

URA in Japan

As of November 2018

This is a brief summary translation of the report on “URA in Japan” written in Japanese by:

**Mr. Naotoshi Ikemi, administrator at Science Department, Kyushu University, and
Prof. Akiya Nagata, Professor of Economics, Kyushu University.**

The report was made with a Kakenhi award (curiosity driven-type competitive fund) from the Japan Society for the Promotion of Science (JSPS). The original report in Japanese is uploaded on the website of the Center for Science, Technology and Innovation Policy Studies (CSTIPS), one of the SciREX core centers, to widely seek comments (<http://www.sti.kyushu-u.ac.jp/?q=node/42>). The above writers are responsible for the contents, and Kyushu University and CSTIPS are not. Also, the summarizing and translating responsibility is with Kazuko Nakata (k-nakata@grips.ac.jp), translator at the SciREX Center. The summary translation was made to be uploaded on the SciREX Center website to widely share how the URA system was introduced to Japan, how it is currently run, and what the challenges are.

Preface

Six years have passed since the University Research Administrator (URA) system was introduced to Japan. As the job was new to the universities, the URAs had difficulties in identifying their presence within the university systems when they took the URA positions. They have, however, gradually found the areas they can be active, including designing research support systems and supporting to obtain research funds. Also, it took time, but the university members gradually learned what the URAs do. Nonetheless, the faculty members are still complaining that they do not have sufficient research support, while the intent of establishing a URA system was to lighten the faculty members’ burdens consumed for administrative work. This may be improved by reviewing URA roles.

This paper begins with the birth of URAs in Japan followed by a review on the job URAs are active, and analyzes the interview results to finally come up with the challenges in the future.

Introduction and Development of URAs in Japan

The conventional Japanese government’s system of providing non-competitive research funds

to national universities (they are currently national university corporations and the number is 82) began to decrease since the enactment of the law to change the national universities' status to independent entities (corporations) in 2004. This meant that they were no longer national entities and should gradually explore the way to be independent from the government to ultimately totally independent some time in a distant future. The total amount of such non-competitive funds was Yen 1,241.5 billion in 2004 and Yen 1,112.3 billion in 2016, 10 percent decrease in a decade. Facing this reduction, the first thing each national university corporation did was to cut the human resources costs. This has inevitably brought more administrative work and less research time to faculty members. The data compiled by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) shows that the faculty members spared 46.5 percent of their work hours for their research before 2004, and it went down to 35.0 percent in 2013.

In addition to the human resources cut, the decrease of the non-competitive research funds considerably reduced the education and research activities at the national university corporations. To keep up with the research activities, the faculty members had to obtain competitive funds from the government funding agencies and private foundations. This has brought them additional work for collecting competitive funds information and filling in the application forms. Thus, human resources who handle the funds from outside began to be called for. Also, to obtain more funds from the government, the universities began to recognize the need of human resources who can work on institutional research (IR).

To try to solve the above issues, the Japanese Government's 4th Science, Technology and Innovation Basic Plan (covering JFY2011-2015) included an establishment of a URA system in its passage: "Japan will train and secure **Research Administrators** who take care of the management of overall R&D activities with their expertise; **Science Technicians** who take care of technical work and knowledge base-maintenance of research; and **Intellectual Properties Experts**."

To realize the above, MEXT launched in 2011 a program "Preparation for a system for training and securing research administrators." Seventeen universities obtained the fund and began to employ URAs and establish URA skill standards and URA training programs. Also, the MEXT's program established in 2013 to strengthen Research Universities accelerated this movement, as the 22 institutions that were successful in obtaining the grant began to hire URAs. In addition, MEXT's plan to see at least 10 Japanese universities among the top 100 world university ranking in 10 years made all the universities be concerned with the ranking and

began to analyze how to attain the goal by reviewing of their management.

Many universities have since then followed the trend of hiring URAs, resulting in having a total of as many as 830 URAs at the universities across the nation as of 2018.

Survey to URAs (Table 1)

To learn the URAs' job, we interviewed 25 URAs at 9 universities. Table 1 is the interview result by breaking down their work into 4 categories: research strategy promotion; pre-award; post-award; and others.

It shows the URA's job covers diverse areas across the university. One of them is to check the application form for competitive funds. When the application is for cross university-type or education support-type or internationalization-type programs, the URA needs to visit and coordinate with many other departments or divisions. Some URAs use their expertise they gained in their previous jobs. Examples are that those who were previously involved in public relations take care of the public relations of the research at the university; those who were previously working at an overseas office of a foreign-capital companies take care of establishing a new office overseas; or those who were planning events take care of having events that introduce the research to the public.

Survey to Faculty Members (Table2)

To know the faculty members' expectation for URAs, we made a survey to 146 faculty members at the Kyushu University Graduate School of Science and Graduate School of Mathematics, and received 125 replies (85.6% response rate). The breakdown of the 125 replies is as follows: 35.2% from professors, 34.4 from associate professor, 4.8% from lecturers, and 25.6% from assistant professors. Viewed by field, 24.0% in physics, 23.2% in chemistry, 18.4% in earth and planetary sciences, 15.2% in biology, and 19.2% in mathematics. Also, 89.6% was male and 10.4% was female. The survey result is summarized in Table 2.

Table 1: URA job

(Number of persons who replied YES)

Job	In Detail	Yes
Support to promote research strategy	University research capability analysis using analyzing tools	1
	Research strategy planning	15
	Planning of a young researcher support system	1
Pre-award	Competitive funds information gathering and sharing	3
	Checking the competitive funds application forms	12
	Editing the charts to be used for the competitive funds application forms	1
	Rehearsal of interview for competitive funds' review process	2
	Internal coordination in applying for cross university-type competitive funds	4
Post-award	Arrangements of research public outreach events	2
	Internal coordination for implementing cross university-type large programs	3
	Project management and operation of competitive research funds	7
Others	Opening of an overseas office	1
	Website establishment for a research team	1
	Coordination with companies for pursuing collaborative research	1
	Coordination in establishing industry-university research consortium	1
	Arrangements for intellectual property licensing	2
	Industrialization of research results	1
	Arrangements for holding informal gathering for faculty members	3
	Researcher interview articles for public relations magazines	1
	Share of research results with overseas media	1
	Confirmation of the contents for international legal documents	1

Table 2: Faculty members' wish list and the support received

(Number of YES (%)) N=125

Support item	Wish to be supported	Ever supported by URAs	Ever supported by non-URA staff
Information gathering on competitive funds opportunities	55 (44.0%)	3 (2.4%)	25 (20.0%)
Editing the application for competitive funds	54 (43.2%)	6 (4.8%)	27 (21.6%)
Management of and report writing for competitive funds	60 (48.0%)	0 (0.0%)	33 (26.4%)
Coordination with collaborative researchers	16 (12.8%)	0 (0.0%)	9 (7.2%)
Coordination of projects in interdisciplinary fields	27 (21.6%)	4 (3.2%)	7 (5.6%)
Coordination with companies and local governments	24 (19.2%)	2 (1.6%)	8 (6.4%)
Coordination of the meetings between faculty members	11 (8.8%)	1 (0.8%)	7 (5.6%)
Management of research progress	4 (3.2%)	0 (0.0%)	8 (6.4%)
Management of the goods in the lab	50 (40.0%)	0 (0.0%)	28 (22.4%)
Maintenance of research equipment and operation guidance to the students	39 (31.2%)	0 (0.0%)	18 (14.4%)
Search for related research materials	12 (9.6%)	0 (0.0%)	9 (7.2%)
Edition of papers in English	54 (43.2%)	0 (0.0%)	39 (31.2%)
Edition of presentation slides	17 (13.6%)	0 (0.0%)	10 (8.0%)
Submission of official papers for experiments on animals and gene editing	14 (11.2%)	0 (0.0%)	2 (1.6%)
Coordination in case of holding symposia	69 (55.2%)	0 (0.0%)	16 (12.8%)
Public relation activities of research results (press release)	50 (40.0%)	3 (2.4%)	14 (11.2%)
Intellectual properties and commercialization of research results	29 (23.2%)	3 (2.4%)	8 (6.4%)
Negotiation with universities overseas on research agreements	28 (22.4%)	1 (0.8%)	7 (5.6%)
Promotion of receiving foreign students	23 (18.4%)	0 (0.0%)	9 (7.2%)
Care of foreign students and researchers	56 (44.8%)	0 (0.0%)	23 (18.4%)
Coordination for visiting lectures and outreach activities	27 (21.6%)	0 (0.0%)	11 (8.8%)
Networking for the student alumni	10 (8.0%)	0 (0.0%)	3 (2.4%)
Collection of materials needed for faculty evaluation	33 (26.4%)	0 (0.0%)	8 (6.4%)
Collection of materials for evaluating mid-term goals and plans	31 (24.8%)	1 (0.8%)	9 (7.2%)

Further analyses of Table 2

To see the faculty members' potential needs of URAs and how the work is currently performed by non-URA staff members, further analyses were made. The result shows that the following items have high expectations of support by faculty members, but are currently not supported by URAs, and could potential be supported by URAs:

1. Management of and report writing for competitive funds,
2. Coordination in case of holding symposia, and
3. Care of foreign students and researchers.

Factor Analysis

To make it clearer what kind of expertise is needed to accomplish the support expected by the faculty members, a factor analysis was conducted with the factor selection made based on Varimax rotation. The factors 1 through 6 were as follows:

- 1-Competitive funds,
- 2-Internaitonalization,
- 3-Evaluation activities,
- 4-Network management,
- 5-Industry-university collaboration, and
- 6-Research management.

The factor analysis result showed that the faculty member's need for support is broader than the job categories defined as URA's roles. ([The original report contains two factor analysis tables, but are omitted here in a summary translation.](#))

Follow-up Survey

Of the 125 respondents, 114 members were visited with further questions. As to the reason for choosing "coordination in case of holding symposia," they said that holding a symposium is accompanied by a huge amount of work with sufficient number of staff members, which discourages them to have an idea of holding any symposia. The work includes coordination of speech contents, preparation of air tickets, visits to the university's accounting division, honorarium payment to the guest speakers. These university-specific details make it difficult to outsource the whole job.

As to the research equipment, such large-scale equipment as Nuclear Magnetic Resonance

Apparatus that is widely used in Science Department is not used every day, but requires a lot of faculty members' and students' time for maintenance and management. This makes them wish to have an expert like a lab manager at U.S. research institutions who is an expert to manage and maintain research equipment and provide operation guidance to lab users.

As to the management of goods in the labs, it was made clear that they need management of reagents rather than general consumer goods, as the access to those reagents is limited to the faculty members.

Discussion

As said above, the factor analysis result implies that the support required by the faculty members on URAs is beyond the already-defined URA roles. This may lead the definition of URA job to include diversity and ambiguity reserved as "a third area," as it is not possible for all the expertise needed by faculty members to be accomplished by URAs. On the other hand, having ambiguity in the URA's job description may keep the training and career development of URAs unclear, which may result in hindrance for identifying URA roles. To avoid this, the challenge would be to sort out the job that could not be accomplished by non-URAs and have the URAs focus on that area.

An example would be that among the items that the faculty members wish to be supported, "management of competitive research funds and report making," "coordination when holding symposia," and "taking care of foreign students and researchers" were the top three items most of the faculty members said have not received sufficient support either by the URAs nor the non-URAs.

Among these three items, "management of competitive research funds and report making" has been in the "post-award" job for URAs and it would be important to remind it.

The "Coordination when holding symposia" requires a comprehensive ability to understand the research contents, although not fully, to be versed with the various university regulations, and to connect all the players from participants through administrative staff. As the conventional university system does not have a personnel with such talents, it would be ideal for URAs to respond to such needs.

A report by the National Institute of Science and Technology Policy (NISTEP) points that the number of internationally co-authored papers is increasing, but Japan is not ready to catch up

with the trend. With more number of international symposia to be held in Japan that brings more opportunities for the Japanese researchers exchange ideas with foreign researchers, the number of co-authored papers would increase. The result of the factor analysis shows that the “coordination when holding symposia” is not much related with the factors of “competitive research funds” nor “internationalization.” This means that the faculty members’ believe that holding international symposia is different from and not connected with the post-award activities nor creation of international research exchange. URAs could change the faculty members’ recognition by being more proactive in holding international symposia and have them understand that those factors are all related.

The “taking care of foreign students and researchers” may be the item that URAs would have to commit as it is in line with promoting internationalization, but taking every-day life of and providing psychological support to foreign students might require other kinds of expertise. For this reason URAs would remain to take care of their “research” support.

The “research management, including management of goods in the lab, maintenance of research equipment and guidance of the operation to the students, and application to obtain official approval for conducting animal experiments or genetic recombination” is also the item that the faculty members said has not been supported by URAs. They expressed their wish to have support for such an advanced research-related job that cannot be handled by the conventional administrative staff members. This will require further discussions as to whether URAs should take care of the job or not, as the type of support differs depending on the research field.

CONCLUSION:

The role of URAs differs depending on the size of the university, expertise of the faculty members, and the university organization chart. However, finding the elements of the needs for support that are common among the universities and faculty members would help to make the role of URAs clearer and make their functions more visible. The survey made this time was limited to the faculty members of the Kyushu University’s Science Departments. To generalize the data, the survey needs to be expanded to other universities and academic disciplines.

A closer partnership between the faculty members and URAs will help strengthen the research abilities of Japanese universities and attain the MEXT’s goal of finding them among the top 10 universities in the world.