

## 9. Research

### 9-1. Trends across Kyushu University as a Whole Based on Field Classification of Journals



#### Overall research performance

22,140

Scholarly Output

99,607

Authors

1.16

FWCI (\*1)

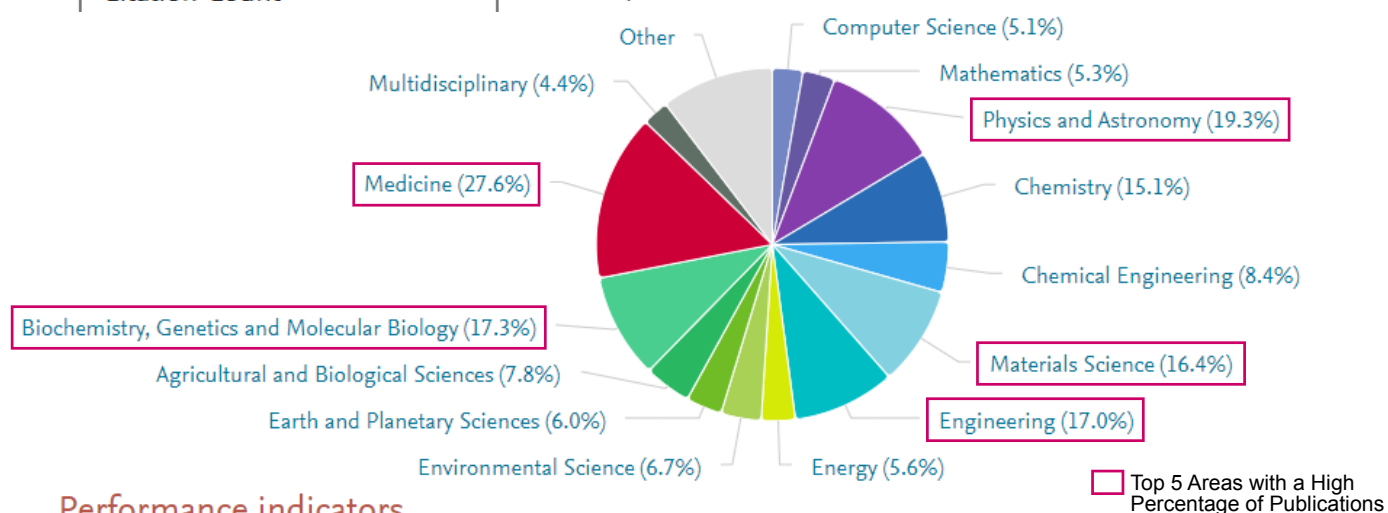
Field-Weighted Citation Impact

316,627

Citation Count

14.3

Citations per Publication

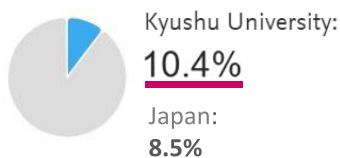


#### Performance indicators

##### Outputs in Top Citation Percentiles ①

Publications in top 10% most cited worldwide

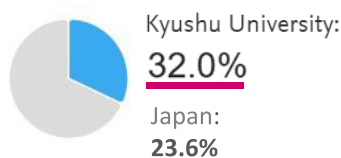
☐ Show as field-weighted



##### Publications in Top Journal Percentiles ①

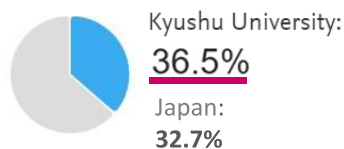
Publications in top 10% journals

by CiteScore Percentile ☐



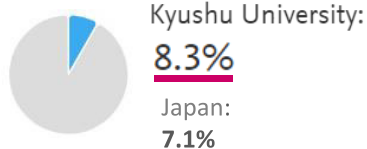
##### International Collaboration ①

Publications co-authored with Institutions in other countries/regions



##### Academic-Corporate Collaboration ①

Publications with both academic and corporate affiliations



**Kyushu University**  
**National average**

(\*1) FWCI (Field-Weighted Citation Impact) is the number of citations received by the publication, divided by the world average for the same type of publications in the same field and same publication year. An FWCI of 1 or higher indicates that the publication's impact exceeds or equals the world average.

#### Metrics Details

Publication Type: Articles and Reviews; Journal Metric: CiteScore Percentile; Self-Citations: included; Field-Weighted (outputs in top 10% citation percentiles): yes; Field-Weighted (international collaboration): no

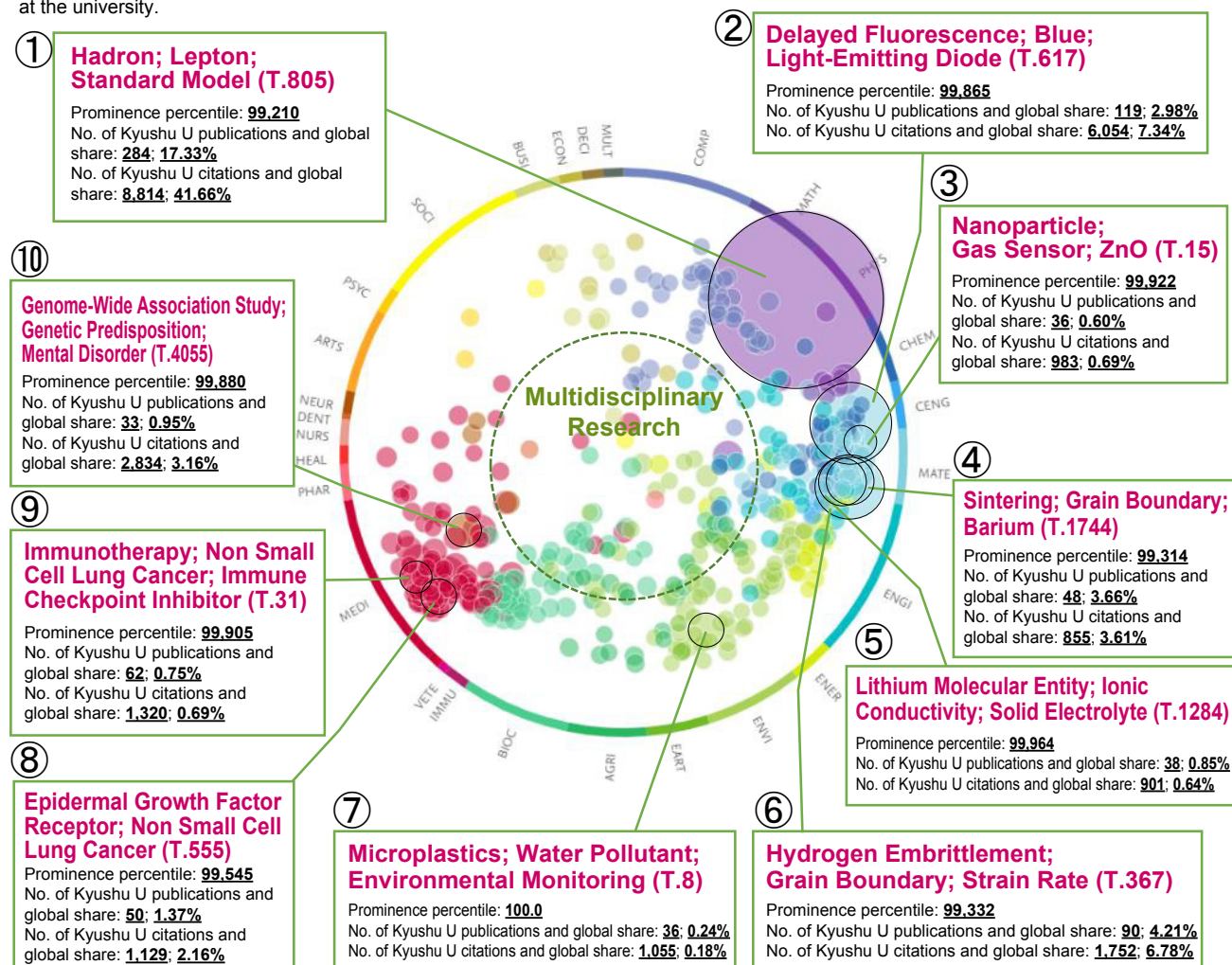
Source: Elsevier's "SciVal" (as of September 2024)

## 9-1. Trends across Kyushu University as a Whole Based on Field Classification of Journals (Continued)

### Topic Prominence (attention level): Analysis of University Strengths Based on Co-citation of Publications

#### The Most Prominent 1% of Topics (2019-2023)

Out of the top 1% prominent topics, 1-10 are those with the top 10 highest number of publications. Kyushu University has a high number of publications in these fields, so these can be considered some of the most active research fields at the university.



#### ◆ About Topic Prominence ◆

The Scopus literature was clustered into approximately 94,000 topics and 1,500 topic clusters based on citation links and ranked by Prominence. Prominence indicates the current momentum and attention level of a topic by looking at the number of citations in the most recent literature, the number of Scopus views, and the CiteScore. The highest Prominence percentile is 100; Prominence is correlated with grants and helps researchers and administrators identify topics with the highest potential for increased funding. Between 2019 and 2023, of all Kyushu University publications, 8,348 research fields emerged as high-profile topics. In addition, the prominence of a topic is calculated by combining three indicators: (1) the number of citations in year n for papers published in year n and year n-1, (2) the number of Scopus views in year n for papers published in year n and year n-1, and (3) the average CiteScore in year n.

\*Please note that with the introduction of the "Next Generation SciVal Topics" in May 2024, the topic set has been updated; so, a simple comparison of past Fact Book data using the previous generation is not possible.

#### ◆ Viewpoint ◆

- The outer wheel uses distinct colors to represent research fields used in Scopus (27 ASJC major subject categories).
- Bubbles represent individual topics.
- The size of bubbles indicates the number of publications contained within each topic.
- The color of each bubble corresponds to the wheel color of the predominant ASJC field by publication proportion within that topic.
- Bubble positions are determined by the proportional distribution of publication fields within each topic, with interdisciplinary topics tending to be positioned closer to the center.

#### Metrics Details

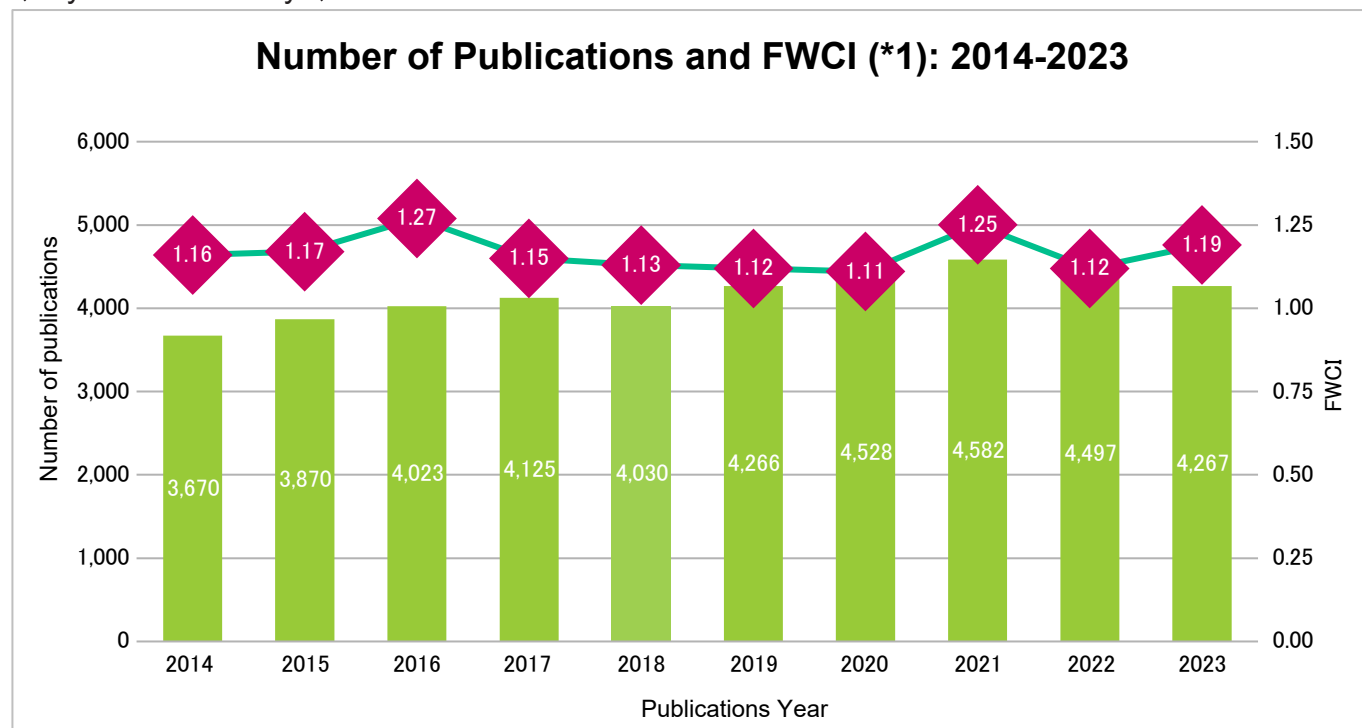
Publication Type: Articles and Reviews; Self-Citations: included

Website of Elsevier, "SciVal Topic Prominence" (as of September 2024): <https://www.elsevier.com/products/scival/overview/topics>

## 9-2. Comparisons of Publication Quantity and Quality

### ■ Number of Publications and FWCI

#### ◆ Kyushu University ◆



#### ◆ Comparison of RU11 (\*2) ◆

##### Scholarly Output

Rank	University	Number of publications
1	The University of Tokyo	54,865
2	Kyoto University	37,270
3	Osaka University	30,046
4	Tohoku University	28,703
5	Nagoya University	22,588
6	<b>Kyushu University</b>	<b>22,140</b>
7	Hokkaido University	21,414
8	University of Tsukuba	16,816
9	Keio University	15,102
10	Tokyo Institute of Technology	14,746
11	Waseda University	9,719

(2019-2023)

##### Citation Count

Rank	University	Citation Count	Average Citations per Publication
1	The University of Tokyo	946,518	17.3
2	Kyoto University	564,318	15.1
3	Osaka University	425,825	14.2
4	Tohoku University	383,843	13.4
5	Nagoya University	325,293	14.4
6	<b>Kyushu University</b>	<b>316,627</b>	<b>14.3</b>
7	Hokkaido University	302,009	14.1
8	University of Tsukuba	242,279	14.4
9	Keio University	218,080	14.4
10	Tokyo Institute of Technology	207,784	14.1
11	Waseda University	123,138	12.7

(2019-2023)

##### FWCI

Rank	University	FWCI
1	The University of Tokyo	1.36
2	Keio University	1.23
3	University of Tsukuba	1.22
4	Kyoto University	1.20
4	Nagoya University	1.20
6	<b>Kyushu University</b>	<b>1.16</b>
7	Osaka University	1.15
8	Hokkaido University	1.10
9	Waseda University	1.09
10	Tohoku University	1.06
11	Tokyo Institute of Technology	1.05

(2019-2023)

(\*1) FWCI (Field-Weighted Citation Impact) is the number of citations received by the publication, divided by the world average for the same type of publications in the same field and same publication year. An FWCI of 1 or higher indicates that the publication's impact exceeds or equals the world average.

(\*2) RU11 (Research University 11) is a consortium that aims to develop academia via eleven universities: Hokkaido University, Tohoku University, University of Tsukuba, The University of Tokyo, Waseda University, Keio University, Tokyo Institute of Technology, Nagoya University, Kyoto University, Osaka University, and Kyushu University. RU11 is composed of both national and private universities.

(\*3) For the data on Tokyo Institute of Technology in the "Comparisons of Publication Quantity and Quality" section, information was used before Tokyo Institute of Technology and Tokyo Medical and Dental University merged to form Institute of Science Tokyo in October 2024.

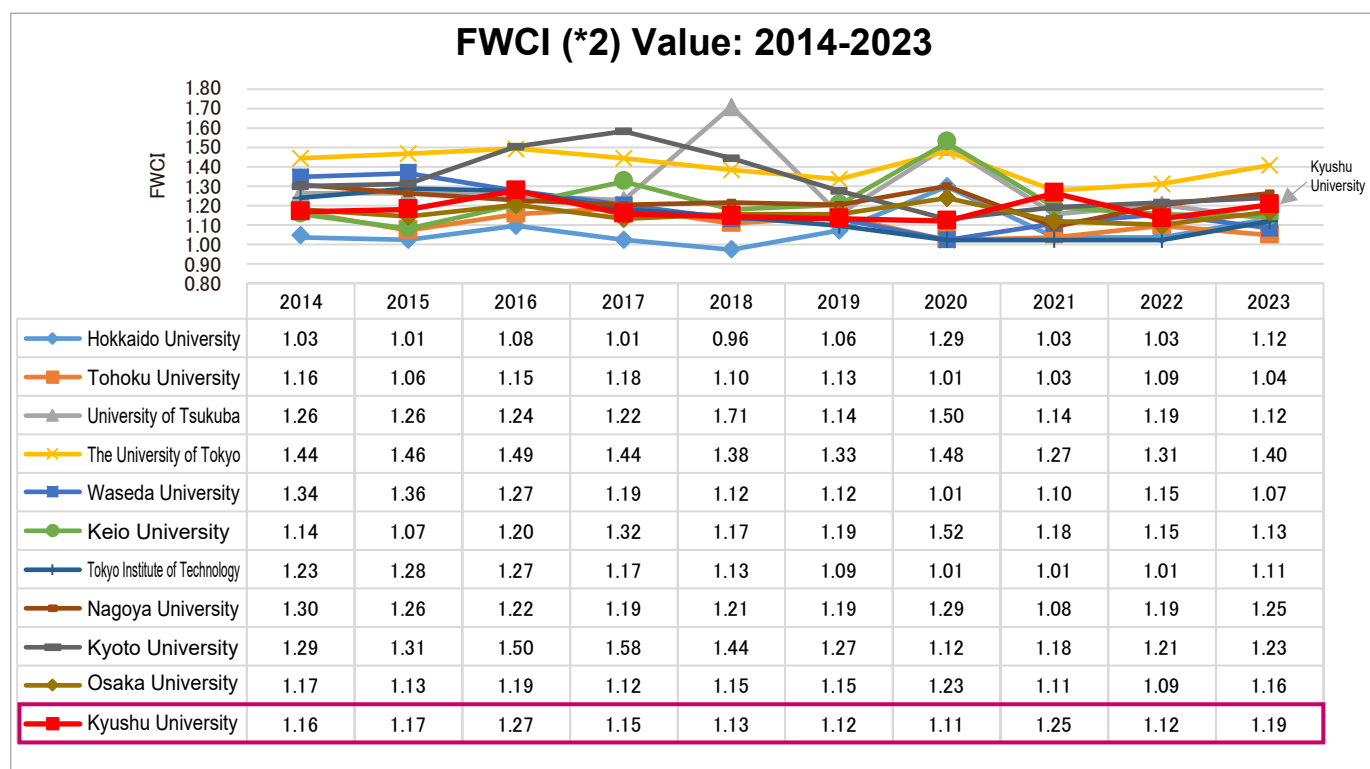
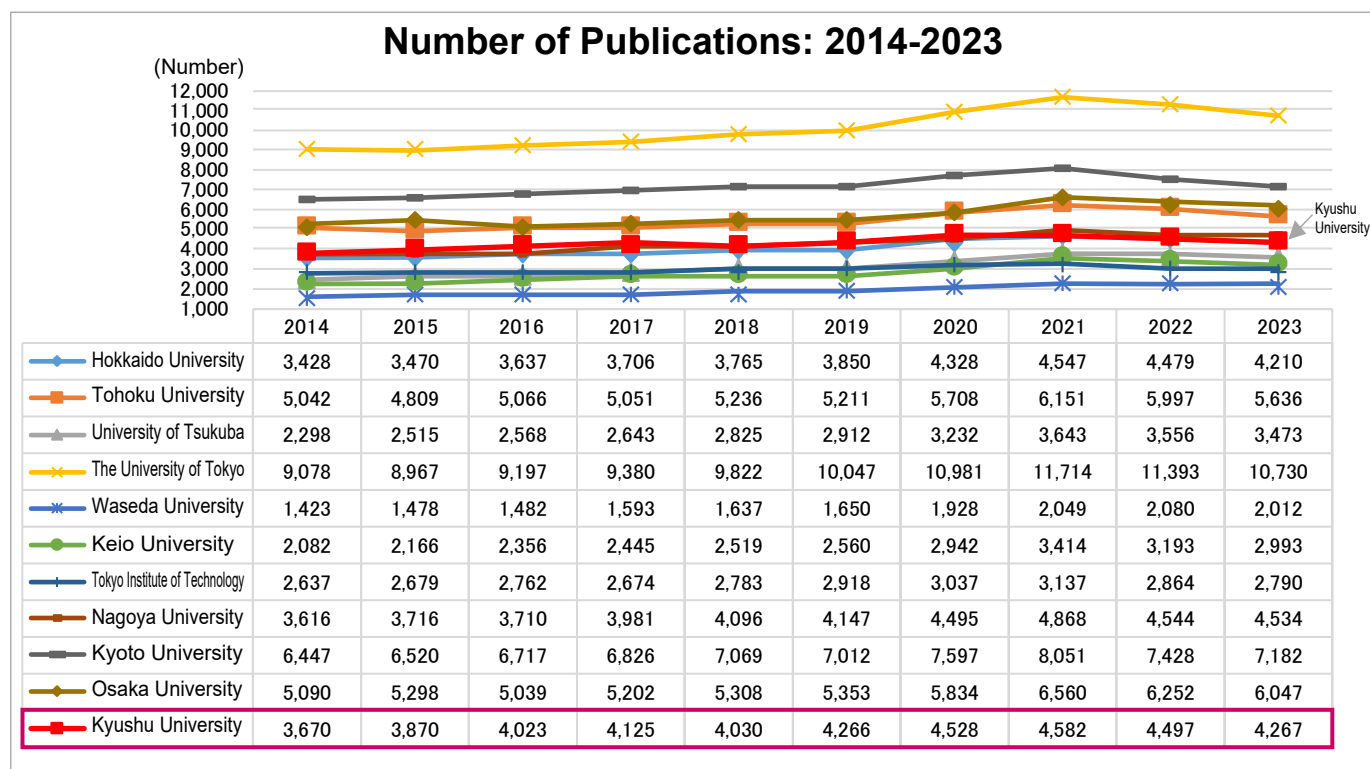
##### Metrics Details

Publication Type: Articles and Reviews; Self-Citations: included

Source: Elsevier's "SciVal" (as of September 2024)

## 9-2. Comparisons of Publication Quantity and Quality (Continued)

### ◆ Comparison of RU11 (\*1) ◆



(\*1) RU11 (Research University 11) is a consortium that aims to develop academia via eleven universities: Hokkaido University, Tohoku University, University of Tsukuba, The University of Tokyo, Waseda University, Keio University, Tokyo Institute of Technology, Nagoya University, Kyoto University, Osaka University, and Kyushu University. RU11 is composed of both national and private universities.

(\*2) FWCI (Field-Weighted Citation Impact) is the number of citations received by the publication, divided by the world average for the same type of publications in the same field and same publication year. An FWCI of 1 or higher indicates that the publication's impact exceeds or equals the world average.

#### Metrics Details

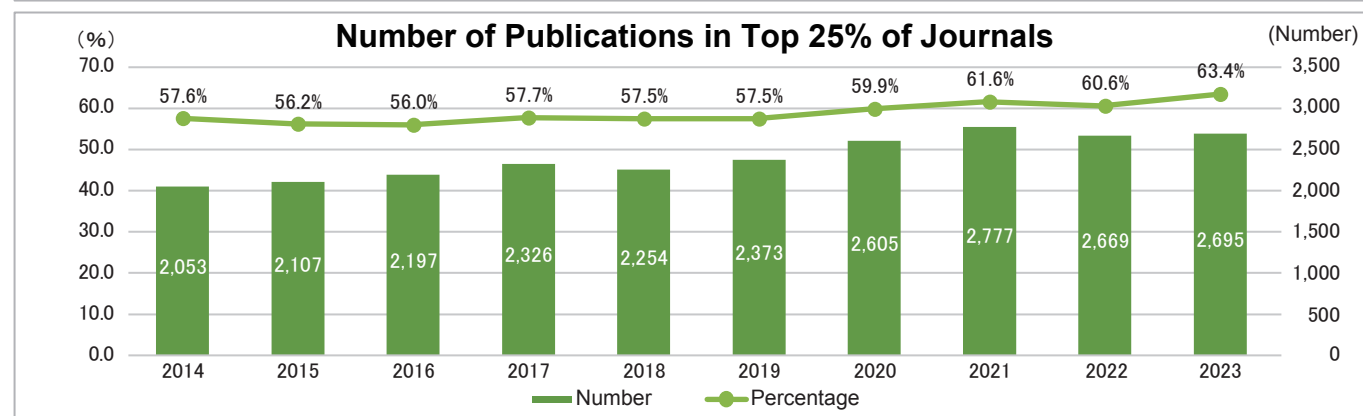
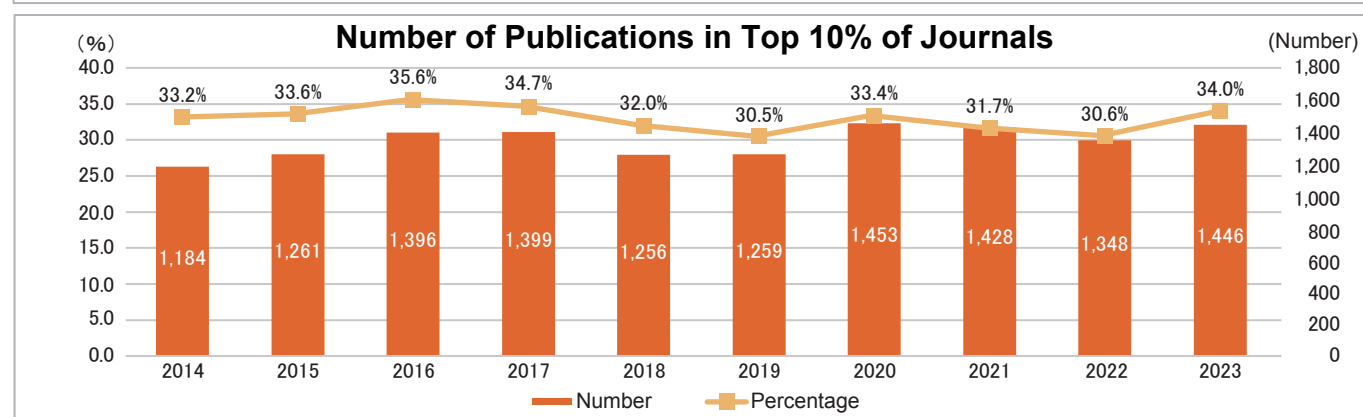
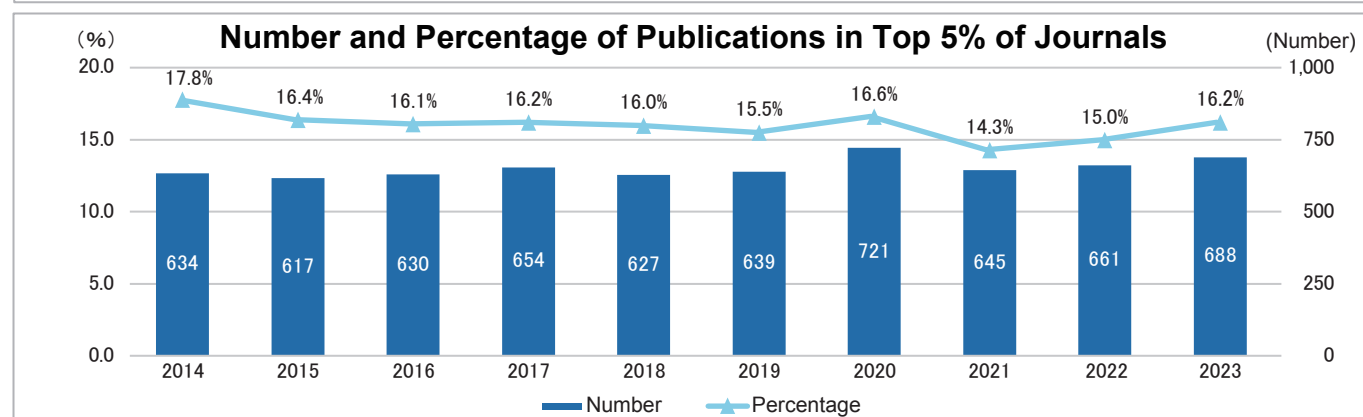
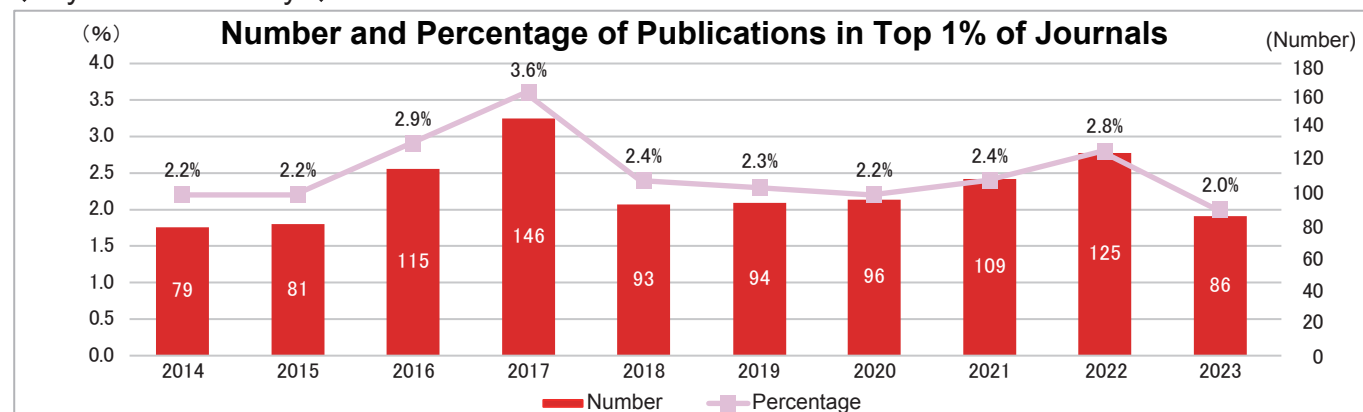
Publication Type: Articles and Reviews; Self-Citations: included

Source: Elsevier's "SciVal" (as of September 2024)

## 9-2. Comparisons of Publication Quantity and Quality (Continued)

### ■ Number and Percentage of Publications Carried in the World's Top Journals

#### ◆ Kyushu University ◆



- The number and percentage of publications carried in journals in top percentiles, based on citation counts. It indicates the number of publications in the top 1%, 5%, 10% or 25% of journals based on the number and percentage of citations in Elsevier's Scopus each year.

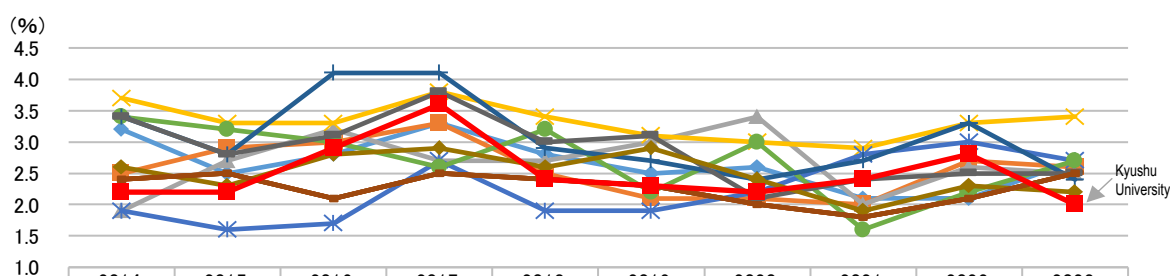
Source: Elsevier's "SciVal" (as of September 2024)



## 9-2. Comparisons of Publication Quantity and Quality (Continued)

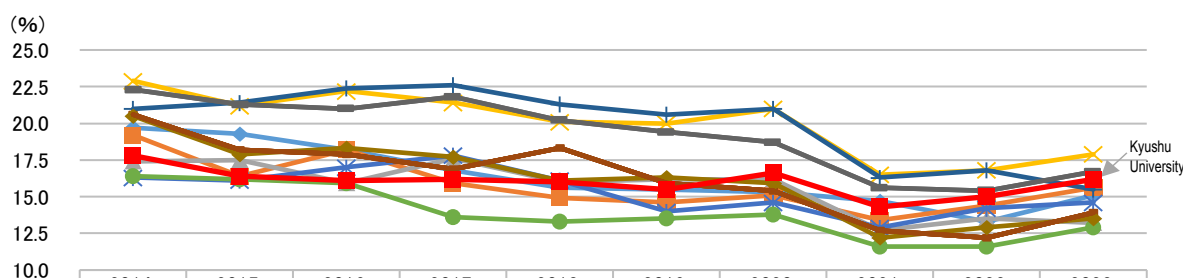
### ◆ Comparison of RU11 (\*1) ◆

#### Percentage of Publications in Top 1% of Journals



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Hokkaido University	3.2	2.5	2.8	3.3	2.8	2.5	2.6	2.1	2.1	2.7
Tohoku University	2.5	2.9	3.0	3.3	2.5	2.1	2.1	2.0	2.7	2.6
University of Tsukuba	1.9	2.7	3.2	2.7	2.7	3.0	3.4	2.0	2.6	2.5
The University of Tokyo	3.7	3.3	3.3	3.8	3.4	3.1	3.0	2.9	3.3	3.4
Waseda University	1.9	1.6	1.7	2.7	1.9	1.9	2.2	2.8	3.0	2.7
Keio University	3.4	3.2	3.0	2.6	3.2	2.2	3.0	1.6	2.2	2.7
Tokyo Institute of Technology	3.4	2.8	4.1	4.1	2.9	2.7	2.4	2.7	3.3	2.4
Nagoya University	2.4	2.5	2.1	2.5	2.4	2.3	2.0	1.8	2.1	2.5
Kyoto University	3.4	2.8	3.1	3.8	3.0	3.1	2.1	2.4	2.5	2.5
Osaka University	2.6	2.3	2.8	2.9	2.6	2.9	2.4	1.9	2.3	2.2
Kyushu University	2.2	2.2	2.9	3.6	2.4	2.3	2.2	2.4	2.8	2.0

#### Percentage of Publications in Top 5% of Journals



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Hokkaido University	19.7	19.3	18.2	16.8	15.6	15.5	15.3	14.7	13.3	15.1
Tohoku University	19.2	16.4	18.2	15.9	14.9	14.6	15.1	13.4	14.4	15.6
University of Tsukuba	17.4	17.5	15.9	17.6	16.0	16.2	16.2	12.7	13.5	13.2
The University of Tokyo	22.9	21.2	22.2	21.4	20.1	20.0	21.0	16.5	16.8	17.9
Waseda University	16.3	16.1	17.0	17.8	16.1	14.0	14.6	12.9	14.2	14.6
Keio University	16.4	16.2	15.9	13.6	13.3	13.5	13.8	11.6	11.6	12.9
Tokyo Institute of Technology	21.0	21.4	22.4	22.6	21.3	20.6	21.0	16.3	16.8	15.5
Nagoya University	20.6	18.2	17.9	16.9	18.3	15.9	15.4	12.7	12.2	13.9
Kyoto University	22.3	21.3	21.0	21.8	20.2	19.4	18.7	15.6	15.4	16.7
Osaka University	20.5	17.9	18.3	17.7	16.1	16.3	15.9	12.2	12.9	13.5
Kyushu University	17.8	16.4	16.1	16.2	16.0	15.5	16.6	14.3	15.0	16.2

(\*1) RU11 (Research University 11) is a consortium that aims to develop academia via eleven universities: Hokkaido University, Tohoku University, University of Tsukuba, The University of Tokyo, Waseda University, Keio University, Tokyo Institute of Technology, Nagoya University, Kyoto University, Osaka University, and Kyushu University. RU11 is composed of both national and private universities.

#### Metrics Details

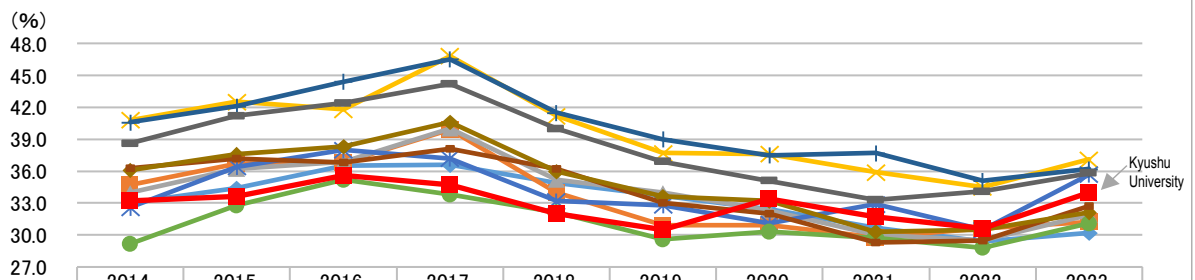
Publication Type: Articles and Reviews; Journal Metric: CiteScore Percentile

Source: Elsevier's "SciVal" (as of September 2024)

## 9-2. Comparisons of Publication Quantity and Quality (Continued)

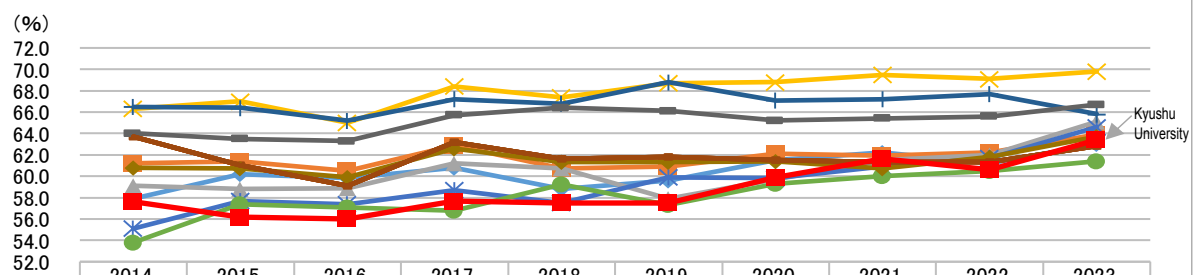
### ◆ Comparison of RU11 (\*1) ◆ (Continued)

#### Percentage of Publications in Top 10% of Journals



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Hokkaido University	33.0	34.4	36.5	36.6	34.9	33.7	32.4	30.7	29.4	30.2
Tohoku University	34.7	36.7	36.8	39.9	34.0	30.9	30.9	29.8	30.6	31.2
University of Tsukuba	34.0	36.2	36.9	40.0	35.2	34.0	32.3	30.0	29.5	31.9
The University of Tokyo	40.8	42.5	41.8	46.8	41.2	37.7	37.6	35.9	34.5	37.1
Waseda University	32.6	36.4	38.0	37.2	33.2	32.8	31.1	32.9	30.5	35.7
Keio University	29.2	32.8	35.2	33.8	32.1	29.6	30.3	29.7	28.8	31.1
Tokyo Institute of Technology	40.6	42.1	44.4	46.5	41.5	39.0	37.5	37.7	35.1	36.2
Nagoya University	36.3	37.2	36.8	38.1	36.2	33.0	32.0	29.3	29.5	32.7
Kyoto University	38.6	41.2	42.4	44.2	40.0	36.9	35.1	33.3	34.1	35.8
Osaka University	36.1	37.6	38.3	40.6	36.0	33.6	33.2	30.3	30.5	32.1
Kyushu University	33.2	33.6	35.6	34.7	32.0	30.5	33.4	31.7	30.6	34.0

#### Percentage of Publications in Top 25% of Journals



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Hokkaido University	57.9	60.2	59.8	60.8	58.8	59.6	61.5	62.2	61.2	63.0
Tohoku University	61.2	61.4	60.5	62.9	60.7	60.9	62.1	61.9	62.2	63.9
University of Tsukuba	59.1	58.8	58.9	61.2	60.7	57.9	59.7	61.5	62.0	65.1
The University of Tokyo	66.3	67.0	65.0	68.4	67.4	68.7	68.8	69.5	69.1	69.8
Waseda University	55.1	57.7	57.4	58.7	57.5	59.9	59.8	60.9	61.7	64.6
Keio University	53.8	57.4	57.1	56.8	59.2	57.3	59.3	60.0	60.5	61.4
Tokyo Institute of Technology	66.5	66.4	65.2	67.2	66.8	68.8	67.1	67.2	67.7	65.8
Nagoya University	63.7	61.0	59.1	63.2	61.6	61.8	61.5	61.3	61.3	62.8
Kyoto University	64.0	63.5	63.3	65.7	66.4	66.1	65.2	65.4	65.6	66.7
Osaka University	60.8	60.7	59.9	62.6	61.3	61.3	61.4	60.7	61.8	63.7
Kyushu University	57.6	56.2	56.0	57.7	57.5	57.5	59.9	61.6	60.6	63.4

(\*1) RU11 (Research University 11) is a consortium that aims to develop academia via eleven universities: Hokkaido University, Tohoku University, University of Tsukuba, The University of Tokyo, Waseda University, Keio University, Tokyo Institute of Technology, Nagoya University, Kyoto University, Osaka University, and Kyushu University. RU11 is composed of both national and private universities.

#### Metrics Details

Publication Type: Articles and Reviews; Journal Metric: CiteScore Percentile

Source: Elsevier's "SciVal" (as of September 2024)

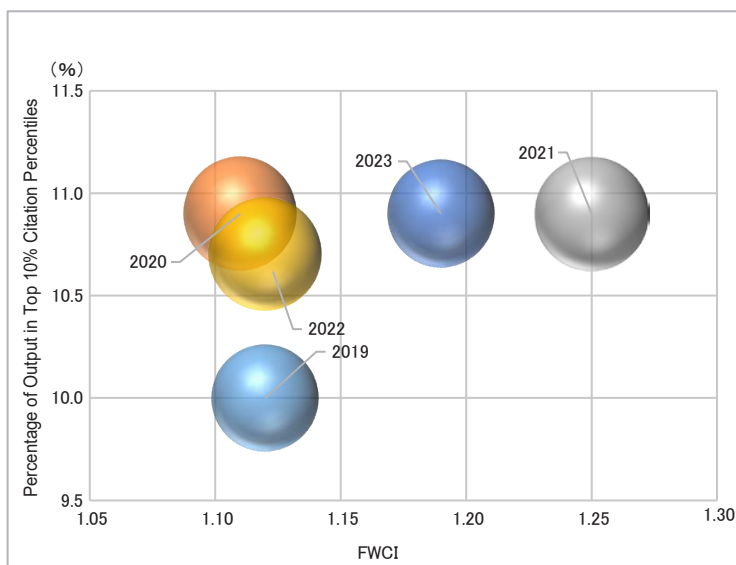
## 9-2. Comparisons of Publication Quantity and Quality (Continued)

### Overall Comparisons of Publication Quantity and Quality

#### ◆ Kyushu University ◆ (2019-2023)

**Percentage of Outputs in Top 10% Citation Percentiles (\*1) (Vertical Axis) × FWCI (\*2) (Horizontal Axis) × Total Number of Publications (Bubble Size)**

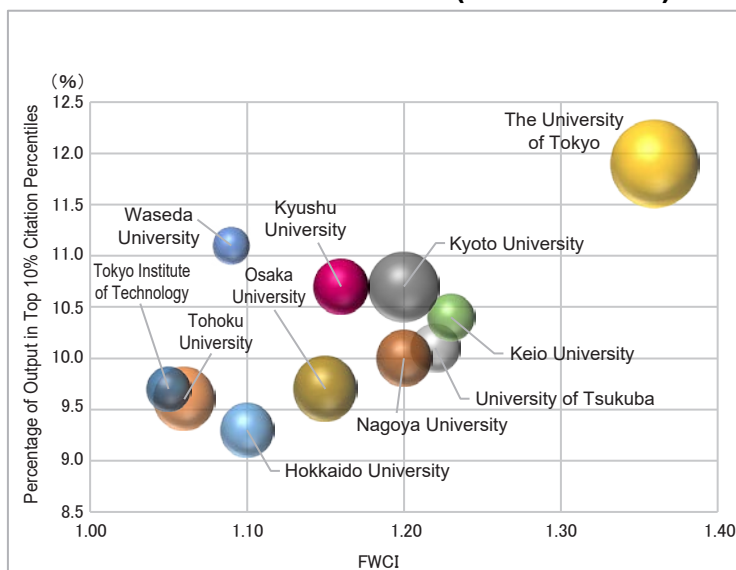
Year	Percentage of Outputs in Top 10% Citation Percentiles	FWCI	Number of publications
2019	10.0	1.12	4,266
2020	10.9	1.11	4,528
2021	10.9	1.25	4,582
2022	10.7	1.12	4,497
2023	10.9	1.19	4,267
Average	10.7	1.16	4,428



#### ◆ Comparison of RU11 (\*3) ◆ (2019-2023 Average)

**Percentage of Outputs in Top 10% Citation Percentiles (Vertical Axis) × FWCI (\*2) (Horizontal Axis) × Total Number of Publications (Bubble Size)**

University	Percentage of Outputs in Top 10% Citation Percentiles	FWCI	Number of publications
Hokkaido University	9.3	1.10	4,283
Tohoku University	9.6	1.06	5,741
University of Tsukuba	10.1	1.22	3,363
The University of Tokyo	11.9	1.36	10,973
Waseda University	11.1	1.09	1,944
Keio University	10.4	1.23	3,020
Tokyo Institute of Technology	9.7	1.05	2,949
Nagoya University	10.0	1.20	4,518
Kyoto University	10.7	1.20	7,454
Osaka University	9.7	1.15	6,009
<b>Kyushu University</b>	<b>10.7</b>	<b>1.16</b>	<b>4,428</b>



#### (\*1) Percentage of Outputs in Top 10% Citation Percentiles

This metric represents the percentage of publications that fall within the top 10% of annual citation counts in Elsevier's Scopus database, based on citation performance within their respective fields and publication years.

#### (\*2) FWCI (Field-Weighted Citation Impact) is the number of citations received by the publication, divided by the world average for the same type of publications in the same field and same publication year. An FWCI of 1 or higher indicates that the publication's impact exceeds or equals the world average.

#### (\*3) RU11 (Research University 11) is a consortium that aims to develop academia via eleven universities: Hokkaido University, Tohoku University, University of Tsukuba, The University of Tokyo, Waseda University, Keio University, Tokyo Institute of Technology, Nagoya University, Kyoto University, Osaka University, and Kyushu University. RU11 is composed of both national and private universities.

#### Metrics Details

Publication Type: Articles and Reviews; Self-Citations: included; Field-Weighted: yes

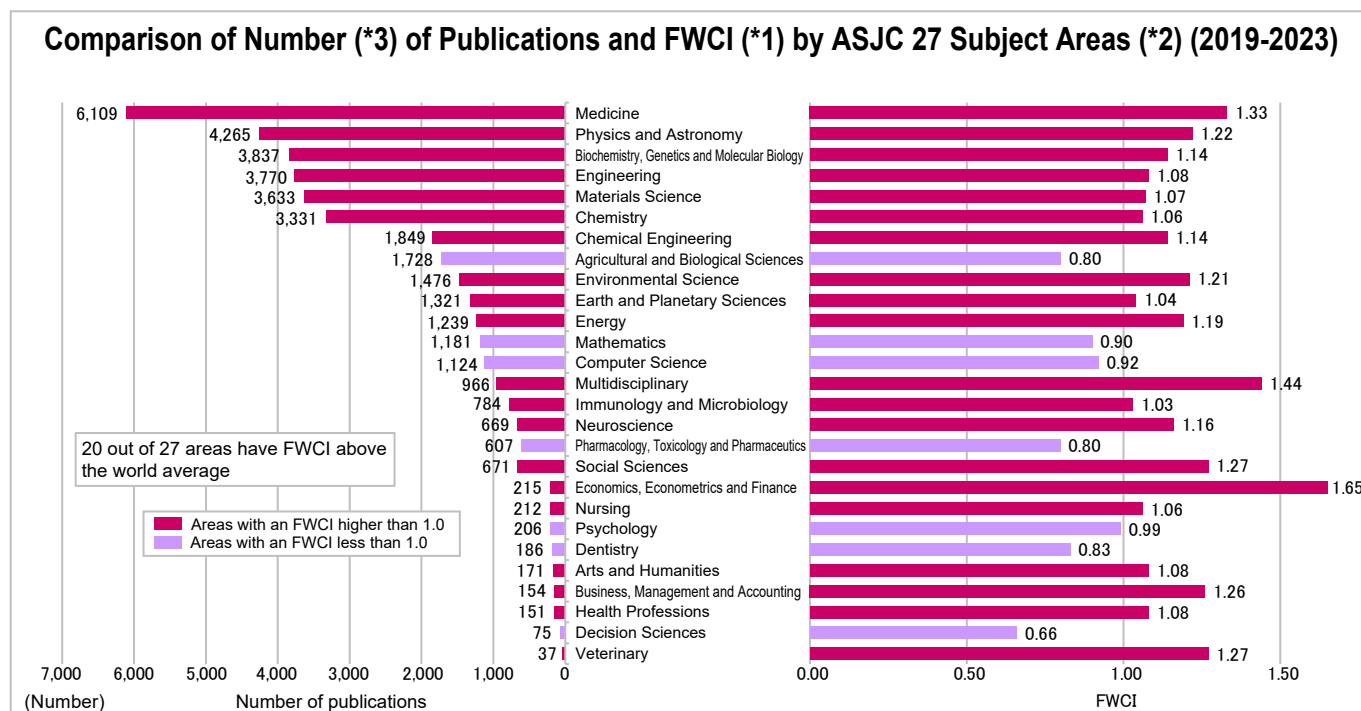
Source: Elsevier's "SciVal" (as of September 2024)



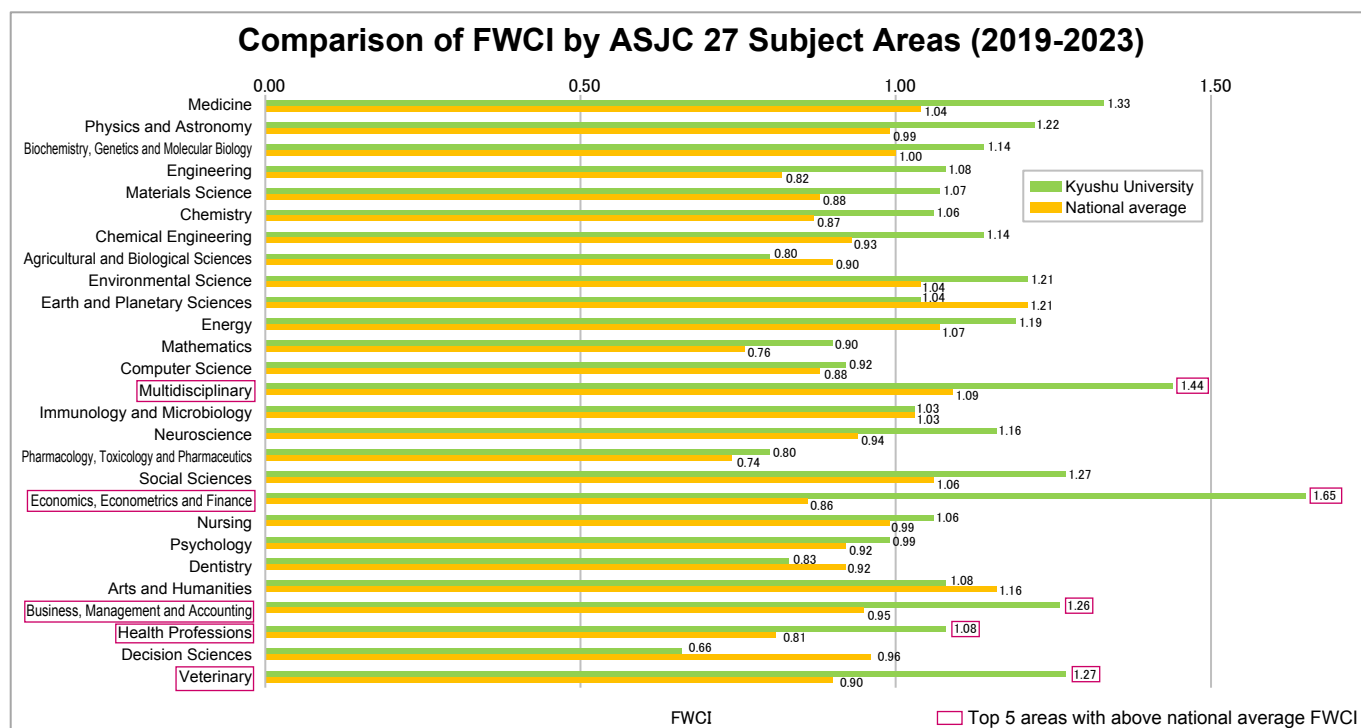
## 9-2. Comparisons of Publication Quantity and Quality (Continued)

### ■ Comparison between Kyushu University and the National Average by ASJC 27 Subject Areas: FWCI

#### ◆ Kyushu University ◆



#### ◆ Comparison between Kyushu University and the National Averages ◆



(\*1) FWCI (Field-Weighted Citation Impact) is the number of citations received by the publication, divided by the world average for the same type of publications in the same field and same publication year. An FWCI of 1 or higher indicates that the publication's impact exceeds or equals the world average.

(\*2) The above journal categories are based on the ASJC 27 (ASJC: All Science Journal Classification) in Scopus.

(\*3) A higher number of publications combined with a higher FWCI indicates robust research capacity (a university's strength). Conversely, a smaller number of publications with a high FWCI often reflects the presence of highly productive individual faculty members. Notably, when individual researchers are affiliated with large research communities, both publication volume and FWCI metrics tend to rise significantly.

#### Metrics Details

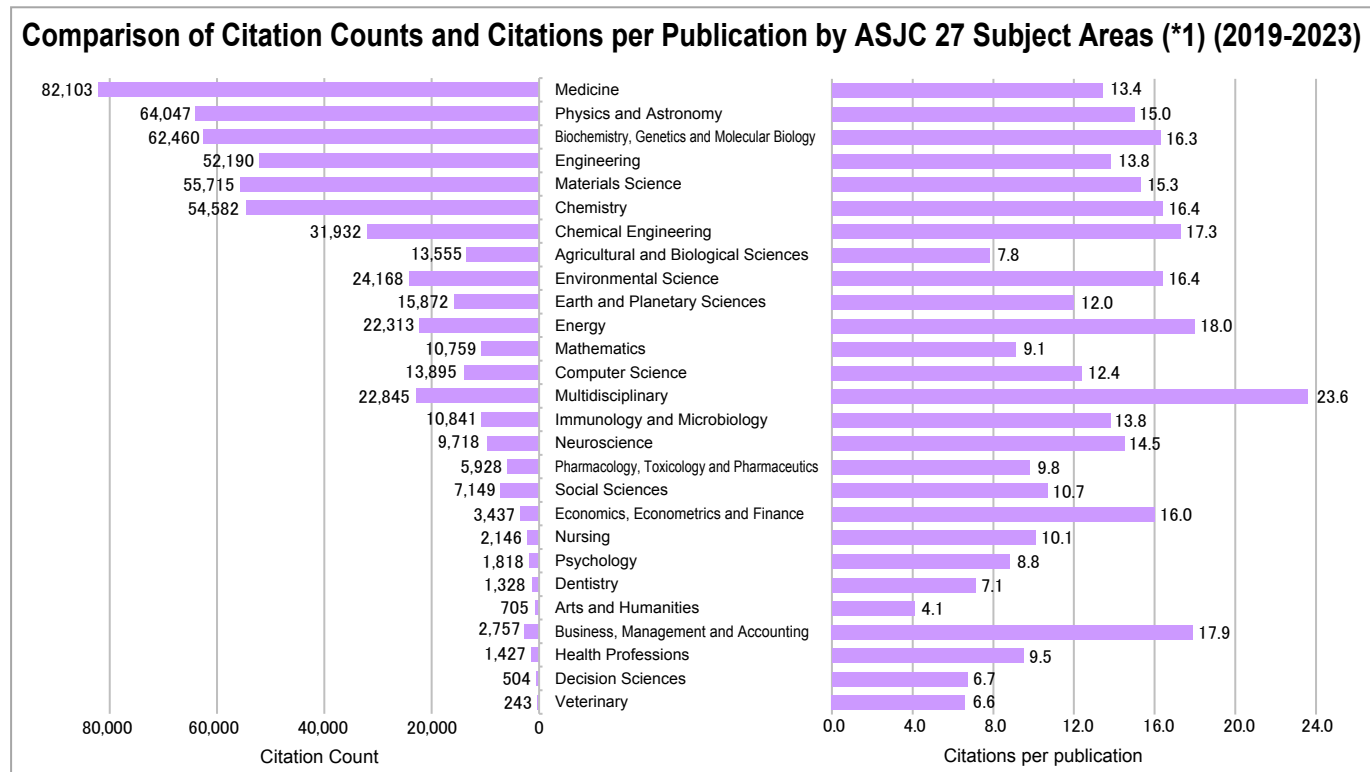
Publication Type: Articles and Reviews; Self-Citations: included

Source: Elsevier's "SciVal" (as of September 2024)

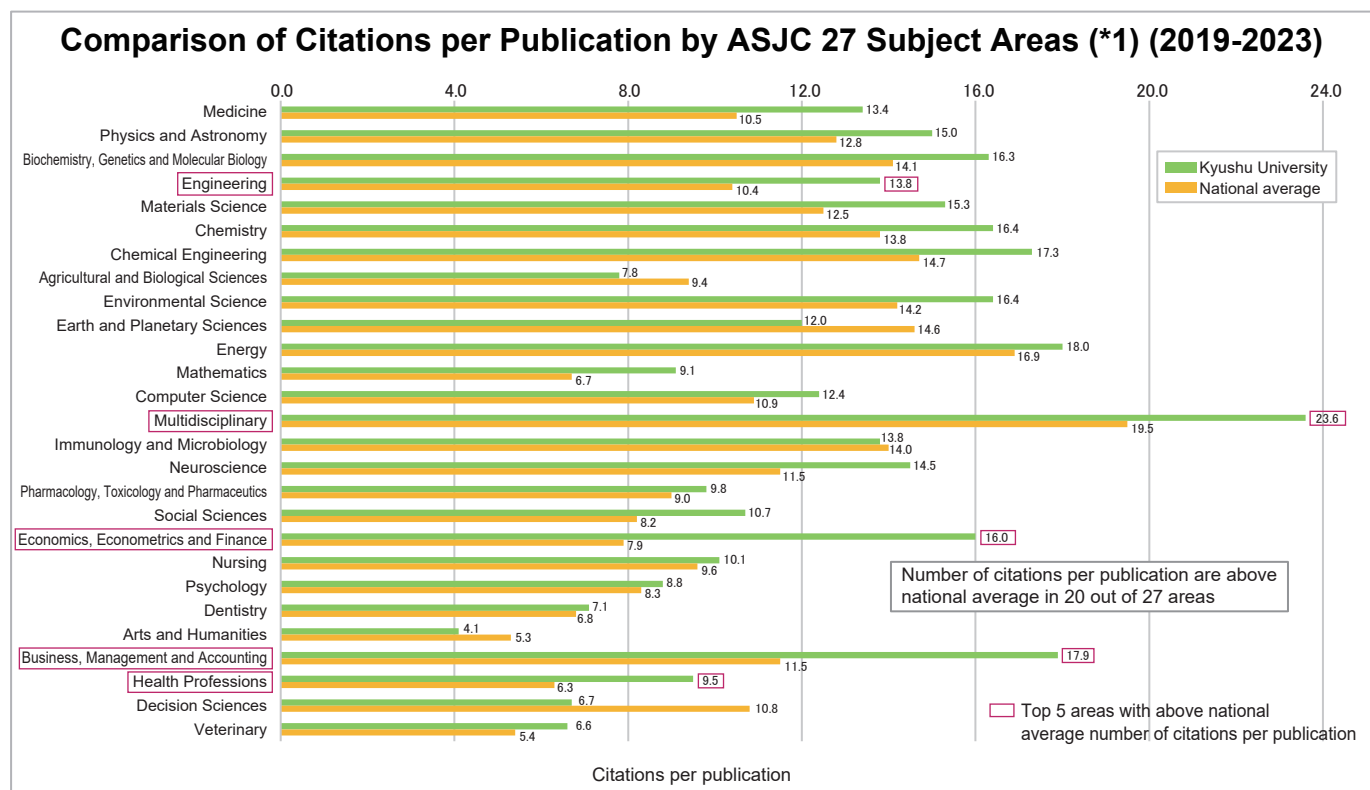
## 9-2. Comparisons of Publication Quantity and Quality (Continued)

### ■ Comparison between Kyushu University and the National Average by ASJC 27 Subject Areas: Citations per Publication

#### ◆ Kyushu University ◆



#### ◆ Comparison between Kyushu University and the National Averages ◆



(\*1) The above journal categories are based on the ASJC 27 (ASJC: All Science Journal Classification) in Scopus.

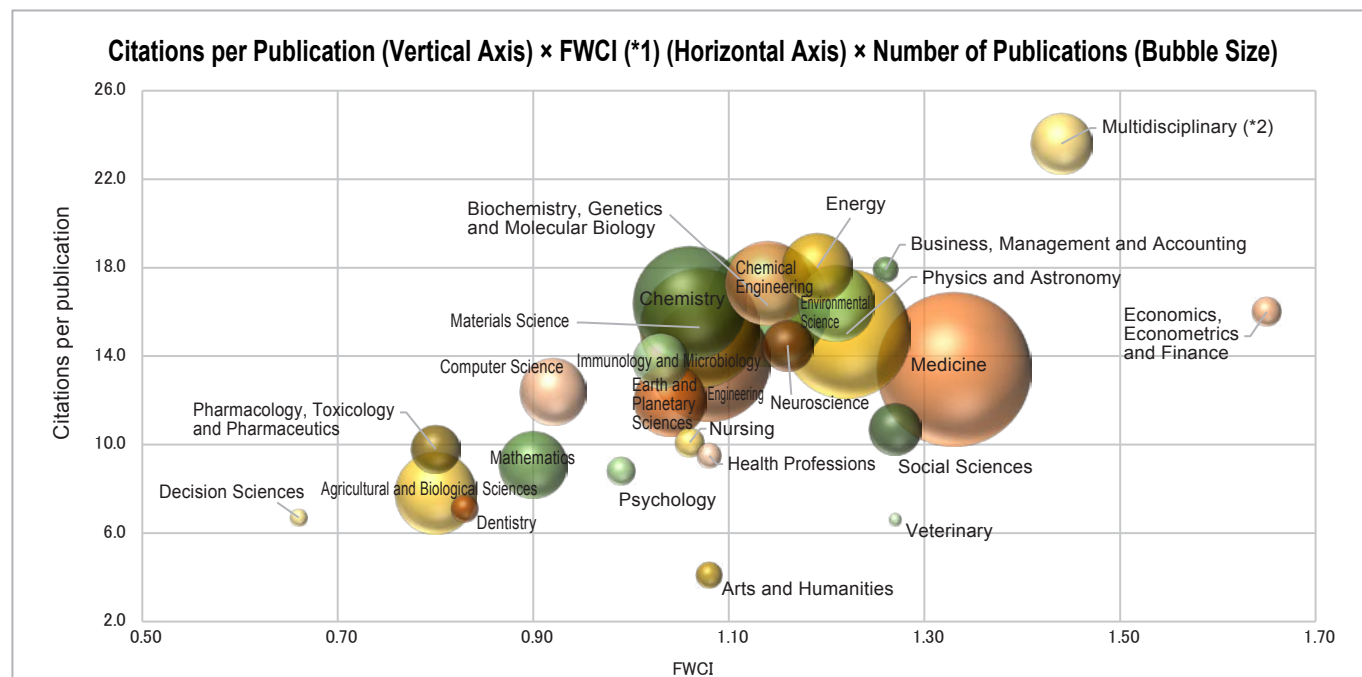
#### Metrics Details

Publication Type: Articles and Reviews; Self-Citations: included

Source: Elsevier's "SciVal" (as of September 2024)

## 9-2. Comparisons of Publication Quantity and Quality (Continued)

### Comparison of Research Fields of Kyushu University Publications by ASJC 27 Subject Areas (2019-2023)



### Comparison of Research Fields of Kyushu University Publications by ASJC 334 Fields (2019-2023)

#### Top 10 fields with high FWCI (\*3)

Rank	ASJC 27 Subject Areas (*4)	ASJC 334 Fields (*4)	FWCI	Number of publications
1	Nursing	Psychiatric Mental Health	10.12	4
2	Arts and Humanities	Museology	5.97	1
3	Health Professions	Optometry	3.95	1
4	Immunology and Microbiology	Parasitology	3.84	18
5	Medicine	Anatomy	3.83	26
6	Medicine	General Medicine	3.57	500
7	Veterinary	Equine	3.20	3
7	Veterinary	Small Animals	3.20	3
9	Social Sciences	Gender Studies	3.05	4
10	Economics, Econometrics and Finance	General Economics, Econometrics and Finance	3.03	14

(\*1) FWCI (Field-Weighted Citation Impact) is the number of citations received by the publication, divided by the world average for the same type of publications in the same field and same publication year. An FWCI of 1 or higher indicates that the publication's impact exceeds or equals the world average.

(\*2) Multidisciplinary field is one in which publications are carried in general scientific magazines such as Nature and Science.

(\*3) In 157 out of 318 fields, the FWCI exceeds the global average of 1.0. Fields with a high FWCI but low publication volume may indicate the presence of highly productive individual faculty members. Conversely, fields with both a high FWCI and substantial publication output demonstrate robust research capacity—a key institutional strength.

(\*4) The 27 subject areas and 334 fields are based on the Scopus ASJC categorization (ASJC: All Science Journal Classification).

Translation assistance: NIAD-QE, the National Institution for Academic Degrees and Quality Enhancement of Higher Education (the major field categories are Elsevier translations)

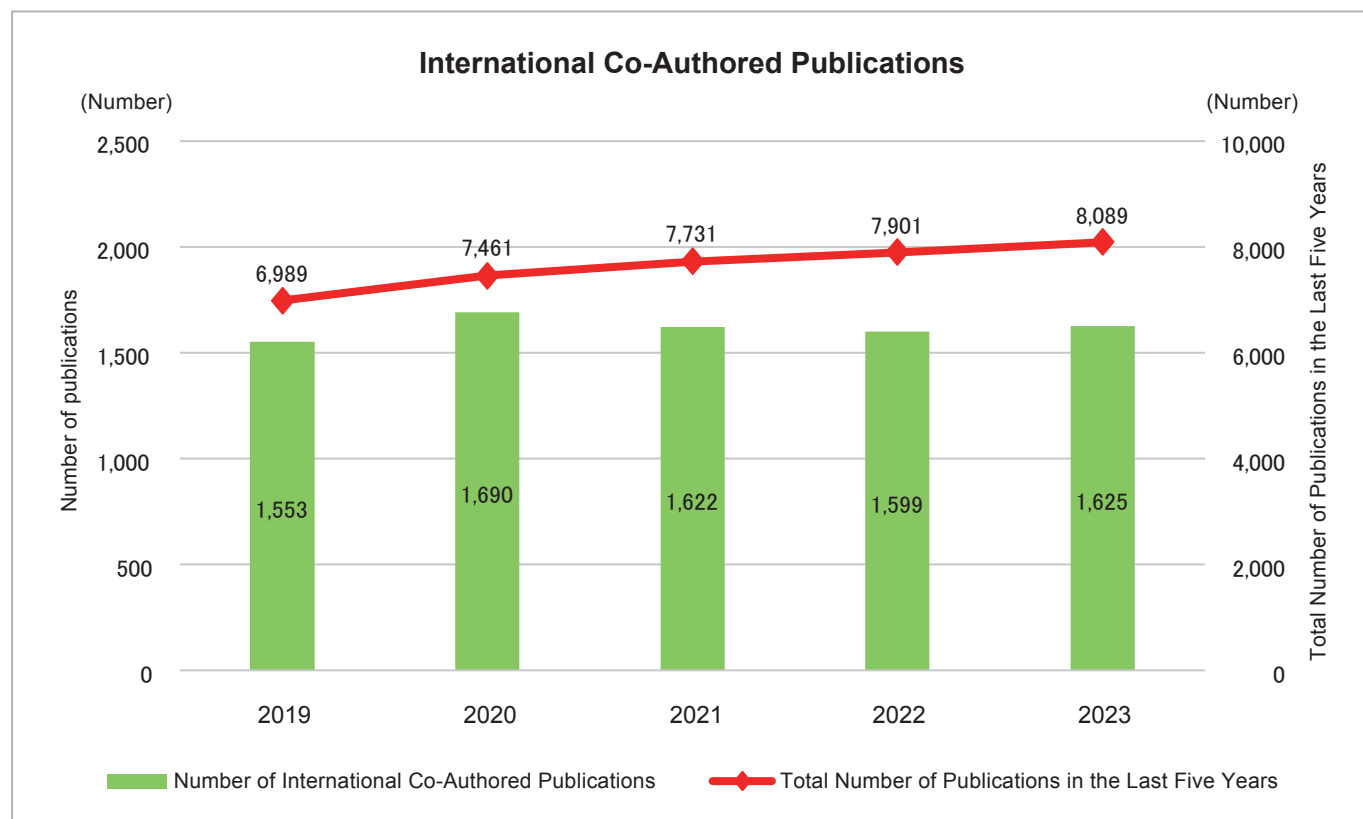
#### Metrics Details

Publication Type: Articles and Reviews; Self-Citations: included

Source: Elsevier's "SciVal" (as of September 2024)

## 9-3. International Co-Authored Publications

### ◆ Kyushu University ◆



• The polygonal line indicates the total number of international co-authored publications in the last five years, including the relevant year.

### ◆ By Faculty ◆ (2019-2023)

Rank	Faculty	Number of International Co-Authored Publications (Total)	International Co-Authorship Average Rate (%)
1	Faculty of Engineering	1,101	32.0
2	Faculty of Science	1,051	52.5
3	Faculty of Medical Sciences	779	17.3
4	Faculty of Agriculture	652	42.1
5	Faculty of Engineering Sciences	532	41.2
6	Faculty of Information Science and Electrical Engineering	416	38.1
7	Faculty of Pharmaceutical Sciences	176	28.6
8	Faculty of Dental Science	146	25.2
9	Faculty of Design	77	26.3
10	Faculty of Social and Cultural Studies	64	41.3
11	Faculty of Mathematics	61	28.8
12	Faculty of Human-Environment Studies	47	29.9
13	Faculty of Economics	30	23.3
14	Faculty of Law	9	69.2
15	Faculty of Humanities	3	10.0
16	Faculty of Languages and Cultures	0	0.0

#### Metrics Details

Publication Type: Articles and Reviews; Field-Weighted: no

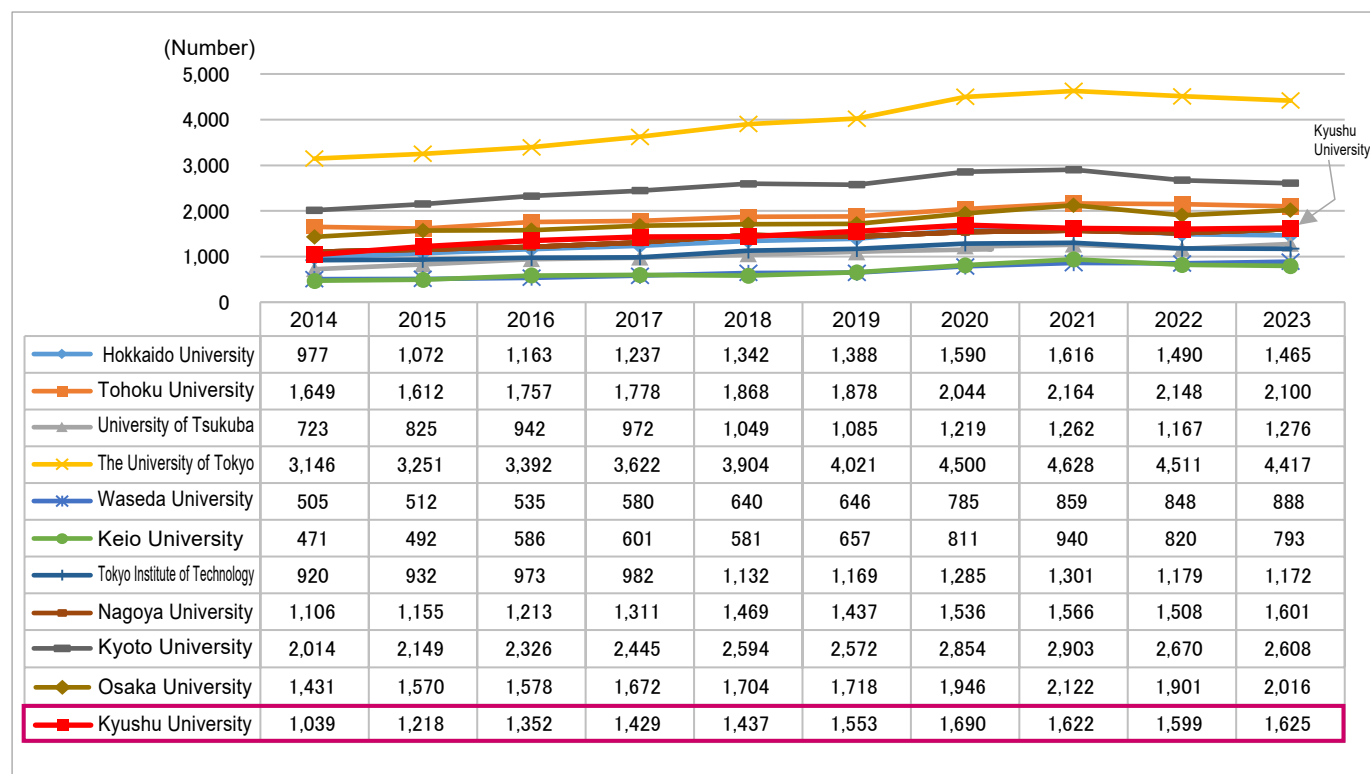
- Number of internationally co-authored publications by faculty: A tally of international co-authored publications by authors affiliated with Kyushu University as of 1st April 2024, including those previously published while working at other institutions.

Source: Elsevier's "SciVal" (as of September 2024)

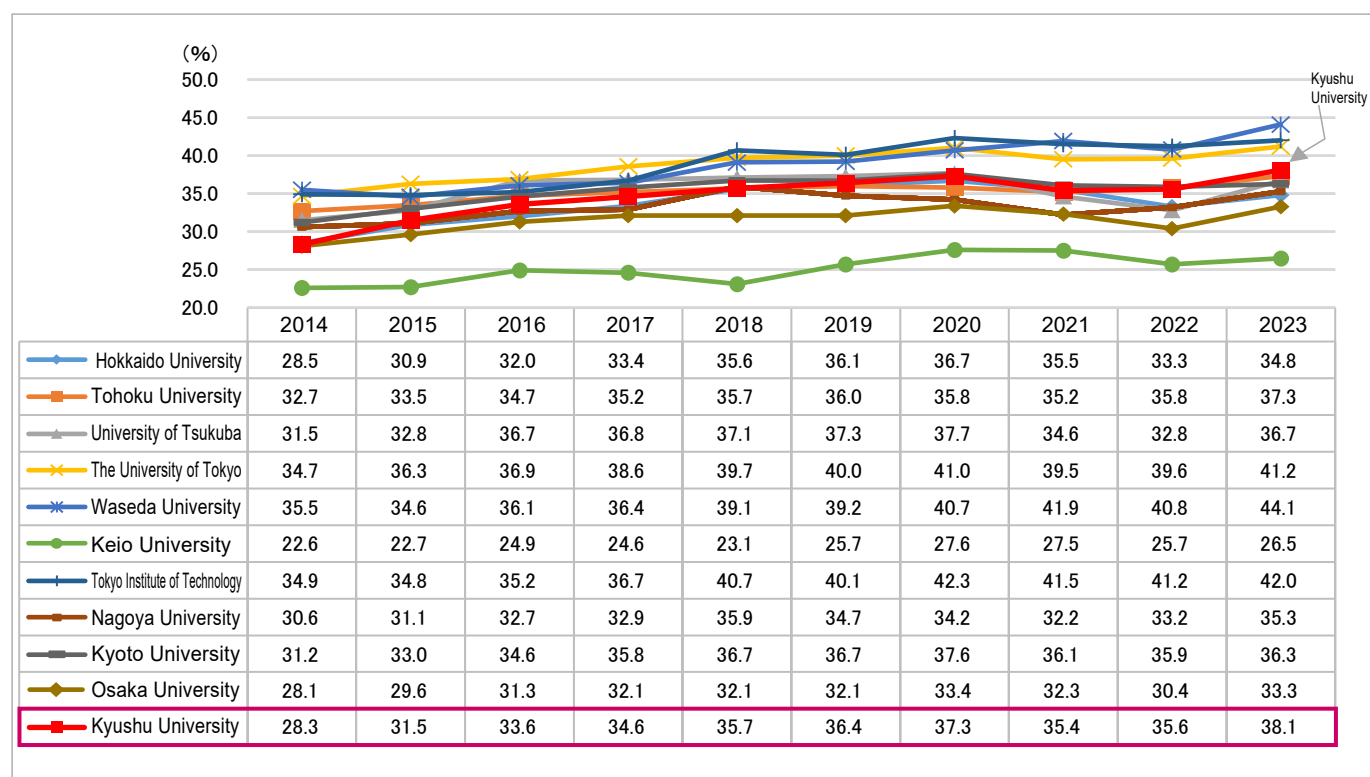
### 9-3. International Co-Authoring Publications (Continued)

#### ◆ Comparison of RU11 (\*1) ◆ (2014-2023)

##### International Co-Authoring Publications



##### International Co-Authorship Average Rate



(\*1) RU11 (Research University 11) is a consortium aiming to develop scholarship in 11 Japanese universities Hokkaido University, Tohoku University, University of Tsukuba, The University of Tokyo, Waseda University, Keio University, Tokyo Institute of Technology, Nagoya University, Kyoto University, Osaka University, and Kyushu University. RU11 is composed of both national and private universities.

##### Metrics Details

Publication Type: Articles and Reviews; Field-Weighted: no

Source: Elsevier's "SciVal" (as of September 2024)



