. There is a continuing emphasis in Japanese society, at least through the primary and secondary years, on awakening in students the "desire to try," the sense that

that progress can be made by practically anyone who tries hard enough, and the realization that adults genuinely care about one's performance.

4. Expectations and standards matter, too. Children learn more when more is expected of them. In *What Works* we cited research indicating that "Students tend to learn as little—or as much—as their teachers expect." The Japanese experience suggests that the expectations and standards of community and family powerfully influence the child, too. Leaving aside special schools and programs in the U.S., the Japanese generally seem to expect a level of performance that is closer to children's true intellectual capacities than Americans ordinarily do. More remarkably, they adhere to these standards for virtually all youngsters, never supposing that one or another category or subpopulation cannot accomplish as much as everybody else. These beliefs do not, to be sure, work perfectly for every single child, and the Japanese, we understand, are interested in some of our ways of assisting youngsters who have special needs, problems or gifts. But the Japanese also tend not to underestimate children's potential or be overly swayed by external characteristics. They elicit more from students because they have high standards for ordinary youngsters.

5. It is possible to deliver to virtually all children a comprehensive basic education that starts with the "3-R's" but also incorporates history, science, art and music, physical education, practical studies, and the beginning of foreign language study. This can be done through a balanced and integrated curriculum that is substantially the same for all youngsters during the period of compulsory attendance—and then allows limited choices and some specialization in the senior high school.

6. The school can and should do its part to transmit the shared and inherited culture to the next generation. A nation whose young people do not understand its history is ill-equipped to relate knowledgeably to other nations or to learn from experience—either its own or that of others. Moreover, a society whose people fail to become "culturally literate" will have increasing difficulty with internal communications, domestic tranquility, informed civic participation, and external relations.

Though my own intellectual convictions would not lead me to organize a social studies curriculum quite as the Japanese have, I admire the systematic and purposeful stance they have brought to the transmission of historical knowledge and cultural understanding through the schools.

7. Sound character, sturdy values and ethical behavior may not originate in school, but the formal education system can reinforce and nurture these qualities both through the regular curriculum and through the "implicit curriculum," as I termed it in *First Lessons*. This phrase refers to the way the school organizes and presents itself, how the adults in it conduct themselves, the standards that are set for behavior and integrity, the symbols and attitudes, the incentives, rewards, sanctions and ceremonies. Japanese schools designate certain hours for "moral education"—but the amount of attention they pay to children's character far exceeds the class time specifically reserved for such studies. Nor do teachers and principals (or parents and other adults) refrain from committing themselves to clear distinctions, youngsters with a deep sense of good and bad, right and wrong, moral and immoral. As Aristotle and William James both remind us, character is acquired through habit. And if children see teachers and principals as models of democratic sensibilities, they will tend to build the right kind of habits.

If Japanese schools do any one thing with greater care and persistence than other nations of whose education systems I have knowledge, it is to forge the kinds of habits that their society deems right.

8. The school and classroom environment should reflect the purposes to be achieved there. Japanese education here confirms both research and common sense; a well-ordered, and purposeful learning environment, including both formal discipline and a high level of individual self-discipline, is the kind of setting in which learning best occurs. Appropriate school behavior and effective study habits are instilled in Japanese youngsters from the first day of school—and prudently foreshadowed by much that occurs in home and preschool settings. Visitors to Japanese schools report being in the principal's office of a junior high school with the office door open and several hundred young adolescents not more than 50 yards away. Yet it is possible to converse in normal tones with no interruptions from the corridor. Remarkably, though, Japanese schools are not somber places, nor are their students fearful and inhibited. They laugh and play, are cheerful and enthusiastic, just like girls and boys around the world. But they seem to have learned what kinds of behavior are appropriate, where and when. So should our youngsters.

9. Ensuring that enough time is effectively devoted to learning, in school and out, is one of the most reliable means by which adults can help children acquire a good education. Here Japanese educators and parents seem to have worked out a three-part strategy. First, they assign so many days and hours to formal education that by the end of 12 grades a Japanese student has actually accumulated the equivalent of an entire American school year more instructional time than students the same age in the United States. Second, they minimize diversions and distractions in school so that little time is wasted during the day or in the class period. By ensuring good classroom discipline and by assigning responsibility for routine procedures to the students themselves, the teacher is able to remain "on task" for nearly all of the allotted time. Third, youngsters do not stop learning when school ends. There is homework to do, there are exams to be studied for and, for many boys and girls, parents provide for additional, unofficial instruction from various sources. Instead of tailoring standards to the student, Japanese education seems to vary the total learning time that a student puts in so as to enable him to achieve the goals that he and his parents and teachers have set.

10. Besides extracting the most learning from the time available, education needs to ensure that its other resources are deployed in accord with its priorities. The Japanese have put their money into a high quality teaching force and basic education materials, not into frills, large bureaucracies, lavish facilities, innumerable electives or platoons of specialists. Yet children learn—while in school—to play musical instruments.

language, in most schools even to swim! Though teachers are relatively well-paid, their classes are large—and the teaching year lasts nearly 12 months.

Japanese families incur a number of out-of-pocket expenses for education at every level—and they pay tuition for senior high school, even in public institutions. I do not suggest that we emulate that practice, but I do note that in both their private and public outlays for education, the Japanese strive to ensure that they are getting value for money.

11. Competent, dedicated teachers make for good schools—and a society that offers its teachers reasonable remuneration, respected status in the community, an orderly school environment, a substantial measure of colleagueship and responsibility, and opportunities to recharge their intellectual and professional batteries—such a society can attract a surfeit of eager, qualified people to the classroom, and can retain them in the teaching profession. It may be noted that, in most cases, the Japanese do not enter the teaching profession via colleges of education, nor is it necessary to do so in order to be knowledgeable about one's field and competent to transmit one's knowledge to young people. Remember: Japanese schools have more than five applicants for every classroom opening.

12. Youngsters who take responsiblity—and are held accountable— for their educational achievement are apt to work hard, to persist, and in time to learn a lot. What we sometimes call the Protestant ethic is strong in Japanese education. There are clear rewards for success: short-term rewards in the respect of one's peers and praise from parents and teachers; mid-range rewards in gaining admission to the senior high school or college of one's choice; and more distant rewards in the worlds of work and adult society. Notwithstanding reports of "pressure" on Japanese young people, their on-time high school graduation rate is considerably greater than our own, and their average level of skill and knowledge acquisition is higher than in any other "universal" education system I know.

There *are* aspects of Japanese education, perhaps especially at the college level, that do not impress me, that would not be appropriate in the American context, or that contravene other principles we value. Educational opportunities in Japan may not be especially responsive to children with special needs, for example. It is important to note, however, that Japan has embarked on an education reform movement of its own and that many discontents and criticisms have been voiced within that nation. It seems likely that changes are in the offing.

But it is not my place either to praise or to criticize Japanese education. Nor have I attempted to construct a comprehensive catalog of specific lessons or promising imports for the United States. The dozen "principles" sketched above may, however, be encouraging to Americans who even without benefit of detailed knowledge of Japanese education had adduced these or similar points from research, from experience, from history, from reason, or from common sense. The essential lesson for us to glean from our examination of Japanese education, after all, besides the intrinsic rewards of enhanced knowledge and understanding, is that much of what seems to work well for Japan in the field of education closely resembles what works best in the United States—and most likely elsewhere. Good education is good education.

Glossary

Diet—The legislative branch of the Japanese government, comprising the House of Representatives (lower house) and the House of Councillors (upper house).

han—Small mixed-ability groups of four to six students assigned to sit and work together which cooperate in study, discipline, chores, and other classroom activities.

ijime—The intimidation and tormenting of individual students by others. Commonly translated as "bullying."

juku—Privately established schools which teach academic and nonacademic subjects. Academic juku offer tutorial, enrichment, remedial, and examination-preparatory classes which supplement regular school work. Most hold classes after school or on weekends.

Meiji period—The historical period from 1868 to 1912 during which Japan embarked on a program of industrialization and modernization.

Monbusho—The Japanese Ministry of Education, Science and Culture, often shortened to Ministry of Education.

NHK—*Nihon Hoso Kyokai*, the Japanese National Public Broadcasting Service.

Nikkyoso—The Japan Teacher's Union, JTU.

ochikobore—Students who have fallen seriously behind in their studies. Literally, those who have "fallen to the bottom of the system."

prefecture—One of 47 regional districts of the Japanese government, the level between the nation and the municipality.

ronin—Students who have failed the entrance examination to an institution of their choice and have chosen to spend an additional year or more in study to take the examination again. Originally used to mean "masterless samurai."

samurai—The hereditary class of warriors who served Japan's feudal lords from the 12th to the 19th centuries and also provided aristocratic leadership for the Japanese government, particularly during the Tokugawa period.

shido shuji—Experienced teachers on leave of absence from regular teaching duties who serve as inservice teacher trainers.

shogun—a military ruler and de facto head of the government during much of the 12th to 19th centuries.

Sohyo—General Council of Japanese Trade Unions.

tannin—The teacher in charge of a particular class of students, whose duties in lower secondary school combine those of homeroom teacher and counselor.

terakoya—small private schools, usually run by a single teacher, popular during the Tokugawa period.

Todai—Tokyo University

Tokugawa period—The historical period from 1603 to 1868. The period takes its name from the Tokugawa family, whose descendents held the office of *shogun* during that time.

yobiko—Upward extension of juku which specializes in preparing high school graduates for university entrance examinations, often through intensive full-time programs.

Japanese Terms for Different Types of Educational Institutions

yochien—preschool (sometimes translated kindergarten)

hoikuen—daycare center (sometimes translated nursery school)

shogakko—elementary school

chugakko—lower secondary school (sometimes translated as junior high school)

kotogakko—upper secondary school (sometimes translated as high school)

koto senmon gakko—technical college (offering a 5- or 5½-year course, which spans the upper secondary and 2-year college levels)

daigaku—college or university

tanki daigaku—2-year junior college

senshu gakko—special training school, including:

koto senshu gakko—upper secondary special training school

senmon gakko—special training college (for graduates of upper secondary schools)

kakushu gakko—miscellaneous school (offering various courses at upper secondary or postsecondary level)

Appendix

Table 1. Number of Schools by Type and Control: May 1985

Type	Total	National Public	Local Public (prefectural and municipal)	Private
	Number			
All schools	66,136	635	46,912	18,591
Preschools*	15,220	48	6,269	8,903
Elementary schools	25,040	73	24,799	168
Lower secondary schools	11,131	78	10,472	581
Upper secondary schools	5,453	17	4,147	1,289
Schools for the blind, deaf and otherwise handicapped	912	45	851	16
Technical colleges	62	54	4	4
Junior colleges	543	37	51	455
Universities	460	95	34	331
Special training schools	3,015	178	173	2,664
Miscellaneous schools	4,300	8	112	4,180
	Percent			
All schools	100	1.0	70.9	28.1
Preschools*	100	0.3	41.2	58.5
Elementary schools	100	0.3	99.0	0.7
Lower secondary schools	100	0.7	94.1	5.2
Upper secondary schools	100	0.3	76.0	23.6
Schools for the blind, deaf and otherwise handicapped	100	4.9	93.3	1.7
Technical colleges	100	87.1	6.5	6.5
Junior colleges	100	6.8	9.4	83.8
Universities	100	20.7	7.4	72.0
Special training schools	100	5.9	5.7	88.4
Miscellaneous schools	100	0.2	2.6	97.2

*In addition to preschools under Monbusho in 1985 there were 22,899 daycare centers operated by the Ministry of Welfare, of which 13,600 were public and 9,299 were private. (Unpublished data supplied by the Ministry of Welfare.)

Source: Ministry of Education, Science, and Culture, Japan. *Education in Japan: A Brief Outline*. Tokyo: The Ministry, 1986. p. 19.

Table 2. Enrollment, by Type of Scho[illegible]d Percentage Distribution by Administrati[illegible]ory: May 1985

Type of School	Total Number of Students	Percentage Dist[illegible]a		
		National	Local Publi[illegible] (prefectural and municipal)	[illegible]rivate
Pre-elementary schools:				
Preschools	2,067,951	0.3	24.4	75.3
Daycare centers	1,770,466	–	56.9	43.1
Elementary schools	11,095,372	0.4	99.0	0.5
Lower secondary schools	5,990,183	0.6	96.5	2.9
Upper secondary schools	5,177,681	0.2	71.7	28.1
Schools for the blind, deaf and otherwise handicapped	95,401	3.9	95.2	0.9
Universities	1,848,698	24.3	3.0	72.7
Junior colleges	371,095	4.7	5.6	89.7
Technical colleges	48,288	84.4	8.6	7.0
Special training schools	538,175	3.4	4.5	92.2
Miscellaneous schools	530,159	0.0	1.8	98.1

Source: Ministry of Education, Science, and Culture, Japan. *Education in Japan: A Brief Outline*. Tokyo: The Ministry, 1986. p. 5. Data on daycare centers provided by the Ministry of Welfare.

Table 3. Enrollment by Type of School and Gender: May 1985

Type of School	Enrollment		
	Total	Male	Female
Preschools	2,067,951	1,055,516	1,012,435
Elementary schools	11,095,372	5,682,490	5,412,882
Lower secondary schools	5,990,183	3,067,897	2,922,286
Upper secondary schools	5,177,681	2,609,198	2,568,483
Schools for the deaf, blind and otherwise handicapped	95,401	59,283	36,118
Technical colleges	48,288	46,565	1,723
Junior colleges	371,095	37,920	333,175
Universities	1,848,698	1,414,297	434,401
Special training schools	538,175	225,990	312,185
Miscellaneous schools	530,159	271,695	258,464

Source: Ministry of Education, Science, and Culture, Japan. *Education in Japan: A Brief Outline*. Tokyo: The Ministry, 1986. p. 5.

Table 4. Number and Percent of 1984 Lower Secondary School Graduates, by Activity Immediately Following Graduation

Activity	Number	Percent
Upper secondary school:		
Full-time regular course	1,723,021	91.52
Part-time regular course	34,587	1.84
Correspondence regular course	4,804	.26
Short-term course	249	.01
Subtotal: upper secondary	1,762,661	93.62
Technical college	9,563	.51
Vocational training	43,617	2.32
Subtotal: technical and vocational	53,180	2.82
Employment	51,318	2.73
Unemployment	15,039	.80
Deceased, unknown	570	.03
Grand total	1,882,768	100.00

Source: Ministry of Education, Science and Culture, Japan. *Statistical Abstract of Education, Science and Culture*. 1985 edition. Tokyo: The Ministry, 1985. pp. 40-41.

Table 5. Number and Percent of 1984 High School Graduates, by Activity Following Graduation

Activity	Number		Percent
University, junior college and advanced secondary courses:			
University undergraduate course	266,810	18.00	
Junior college regular course	168,107	11.34	
Short-term courses at universities and junior colleges and advanced courses at upper secondary schools	3,897	.26	
Correspondence courses at universities and junior colleges	436	.03	
Subtotal: all university, junior colleges and advanced secondary courses	439,250[a]		29.63[a]
Vocational training:			
Special training college—advanced course	172,283	11.62	
Special training college—other courses	17,057	1.15	
Miscellaneous school courses	174,759	11.79	
Public training facility courses	8,570	.58	
Subtotal: all vocational training courses	372,669[b]		25.14[b]
Employment	590,125[c]		39.81[c]
Unemployment	77,574		5.23
Deceased, unknown	2,694		.18
Grand total	1,482,312		100.00

[a]Includes 5,319 employed persons.
[b]Includes 11,793 employed persons.
[c]Excludes 17,112 employed persons referred to in footnotes 1 and 2, who went on to higher level courses or vocational training.

Source: Ministry of Education, Science, and Culture, Japan. *Statistical Abstract of Education, Science, and Culture*, 1985 edition. Tokyo: The Ministry, 1985. pp. 48, 49, 50.

Table 6. Number of Full-time Teachers by Level or Type and Administrative Category (National, Local Public or Private) of Institution: May 1984 (rounded to nearest hundred)

Type or Level of Institution	Total	Public			Private
		Total	National	Local	
All institutions	1,321,700	1,069,800	61,900	1,008,000	251,900
Preschools (under Monbusho)*	99,200	27,000	300	26,800	72,100
Elementary Schools	468,700	465,900	1,800	464,100	2,800
Lower Secondary Schools	278,900	271,200	1,700	269,600	7,700
Upper Secondary Schools	258,600	200,900	600	200,300	57,700
Schools for Handicapped	38,200	37,900	1,300	36,700	200
Technical Colleges	3,800	3,600	3,200	300	200
Special Training Schools	23,500	2,300	800	1,600	21,200
Miscellaneous Schools	22,700	700	[**]	700	22,100
Junior Colleges	17,400	2,900	1,100	1,900	14,500
Universities	110,700	57,200	51,200	6,000	53,400

Note: Detail may not add to total because of rounding.
*There are another 180,497 full-time teachers in the daycare centers under the Ministry of Welfare, cited by the National Council of Day Nursery: *Day Nurseries in Japan 1985*. Tokyo: The Council, 1985. p. 8.
**The number of teachers in national miscellaneous schools was 18.

Source: Ministry of Education, Science and Culture, Japan. *Statistical Abstract of Education, Science and Culture*. 1985 edition. pp. 7, 9, 11, 13.

Table 7. Enrollment in Pre-Elementary Education as Percent of Population Age 1-5, by Age Group and Type of Institution: 1984

Age Group	Population	Percent Enrolled		
		Preschools and Daycare Centers	Preschools	Daycare Centers
1 and 2	3,024,000	10.9	00.0	10.9
3	1,529,000	40.4	13.2	27.2
4 and 5	3,211,000	92.1	60.1	32.0

Source: Population data from *Japan Statistical Yearbook*. Tokyo: Statistics Bureau, Management and Coordination Agency, 1985. Preschool enrollments from *Gakko kihon chosa hokokusho*. Tokyo: Monbusho, 1984, p. 422-3. Daycare center enrollments provided by the Ministry of Welfare.

Table 8. Number and Percentage Distribution of Full-time Upper Secondary Students, by Course of Study: 1984

Program	Students	
	Number	Percent
Academic or General	3,403,600	71.7
Vocational		
Commercial	550,400	11.6
Industrial (Technical)	435,400	9.2
Agricultural	149,100	3.1
Home Economics	135,000	2.8
Health	23,500	.5
Fisheries	16,200	.3
Other	35,900	.8
Subtotal: vocational	1,345,500	28.3
Grand total	4,749,100	100.0

Note: Because of rounding detail may not add to total.

Source: Ministry of Education, Science and Culture, Japan. *Statistical Abstract of Education, Science, and Culture*. 1985 edition. Tokyo: The Ministry, 1985. pp. 44-45.

Table 9. Number of Suicides per 100,000 Population in Japan and the United States, by Age Groups 10-14, 15-19, and 20-24: 1965, 1975, 1984

Year	10-14 years		15-19 years		20-24 years	
	Japan	U.S.	Japan	U.S.	Japan	U.S.
1965	0.5	0.5	7.4	4.0	20.8	8.9
1975	1.1	0.8	9.7	7.5	21.5	16.3
1984	0.7	1.3	5.5	9.0	15.5	15.6

Source of Data: Ministry of Welfare, Japan. *Jinko dotai tokei* [Vital Statistics]. Tokyo: The Ministry, 1985. National Center for Health Statistics, U.S. Department of Health and Human Services. Special Tabulations (unpublished) 1985.

Table 10. Number of Institutions Offering Postsecondary Programs and Enrollments in These Programs, by Type of Institution: 1984

Type of Institution	Number	Enrollment
Universities	460	1,843,153
National	95	442,503
Local Public	34	54,117
Private	331	1,346,533
Junior Colleges	536	381,873
National 37	17,213	
Local Public	51	20,661
Private	448	343,999
Technical Colleges	62	17,530
National	54	14,892
Local Public	4	1,499
Private	4	1,139
Special Training Colleges[a]	2,386	404,153
National	161	16,821
Local Public	154	21,458
Private	2,071	365,874
Miscellaneous Schools[b]		220,430
National		22
Local Public		5,662
Private		214,746
Total Enrollment in Postsecondary Education		2,867,139

[a]Special training schools offering advanced courses for which upper secondary school completion is required for admission.

[b]There were 4,474 miscellaneous schools in 1984. Of this total, 9,120 and 4,345 were national, local public, and private institutions, respectively. Some of the miscellaneous schools offer courses for which upper secondary school completion is required for admission. The total number of such institutions and information concerning the breakdown of this total into the national, local, and private categories are not available. However, enrollments in such postsecondary courses in each of the three categories are available and are shown in the table. These figures and the distribution of all miscellaneous schools among the three categories, indicated above in this note, make it clear that most of the miscellaneous schools offering postsecondary courses were private institutions.

Source: Ministry of Education, Science and Culture Japan. *Statistical Abstract of Education, Science and Culture*, 1985 edition. Pp. 6, 8, 10, 12, 58, 61, 62, 90, 92.

Table 11. Enrollment in Postsecondary Education by Type of Institution and Course: 1984

Type of Institution	Enrollment	
	Total	Course
Universities	1,843,153	
4-year undergraduate courses		1,734,080
Master's courses		45,105
Doctor's courses		20,587
Advanced courses		1,380
Short-term courses		2,604
Other courses		39,397
Junior Colleges	381,873	
Regular courses		377,107
Advanced courses		2,084
Short-term courses		1,160
Other courses		1,522
Technical Colleges *(Koto-senmon-gakko)*—4th and 5th years of 5-year course	17,530	
Special Training Colleges *(Senmon-gakko)*—Advanced courses (requiring upper secondary school completion for admission)	404,153	
Miscellaneous Schools *(Kakushu-gakko)*—Courses requiring upper secondary school completion for admission	220,430	
	2,867,139	

Source: Ministry of Education, Science and Culture, Japan. *Statistical Abstract of Education, Science and Culture*, 1985 edition. Tokyo: The Ministry, 1985. pp. 58, 62, 63, 90, 92

Table 12. Female Enrollment in Postsecondary Education, by Type of Institution: 1984

Type of Institution	Total Enrollment	Female Enrollment	
		Number	Percent
Universities	1,843,153	425,012	23.1
Junior Colleges	381,873	343,489	90.0
Technical Colleges	17,530	448	2.6
Special Training Colleges	404,153	239,380	59.2
Miscellaneous Schools	220,430	54,570	24.8
Total	2,867,139	1,062,899	37.1

Source: Ministry of Education, Science, and Culture, Japan. *Statistical Abstract of Education, Science, and Culture. 1985 edition.* Tokyo: The Ministry, 1985. pp. 58, 62, 63, 90, 92.

Table 13. Enrollments in Technical Colleges, Special Training Schools and Miscellaneous Schools and Percentage Distribution of These Enrollments by Gender and by Administrative Category: May 1985

Type of Institution	Number	Percentage Distribution				
		Gender		Administrative Category		
		M	F	National	Local Public	Private
Technical colleges	48,288	96.4	3.6	84.4	8.6	7.0
Special training schools	538,175	42.0	58.0	3.4	4.5	92.2
Miscellaneous schools	530,159	51.2	48.8	0.0*	1.8	98.1

*The enrollment in national miscellaneous schools was 164.

Source: Ministry of Education, Science and Culture, Japan. *Education in Japan: A Brief Outline.* Tokyo: The Ministry, 1986. p. 5.

Table 14. Enrollments in Vocational and Technical Programs at Upper Secondary and Postsecondary Level in Selected Institutions, by Type of Institution and Level of Course: 1984[a] (rounded to nearest hundred)

Type of Institution	Enrollments by Level		
	Both Levels	Upper Secondary	Post-Secondary
All institutions	2,738,700	1,869,000	869,700
Upper secondary schools	1,398,900	1,398,900[b]	
Technical colleges	47,500	30,000[c]	17,500[d]
Special training schools	485,400	81,300	404,200
Miscellaneous schools	579,300	358,800[e]	220,400
Junior colleges	227,600		227,600[f]

[a]The table excludes enrollments in "ordinary" courses of special training schools for which there are no special admission requirements.

[b]Total upper secondary school enrollment of 4,885,913 in regular courses less enrollment of 3,487,047 in the general course.

[c]Enrollment in first 3 years of course.

[d]Enrollment in fourth and fifth years of course.

[e]Enrollment in courses for which other than upper secondary school completion is required for admission.

[f]Enrollment in engineering, agriculture, health, home economics, and teacher education.

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Title	Author
The Development of Postwar Educational Orientation and Policies in Japan	Edward R. Beauchamp University of Hawaii
Developmental Perspectives on the Education and Economic Activities of Japanese versus American Women	Mary Jean Bowman and Machiko Osawa University of Chicago
An Analysis of Cognitive, Affective and Behavioral Characteristics of Students in Japan	Leigh Burstein and John Hawkins Center for the Study of Evaluation, University of California at Los Angeles
Vocational and Occupational Training of Non-College Bound Youth	Robert Evans, Jr. Brandeis University
The Quality and Socioeconomic Status of U.S. Teachers	Eva C. Galambos Researcher and Consultant, Atlanta, Georgia
The Quality and Socioeconomic Status of Teachers in Japan	Misao Hayakawa Ichimura Gakuen Junior College Inuyama, Japan
Career Counselling for Non-College Bound High School Seniors: Descriptive Data from 4 High Schools	Patricia Horvath Fulbright Scholar Tokyo, Japan
An Analysis and Comparison of Science Education in Japan and the United States	Willard J. Jacobson Teachers College Columbia University
The Influence of Class Management and Student Guidance upon Academic Work at the Lower Secondary Level	Tokuo Kataoka School of Education Hiroshima University
The Influence of Western Philosophy and Theories of Psychology and Education on Contemporary Educational Theory and Practice in Japan	Hideo Kojima Nagoya University
Education in Japan: The Creativity Issue	Catherine Lewis School of Medicine University of California, San Francisco
Management of Classroom Discipline in Japan and the Role of the Elementary Schoo[illegible]cher	Lois (Taniuchi) Peak Graduate School of Education, Harvard University
Understanding American Performance on International Comparisons: An Analysis of Mathematical Textbooks in Japan and the United States (grades 7-12)	Harold Stevenson Center for Human Growth and Cognitive Development University of Michigan
Postsecondary Plans of U.S. and Japanese High School Seniors: An Introductory Comparative Analysis	Carol Stocking and Glen David Curry Department of Medicine University of Chicago
Education and Labor Force Skills in Postwar Japan	Koji Taira University of Illinois at Urbana-Champaign and Solomon B. Levine University of Wisconsin, Madison
Occupational Information, Placement and Choices for the Japanese Youth	Shunichiro Umetani Japan Institute of Labor, Tokyo, Japan
Dominant Psychocultural Factors Influencing Socialization and the Implications of Socialization for School Performance in Japan	Merry White Harvard University
Personal Income Distribution and Its Influence on Education in Japan	Masakazu Yano Research Institute of Higher Education, Hiroshima University

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Some Brief Facts About Japan

Land and People

Japan has a population of 120,000,000, about half that of the United States. It is one of the most densely populated countries in the world, with a total land area about the size of Montana. The land is a chain of volcanic islands, four-fifths mountainous, spread over a 2,000 mile arc off the Northeast Asian mainland (see map).

Japanese life expectancy in 1985 was among the longest in the world—about 80 years of age for women and 74 for men.

Most Japanese follow the Buddhist and Shinto (native Japanese) religious traditions. Neither is an exclusive religion and most Japanese observe both. Confucian ethics have a pervasive influence in Japanese thought and life. There are about one and half million Christians in Japan.

Economy

A major power in world markets, Japan's economic success is the product of a well educated, industrious work force, a high savings rate, effective business leadership, and national policies for the promotion and development of foreign trade. The economies of Japan and the United States are increasingly related. Japan is second only to Canada in volume of trade with the U.S. Although the large U.S. trade deficit with Japan has become a major concern, in 1984 Japanese purchases from the U.S. were close to the the value of U.S. exports to the United Kingdom, France, and West Germany combined. The U.S. and Japan together account for 35 percent of world GNP and 50 percent of the free world GNP.

Government

Japan is a constitutional monarchy with a parliamentary government of three branches: legislative (the bicameral Diet with its House of Representatives and House of Councillors); executive, consisting of the Cabinet headed by the Prime Minister; and judicial. The Liberal Democratic Party has controlled the government since the founding of the party in 1955. The country is divided administratively into 47 prefectures, but does not have a federal system of government. The prefectures are not sovereign entities with the independent authority and financial capability of American states. However, prefectural governors and assembly members and municipal mayors and assembly members are popularly elected.

Sources of Information: U.S. Department of State and U.S. Department of Commerce.

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JAPANESE EDUCATION OFFERS LESSONS FOR AMERICAN SCHOOLS, BENNETT SAYS

U.S. Secretary of Education William J. Bennett today said that the main lesson to be drawn from the Department's study on Japanese education is this: "Japan has a successful education system; we can do it too; we are doing it in some places and could do it in a lot more; and we can do it without sacrificing any of the values that America holds dear."

The Secretary explained, "The Japanese have implemented the ideal of universal education and seem to have resolved the quandary over equality and excellence. In short, the Japanese successfully practice many of our own ideals."

"If we wish to duplicate Japan's educational success," Bennett said, "we can do so by remembering our own American ideals, and by carrying out what our own research tells us works best."

These are some of the implications that Bennett said can be drawn from a two-year study of Japanese education released this week by the U.S. Department of Education.

Japanese Education Today, the first comprehensive report on education in Japan by the U.S. in over a decade, grew out of a 1983 discussion -- followed by a 1984 agreement -- between President Reagan and Prime Minister Nakasone that each nation would study the other's education system.

-MORE-

Bennett stated that while Japanese education is by no means perfect, "it has been demonstrably successful in providing modern Japan with a powerfully competitive economy, a broadly literate population, a stable democratic government, a civilization in which there is relatively little crime or violence, and a functional society wherein the basic technological infrastructure is sound and reliable.

"One may not attribute these accomplishments entirely to the education system, but you can't deny that the education system has strongly reinforced them."

In Japan, education is compulsory for nine years, beginning at age six. Curriculum standards are uniform throughout the country, schools are similar in facilities and teaching methods, textbooks are government approved, and rarely are there separate tracks, ability groupings, remedial programs or student electives. Students attend school five-and-a-half days a week.

Nearly all Japanese students leaving compulsory education after ninth grade continue through senior high school, despite stiff standards and the cost of attending -- averaging from five to fifteen percent or more of family income.

Both the average level of student achievement and the student retention rate through high school are very high -- some 93 percent of students who enter high school graduate.

-MORE-

The Secretary spelled out some differences and drawbacks in the Japanese education system, notably the high degree of control from the central government, weaknesses in higher education and the lack of attention in public education for students with individual needs and talents.

With regard to higher education, the report noted that teaching at that level is of uneven quality, that women comprise fewer than a quarter of Japanese university students but 90% of junior college students, and that only four percent of the total postsecondary enrollment is in graduate studies.

The study quoted scholar Edwin Reischauer, who said, "The squandering of four years at the college level on poor teaching and very little study seems an incredible waste of time for a nation so passionately devoted to efficiency."

The report also noted some of the problems of an educational system that treats all students essentially alike. For instance, elementary and secondary school children who fall behind in their studies must secure private remedial assistance outside the regular system and at parental expense.

Concerned about such perceived shortcomings in its education system, Japan has embarked upon a nationwide reform movement, coincident with the one in the United States. These reform movements taking place in both countries were a major reason for undertaking the simultaneous studies. The leaders of both nations agreed that each country might benefit from the experience of the other.

-MORE-

Both the American and the Japanese studies were conducted under the general sponsorship of the United States-Japan Conference on Cultural and Educational Interchange (CULCON). The Japan-U.S. Friendship Commission, an independent Federal agency, contributed research funds for the American study.

The Department of Education's Office of Educational Research and Improvement (OERI) conducted the U.S. study under the direction of Assistant Secretary Chester E. Finn, Jr. OERI's study team was advised by CULCON's 16-member Education Subcommittee, and a dozen leading scholars on Japanese education thoroughly reviewed the report at the manuscript stage.

A volume of scholarly papers produced for the study will be published next year, providing further details on a number of aspects of Japanese education.

# # #

INFORMATION ABOUT THE JAPANESE STUDY OF EDUCATION IN THE UNITED STATES

The Japanese held a press conference in Tokyo on December 26 to discuss their report on the American educational system, which will be released here on January 5.

Because of the time difference, January 5 in Japan is January 4 in the United States. Therefore, the studies are being released simultaneousy.

The press conference was held at the Ministry of Education, located at 3-2-2 Kasumigaseki, Chiyoda-KU, Tokyo 100.

Mr. Isao Amagi, chairman of the Japanese study team, hosted the press conference. Mr. Amagi is special advisor to the Minister of Education and Director General of the National Institute of Multi Media Education. For further information about the Japanese study, contact the press office at the Ministry of Education. From the United States, call 81-3-581-1585; from Tokyo, call 03-581-1585.

HISTORICAL BACKGROUND ON U.S. STUDIES OF JAPANESE EDUCATION

American interest in Japanese education goes back more than a century. In 1872, less than 20 years after Admiral Perry first sailed into Tokyo Bay, a brief report on education in Japan was included in the second annual report of the U.S. Commissioner of Education.

The present report marks the third comprehensive study of Japanese education published by the federal education agency in the last 30 years. The others are: Japan: Three Epochs of Modern Education, published by the U.S. Office of Education (USOE) in 1959; and Education in Japan: A Century of Modern Development, published by USOE in 1975.

Japanese Education Today is the first study emerging from a Presidential initiative and the first to be directly sponsored by CULCON. It also involves a broader range of research and a wider scope of topics than any single previous effort.

Educational Reform in the United States

A Report
of the Japan-U.S. Cooperative Study
on Educational Reform
made by the Japanese Study Group

Summary

This report, "Educational Reform in the United States," is concerned with recent reforms in American secondary and higher education, and includes related historial and cultural perspectives.

Reform in education is one of the important and common policy problems which has faced advanced nations in recent years. In August of 1984, the Prime Minister of Japan set up a board of inquiry, the National Council on Educational Reform, which has since been making widespread investigations into educational reform. This council represents the third educational reform movement in Japan, following the educational modernization of the early part of the Meiji Period and the great reforms in education which occurred after the end of World War Two. In America, the National Commission on Excellence in Education, submitted the resulats of its investigations to the Secretary of Education in April 1984 in a report entitled "A Nation at Risk." This report aroused great interest in reform in education and came to symbolize

the epoch-making advances in educational reform at the federal, state, and local levels.

In consideration of these movements in educational reform in Japan and the United States, in July of 1984, the U.S.-Japan Conference on Cultural and Educaitonal Interchange (CULCON) felt the need for "cooperation between the Minister of Education, Science and Culture in Japan and the U.S. Department of Education in recruiting groups of specialists in both countries to conduct wide-ranging cooperative research in secondary education and its articulation with higher education. Then, in September of that year, in a meeting between the then Minister of Education, Science and Culture, Yoshio Mori, and the then Secretary of Education, Terrel H. Bell, an agreement was reached on the basis of the advice given by CULCON both to arrange for cooperative research to be conducted into U.S. and Japanese educatin and to hold a joint seminar on that topic as well. On the Japan side, a U.S.-Japan Cooperative Research Group was organized, with Amagi Isao, President of the National Institute of Multi Media Education was selected as its head. On the American side, a reasrch group was established, centering upon the National Institute of Education. then cooperative research was begun.

As for this report, the Japanese research group, having a deep interest in current educational reforms in Japan, has considered the fact that education in Japan today is based on educational reforms carried out after World War Two under the great influence of the United States of America, and has also considered the fact that today there is cultural and

educational friction behind U.S.-Japan economic friction, and has thus while focusing the research on current movements in American educational reform, also investigated the relative historical, social and cultural backgrounds of these movements, and have so constructed their findings. At the same time that the Japanese report is being released, in Washington, the American side of the U.S.-Japan Cooperative Research in Education is releasing its report on the educational situation and ternds in educational reform in Japan. In the progress of the reserach, there has been full cooperation between both groups, both in terms of the exchange of materials and information and in terms of exchanging drafts of the reports for comments by the other side. However, responsibility for the final contents of the reports rests with the respective group issuing the report.

On the Japan side, the research group was composed of thirty-three Japanese specialists divided into four teams, the Steering Team (headed by Isao Amagi), the Secondary Education Team (headed by Shinjo Okuda), the Science & Mathematics Education Team (headed by Shigeo Kojima), and the Higher Education Team (headed by So-ichi Iijima). Duing 1984, each group focused on gathering materials for investigation and research. During 1985, specialists from each group was sent to the United States to do field work, and the results of their research were reported. Also, from October 14 through 17 of that year, an International Seminar on Educational Reform was held in Japan, focusing on Japanese and American specialists but also including specialists from five other countries, thus

further increasing awareness of the importance of educational reform.

Based on the process by which the research was conducted, the present report has especially focused on three areas in which American experiences are thought to contain suggestions for educational reform in Japan. these three areas are: secondary education, the articulation of secondary and higher education, and undergraduate college or university education. However, it is not our intention that the contents of the current American educational situation and reforms in it be proposed as elements of educational reform in Japan. Rather it is our hope that what has been mede clear by the research and investigation, the concrete verification of the realities of American educatonal reform and the suggestions made by that reform, may be valuable as a reference tool in furthering consideration of the problems in our own country.

The special characteristic of educational reform in the United States is, if expressed in one phrase, to produce excellence in education. There are five concrete movements in this effort. The first is that the initiative in reform has been taken at the state level, the second is that serious consideration is being given to results in terms of many standards and measurements, the third is the emphasis on uniformity and standardization in education, the fourth is the importance given to academic subjects and to cognitive learning in the curriculum, and the fifth is the remarkable concern both for the forthcoming information society and for a global perspective.

Although the Constitution of the United States gives control of education to the individual states in a huge country composed of many different peoples, it has traditionally been the local school districts which have taken the initiative in education. Now, however, it is the individual states which are taking the initiative in educational reform, with great care for opening up educational opportunities and responding to individual differences, while also emphasizing non-academic subjects. Thus, traditional American education, as it strives to overcome the problems posed by the need for both equality and diversity, is confronting the challenge of fundamental reform with secondary education at its nucleus while extending that nucleus to include higher education.

What must be done to achieve excellence while at the same time maintaining both equality and diversity? This is the main point of argument in today's educational reform movement, and one of the sources of the energy necessary in the effort to conquer the problems involved. There are five problems. The first is that of who should bear the responsibility for the academic contents of education, although there is general agreeme that the contents should emphasize cognitive skills; the se d is the problem of character formation in public schools, including both the reluctance to regiment values, which has been prevalant over the last decade, and the need for new moral education; the third is the problem of education both for the exceptionally talented child and for those who are socially disadvantaged; the fourth is how the schools can avoid losing their independence as a result of incentives from the

from the outside; and the fifth is the problem of how to insure quality in teachers while at the same tiem having the requisite nember of teachers.

Considering the course of today's educational reforms, it can be seen that American education, in building upon the traditional ideals of equality and diversity in trying to find a new excellence, is confronted with a dilemma and inflated with a kind of crisis outlook. But these very dilemmas are both the energy fuelling the reforms, and the vitality of Ameican education itself.