



JAXA's Gender Empowerment Activities

**Session 4: Measuring and communicating the impact of
gender empowerment activities in the space sector**

UN Space4Women

August 16-19, 2022 Daejeon, Republic of Korea

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Japan Aerospace Exploration Agency (JAXA)





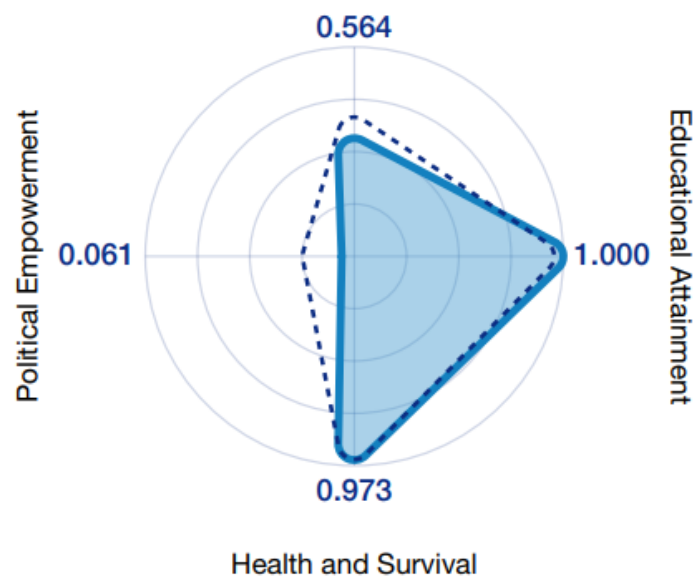
Twitter Official account of US Ambassador to Japan
Rahm Emanuel. March 25, 2022

- Quarter-century work experience at Japanese space agency (NASDA and JAXA)
 - Not an engineer, IR and public policy major
 - Studied in the US, seconded to the Ministry of Education, Culture, Sports, Science and Technology
 - **Director of Gender Equality Office, JAXA (2015-2016)**
 - Business development with New Space
- <Present>**
Full time: Advisor to the Director of Earth Observation Research Center, JAXA Lead of NASA-ESA-JAXA Earth Observation Dashboard Cooperation
- Part-time: **support member of Work-Life Support and Diversity Office**

Global Gender Gap Index 2022 Edition

■ Japan score ··· average score

Economic Participation and Opportunity



Overview

Index and Subindex

Global Gender Gap Index



2022		▼ 2021	
Score	Rank	Score	Rank

0.650	116th	0.656	120th
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Economic Participation and Opportunity



0.564	121st	0.604	117th
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Educational Attainment



1.000	1st	0.983	92nd
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Health and Survival



0.973	63rd	0.973	65th
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Political Empowerment



0.061	139th	0.061	147th
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Women in Aerospace



Astronaut selection in process (2022):

Number of total applicants: 4,127 Female applicants: 919 (22.3%)



**Launch
Conductor**



**Senior
Researcher**



Flight Director



Project Manager



**Director of
Overseas Office**



**Director of
Space Education Office**



**Director of
Research Center**

- Legal experts
- IR specialists (UN OOSA)

and more

PORTFOLIO STRATEGY RESEARCH | April 18, 2019

The following is a redacted version of the original report. See inside for details.

Goldman Sachs

20 YEARS ON

WOMENOMICS 5.0

Progress, areas for improvement, potential 15% GDP boost

What's changed, what hasn't: potential 15% GDP boost

Since our initial Womenomics report in 1999, Japan now enjoys record female labor participation (71%) that surpasses the US and Europe, generous parental leave benefits, improved gender transparency, and labor reforms. Areas for improvement include: a dearth of female leaders, gender pay gaps, inflexible labor contracts, tax disincentives, insufficient caregiving capacity, and unconscious biases. However, the reward for persistence is potentially sizeable. Specifically, we estimate that closing the gender employment gap could lift Japan's GDP by 10%, and in a "blue-sky scenario" where the ratio of female vs. male working hours rises to the OECD average, the GDP boost could expand further to 15%.

No time to waste: Recommendations

Suggested government policies include: more flexible labor contracts, gender pay gap disclosures, tax reforms, parliamentary gender quotas, promotion of female entrepreneurship, and looser immigration rules. For corporations: proactive career management, more flexible work environments, performance-based evaluations, gender target-setting, and male diversity champions. Society should dispel Womenomics myths, avoid gender role stereotypes in the media, and promote more women in STEM. Fortunately, tailwinds such as ESG investing and shifting millennial male attitudes should further advance Japan's diversity agenda.

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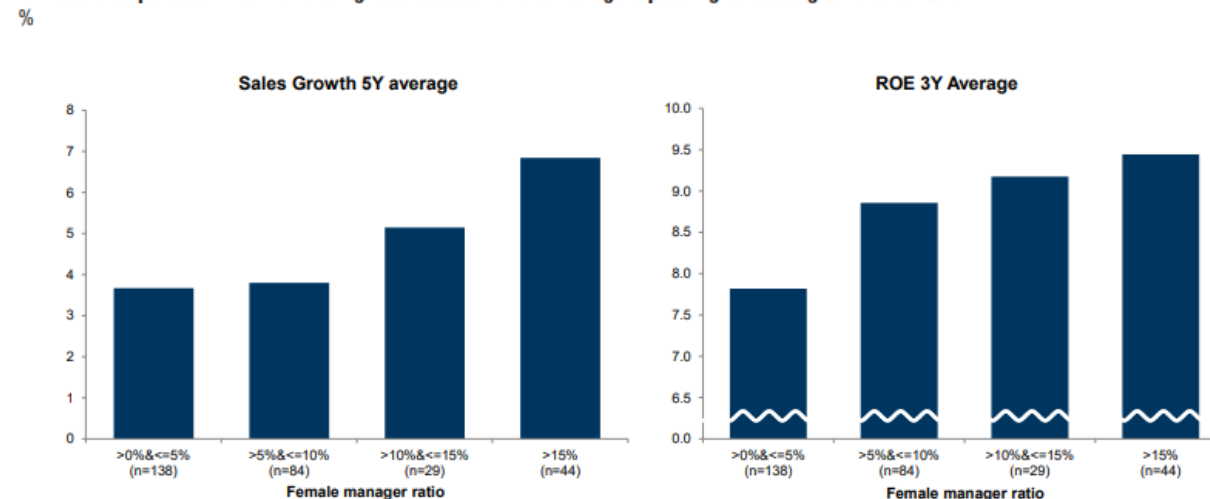
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Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.

The Goldman Sachs Group, Inc.

Goldman Sachs, PORTFOLIO STRATEGY RESEARCH | April 18, 2019,
 Kathy Matsui, Hiromi Suzuki, Kazunori Tatebe
 “20 years on Womenomics 5.0: Progress, areas for improvement,
 potential 15% GDP boost”
<https://www.goldmansachs.com/insights/pages/womenomics-5.0/multimedia/womenomics-5.0-report.pdf>

Exhibit 10: Japanese firms with the highest ratios of female managers post higher sales growth and ROEs



Source: Nikkei Valuesearch, QUICK, FactSet, data compiled by Goldman Sachs Global Investment Research

Positive correlation between diverse leadership and corporate performance

There are numerous global studies by organizations such as Catalyst and others demonstrating how diverse leadership is positively correlated with corporate performance.¹² For example, a 2017 McKinsey study of 300 global companies found that **those firms with the most women on their executive committees enjoyed 47% higher average ROE than those with none, and 55% higher EBIT margins** (see Exhibit 11)¹³

Furthermore, Boston Consulting Group's 2018 survey, *How and Where Diversity Drives Financial Performance*, of more than 1700 companies in 8 countries found that **firms with above-average "total diversity" (measured as the average of six dimensions of diversity: migration, industry, career path, gender, education, age), had on average 19% point higher innovation revenues and 9% points higher EBIT margins.**¹⁴

Why gender empowerment?

What does impact of gender empowerment/equality activities mean?

- * "...roles of R&D institutions are changing...JAXA, as a National Research and Development Agency, aims to evolve into an organization **that creates new values for society.**"
- * "In order to be an **organization that keeps challenging, JAXA needs to boost its productivity and provide more active roles to its diverse human resource...**"
- * Having established a general employer action plan in accordance with the Act on Promotion of Women's Participation and the Act on Advancement of Measures to Support Raising Next-Generation Children, **JAXA is now engaged in improving its workplace environment and managerial mind-set.**
- * JAXA continues to **increase its productivity while accelerating the promotion of the work style reform and good work-life balance with an aim to create an ideal workplace...**
- * Joined "Declaration on Action" by a group of male leaders who will create "A Society in which Women Shine" backed by the Gender Equality Bureau Cabinet Office. Its three pillars, **"Taking actions and sending messages ourselves," "Disrupting the status quo," and "Developing networking,"** correspond to the JAXA's direction.
- *

Hiroshi Yamakawa, President, JAXA

<https://stage.tksc.jaxa.jp/geoffice/en/activity/message.html>

Analyzing and Communicating Impact of Gender Empowerment Activities

✓ Defining the Target and Related Numerical Targets

Female researchers (Gender Equality Office 2014-2016)

Female in leadership positions

(Work-Life Support and Diversity Office 2016.4-present)

e.g., managers, executive level and professors

Improving workplace environment (WLSD Office 2016.4-present)

e.g., overtime hours, paid holidays, maternal and paternal leaves

JAXA General Employers Action Plan Integrated with the Act on Advancement of Measures to Support Raising Next-Generation Children and the Act on Promotion of Women's Participation and Advancement in the Workplace
Implementation period: From May 1, 2019 to March 31, 2023 (3 years and 11 months)

(Excerpt)

(2) Objectives and Action Items as per the Act on Promotion of Women's Participation and Advancement in the Workplace

Objective 3:

To increase the percentage of women in managerial positions to 15% or more.

Objective 4:

To increase interest of female researchers and expand the number of female researchers in space science through attractive activities, with the goal of increasing female educational personnel in JAXA.

Objective 5:

To limit the average overtime work per month to 20 hours at maximum

Analyzing and Communicating Impact of Gender Empowerment Activities

- ✓ Qualitative factors: Positions and Jobs Assigned

Unconscious bias?

- ✓ Stem Related Measures

Not many female students majoring in engineering and science

➤ Female ratio for managerial post should be the same as the ratio of total employee.

Current status: JAXA has not achieved the target

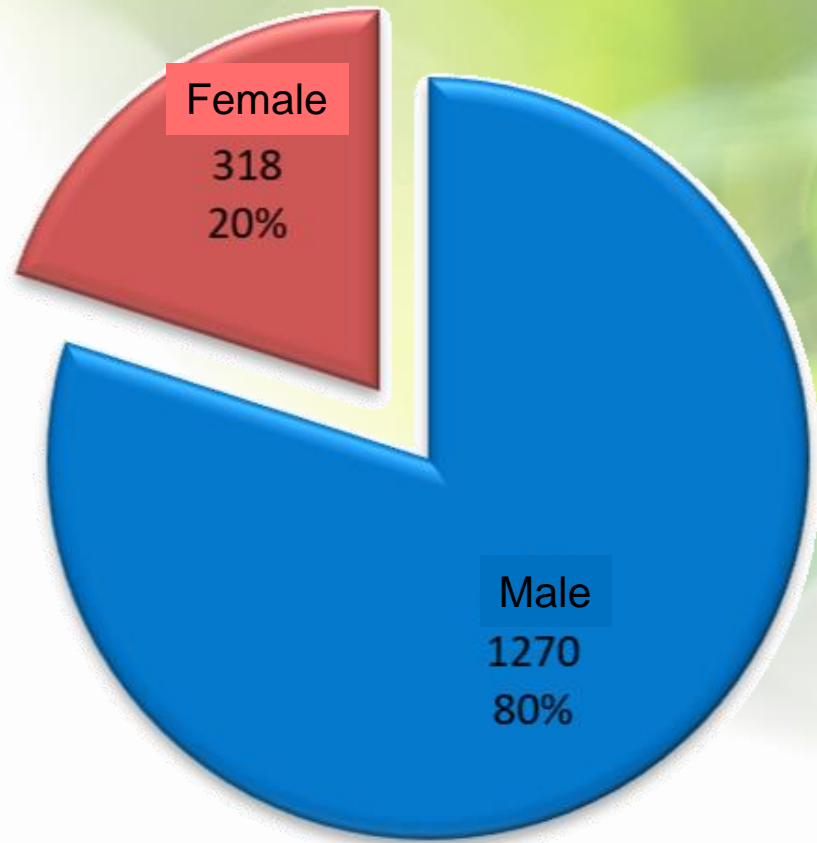
Total female employee:20% Female managers ratio:10.5%

Number of female employee in younger generation: rising significantly

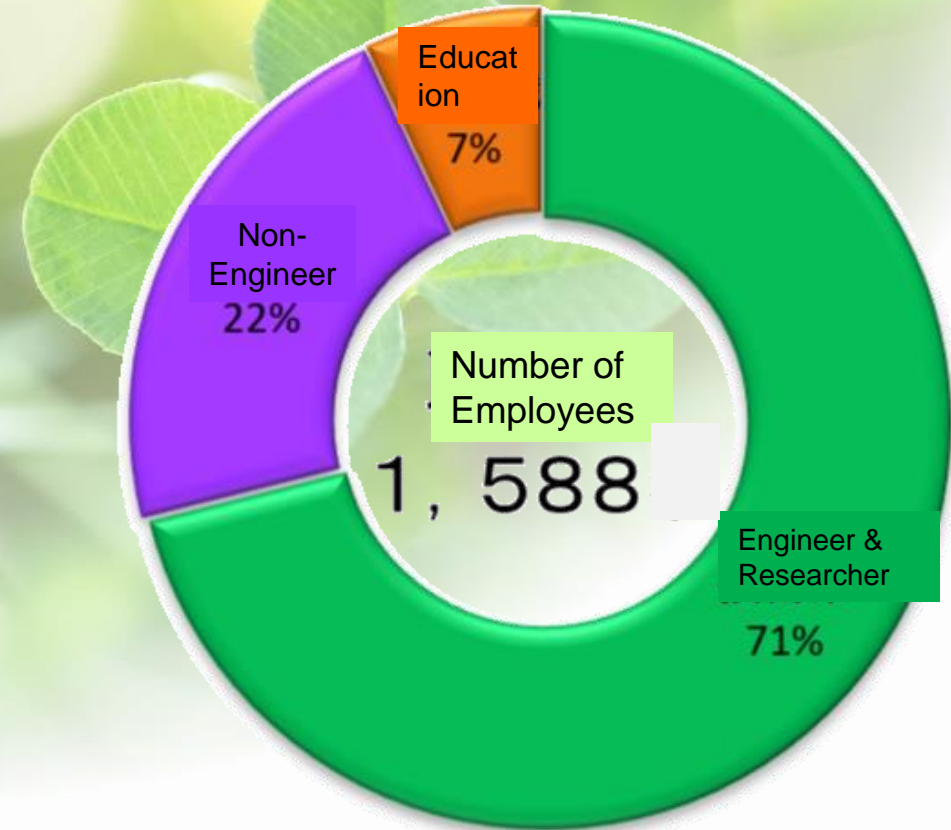
JAXA by Number



Male-Female Ratio



Number of Employee by Job Type



As of April, 2022



JAXA by Number

As of March 2022 (except for *)

Retention Rate of 3rd
Year Employees

100%

*March 2021

Ratio of Female
Managers

10.5%

Average Overtime
Hours

19.6 hours

Acquisition Rate of
Paid Leave

61%

Ratio of Flexible
Workstyle

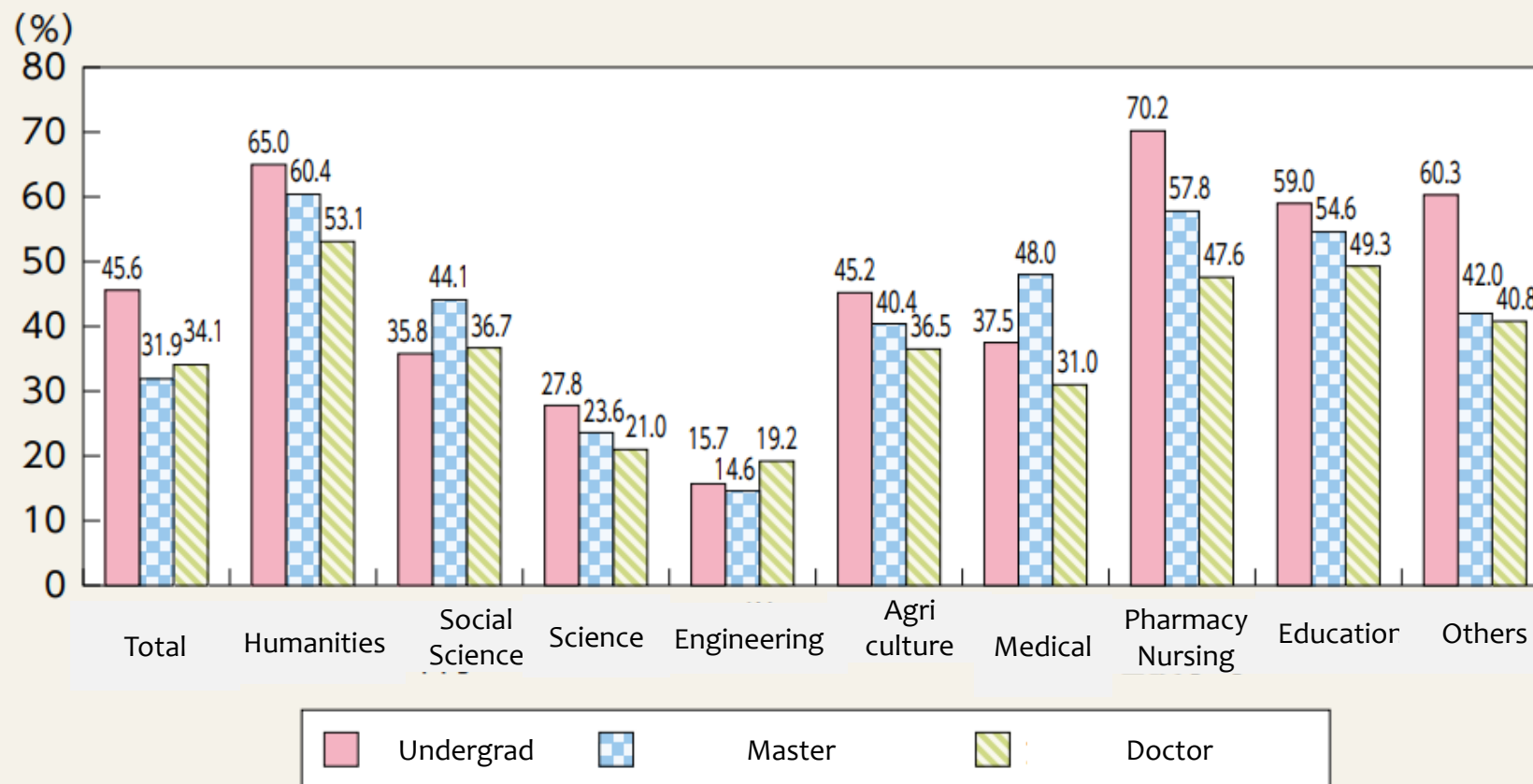
65.6%

*March 2021

Ratio of Paternal and
Maternal Leaves

F:100%

M:17.9%



Ratio of Female Students

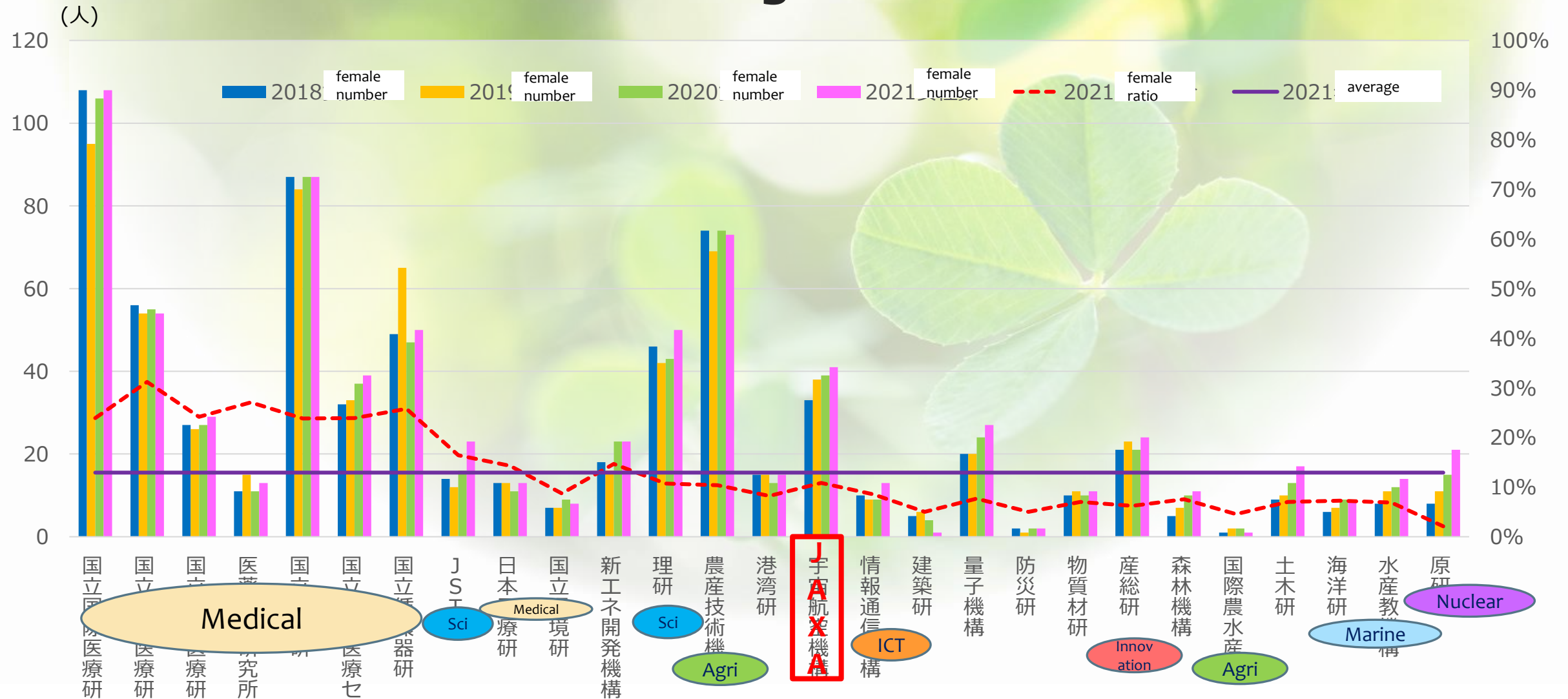
High: Pharmacy, Nursing and Humanities

Low: Science and Engineering

Source : Cabinet Office, The White Paper on Gender Equality, 2022, p.143

Unofficial English translation by JAXA

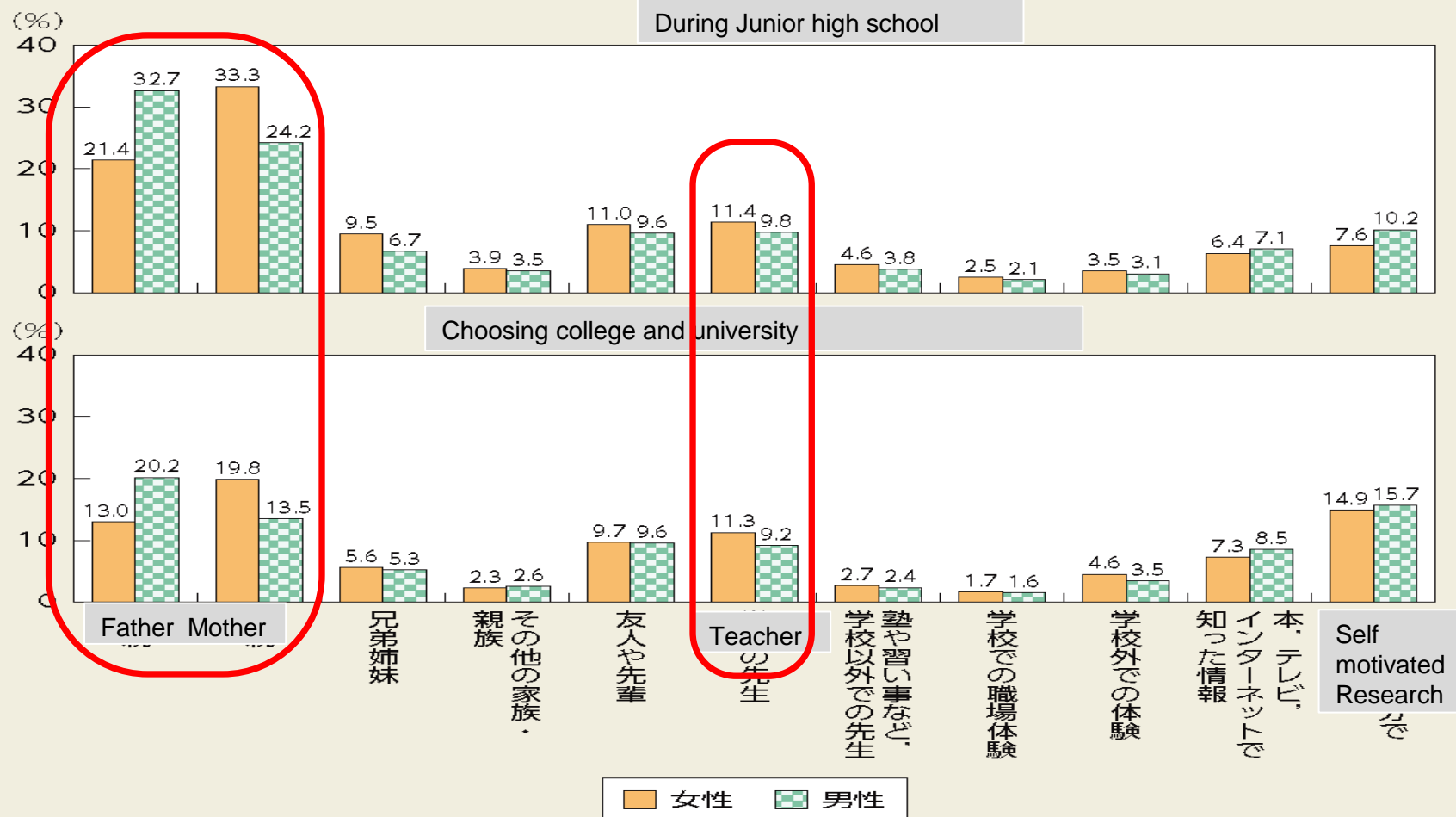
Ratio of Female Managers in R&D Institutions



Calculated and illustrated by JAXA using source data for national R&D institution, FY 2021, by the Cabinet Office
<https://www.gender.go.jp/policy/mieruka/kohyo.html>

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Factors that affect choices of major and workplaces



(備考) 1. 「多様な選択を可能にする学びに関する調査」(平成30年度内閣府委託調査・株式会社創建)より作成。
2. 女性3,000人, 男性3,000人が回答。

Source : Cabinet Office, The White Paper on Gender Equality, 2019

Unofficial English translation by

JAXA https://www.gender.go.jp/about_danjo/whitepaper/r01/zentai/html/zuhyo/zuhyo01-00-17.html

Common and Effective analysis, Communication Methods, Best Practices

Top-Down Approach

Gender Equality Bureau, Cabinet Office

Male Leaders Coalition for Empowerment of Women

The “Male Leaders Coalition for Empowerment of Women” is a group of male top executives who commit themselves to empowerment of women in their companies and organizations.

- Approximately 260 top executives participate (As of April 2021).
- Exchange their views and opinions, share good practices and challenges, and reconfirm their commitment in annual meetings.



Bottom-Up Approach



Tsukuba Open House2019



Chofu Open House2019



Sagamihara Open House2019

Common and Effective analysis, Communication Methods, Best Practices



Emphasis on Support for Childcare

Child raise support	Legal Requirement	JAXA's measures (Applicable to all employees)
Child care leave	Until a child turns 2	Until a child turns 3 years old
Shortened work time for child care	Until a child turns 3	Until the start of 4 th Grade
Restriction for working overtime, holidays and midnight	Until a child enters elementary school	Until the start of 4 th Grade
Child sick care leave	Until a child enters elementary school (half-day basis)	Until the start of 4 th Grade hourly basis



JAXA Nursery
(Tsukuba Space Center)
2012～



JAXA Nursery (Chofu)
2018～



Common and Effective analysis, Communication Methods, Best Practices

Learning from each other: Global Mentor and INFOHRM

Global Mentor Activities

2016: Exchange Meeting with
Dr. Pascale Ehrenfreund
Chair of the Executive Board of the
German Aerospace Center (DLR)

2015: Global Mentoring Program
Dr. Deborah Vane
NASA CloudSat Mission Project Manager



2014: International dialogue on
"Comparison of work-life balance
between the Netherlands and Japan"
Dr. Tanja Masson Zwaan
President, International Institute of
Space Law (IISL)

International Forum for Space Organisations Human Resources Management (INFOHRM)



- Concluded among CSA, DLR and JAXA in 2021
- International forum for sharing information and best practices in Human Resources (HR) and HR-related Administration matters including diversity.

Challenges and Lessons Learnt

- * Difficulty to achieve the ratio of female in leadership roles: need to monitor closely and continuously, issue of reverse discrimination
- * Difficulty in apple-to-apple comparison?
Various definitions of numbers related to workforce
[workforcehttps://wicn.nssc.nasa.gov/wicn_cubes.html](https://wicn.nssc.nasa.gov/wicn_cubes.html)
- * Difficulty in obtaining accurate data on family and personal issues
- * Challenges unique to the space sector:
small number of female students in aerospace engineering

For Better Workplace

Support for Child-raising



Certification based on Article 13 of the Act on Advancement of Measures to Support Raising Next-Generation Children ("Kurumin" certification)
Certified 2019 by Min. of Health Labor and Welfare

Gender Equality in Workplace



Certification based on Article 9 of the Act on Promotion of Female Participation and Advancement in the Workplace ("Eruboshi" certification)
Certified 2017 by Min. of Health Labor and Welfare, Second highest rank

STEM



Participating in the initiative "Riko-Challe" by the Gender Equality Bureau, Cabinet Office in supporting junior high and high school girls' interest for STEM