EDUCATION

Japanese Universities Become Magnets for Asian Students

TOKYO—Tan Choon Shian made academic history last year by becoming the first foreign valedictorian from the University of Tokyo's Faculty of Science. A computer science student from Singapore, Tan says he came to Japan to take advantage of the country's "rich university resources." More practically, his government scholarship required that he study in Japan.

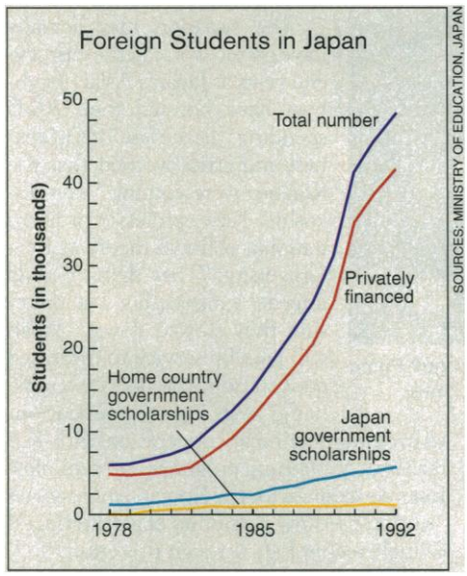
The impact of Asian students on Japanese classrooms and labs is much less than in the United States. But their presence is growing as more governments turn to Japan to provide education in science and technology. And, like Tan, these students are leaving their mark on Japan's universities as well. "(Tan) was a superior student," says Oyanagi Yoshio, a professor in Tokyo's Department of Information Science. "But then, all the students sponsored by the Singapore government tend to be superior."

In 1983, as part of several initiatives to "develop a new face" to the world, then Prime Minister Nakasone Yasuhiro pledged that Japan would host 100,000 foreign students a year bv 2000. Since then, the numbers have risen even faster than anticipated. Last year there were 48,561 foreign students in Japan, more than four times the 1982 figure. Nine out of 10 come from elsewhere in Asia, and most pay their own way. Almost 30% major in science, engineering, or medicine. Tuitions are reasonable—about $4,240 per year for graduate students at national universities, and double that or more at private schools. But living expenses are painfully high, partly because there are few dormitories. Students on Ministry of Education scholarships get a monthly living allowance of $1,770, which most supplement from savings or with income from part-time jobs.

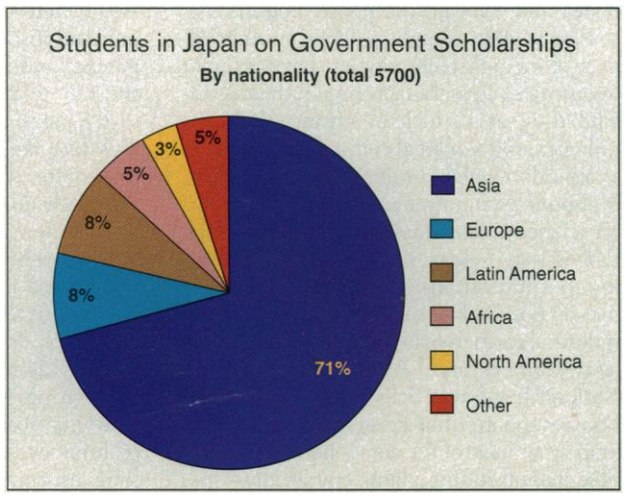
Foreign students see study in Japan as a chance to learn from the best. Hwang Tai-Yeon quit a position in the information equipment division of Korea's Goldstar group to pursue a master's degree in mechanical engineering at Tokyo Institute of Technology. "Six years of working with this equipment convinced me Japan is the most advanced in this field," he says.

The students typically spend a year in language classes before beginning their academic work, but it is still a struggle to keep up with native speakers. Tan says that in his first year at Tokyo University he was able to understand just half of what he heard in his lectures. "We just have to work a bit harder," he says.

While many schools have simply accommodated the non-Japanese students who have applied, others have specifically courted foreign students. The reason? A shortage of Japanese candidates for graduate programs. Fujino Yozo, a professor in the University of Tokyo's Department of Civil Engineering, explains that getting practical experience at a large company is often seen as more important to young Japanese scientists than earning a Ph.D. Fujino's own department faced a shortfall of good graduate students in the 1980s, and he and his colleagues responded by aggressively recruiting top engineering students from throughout the world, but particularly from Asia. The department now offers an array of scholarships, and some graduate programs are even taught in English. The word has gotten out: Last year there were 1000 applicants for 20 slots. "The qualifications of the student body in civil engineering may be the best in the world," boasts Nishino Fumio, another departmental professor. As a result, he says, "our publications have significantly improved in number and quality."



Halfway there. In 1983, Japan pledged to host 100,000 foreign students by 2000.



Regional connection. The Japanese government offers scholarships for foreign students; the vast majority are awarded to Asians.

The effect of this migration on the home countries is difficult to judge, but it can't help but strengthen their capacity to do science. Graduates of Japan's universities are appearing on the science and engineering faculties of schools from the National University of Singapore to Vietnam's Technical University in Ho Chi Minh City.

However, it is still the United States, not Japan, that offers these graduates the best chance to become involved in "walking" technology transfer back to their native country. Chang Kun-hsiung, director of the science division of the Taipei representative office in Japan, points to the large number of U.S.-trained scientists and engineers in Taiwan's computer industry and notes, "We don't have those connections yet with Japan." Despite the rising number of Taiwanese students coming to Japan, Chang says, the total is only one-tenth of the number going to the United States. And although Japanese companies are increasingly hiring non-Japanese scientists and engineers, only 1117 foreign students changed their student visas to work visas in 1991, according to Ministry of Justice figures. And there are only 201 foreign faculty at all the national universities combined. Indeed, Japan's policy is to urge visiting students and researchers to return home. "(Japan) wants to avoid the problems of immigration," explains Chiba Genya, vice president of the Research and Development Corp. of Japan.

And what of Tan? His postgraduate plans could well have been influenced by his stint in Japan. Following the example of generations of Japan's best and brightest students who went into public service, he is joining Singapore's Economic Development Board, an arm of the Ministry of Trade and Industry. "I think this is where my skills can be best put to use," he says.

–Dennis Normile

Dennis Normile is a science writer based in Tokyo.