

Open Access Publication and
Article Processing Charges (APCs)
in Japan

Report on the FY2023 Survey
(Summary in English)

Japan Alliance of University Library Consortia
for E-Resources (JUSTICE)

February 2024

About this report

JUSTICE has conducted a survey on the number of published articles written by researchers who are members of institutions in Japan, Open Access availability, and total estimated APC costs.

For this survey, we used the Web of Science article level metadata file provided by Clarivate Analytics to the National Institute of Informatics (NII). The survey results were published with the permission of Clarivate. This report is an updated version of the FY2021 Survey.

Survey methods

Two types of data were used in the survey:

1. Web of Science article level metadata file purchased from Clarivate Analytics in February 2023.
 - Publication year: 2012–2022
 - Types of publications: Articles and Reviews
 - Reprint author: Authors who are members of institutions in Japan
2. Data that JUSTICE collected and organized on our own by identifying APC prices, reprint authors' institutions, and so on.

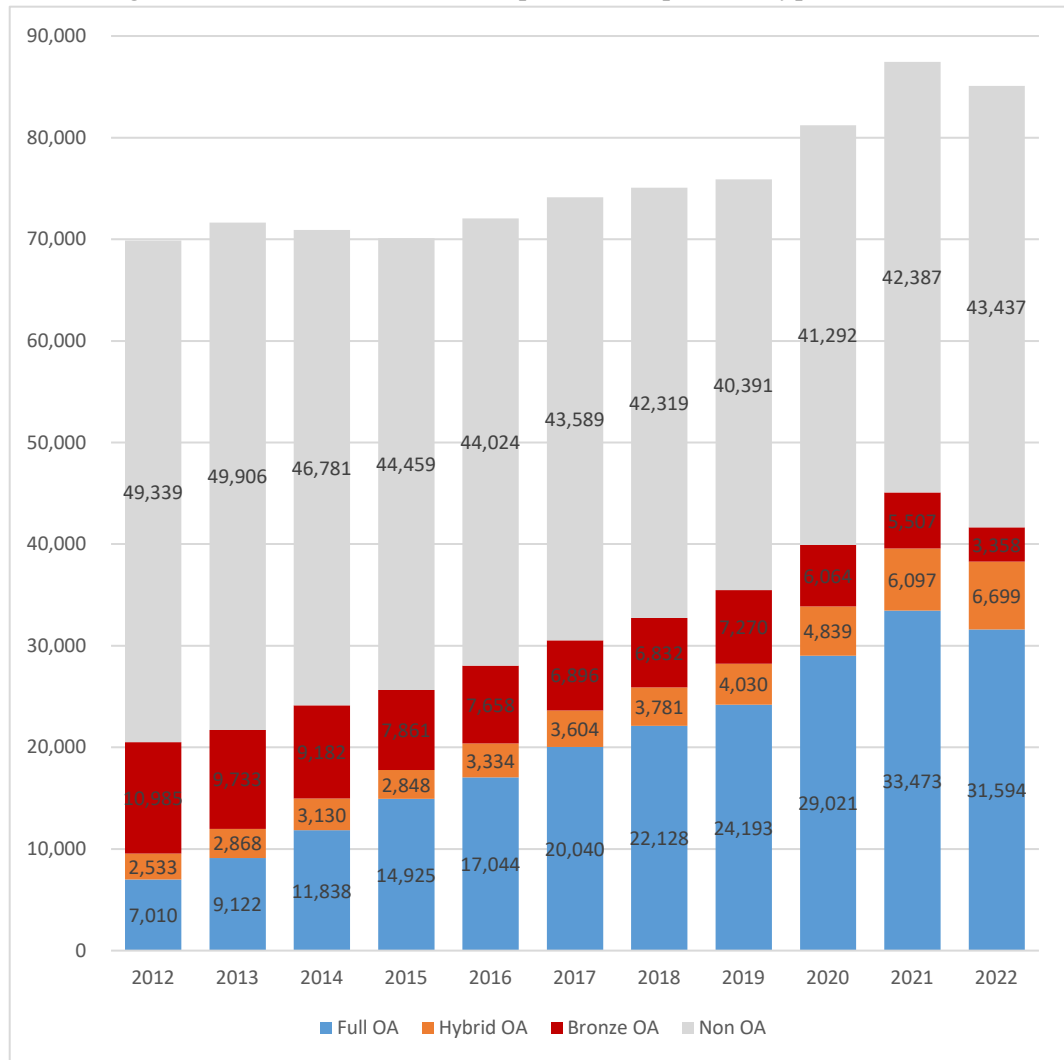
Data were analyzed based on the following Open Access (OA) types.

- Full OA articles
OA articles published in the Full Open Access Journal.
- Hybrid OA articles
OA articles published in the subscription journal at the author's discretion (mainly by paying APC).
- Gold OA articles
Full OA and Hybrid OA articles.
- Bronze OA articles
OA articles published in the subscription journal and freely accessible on the publisher's website regardless of author discretion, with no license granted. Delayed OA articles that become available for OA after the passage of a designated period of time following publication are included in Bronze OA articles.

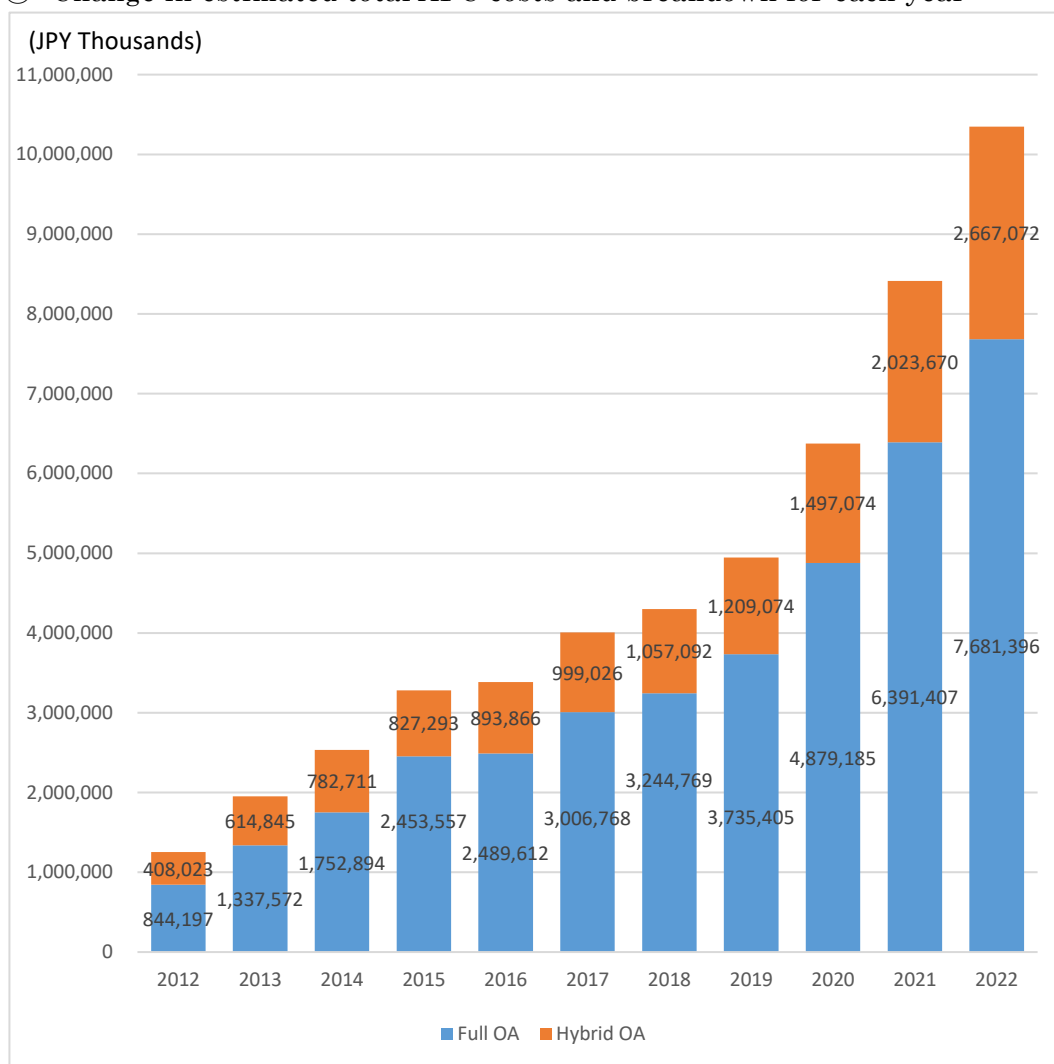
1. Aggregate results

(1) Overview

① Change in the number of articles published per OA type



② Change in estimated total APC costs and breakdown for each year



(2) Breakdown by publisher

The following publishers were counted as different publishers:

- BioMed Central and Springer
- Frontiers and Nature
- Springer and Nature (If indistinguishable, count as Springer Nature)
- Dove Press and Taylor & Francis
- Hindawi and John Wiley & Sons
- Atlantis Press and Springer Nature
- Cureus and Springer Nature

① Top 10 publishers based on total number of articles published in 2022

Rank	Publisher	<u>Total number of articles</u>	OA articles (including bronze OA)	Estimated total APC costs (JPY)
1	ELSEVIER	13,847	4,560	952,499,772
2	SPRINGER	9,647	2,509	790,338,240
3	JOHN WILEY & SONS	9,173	2,152	702,356,027
4	MDPI AG	7,174	7,166	2,130,602,032
5	TAYLOR & FRANCIS INC	3,005	678	210,746,523
6	AMER CHEMICAL SOC (ACS)	2,796	256	90,129,122
7	OXFORD UNIV PRESS (OUP)	2,694	1,102	238,419,192
8	NATURE PUBLISHING GROUP (NPG)	2,504	2,402	902,421,484
9	FRONTIERS MEDIA SA	2,175	2,169	896,242,848
10	BIOMED CENTRAL LTD (BMC)	1,990	1,982	682,031,302
Others		30,083	16,675	2,752,681,002
Total		85,088	41,651	10,348,467,544

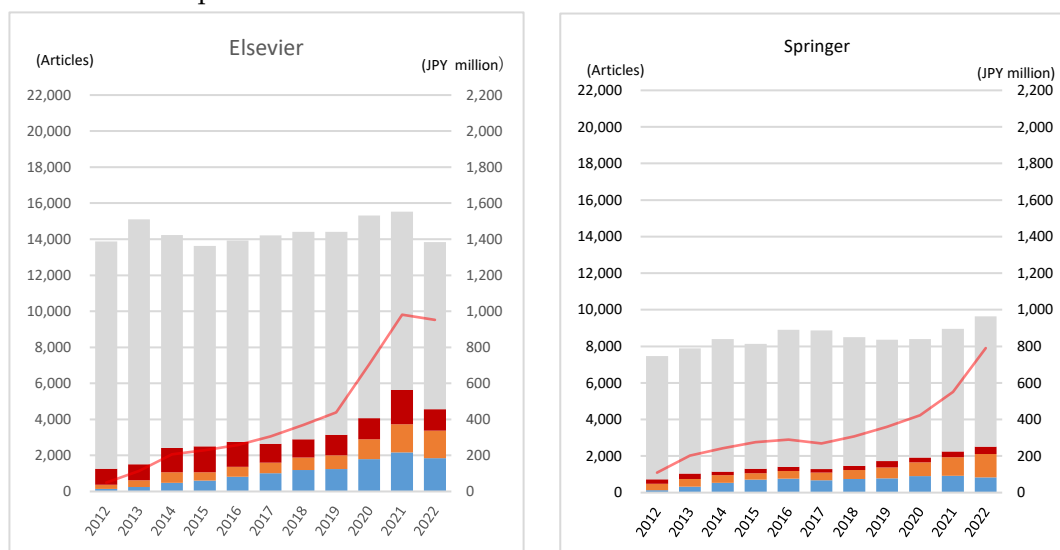
② Top 10 publishers based on estimated total APC costs paid for full OA articles published in 2022

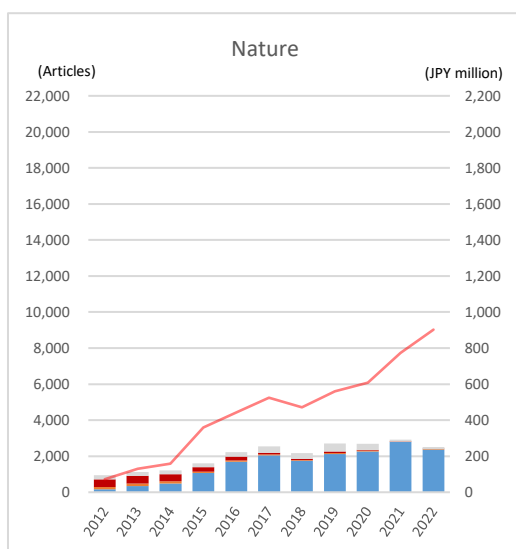
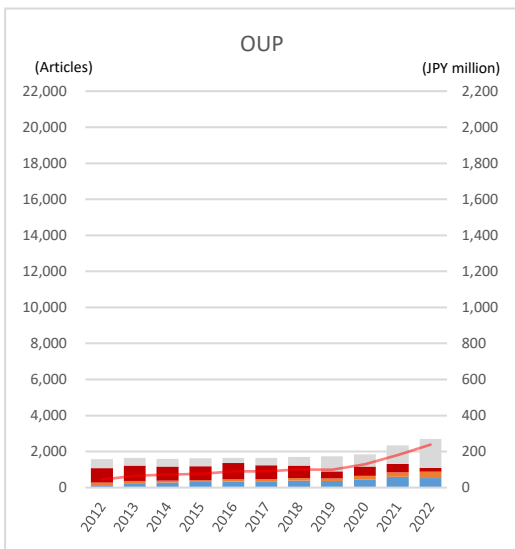
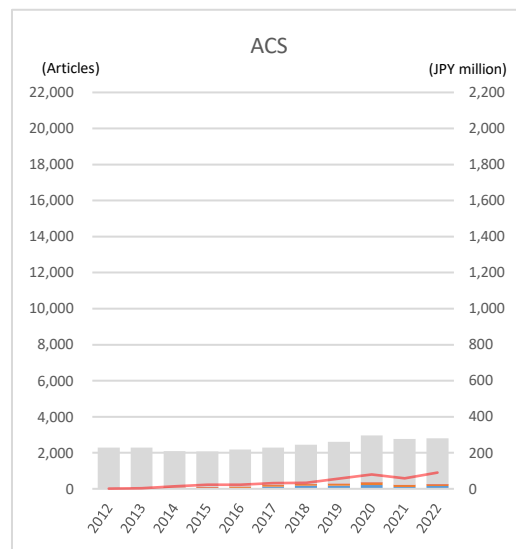
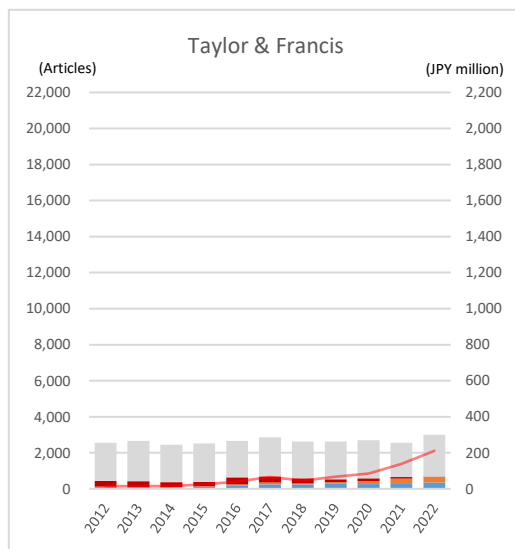
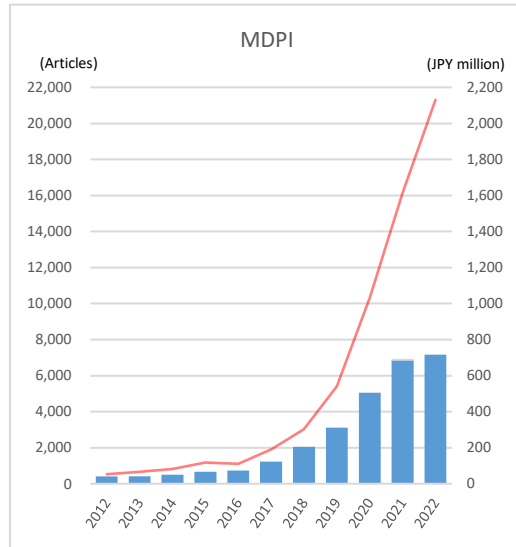
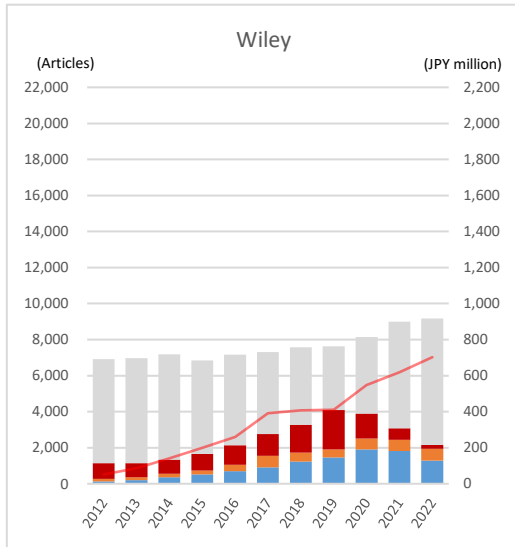
Rank	Publisher	Total number of articles	Number of full OA articles	<u>Estimated total APC costs paid for full OA articles (JPY)</u>
1	MDPI AG	7,174	7,166	2,130,602,032
2	FRONTIERS MEDIA SA	2,175	2,169	896,242,848
3	NATURE PUBLISHING GROUP (NPG)	2,504	2,362	854,166,398
4	BIOMED CENTRAL LTD (BMC)	1,990	1,982	682,031,302
5	ELSEVIER	13,847	1,842	410,104,529
6	JOHN WILEY & SONS	9,173	1,291	396,226,651
7	PUBLIC LIBRARY SCIENCE (PLoS)	777	767	194,309,434
8	SPRINGER	9,647	832	193,623,455
9	SPRINGER NATURE	1,115	405	130,548,832
10	IEEE	1,724	419	101,374,728
Others		34,962	12,359	1,692,165,674
Total		85,088	31,594	7,681,395,883

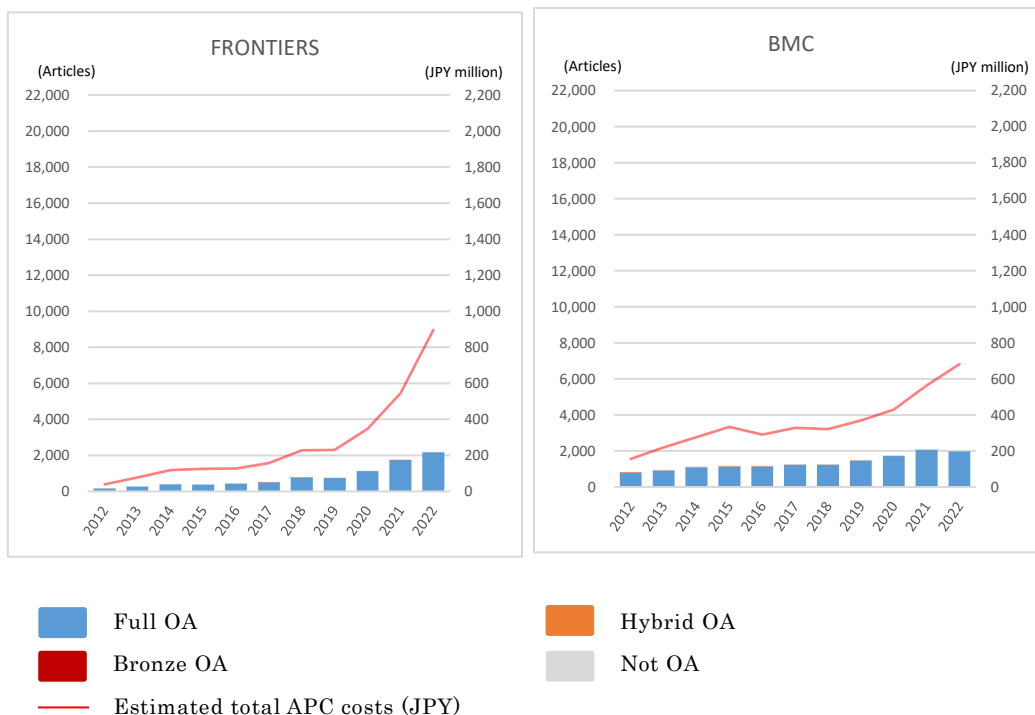
③ Top 10 publishers based on estimated total APC costs paid for hybrid OA articles published in 2022

Rank	Publisher	Total number of articles	Number of hybrid OA articles	<u>Estimated total APC costs paid for hybrid OA articles</u> (JPY)
1	SPRINGER	9,647	1,279	596,714,785
2	ELSEVIER	13,847	1,532	542,395,243
3	JOHN WILEY & SONS	9,173	647	306,129,376
4	OXFORD UNIV PRESS (OUP)	2,694	361	139,449,452
5	TAYLOR & FRANCIS INC	3,005	319	139,412,384
6	IEEE	1,724	276	80,160,588
7	SPRINGER NATURE	1,115	120	68,413,266
8	AMER PHYSICAL SOC (APS)	1,222	170	62,875,066
9	CAMBRIDGE UNIV PRESS (CUP)	489	148	59,366,126
10	LIPPINCOTT WILLIAMS & WILKINS	1,084	131	58,736,259
Others		41,088	1,716	613,419,116
Total		85,088	6,699	2,667,071,661

④ Total number of articles by the top 10 publishers based on total number of articles published from 2012–2022





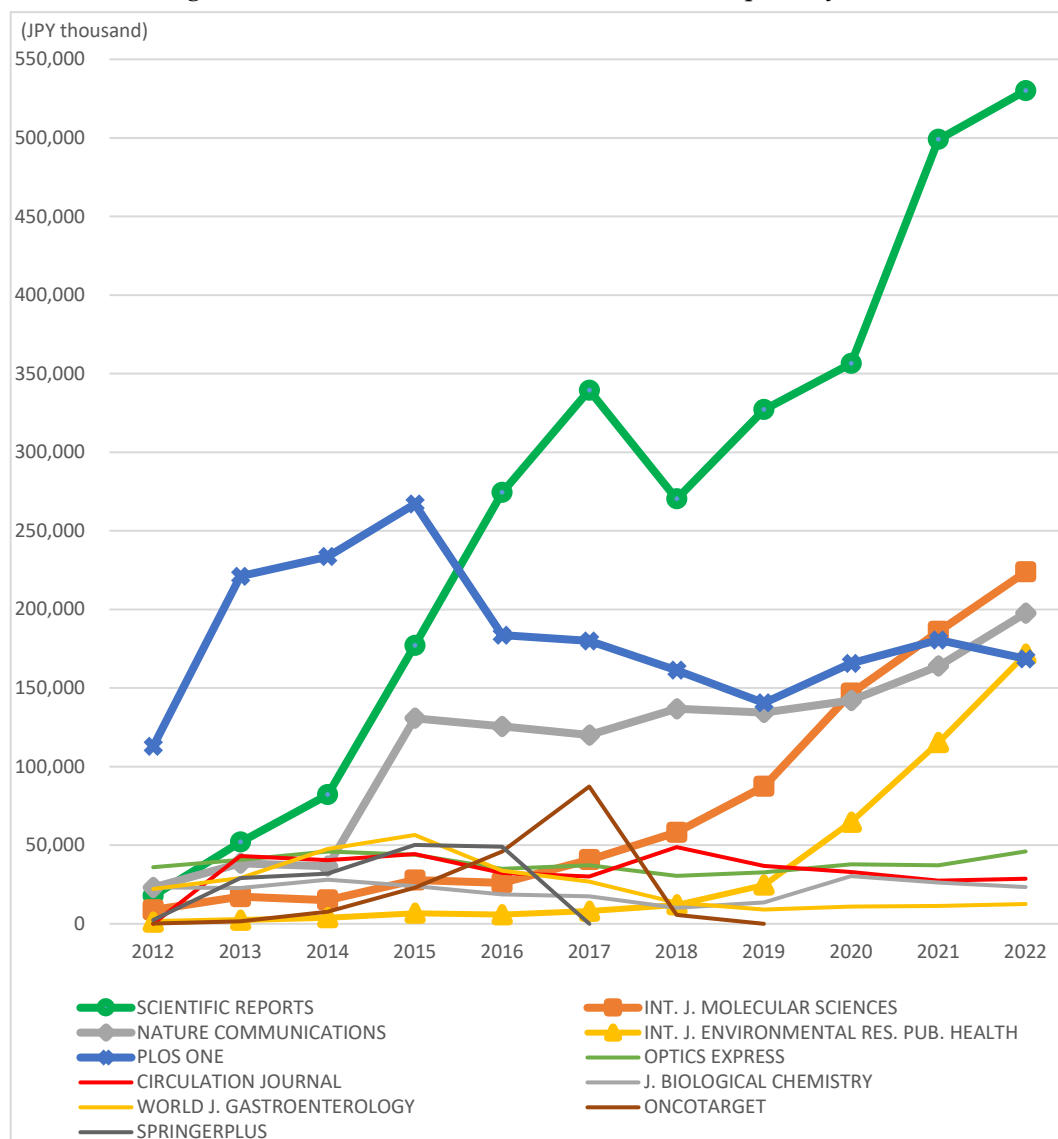


(3) Breakdown by journal

① Top 10 journals based on total number of articles published in 2022

Rank	Journal	Total number of articles	OA articles (including bronze OA)	Estimated total APC costs (JPY)
1	SCIENTIFIC REPORTS	1,826	1,825	530,047,525
2	JAPANESE JOURNAL OF APPLIED PHYSICS	716	214	9,150,000
3	PLOS ONE	711	704	168,522,816
4	INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	703	702	223,799,706
5	INTERNAL MEDICINE	513	508	0
6	INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH	496	495	171,529,875
7	CUREUS JOURNAL OF MEDICAL SCIENCE	432	431	0
8	JOURNAL OF CLINICAL MEDICINE	431	431	143,378,184
9	PHYSICAL REVIEW B	395	10	3,547,580
10	IEEE ACCESS	351	343	84,154,021
Others		78,514	35,988	9,014,337,837
Total		85,088	41,651	10,348,467,544

② Change in estimated total APC costs for the top five journals (2012–2022)



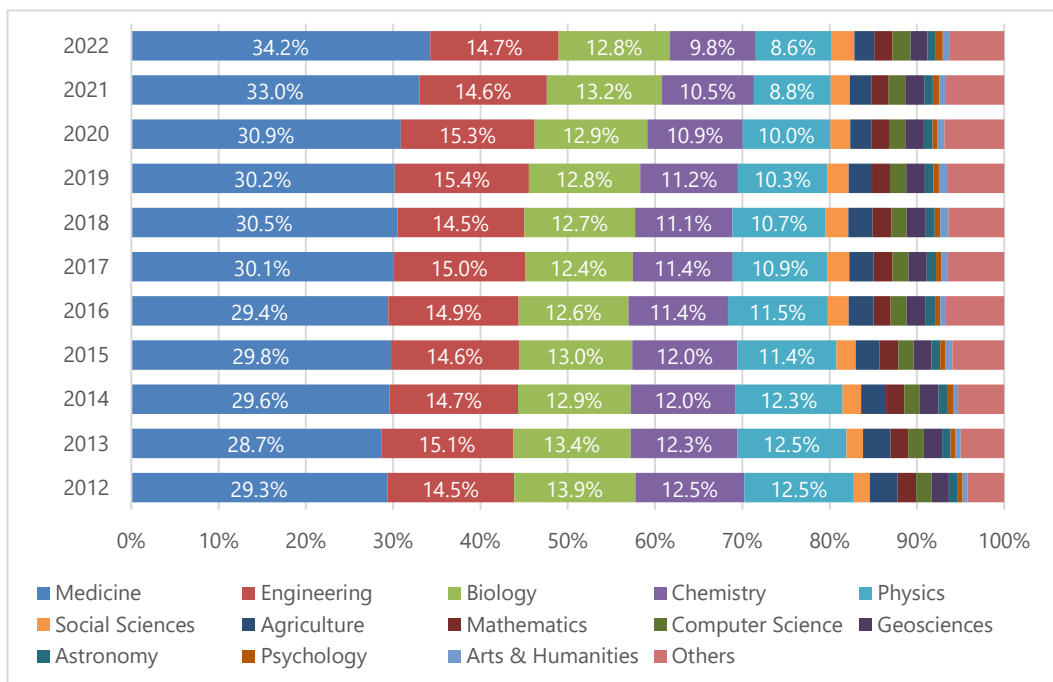
(4) Breakdown by institution of which authors are members

Top 20 JUSTICE member institutions based on total number of articles published in 2022

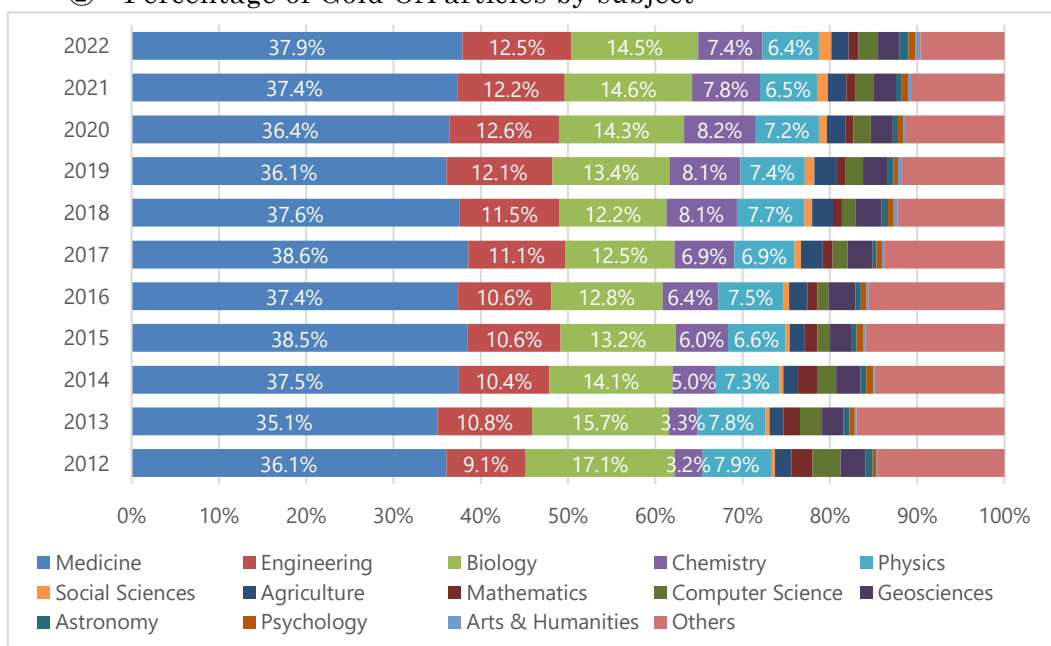
Institution	Total number of articles	Number of OA articles			Estimated APC costs (JPY)	
		Full OA	Hybrid OA	Bronze OA	Full OA	Hybrid OA
Univ. of Tokyo	4,663	1,628	466	202	447,937,426	200,415,355
Kyoto Univ.	3,221	906	249	111	225,643,051	97,684,105
Osaka Univ.	2,679	880	298	78	241,556,265	124,963,774
Tohoku Univ.	2,562	884	236	138	224,121,041	91,871,361
Hokkaido Univ.	2,114	738	136	109	190,767,500	56,776,932
Kyushu Univ.	2,015	636	117	110	153,407,075	44,509,686
Nagoya Univ.	1,938	573	160	92	153,291,505	63,805,824
Hiroshima Univ.	1,502	551	88	40	136,894,620	34,459,637
Univ. of Tsukuba	1,446	547	77	71	135,270,702	30,486,035
Keio Univ.	1,357	527	112	75	146,688,027	42,578,087
Tokyo Inst. of Tech.	1,292	333	126	50	78,187,664	49,556,252
Kobe Univ.	1,038	363	65	45	89,660,096	23,725,452
Waseda Univ.	932	271	124	33	67,981,455	48,251,542
Okayama Univ.	921	345	54	33	86,179,356	18,749,852
Chiba Univ.	918	363	58	37	94,793,697	23,133,811
Tokyo Med. and Dent. Univ.	737	327	53	19	89,548,899	17,890,251
Kanazawa Univ.	731	288	49	36	76,330,262	21,214,845
Juntendo Univ.	724	340	64	26	90,604,500	24,094,525
Nihon Univ.	658	288	50	20	59,023,208	18,601,317
Tokyo Univ. of Sci.	614	187	80	16	45,057,121	30,960,498
Other members	34,242	13,627	2,299	1,341	3,244,032,333	903,145,463
Non-members	18,784	6,992	1,738	676	1,604,420,080	700,197,057
Total	85,088	31,594	6,699	3,358	7,681,395,883	2,667,071,661

(5) Breakdown by subject

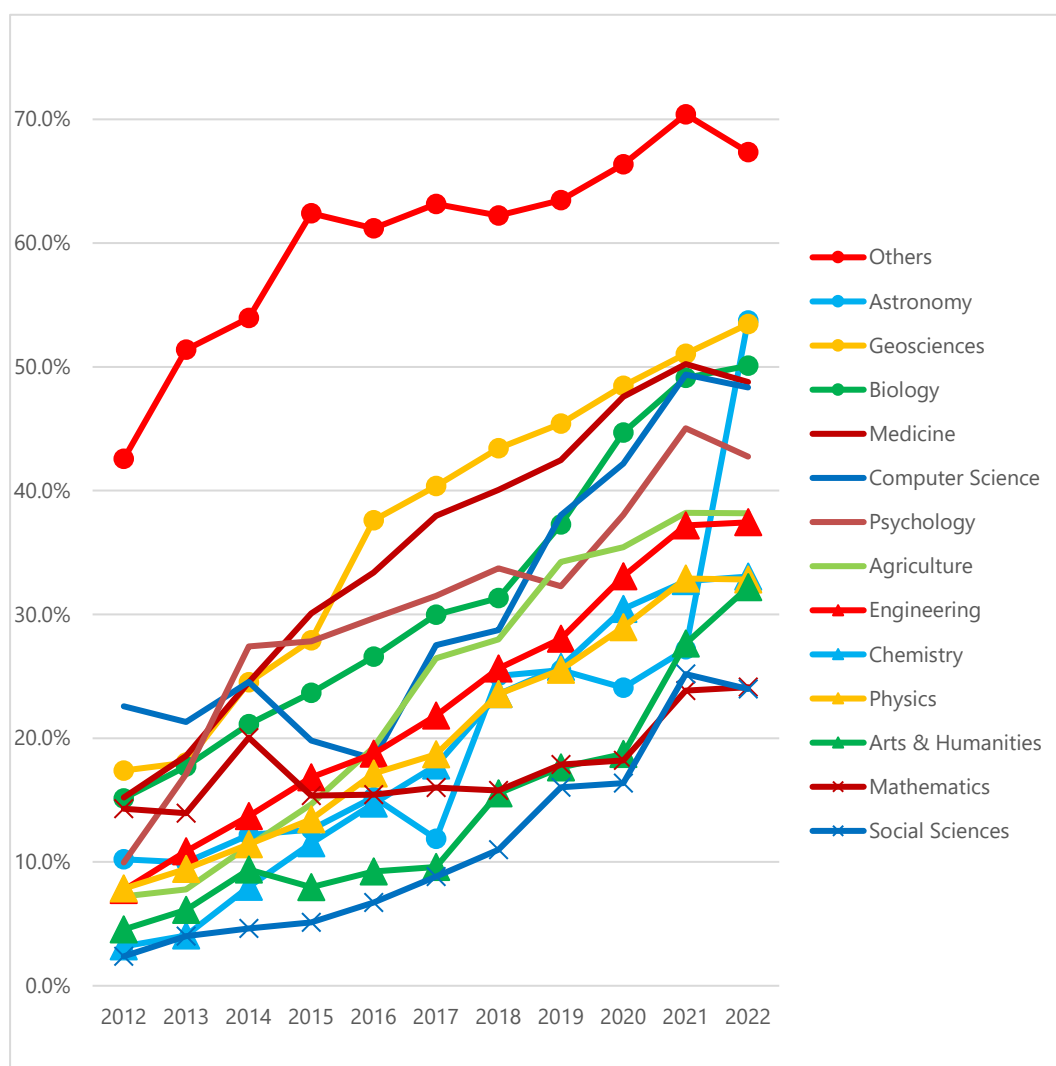
① Percentage of total number of articles by subject



② Percentage of Gold OA articles by subject

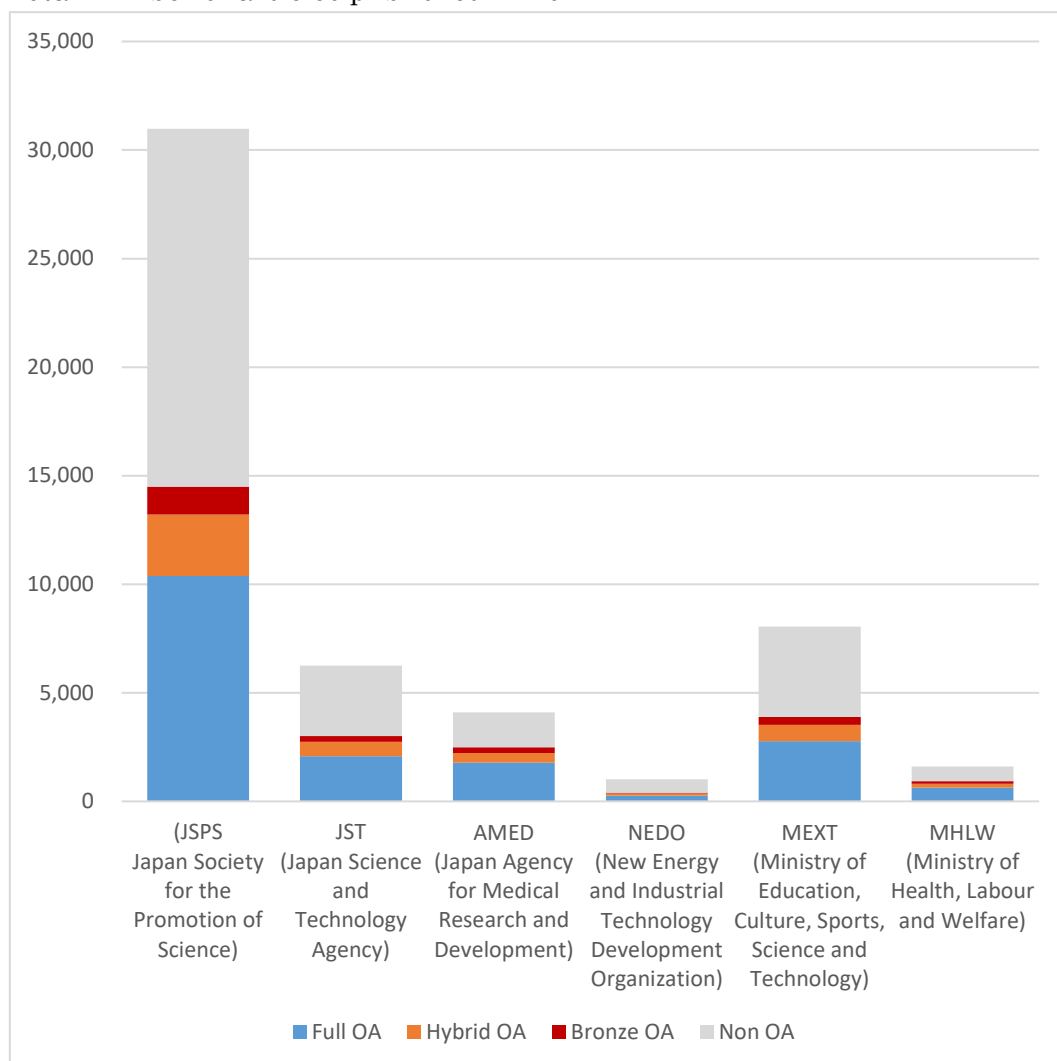


③ Change in percentage of gold OA articles by subject



(6) Breakdown by funders

Total number of articles published in 2022



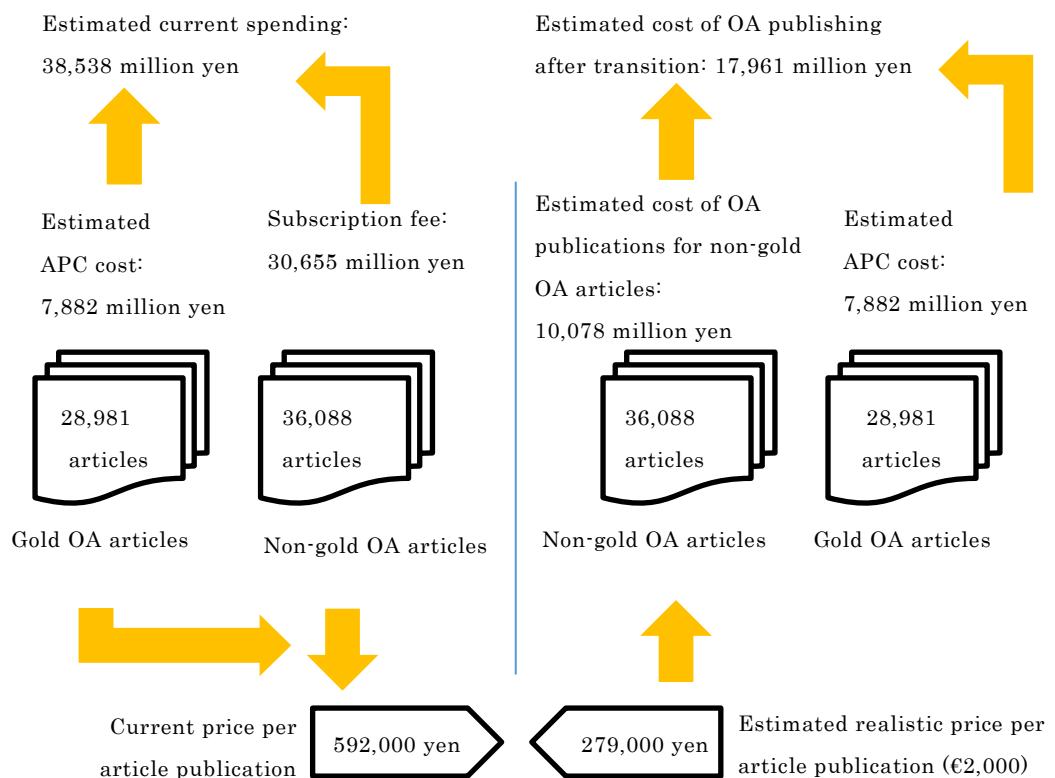
2. Current spending vs cost of OA publishing after transition

(1) Method

- ① Estimate the current spending (total of the 2022 subscription fee and the estimated APC cost).
- ② Estimate the cost of OA publishing for non-gold OA articles (€2,000 per article).
- ③ Estimate the cost of OA publishing after transition (total of the estimated APC cost and ②).

(2) Result

① Overview (500 members)



② Breakdown by institution (Large and medium-sized: 104 members)

