AASSA - SCJ Workshop on
"Role of Science for Inclusive Society"

Issues on Work and Life Balance in Asia

Beyond the bias and barriers - What we have done in these 10 years in STEM field in Japan-

Hisako Ohtsubo[1], Haruko Ogawa[2],
Megumi Sato[3], Noriko Hirata-Kohno[4]

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[3]Lecturer, Nihon University. Email: sato.megumi@nihon-u.ac.jp
[4]Professor, Nihon University. Email: hirata@math.cst.nihon-u.ac.jp

Tokyo, Japan, March 2, 2017

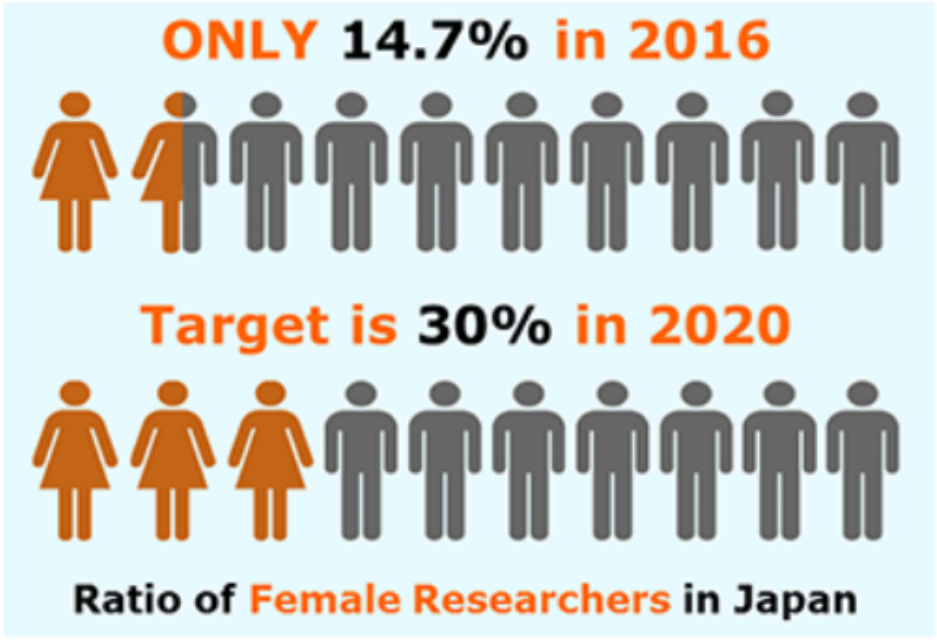
Low Ratio of Female Researchers in Japan

- Numbers of Female Researchers are increasing.

  2005: 98,700（11.9%） ⟶ 2016: 136,000（14.7%）

- Ratio of the female researchers are still low, because of the low ratio in the companies (8.2%).

In Order to Maximize Our Potential,
We Promote Gender Equality in STEM.



Japan's Numerical Target:
202030

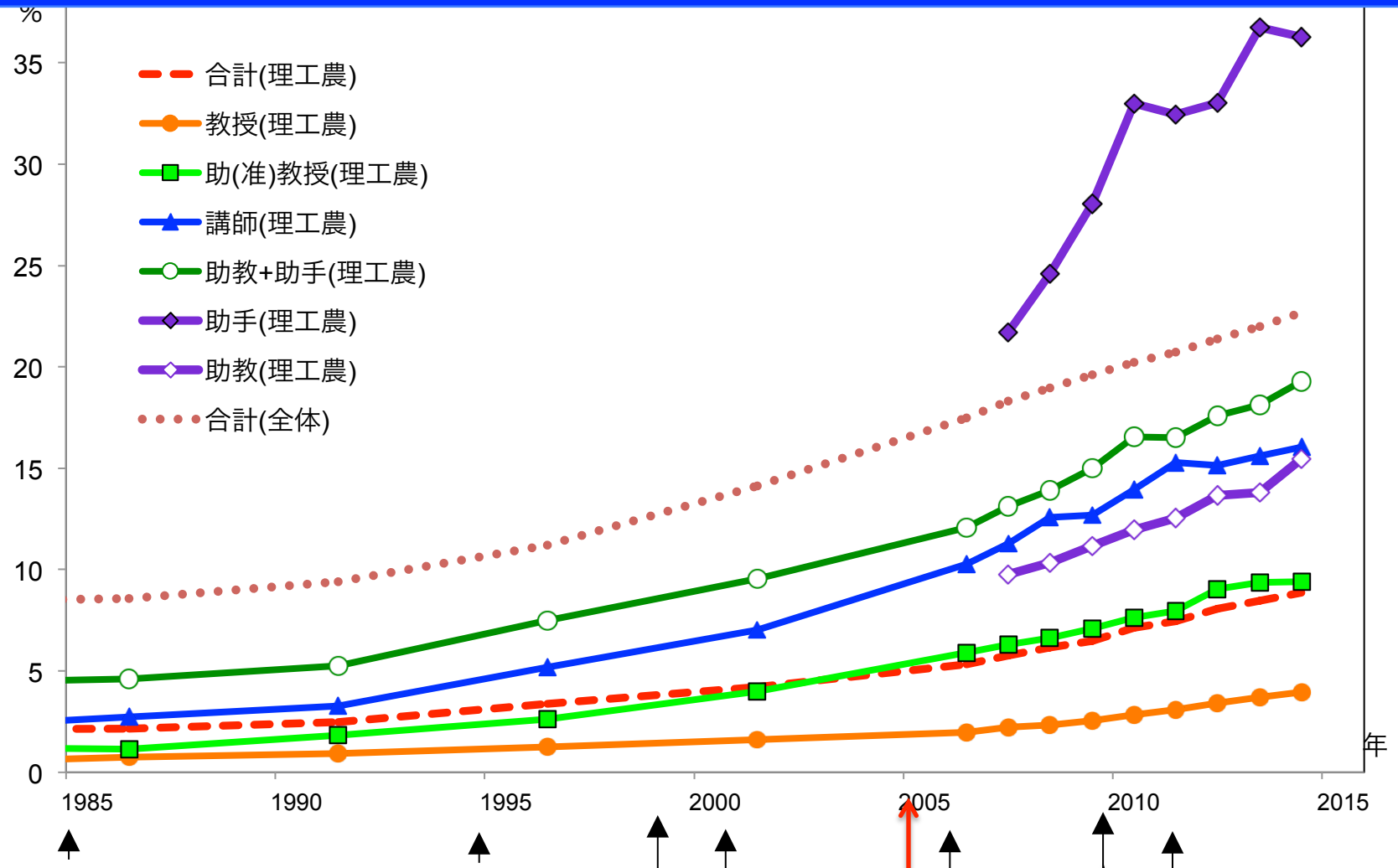
Policies & Measures Supporting Gender Equality in STEM Field in Japan

1. ***One Numerical Target*, 30% by 2020** (2003)
   (30% of female ratio in leading positions in all the area in society)

2. Two Basic Plans Every 5 years (since 2005, 2010, 2015)
   1) The Basic Plan for **Science and Technology**
   2) The Basic Plan for **Gender Equality**

3. Three Programs by MEXT (2006 ~ present)
   1) **Supporting Activities** for Female Researchers (2006 ~)
      Supporting Positive Activities for Female Researchers (2009-2011)
      ("KASOKU-Program/Acceleration-Program)
   2) Restart Postdoctoral (**RPD**) Fellowship (2006 ~)
   3) Support for **Female High-School Students** into Science(2006 ~)

Increase of Female Ratio of Researchers in STEM



Equal Employment Opportunity Law

The Basic Act on Science and Technology

Basic Law for a Gender-Equal Society

The 2nd Basic Plan for Science and Technology

The 3rd Basic Plan for Science and Technology

The 4th Basic Plan for Science and Technology

モデル育成事業
RPD制度
理系選択支援

加速プログラム

Megumi Sato et al., Transactions of Nihon University School of Dentistry 44, 69-75

Almost 100 Universities/Institutions have been participating in these MEXT Programs. (2006 ~ present)

1. Supporting Activities for Female Researchers (2006 ~)

   "Common Programs" among the Institutions → *Next slides!!*

   "Unique self-check system"(2010 – present)

   - Ochanomizu University

   Supporting Positive Activities for Female Researchers

   "KASOKU-Program"/Acceleration-Program (2009-2011)

   Good Examples:

   - Kyushu University
   - Nagoya University

   } *A kind of "Quotas System" brought spillover effects*

2. Restart Postdoctoral (**RPD**) Fellowship (2006 ~)

   "Restart from childcare leave"

Various Programs for Promoting Gender Equality

by Nagoya University

Office for Gender Equality, Nagoya University

http://www.kyodo-sankaku.provost.nagoya-u.ac.jp

日本語 | 中文

HOME Sitemap Contact Related site

Gender Equality Office

Up-skilling Program

Work-Life Balance

On-Campus Nursery

Mentoring Program

Gender Equality at Nagoya University

Upskilling Program for Researchers

Education

Promoting Work/study-life Balance

On-Campus Nursery Schools

On-Campus After-School Childcare Center

Acalingo / Support for Women Students

Mentoring Program for Female Faculty Members

Local Networking

Annual Reports

HeForShe

Supporting Program

Climate Change

On-Campus Childcare After school

Support for Women Students

HeForShe (UN Women)

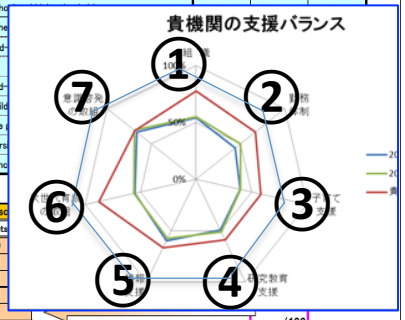
“Ochadai Index”, A Self-Check INDEX for leveling the field

For research education institutions: a checklist to help build a better work environment for women

The Ochadai Index

The Ochadai Index was created by Ochanomizu University to measure the level of support that research education institutions provide women researchers. This includes mentoring programs, child-rearing support, and promoting work-life balance. For each of the fifty items below, please circle the appropriate response (I-III) according to the situation at your institution. Your evaluation should be a general estimate. We hope this index will be a valuable reference in the future.

			Check	I	II	III
1. School-wide support system	① Organization	1	Established an organization to support women researchers	No	Doing now	Yes
		2	Established an external evaluation committee	No	Doing now	Yes
		3	Created a system likely to be fair and transparent	No	Doing now	Yes
		4	Created a system to objectively evaluate performance	No	Doing now	Yes
		5	Created a system to actively recruit women	No	Doing now	Yes
		6	Created a system to promote women to management positions	No	Doing now	Yes
		7	Created a target figure according to field for hiring women researchers	No	Doing now	Yes
		8	Understand the ratio of women researchers according to field and job position	No	Researching now	Published
		9	Created a budget to support child-rearing	No	Doing now	Yes
	② Work system	10	Institution has increased work efficiency	No	Trying now	Yes
		11	Created meeting rules (e.g., no meetings scheduled or extended past 5:00 p.m.)	No	Doing now	Yes
		12	Created a set day when staff or faculty can go home at a fixed time	No	Doing now	Yes
		13	Made commonly known that a paternity leave system has been established	No	Doing now	Yes
		14	Done a survey of actual working hours	No	Doing now	Yes
		15	Done a survey about work-life balance of all faculty and staff	No	Doing now	Yes
2. Support for women researchers	③ Child-rearing support	16	Created a room for women to rest	No	Doing now	Yes
		17	Created a multi-purpose restroom or baby nursing room	No	Doing now	Yes
		18	Created a child care facility	No	Doing now	Yes
		19	Created (independently or cooperatively) a day care for sick and recovering children	No	Doing now	Yes
		20	Created (independently or cooperatively) a day care for school-age children	No	Doing now	Yes
		21	Created (independently or cooperatively) on-campus housing to support child-rearing	No	Doing now	Yes
	④ Research education support	22	Created a flexible work schedule to support child-rearing	No	Doing now	Yes
		23	Created a reduced-hour system to support child-rearing	No	Doing now	Yes
		24	Created a telecommuting (work from home) or teleconferencing system	No	Doing now	Yes
		25	Made known the Action Plan to Support the Development of the Next Generation	No	Doing now	Yes
		26	Created a performance evaluation system that considers childbirth and child-rearing	No	Doing now	Yes
		27	Created a consultation service to support child-rearing and research	No	Doing now	Yes
		28	Created a child-rearing scholarship system for undergraduate and postgraduate students	No	Doing now	Yes
		29	Have research assistants support women researchers who are raising children	No	Planning now	Yes
		30	Created a mentoring system to assist women researchers	No	Doing now	Yes
		31	Hold seminars, etc., for career development of researchers who are raising children	No	Planning now	Yes
		32	Hold seminars, etc., for career development of research assistants	No	Planning now	Yes
3. Information support	⑤ Information support (Building an information bank)	33	Dispatch information via websites	No	Planning now	Yes
		34	Created booklets to support child-rearing	No	Doing now	Yes
		35	Built a human resource data bank to support researchers who are raising children	No	Doing now	Yes
		36	Dispatch information on role models to support women researchers	No	Planning now	Yes
		37	Cooperate with other campuses and institutions to support women researchers	No	Planning now	Yes
		38	Created a network among women researchers	No	Planning now	Yes
4. Raising awareness	⑥ Next generation development	39	Hold lectures on and off campus for middle school and high school girls	No	Planning now	Yes
		40	Dispatch information (via DVD, website, booklet) on role models for school girls	No	Planning now	Yes
		41	Hold get-togethers for role models and middle school and high school girls	No	Planning now	Yes
		42	Hold symposiums and other events for middle scho			
	⑦ Raising awareness	43	Inform all staff about support for women researche			
		44	Hold seminars and study meetings related to child-			
		45	Created measures to prevent harassment			
		46	Raised awareness among men of support for child-			
		47	Raised management awareness of support for child			
		48	Raised awareness about male-female cooperative			
		49	Raised awareness of the need to appreciate divers			
		50	Raised awareness toward realizing work-life balanc			



USE OF THE OCHADAI INDEX

The Ochadai Index is the property of Ochanomizu University. Except as permitted by law, any reproduction without prior consent from Ochanomizu University is a violation of the copyright.

Women-friendly work environment sc	
Overall rating	Total points
A	80~100
B	60~79
C	40~59
D	20~39
E	0~19

/100

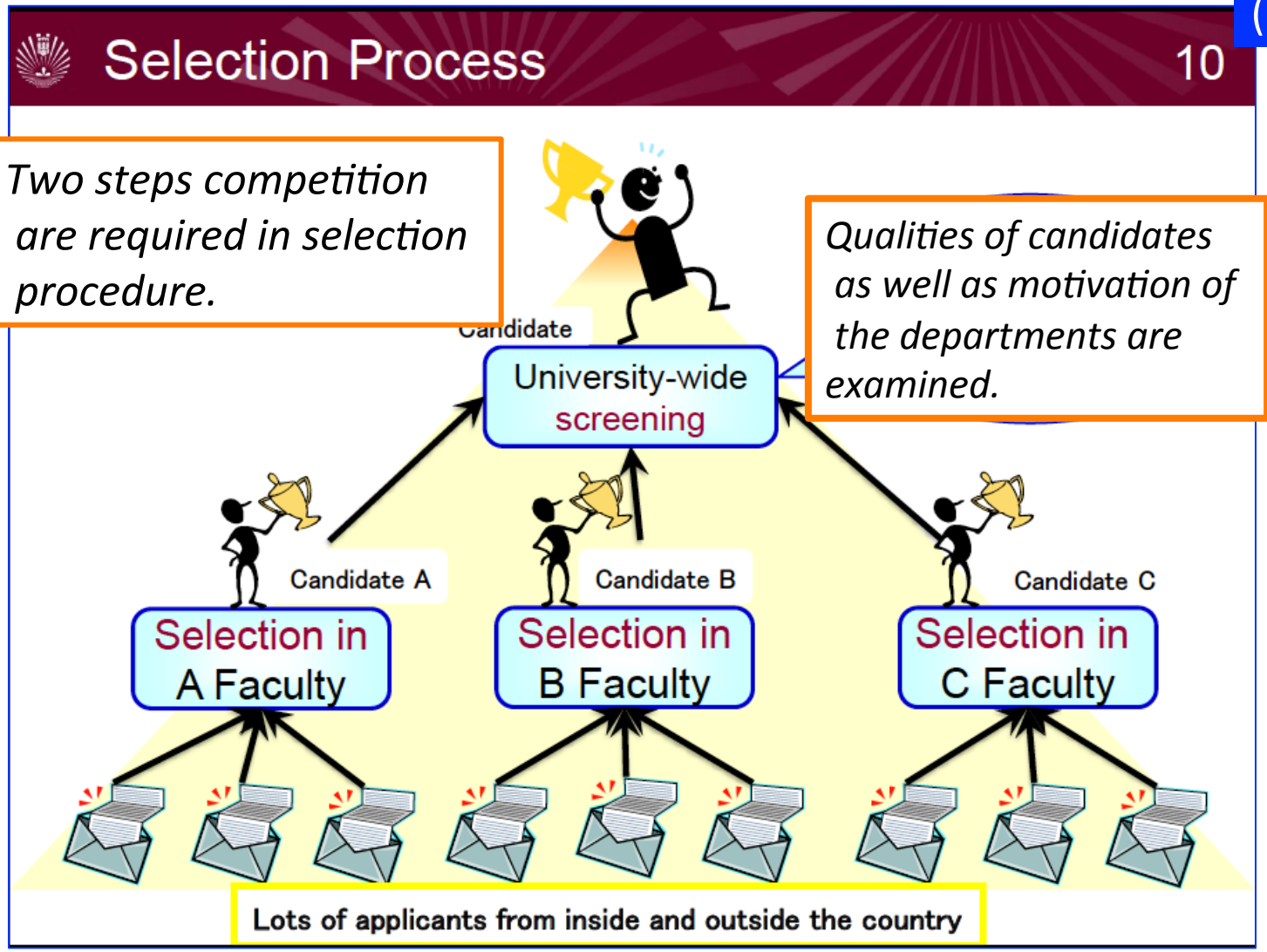
- *Since 2010 ~ present*
- *In 2016,*
  Excel Sheets to 98 institutions.
  41, recovered (41.8% recovery)
- ***50 questions → 100 points***
- *Average score: 61.8 points*
  Top: 80 points, Bottom: 17 points
- *Popular items:*
  - ✓ *Set up the Organization (eg: GE Office)*
  - ✓ *Offering information support via Homepage*
  - ✓ *Taking measures to prevent sexual harassment*
- *Various use:*
  - ✓ *self-check and follow changes over the years,*
  - ✓ *data-based evidence for negotiation to the top.*

http://www-w.cf.ocha.ac.jp/leader/cosmos/contents/consolidation/ochaindex/howtoochaindex/

"KASOKU-Program"/Acceleration-Program

Women Researchers Promotion Program *by Kyushu University*

(2009~2018)



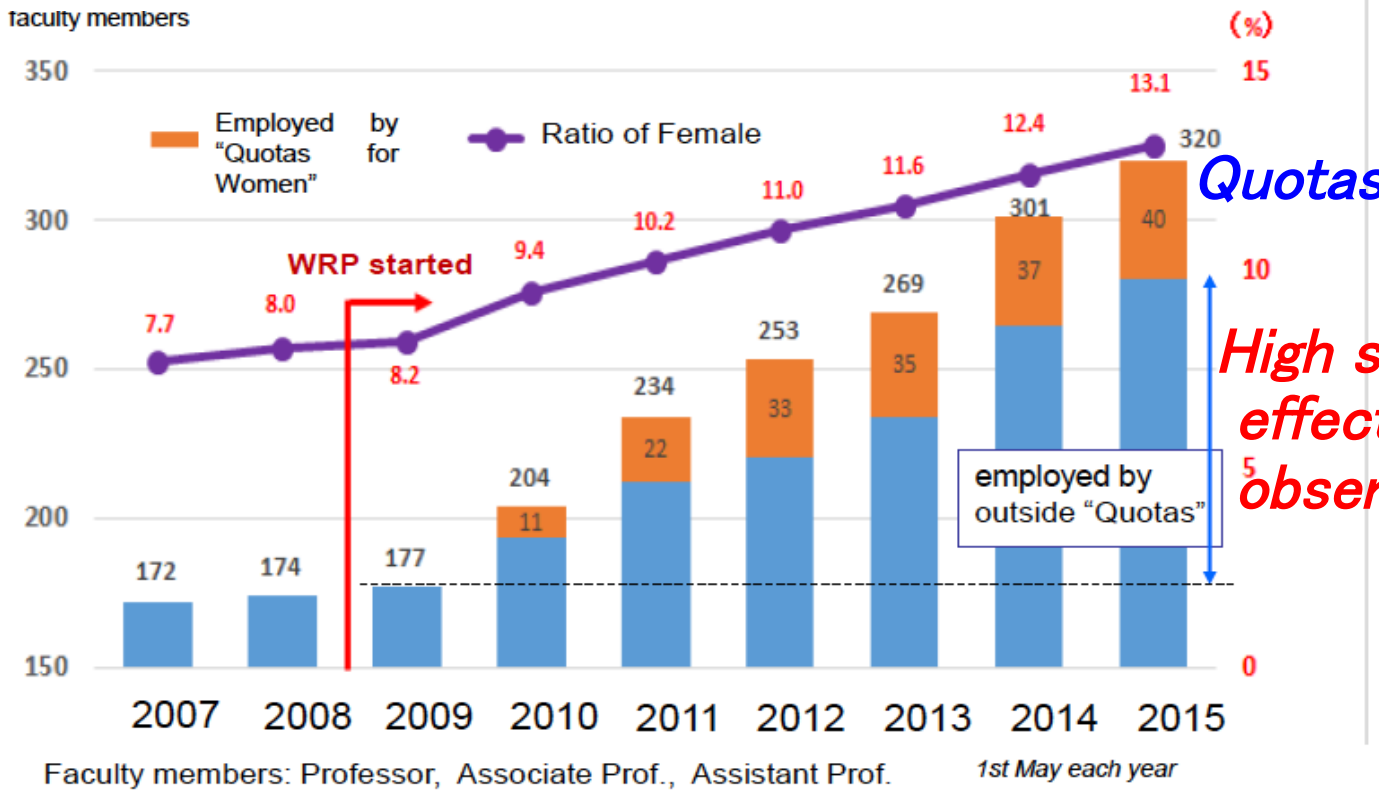
by courtesy of Prof. Eriko Jotaki@ Kyushu University

"KASOKU-Program"/Acceleration-Program

No one could say any more "Is there any female applicants?" and so on,
Such as "It is deterioration of academic level" !!

Increase of Female Faculty Members 18

Numbers of Female Faculty Members



Quotas

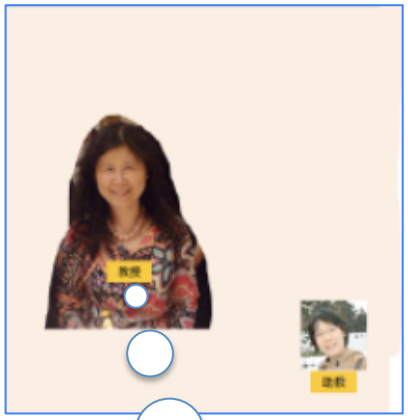
High spillover effect was observed!

by courtesy of Prof. Eriko Jotaki @ Kyushu University

Drastic Increase in 11 years in Biology Division@Nagoya-U.

Division of Biological Sc.i, Graduate School of Sci., Nagoya Univ.
http://www.bio.nagoya-u.ac.jp/introduction.html

2006 → 2016

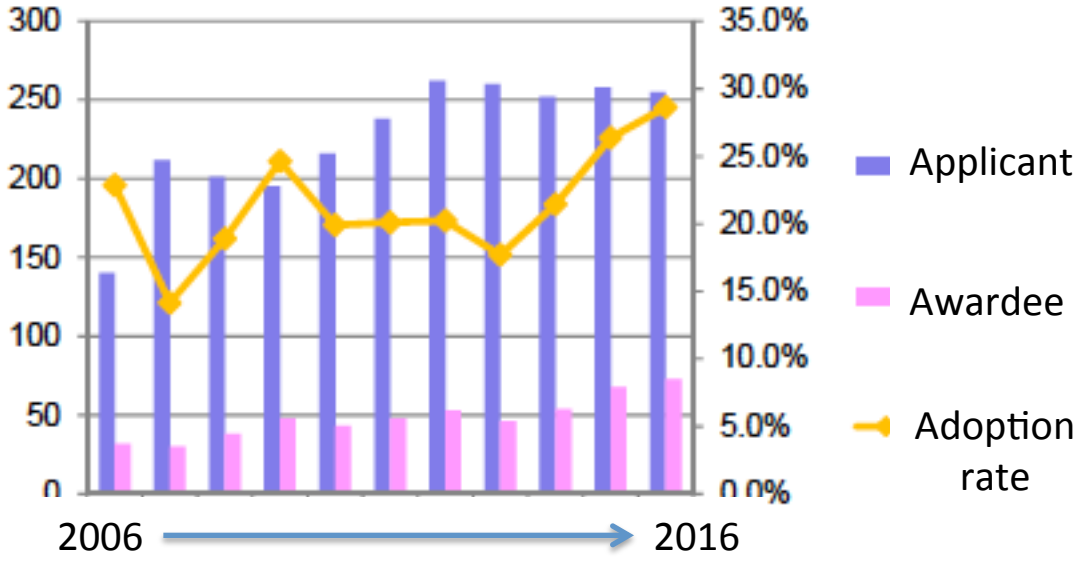


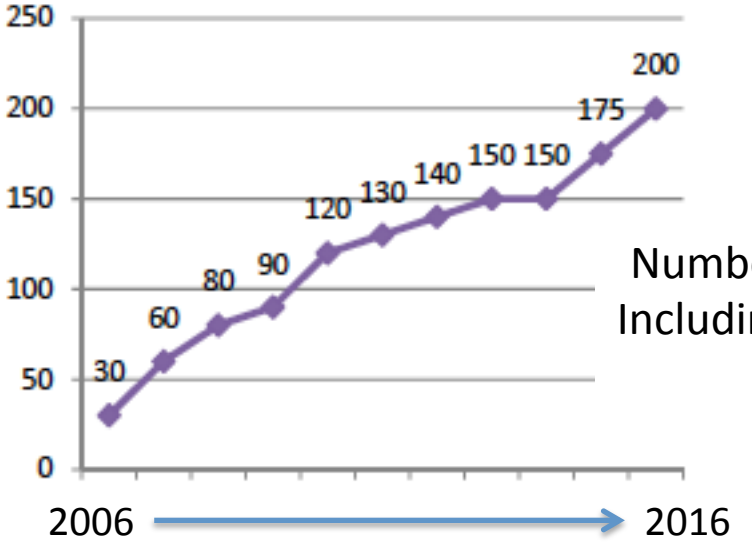
Three is a magic Number!

by courtesy of Prof. Narie Sasaki @ Nagoya University

RPD* : Advancement in the past decade

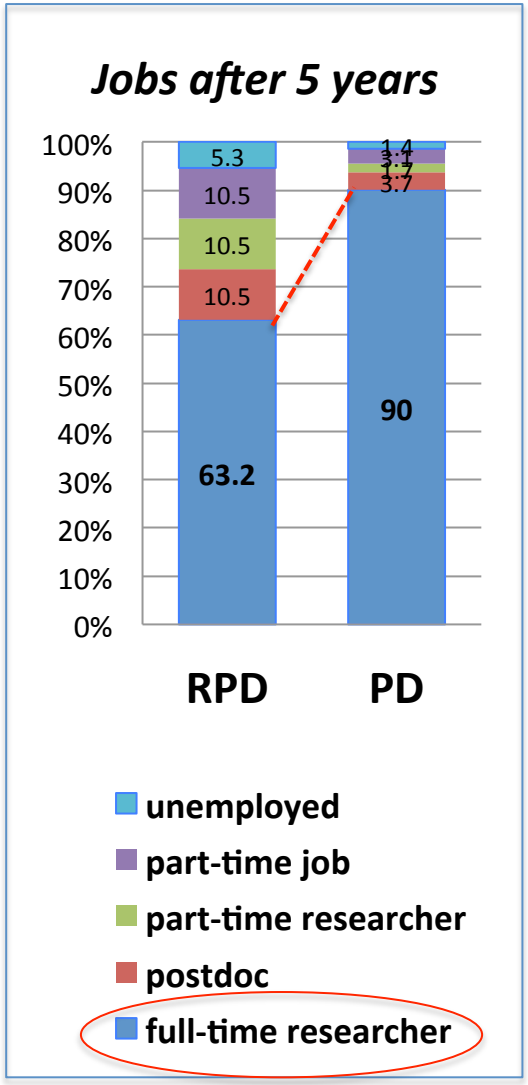
Numbers of Applicants & Awardees





Numbers of Awardees Including the continued fellows

*: ***Restart Pstdctoral Fellow***
¥ 362,000/month for 3yrs



https://www.jsps.go.jp/j-pd/rpd_gaiyo.html

EPMEWSE — Renraku-kai (established at 2002)

*Japan Inter-Society Liaison Association Committee for Promoting **E**qual **P**articipation of **Me**n and **W**omen in **S**cience and **E**ngineering* (*EPMEWSE*)

<http://www.djrenrakukai.org/en/index.html>

The association of 90 academic societies in STEM (2015)

The Major Rolls

1. Large-scale surveys every 5 years
2. Proposals and Requests to the Government
3. Annual symposium every fall
4. Surveys of female ratio in each societies
5. Summer camp & Workshop for high-school girls

WELCOME to EPMEWSE: English Homepage

Visibility Surveys of Female Scientists in Scientific Societies & Scientific Meeting

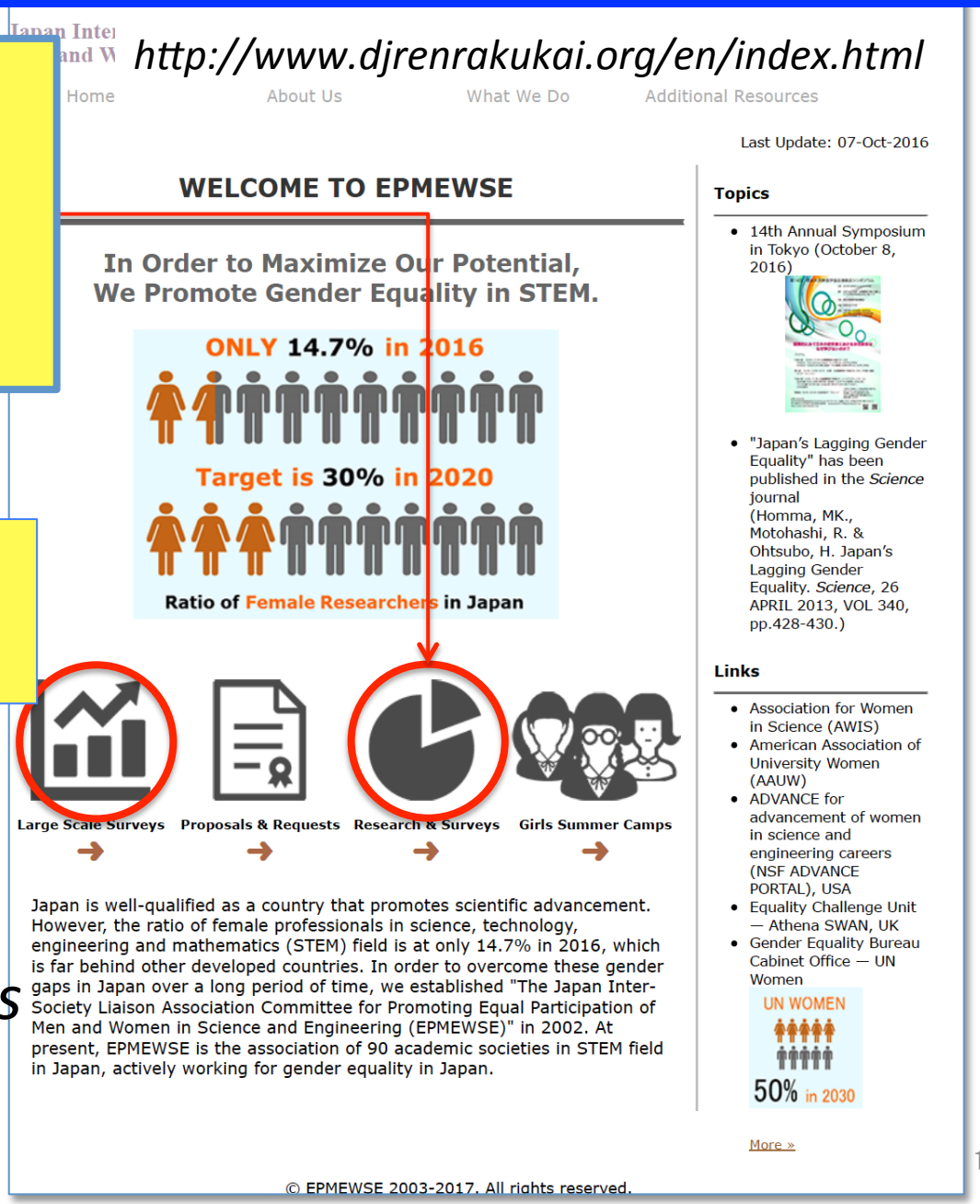
Large Scale Surveys every 5 years

↓

Analysis & Reports

↓

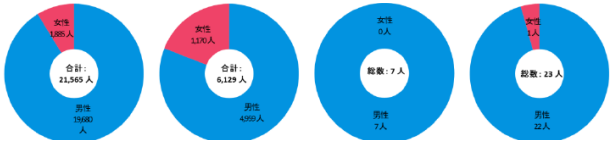
Proposals & Requests



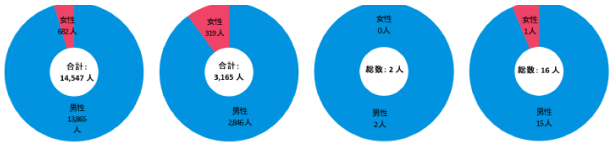
Visibility of the Female Scientists in Scientific Societies

Female Ratio of the Societies (2013)

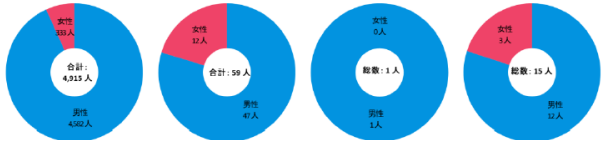
The Chemical Society of Japan



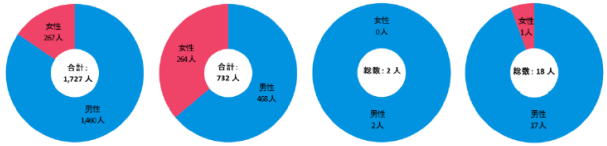
The Physical Society of Japan



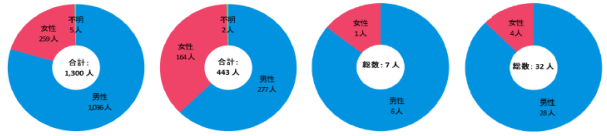
The Mathematical Society of Japan



The Zoological Society of Japan



Physiological Society of Japan



Ordinary members ***Student members*** ***President /VPs*** ***Directors***

(10/82 have female P/VP.)

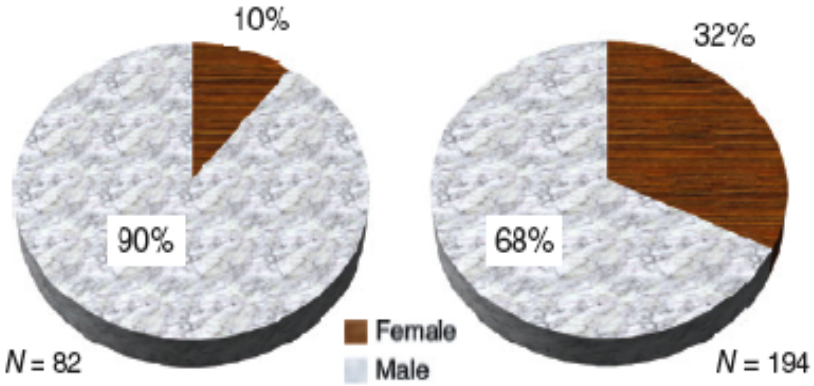
http://annex.jsap.or.jp/renrakukai/doc_pdf/2013_ratio/2013_ratio_table.pdf

Are we visible enough in the scientific societies? We see Unconscious Bias everywhere!

Speakers invited to Symposium

Organizers:

Men only ***Men & Women***



Homma MK., Motohashi R. and Ohtsubo H.
Genes to Cells 18(07): 529-532 (2013)

Large-Scale Survey in STEM Every 5 Years

The 3rd Large-Scale Survey of Actual Conditions of Gender Equality in Scientific and Technological Professions

August 2013

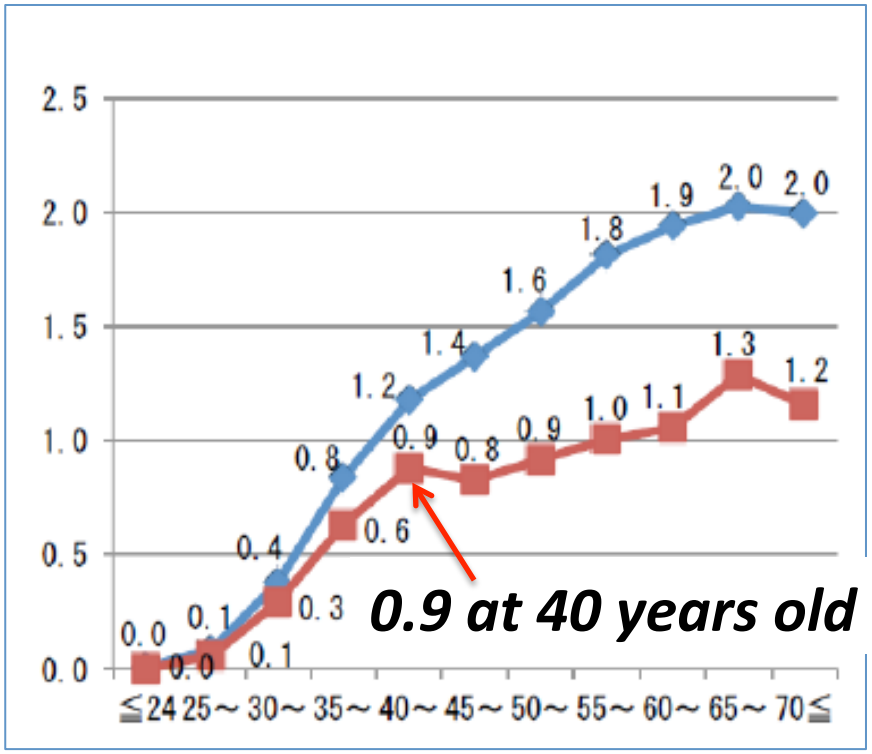
81 Scientific Societies in STEM field, Survey was done in the fall of 2012
Numbers of respondents: 16,314 (Male 11,958 & Female 4,356)
http://www.djrenrakukai.org/doc_pdf/3rd_enq_report_en.pdf

Contents of the Report:

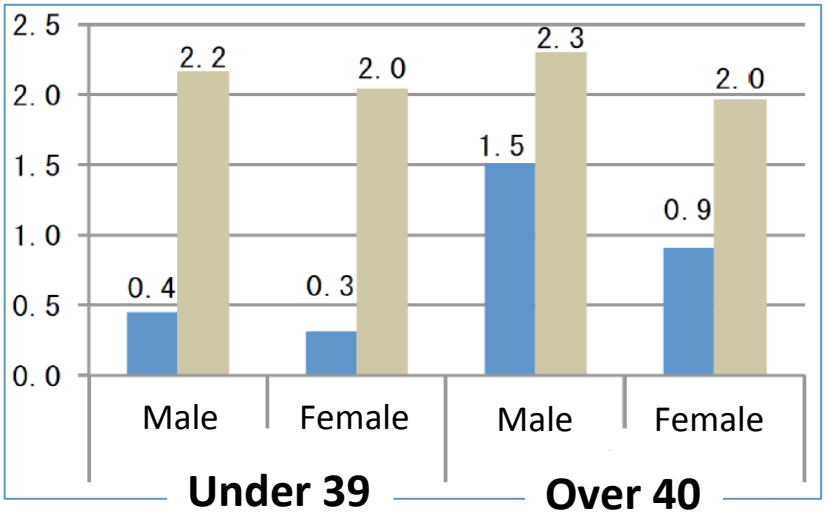
15

Numbers of children in younger generation

Numbers of children



Numbers of children
they wish and they could



More than two children are desired, but it is difficult for younger generations.

The reasons why they do not have children

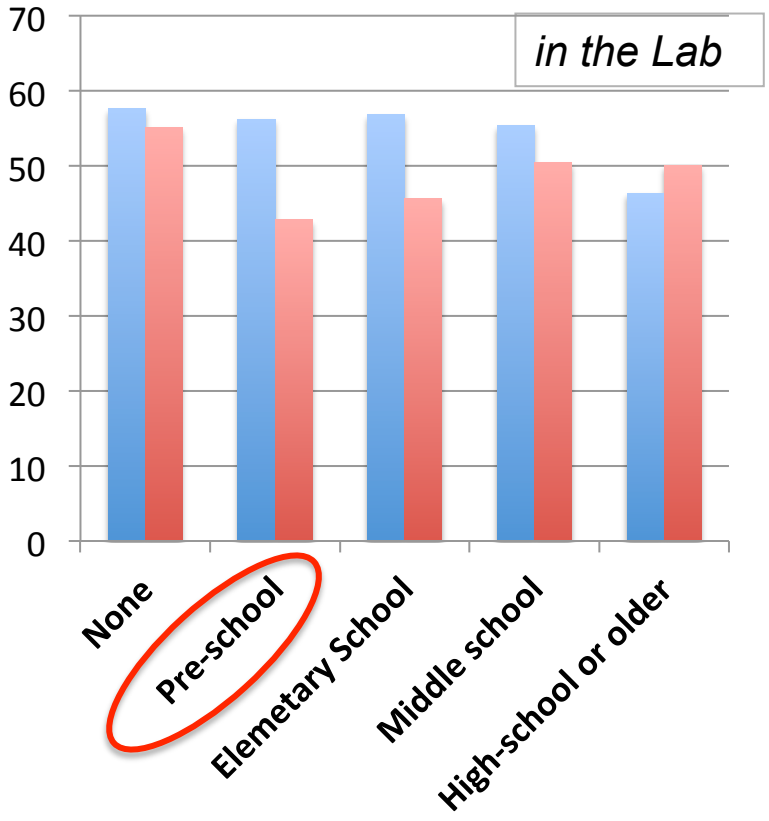
Men ⇒ financial matter

Women ⇒ difficult to maintain career and family

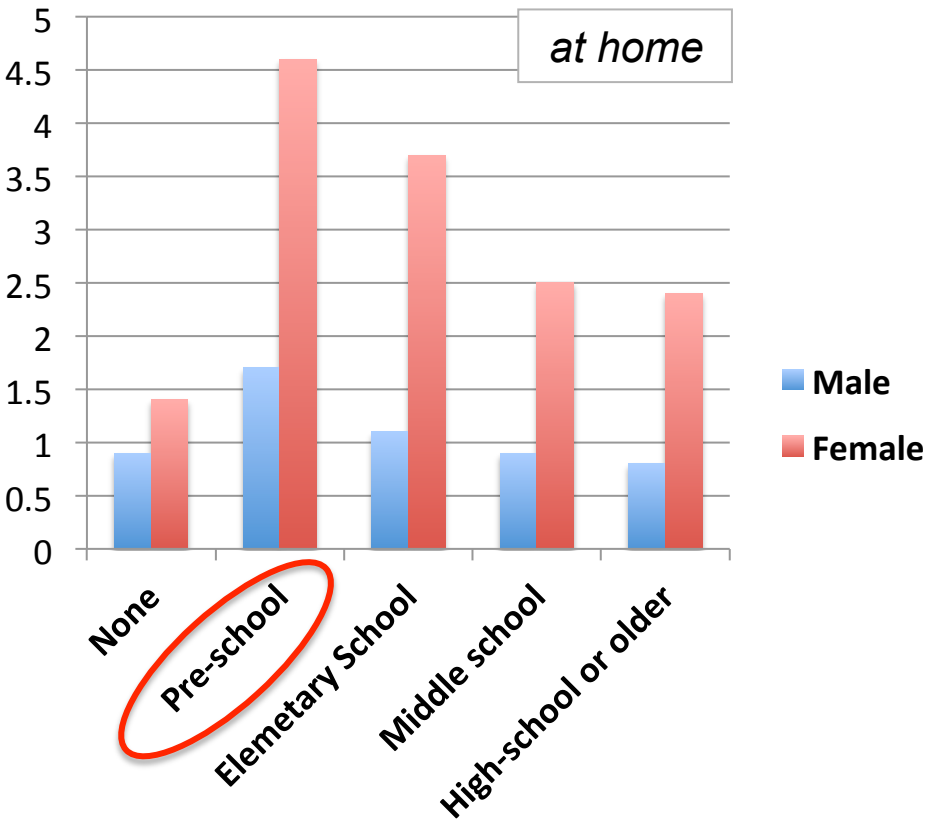
http://www.djrenrakukai.org/doc_pdf/3rd_enq_report_en.pdf

Heavy family responsibility to women's side (2007)

Hours at workplace per week



Hours for household & childcare per day



Female<Male

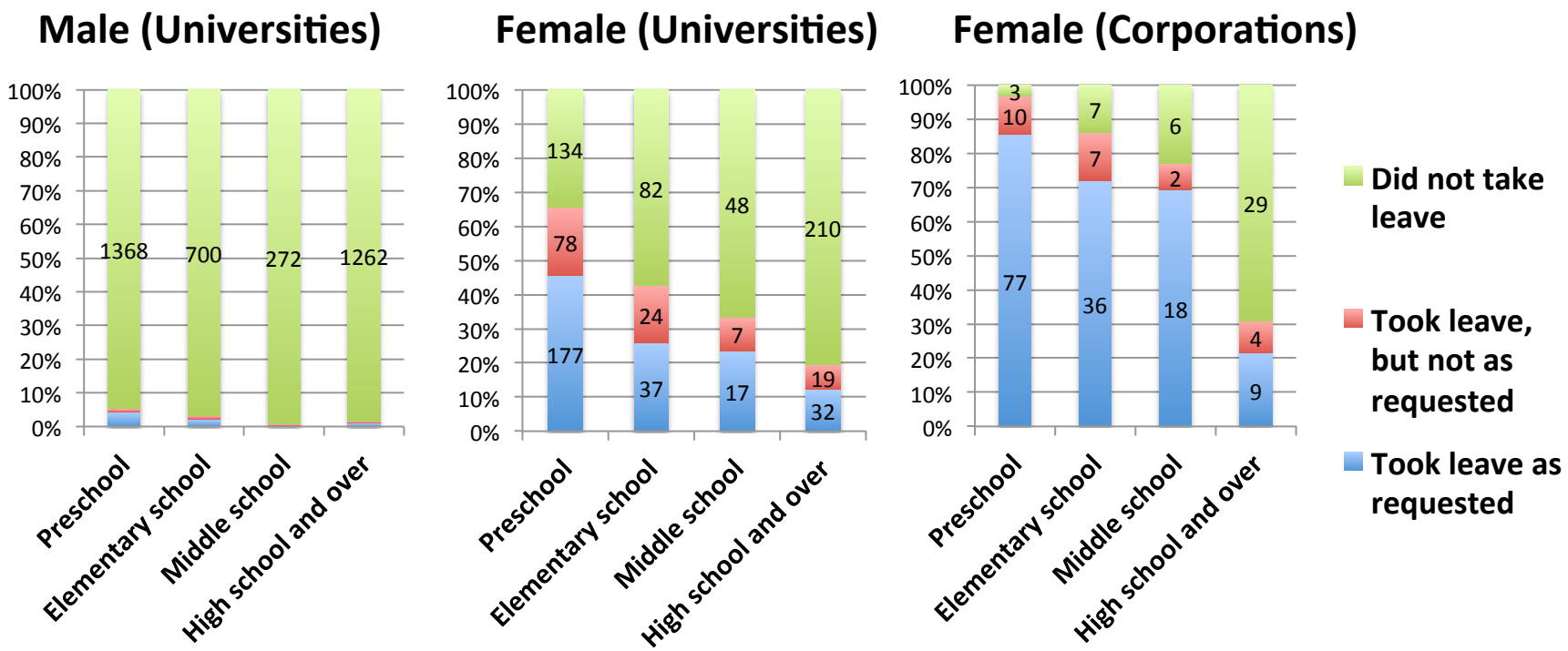
Shorter working hours (11-14 hrs/week) in the Lab

Female>Male

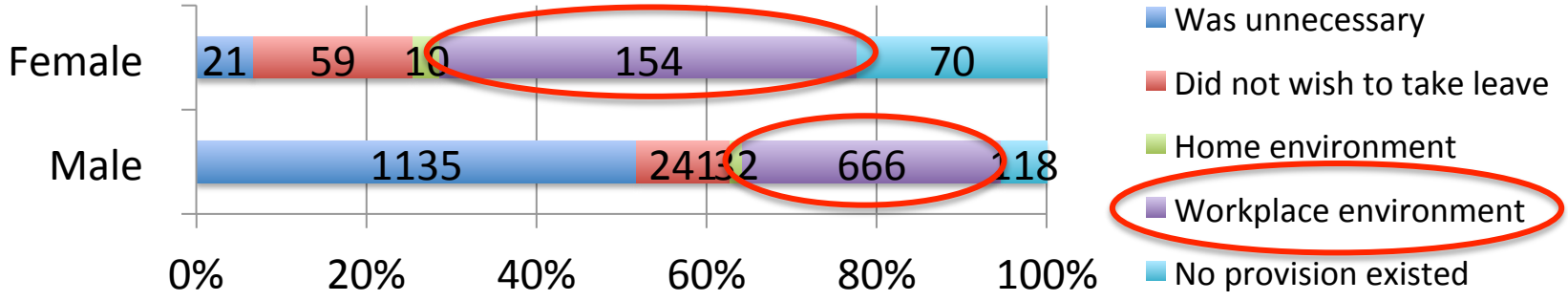
Longer working hours (20 hrs/week) at home

http://www.djrenrakukai.org/2007enquete/h19enquete_report_v2.pdf

Childcare Leave: The rate is increasing, but・・・

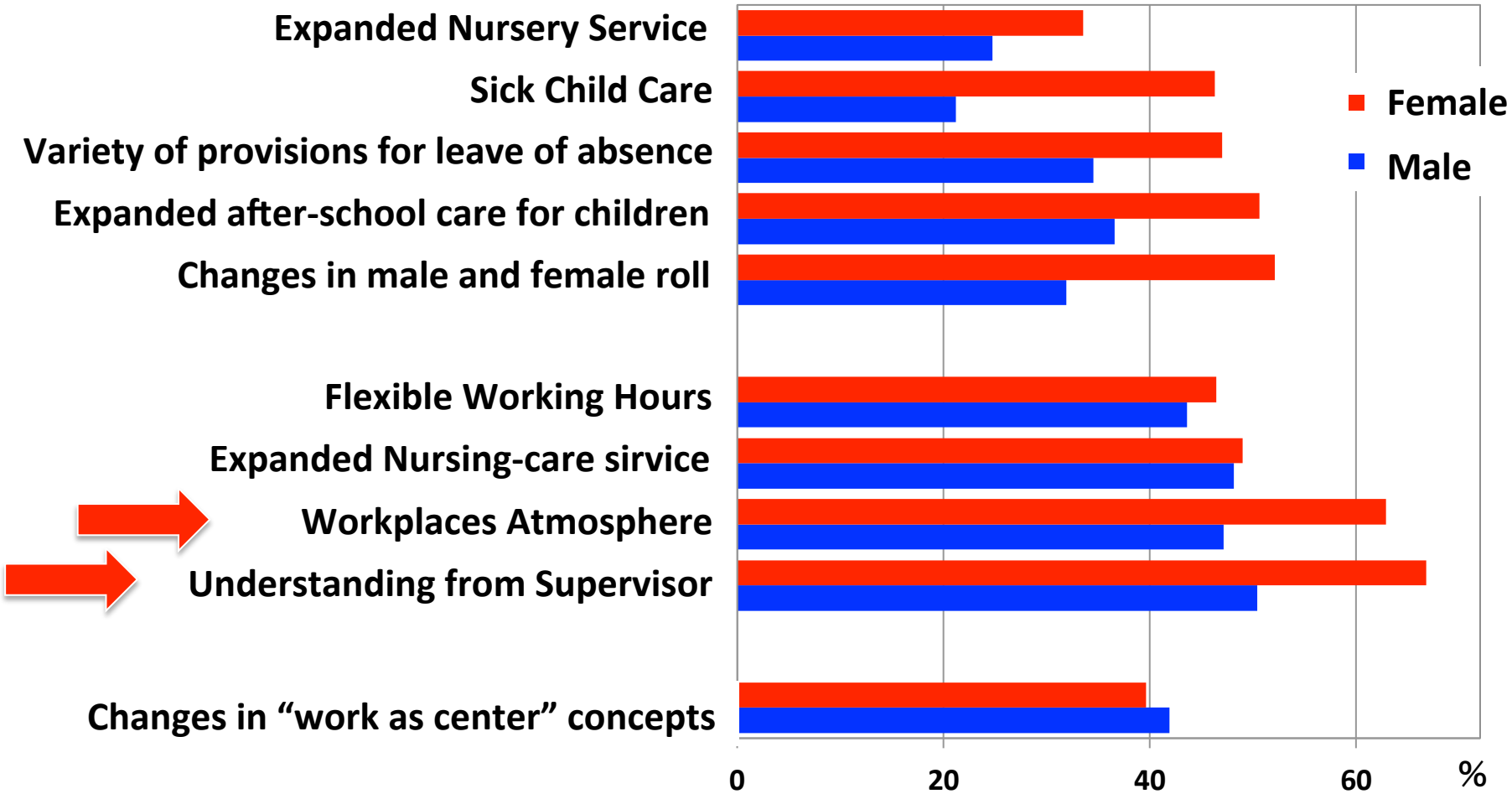


Why Parents with Pre-school Children Did Not Take Childcare Leave!



http://www.djrenrakukai.org/doc_pdf/3rd_enq_report_en.pdf

Requirements for Balancing Family and Work



http://www.djrenrakukai.org/doc_pdf/3rd_enq_report_en.pdf

The analysis of “The 4th Large-Scale Survey” is going on now. New data will be open in this fall, 2017.

“WOMEN IN SCIENCE”, Interviewed by “Science”

Plan to drop goals for women roils Japanese science

Change stirs debate about how to remedy underrepresentation of women

Dennis Normile 記者（Science)

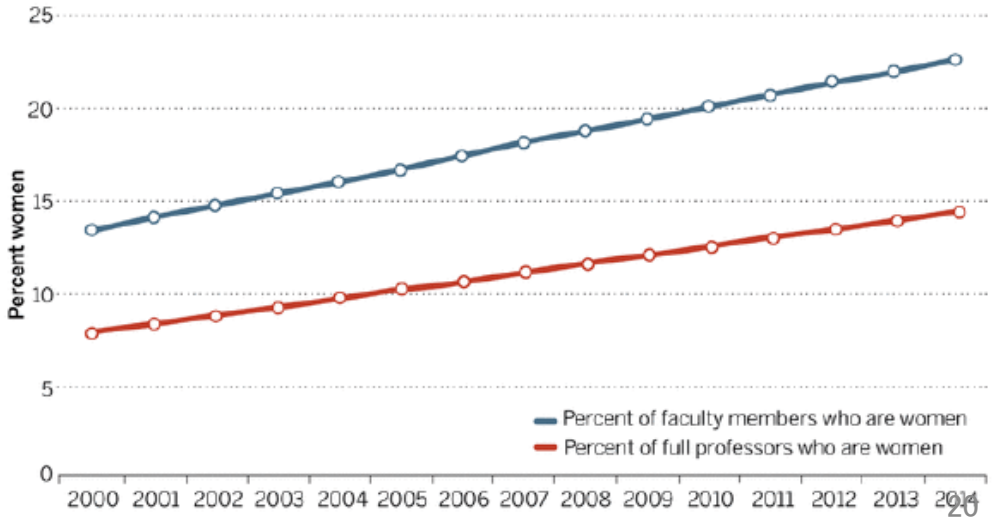
Science 349 Issue 6244
p127-128、July 10, 2015
by Dennis Normile, in Tokyo

> ***“Targets have not had as much impact as we would like.”***
>
> **Yuko Harayama**, Council for Science, Technology and Innovation

> ***“Without numerical targets we’re afraid progress could stall.”***
>
> **Hisako Ohtsubo**, Nihon University

Stuck on the first rung

In Japan, women have made up a growing percentage of total faculty members but a smaller proportion is being promoted to full professorships.



References

The Large-Scale Survey :

The 3rd Large-Scale Survey of Actual Conditions of Gender Equality in Scientific and Technological Professions (Survey Report: Concise Summary)
http://www.djrenrakukai.org/doc_pdf/3rd_enq_report_en.pdf

Letters, Articles and Interviews Reports:

1. Homma MK, Motohashi R. and **Ohtsubo H**.: Japan's Lagging Gender Equality. **Science** Apr 26; 340 (6131): 428-30 (2013)
2. Homma MK., Motohashi R. and **Ohtsubo H.**: Maximizing the Potential of Scientists in Japan: promoting equal participation for women scientists through leadership development. **Genes to Cells** 18(07): 529-532 (2013)
3. Still Less Equal: Japan's government must stick by its promise to help women's careers to prosper. ***Nature Editorials*, 497** 535, 30 May, 2013
4. Japan Aims high for growth: Innovation in science is at the heart of government plans to boost the economy. ***By David Cyranoski, Nature Letters*, 497** 548, 30 May, 2013
5. Women in Science: *Plan to drop goals for women roils Japanese Science:* Change stirs debate about how underrepresentation of women. **Science 349** Issue 6244 p127-128、July 10, 2015 ***by Dennis Normile***, in Tokyo

URLs:

Kyushu Univ.: Women Researchers Promotion Programs, http://wrp.kyushu-u.ac.jp/eng/busi/index.php#a
Nagoya Univ.: http://www.kyodo-sankaku.provost.nagoya-u.ac.jp
Ochadai Index: http://www-w.cf.ocha.ac.jp/leader/cosmos/contents/consolidation/ochaindex/howtoochaindex/#aaa

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Dr. Akie Naito (Ochanomizu University)

for providing us important information.