

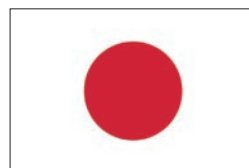
INTRODUCTION

Women in University Research

Strengthening Japan's Research Capacity

■ Women Researchers at a Glance : Japan

Source: Gender Equality Bureau, Cabinet Office, *White Paper on Gender Equality 2013* (WPGE),
Ministry of Internal Affairs and Communication, *Statistical Topics*, No. 80, 14 April 2014 (ST).



Investment in research and education is essential for the development of a knowledge-based society. Human resources are a key indicator for measuring competitiveness and economic development. In 2012, Japan's high school advancement rate stood at 96.8% for women and 96.2% for men, which suggests that a just a few more female students enter high school than male students. The university (undergraduate course) advancement rate stood at 55.6% for men and 45.8% for women, indicating that the rate for male students is 10% higher than that for female students. Since 9.8% of female students enter junior colleges, the women's total advancement rate for higher education was 55.6%. Despite decades of women's underrepresentation on campus, gender parity in terms of student enrolment was almost reached in 2005. Looking at the percentage of students entering graduate school immediately after completing their undergraduate studies, male students accounted for 15.4% and female students accounted for 6.2% in 2012 (WPGE, p.116).

The inclusion of women in science and academia has become a pressing issue in most industrialized countries. When compared to other OECD (Organisation for Economic Co-operation and Development) countries, the situation of female academics and scientists in Japan has often been described as being backward. As of 2013, there were 127,800 female and 759,200 male researchers in Japan. The percentage of women among all researchers in Japan has been gradually increasing, but still stands at 14.4%, whereas the corresponding rates in OECD countries are estimated to be two to three times higher than that of Japan (Figure 1).

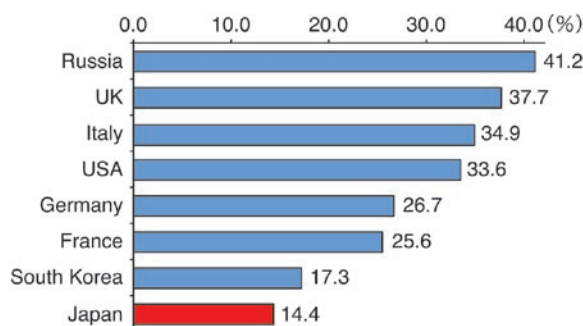


Figure 1 Proportion of female researchers, 2013 (ST, p.6)

SOURCES

WPGE: Gender Equality Bureau, Cabinet Office, *White Paper on Gender Equality 2013*

WEB www.gender.go.jp/about_danjo/whitepaper/index.html

ST: Ministry of Internal Affairs and Communication, *Statistical Topics*, No. 80, 14, April 2014

WEB www.stat.go.jp/data/kagaku/kekka/topics/topics80.htm

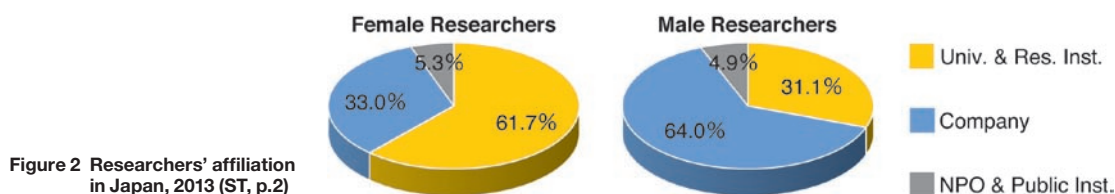


WPGE

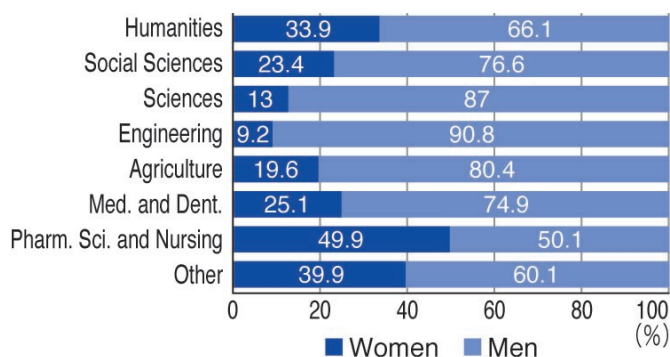


ST

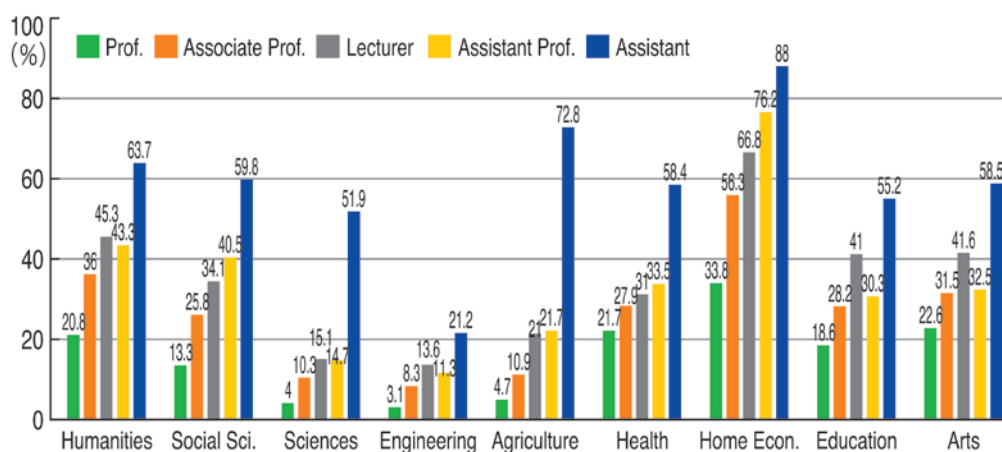
Figure 2 suggests that 64.0% of the male researchers are in companies and 31.1% are in universities and research institutions. On the other hand, 61.7% of female researchers are in universities and research institutions and 33.0% are in companies.



Looking at the major fields of study for female researchers in universities and research institutes, they are concentrated in a limited range of fields, such as nursing, home economics and humanities. On the other hand, women accounted for only 9.2% of all researchers majoring in engineering and 13% of those majoring in sciences (Figure 3).



Even in major fields that have higher percentages of female researchers—the higher the position, from lecturers to associate professors and professors—the lower the proportion of females. Women account for approximately 50% of faculty members at junior colleges, but they account for 10% to 20% at universities. In particular, women still make up only a small percentage of professors in science, engineering, and agriculture (Figure 4).



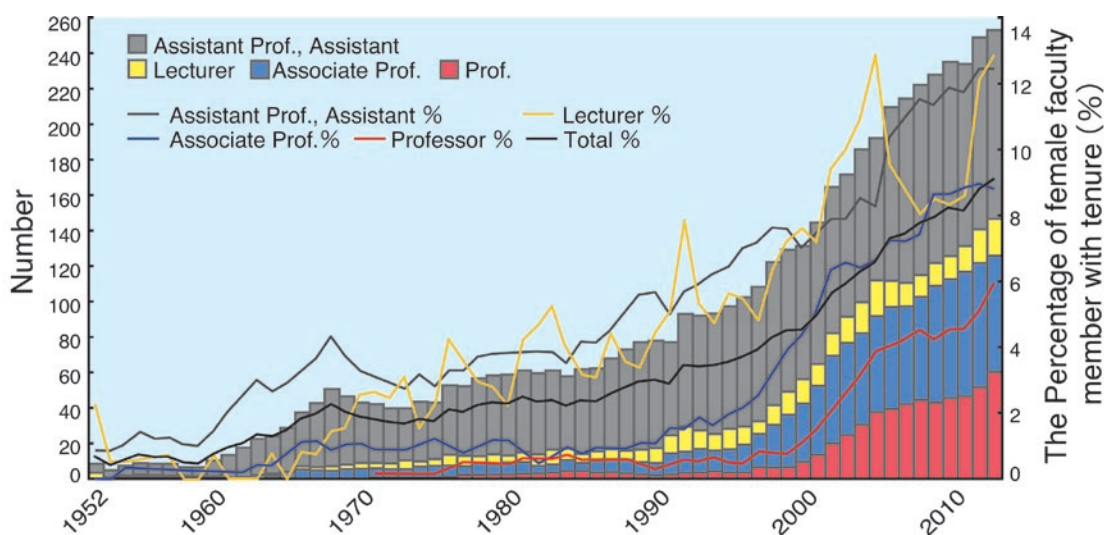
Female Faculty Member with Tenure at Kyoto University

Source: Kyoto University Gender Equality Promotion Center Website

WEB www.cwr.kyoto-u.ac.jp/english/



As of May 1, 2013, the total number of faculty member with tenure at Kyoto University was 2,777 (including seven assistants). Among them, female member account for 9.1 % (252 persons). It has increased 1.8% over the last seven years, up from 7.3% in 2006. The upward trend became obvious since 2000. Figure 5 shows the change in the number of female faculty member with tenure since 1952.



1) Although some data before 1951 remains, including statistics of school education conducted by the Ministry of Education since 1949, it is not reliable because some departments do not have full data and a total number of staff in the university was not provided. Therefore, data indicates that there were four women lecturers in 1952, the affiliation of three of them, except for one in the Faculty of Letters, are unknown. 2) Since 2007, Assistants were categorized into Assistant Professors and Assistants. In this figure, they are not differentiated. This is an updated version of the data initially compiled by Sono Yasuda (Newsletter No.2, Women Researchers Association of KU, 2005).

Figure 5 The change in the number and percentage of female faculty member with tenure in each position rank

Japan's Government Policy

CONSIDERING the present percentage of women researchers in doctoral courses, the government will promote relevant activities so as to achieve the numerical target for recruitment of female researchers under the 3rd Basic Plan, i.e. 25% for natural science as a whole, and further raise the percentage to 30%. In particular, the government will aim at early achievement of the targets of 20% for physical science, 15% for engineering, and 30% for agriculture, and achievement the target of 30% for the total of medicine, dentistry, and pharmacy.

THE GOVERNMENT will support universities and public research institutions that improve their research support system etc. so that female researchers may cope with childbirth, childcare and research. The government will expect universities and public research institutions to work on the establishment of flexible employment, personnel and assessment systems, as well as telecommuting and short-time working systems, and the improvement of their research support system, etc.

Looking at the male/female ratio in each rank, there are a lot fewer women in all categories because their total number is very small. Among them, the percentage of women at the rank of professor is extremely low, at only 5.9%. At the rank of associate professor, women account for 8.8%, and at the rank of assistant professor, 12.4% (Figure 6).

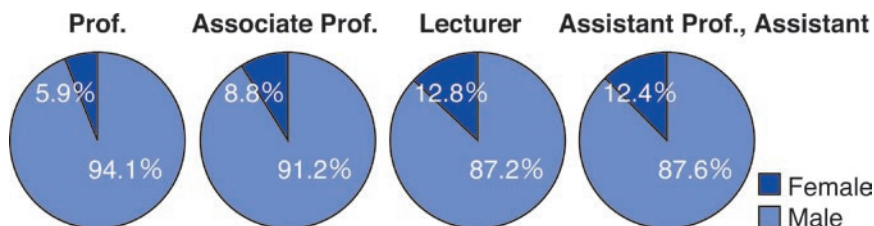


Figure 6 Distribution of male and female in each rank of positions, 2013

Among the departments with over thirty faculty members, the percentage of women is comparatively higher in the Graduate School of Education (33.3%), Graduate School of Law (18.8%), Institute for Research in Humanities (15.7%), and Graduate School of Letters (13.4%).

Regarding the statistics for graduate students, the percentage of women has been gradually rising. It is higher in the School of Medicine [Medical Science (56.0%)], Graduate School of Global Environmental Studies (53.7%), and Graduate School of Asian and African Area Studies (52.6%). It is comparably lower in the Graduate School of Energy Science (14.4%), Graduate School of Engineering (16.0%), and Graduate School of Informatics (18.8%). However, the figures are moderately higher than those for the undergraduate level in those fields*.

(*Source: Kyoto University ed., *Kyoto Daigaku Gaiyo* 2013, p. 23. [WEB](http://www.kyoto-u.ac.jp/ja/issue/ku_profile) www.kyoto-u.ac.jp/ja/issue/ku_profile)

To enhance research development and human resource development, the Japanese government and Kyoto University are engaged in various efforts to support the activities of female researchers (see Column).



Author: **Noriko Inuzuka, PhD**
Professor, Gender Equality Promotion Center

IN ORDER to achieve the foregoing targets, the government will expect universities and public research institutions to actively promote appointments by formulating specific plans for efforts to stimulate the activities of female researchers, achieve the numeric targets set for female researchers, and release data to the public regarding the percentage of enrolled women researchers categorized by job classification and department. The government will also expect them to make efforts to increase the number of female researchers in leading positions, the number of female students of natural science, and the number of quality women aiming to be professional researchers.

(Council for Science and Technology Policy, *Japans' Science and Technology Basic Policy Report*, 24 December 2010, p.30)