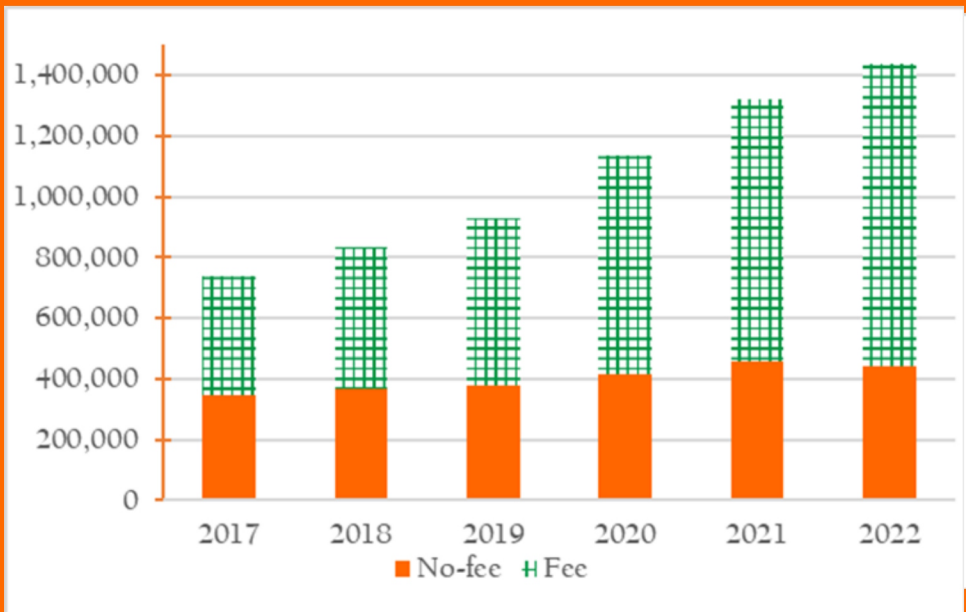


Gold Open Access 2017-2022

Articles in Journals (GOA8)



Walt Crawford

Gold Open Access 2017-2022
Articles in Journals
(GOA8)

Walt Crawford

Cites & Insights Books
Livermore, California, 2023

Gold Open Access 2017-2022: Articles in Journals (GOA8)

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This book was prepared entirely in Word 2019, using the licensed typefaces Berkeley Book and Berkeley (bold) for text and Calibri for headings and subheadings. Excel 2019 was used for data gathering and to prepare tables and graphs. The template is a customized version of bk6pv.dotx (modified for different typefaces and slightly different heading practices), a template developed by the author, modified and improved with the cooperation Information Today, Inc. and freely available at waltcrawford.name/bk6pv.dotx. (The template named uses Palatino Linotype for body text and Verdana for headings.) For more about the template and using no-cost methods to produce professional-quality books, read *The Librarian's Guide to Micropublishing*.

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Preface

This book is the eighth full study of serious gold open access: open access articles in open access journals listed in the *Directory of Open Access Journals*. This and previous editions are available as free PDF ebooks or paperbacks priced to cover production costs.

Thanks to SPARC's continued support, I was able to update the database to include all journals in the *Directory of Open Access Journals* as of very early January 1, 2023 (UMT) and to add 2022 counts and earlier counts as needed.

This book follows the pattern of previous versions. So does the shared spreadsheet, except that one column has been deleted. The *Countries* book will be replaced by *Diamond OA 2023: The World of No-Fee Open Access Journals*, which should appear in July 2023.

Acknowledgments

Thanks first and foremost to SPARC. Without SPARC's sponsorship, this project would not have happened—and good advice and feedback from Raym Crow and Val Hollister improved the project.

Thanks to Linda Driver for tolerating and encouraging my ongoing obsession with getting the facts right about real-world open access.

Acknowledgments from previous editions still apply.

Links

The data used for this report is freely available, with a Creative Commons BY (attribution) license: you can do what you want with it as long as you properly credit the source. So, too, the PDF version of this book and the supplemental book are issued with CC BY licenses.

Links are at <http://waltcrawford.name/goaj.html>.

1. The Big Picture

Gold OA continues to grow: by around 1,600 active journals, 163,000 articles, and about \$130 million dollars in fees in 2022. This study attempts to answer questions about the state of serious gold OA publishing in 2022 (and how it's changed over the past few years).

The overall picture for 2022:

- 1,438,142 articles, up from 1,322,029 in 2021 (for the current set of journals), an increase of 8.8%. My estimate is that around 2,100 journals were added to *DOAJ* during 2022 and around 500 were deleted during the year.
- 18,253 fully-analyzed journals, of which 16,984 published articles in 2022, for an average of 85 articles per journal (up from 82 in last year's report).
- The usual articles-vs.-journals split continues and is slightly worse: 67% of journals with 2022 articles are no-fee, but 69% of articles appeared in fee journals.
- The average cost per article was \$1,310 in 2022, *down* by \$64 from 2021 (the first time this number has declined).

The rest of this book provides more detail and ways of looking at gold OA. The book is patterned after previous editions.

While some discussions and tables involve the full 18,253 journals, most—where 2022 article counts are fundamental—involve only 16,984, ignoring 1,269 journals with no 2022 articles when checked.

Key Definitions and Sources

Gold OA articles are open access articles appearing in open access journals listed in *DOAJ*, including so-called diamond/platinum journals.

Other Terms and Data Sources

Journal names, publisher names and country of publication all come directly from the *Directory of Open Access Journals* as of 12:30 a.m. (UMT) January 1, 2023.

Subjects were assigned based on *DOAJ* subject and keyword fields. Subject segments were based on subjects. Regions were based on country of publication. Publisher categories were assigned based on publisher names and available online information.

Fees are based on *DOAJ*'s "up to" figures, modified in cases where *DOAJ* reports other fees that are clearly submission fees. A few (perhaps 20) cases where *only* a submission fee is charged were missed.

Article counts were determined by *DOAJ* (in about 56% of cases, with 2022 figures checked against the journal if there was any doubt) or by direct observation.

Revenue is the current fee times the 2022 article count and is always the maximum potential revenue, ignoring waivers, discounts, and lower charges for some article or review types.

Key Facts, Overall

	Journals	Articles	Art%	\$/Art
All	18,253	1,438,142		\$1,310
Fee	5,819	997,933	69%	\$1,887
No-fee	12,434	440,209	31%	
Biomed	4,384	535,657	37%	\$1,710
Fee	2,311	426,782	80%	\$2,147
No-fee	2,073	108,875	20%	
STEM	4,742	579,298	40%	\$1,544
Fee	2,095	477,967	83%	\$1,872
No-fee	2,647	101,331	17%	
H&SS	9,127	323,187	22%	\$224
Fee	1,413	93,184	29%	\$778
No-fee	7,714	230,003	71%	

\$/art is a weighted figure based on multiplying each journal's article count by its fee, ignoring discounts and waivers. The percentages in the **Biomed**, **STEM** (science, technology, engineering and math) and **H&SS** (humanities and social sciences) rows are percentages of **All**.

Articles per Year and Special Codes

Code	Count	2022	2021	2020	2019	2018	2017
a	17,585	1,434,092	1,314,262	1,122,690	913,104	819,797	722,322
i	423			3,270	7,432	8,618	10,160
xm	143	2,512	3,892	4,285	3,977	3,788	3,482
xx	102	1,538	3,875	3,824	4,078	3,231	3,075
Total	18,253	1,438,142	1,322,029	1,134,069	928,591	835,434	739,039
Increase		8.8%	16.6%	22.1%	11.2%	13.0%	

This table shows article counts for each year and also codes for special categories of journals. Codes are as follows:

- **a** is for journals active in 2021 or 2022.
- **i**, inactive journals, have articles after 2016 but none since 2020.
- **xm** (malware) journals were trapped by Malwarebytes Pro or Chrome, but fees and article counts were available elsewhere (usually *DOAJ*), and the journal was *not* xm in 2021.
- **xx** (unavailable) journals could not be reached, but fees and article counts were available in *DOAJ*, and the journal was *not* xx in 2021.

These codes are not used in the remainder of this book since—other than xm—they do not imply anything negative about the journals. Xm and xx journals with full information *are* included (but only if this wasn't their second "x year")

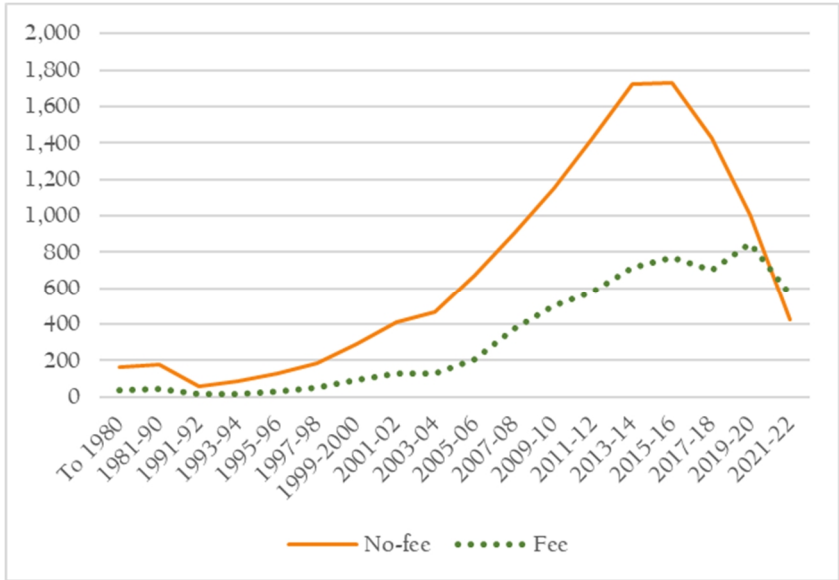
Revenue and Fees for Latest Year in the Last Four Studies

	2022	2021	2020	2019
Revenue	\$1,883,283K	\$1,752,551K	\$1,277,135K	\$873,263K
Fee	997,933	877,725	690,918	522,018
\$/art	\$1,887	\$1,997	\$1,848	\$1,673
Tot. art.	1,438,142	1,275,212	1,061,256	854,018
\$/art	\$1,310	\$1,374	\$1,203	\$1,023
No-fee	30.6%	31.2%	34.9%	38.9%
	440,209	397,487	376,854	332,000

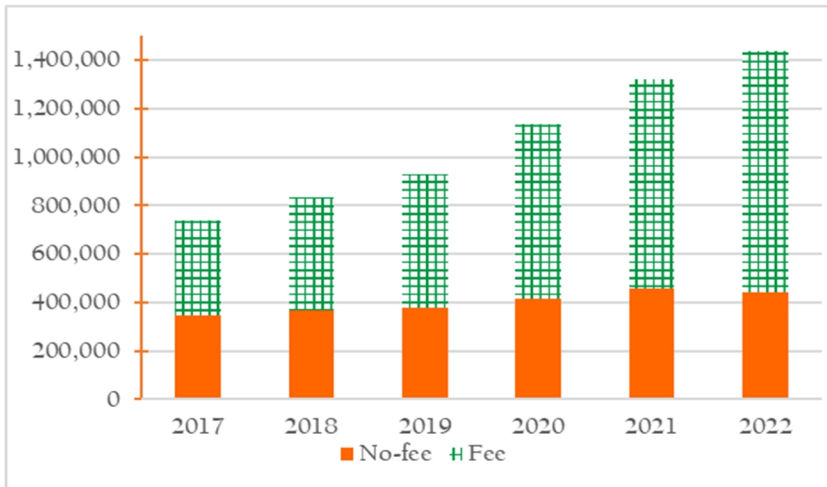
This table shows the final year in each of the last four studies.

Starting Date, Overall

This graph shows starting dates (by two-year groupings since 1991 with two earlier groups) for fee and no-fee journals.



Fee and No-Fee Articles by Year, Overall



This figure uses the template used for graphic fee and no-fee article comparisons throughout the book. It's in chronological order rather than the newest-first order of some tables. No-fee article counts grow,

but slowly; fee article counts grow much more rapidly. There were more no-fee articles in 2022 than there were fee articles in 2018.

Journal Growth and Shrinkage, Overall

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	3,704	22.3%	
Even, ±24.99%	8,842	53.2%	75.5%
Shrank 25%+	4,069	24.5%	
Total	16,615		

This table shows how journals grew and shrank in number of articles from 2021 to 2022, including *only* journals with articles in both years. Most journals stay about even, but shrinking journals now slightly outnumber growing ones.

Subjects, Overall

Subjects in this table (on the next page) are sorted by number of 2022 articles.

Subject	Jour.	Art.	%No-fee	\$/article
Medicine	3,933	451,236	23%	\$1,645
Other Sciences	321	100,183	7%	\$1,927
Biology	451	84,421	7%	\$2,057
Ecology	613	81,782	14%	\$1,768
Engineering	644	68,030	21%	\$1,295
Chemistry	247	60,866	8%	\$1,876
Agriculture	630	56,403	20%	\$1,320
Earth Sciences	611	52,948	23%	\$1,596
Education	1,317	52,251	73%	\$121
Economics	1,076	43,360	51%	\$201
Physics	252	42,083	28%	\$1,339
Technology	271	37,014	16%	\$1,705
Anthropology	1,000	32,324	70%	\$191
Computer Science	449	31,179	29%	\$886
Language & Literature	1,123	30,819	86%	\$37
Sociology	697	25,554	76%	\$191
Zoology	349	25,409	20%	\$1,124
Mathematics	355	23,401	35%	\$858
Law	603	20,072	84%	\$69
Psychology	267	18,159	30%	\$1,544
Arts & Architecture	500	18,026	70%	\$328
Miscellany	408	17,693	66%	\$170
Political Science	482	16,145	81%	\$113
History	427	11,704	94%	\$23
Religion	360	10,885	74%	\$174
Media & Communications	345	10,259	83%	\$186
Philosophy	335	9,175	90%	\$68
Library Science	187	6,761	88%	\$65

Note that “Other Sciences” includes megajournals that cover many disciplines. Note also that \$/article (average cost per article) includes no-fee articles, which helps explain the low figures for History, Language & Literature, Library Science, Philosophy, and Law.

The \$2K Mark

Last year, the report moved to larger fee brackets because of increases in fees charged, with the new highest bracket starting at \$2,000 rather than the \$1,400 used in early editions. Just how big is that top bracket?

\$2,000 and Up Fees, Actual Numbers

Year	\$2K Journals	\$2K Articles	\$2K Revenue	\$/art
2017	514	94,361	\$252,410,897	\$2,675
2018	574	120,882	\$331,107,513	\$2,739
2019	728	193,842	\$513,804,536	\$2,651
2020	907	329,094	\$873,072,078	\$2,653
2021	1,162	491,172	\$1,329,802,150	\$2,707
2022	1,126	533,643	\$1,394,801,082	\$2,614
Change	219.1%	565.5%	552.6%	

Change percentages are from 2017 to 2022.

\$2,000 and Up Fees, Percentages of Total

	\$2K Jrnl%	\$2K Art%	\$2K Rev%
2017	5.0%	16.8%	51.2%
2018	4.7%	17.0%	51.0%
2019	5.2%	22.7%	58.8%
2020	6.0%	31.0%	68.4%
2021	7.0%	38.5%	75.9%
2022	6.2%	37.1%	74.1%

In 2015, \$2K-and-up journals accounted for 12% of articles and 43% of revenue. In 2022, they accounted for 37% of articles and 74% of revenues—but those are down a bit from 2021

The Big Eleven and The Long Tail

The Big 11 are publishers (or publishing/ownership groups) with either more than 12,000 articles and \$18 million in potential fee revenue in 2021 or, in one case, more than \$23 million in revenue and nearly 8,000 articles. See Chapter 6 for more details.

Key Facts, Big Eleven

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,201	821,155			\$2,088	59%
Fee	2,627	776,177	95%	36%	\$2,209	17%
No-fee	574	44,978	5%	-82%		
Biomed	1,799	382,265	47%	25%	\$2,218	30%
Fee	1,457	355,392	93%	17%	\$2,386	11%
No-fee	342	26,873	7%	-65%		
STEM	1,128	402,911	49%	22%	\$2,005	30%
Fee	981	388,231	96%	17%	\$2,081	11%
No-fee	147	14,680	4%	-79%		
H&SS	274	35,979	4%	-81%	\$1,639	631%
Fee	189	32,554	90%	214%	\$1,812	133%
No-fee	85	3,425	10%	-87%		

Potential revenue: \$1,714,954,713. (Rel%: compared to all journals.)

Key Facts, Long Tail

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	15,052	616,987			\$273	-79%
Fee	3,192	221,756	36%	-48%	\$759	-60%
No-fee	11,860	395,231	64%	109%		
Biomed	2,585	153,392	25%	-33%	\$445	-74%
Fee	854	71,390	47%	-42%	\$955	-55%
No-fee	1,731	82,002	53%	163%		
STEM	3,614	176,387	29%	-29%	\$491	-68%
Fee	1,114	89,736	51%	-38%	\$965	-48%
No-fee	2,500	86,651	49%	181%		
H&SS	8,853	287,208	47%	107%	\$47	-79%
Fee	1,224	60,630	21%	-27%	\$223	-71%
No-fee	7,629	226,578	79%	11%		

Potential revenue: \$168,328,111

The Big Eleven publish 18% of the serious OA journals but 57% of the articles—and garner 91% of the potential revenue.

2. Exclusions and Special Cases

This chapter is, in essence, one long footnote. Along with Appendix A, it provides transparency on methodology and notes why some journals in *DOAJ* are excluded from this report.

The Basics

I visited each journal's website at least once and sometimes up to three times. See the Appendix for details.

All work was done using Chrome and embedded Google language tools. At all times, I ran Malwarebytes Pro and Windows Defender.

Excluded Journals by Code with Article Counts

Code	Journals	2022	2021	2020	2019	2018	2017
xd	100						109
xm	47			227	319	358	338
xm2	260	3,619	5,033	5,822	5,331	5,375	4,912
xn	4		20	15	39	42	52
xo	41	362	1,325	1,511	1,459	1,451	1,613
xx	40			476	652	765	708
xx2	20	13	64	352	391	428	411

These counts do not include xx and xm journals retained in the main report, mentioned in Chapter 1—and the only “xo” cases (not in *DOAJ*) are ones removed after the study began. Note that the exclusions account for fewer than 4,000 2022 articles. Exclusions have been declining, especially malware.

Specific XN Cases

Two journals required login when checked twice. Two are actually encyclopedias.

The Nature of Malware

Malwarebytes Pro normally provides the reason it doesn't believe you should visit a site. For xm and xm2, I saw 240 trojans, 30 riskware, 14

phishing, 7 fraud, 3 compromised, five just called malware, and two others, along with eight security-certificate problems.

For xm still in the main report, the distribution is 65 trojan, 22 riskware, 18 malware, 14 fraud, 10 phishing, six compromised and six certificate problems.

The Geography of Malware

Of 143 new malware cases in the main report, 96 (two-thirds) are from Indonesia, nine from Ukraine, six from Brazil, four from Peru, three from Russia, two each from Argentina, Honduras, Spain, Switzerland, and the United Kingdom, and single cases from 15 other countries.

For 307 excluded malware cases, 245 (four out of five) are from Indonesia, 12 from Ukraine, six each from Brazil and Venezuela, four from Ecuador, three each from Pakistan, Peru, Portugal and South Korea, two each from Argentina, Kenya and the United States, and one each from 16 other countries.

Except for Indonesia, malware among OA journals is nearly a solved problem, with only 62 excluded journals and 47 others.

3. Continuing and Newly-Added Journals

Setting aside excluded journals, the dataset for this year includes 16,151 journals that were in last year's study and 2,102 that are new to this year. "New" to *DOAJ* does not usually mean "started in 2022": only 240 of the added journals show 2022 as a starting date. For that matter, "New" may also mean *returned* to *DOAJ*: it really means that no matching DURL was in last year's dataset. While larger publishers do tend to introduce more journals, those with ten or more journals account for only 352 of the additions, and Elsevier (with KeAI) accounts for 88 of that 352. Others with more than two dozen include Frontiers (28), Taylor & Francis (28), Wiley (27) and AVES (26).

Key Facts, Continuing

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	16,151	1,341,989			\$1,344	3%
Fee	5,081	945,857	70%	2%	\$1,906	1%
No-fee	11,070	396,132	30%	-4%		
Biomed	3,923	509,299	38%	2%	\$1,734	1%
Fee	2,075	408,781	80%	1%	\$2,161	1%
No-fee	1,848	100,518	20%	-3%		
STEM	4,180	543,362	40%	1%	\$1,564	1%
Fee	1,836	454,097	84%	1%	\$1,871	0%
No-fee	2,344	89,265	16%	-6%		
H&SS	8,048	289,328	22%	-4%	\$243	8%
Fee	1,170	82,979	29%	-1%	\$848	9%
No-fee	6,878	206,349	71%	0%		

Key Facts, Newly-Added

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	2,102	96,153			\$834	-36%
Fee	738	52,076	54%	-22%	\$1,540	-18%
No-fee	1,364	44,077	46%	50%		
Biomed	461	26,358	27%	-26%	\$1,251	-27%
Fee	236	18,001	68%	-14%	\$1,831	-15%
No-fee	225	8,357	32%	56%		
STEM	562	35,936	37%	-7%	\$1,254	-19%
Fee	259	23,870	66%	-19%	\$1,888	1%
No-fee	303	12,066	34%	92%		
H&SS	1,079	33,859	35%	57%	\$63	-72%
Fee	243	10,205	30%	5%	\$210	-73%
No-fee	836	23,654	70%	-2%		

These tables introduce the full Key Facts table, adding two Rel% columns, which show relative percentages compared to overall figures. So, for example, STEM articles represent a 7% lower percentage of all articles in added journals than in all journals, and average cost of H&SS articles is 72% lower than for H&SS as a whole, \$63 compared to \$224.

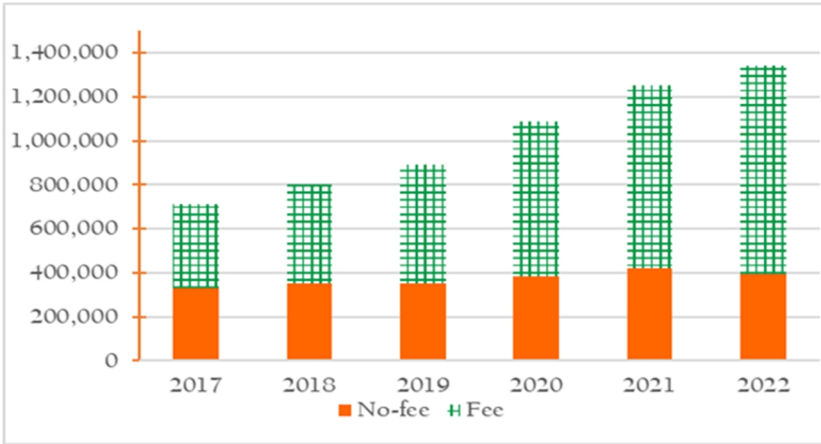
Articles and Journals by Year, Continuing

	2022	2021	2020	2019	2018	2017
Journals	14,967	15,517	15,364	14,898	14,275	13,550
%No-fee	68%	68%	69%	70%	71%	71%
Articles	1,341,989	1,251,511	1,087,205	891,147	801,940	711,370
%No-fee	30%	34%	35%	40%	44%	47%
Change	7%	15%	22%	11%	13%	

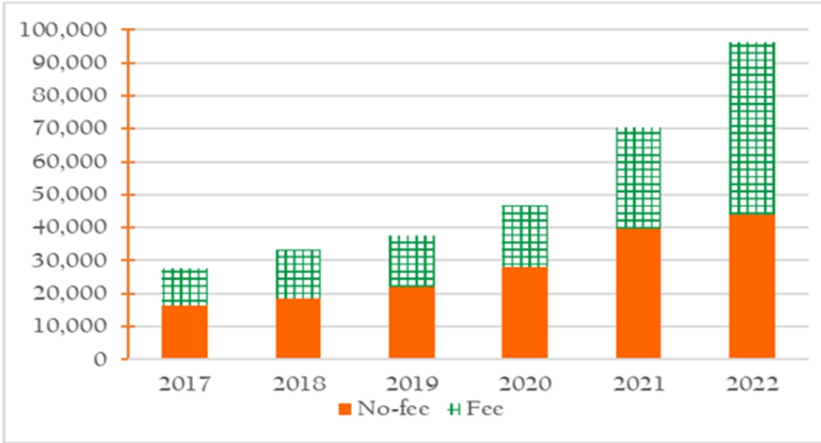
Articles and Journals by Year, Newly-Added

	2022	2021	2020	2019	2018	2017
Journals	2,017	1,827	1,385	1,108	917	790
%No-fee	65%	69%	73%	71%	71%	72%
Articles	96,153	70,518	46,864	37,444	33,494	27,669
%No-fee	46%	56%	60%	59%	56%	59%
Growth	36%	50%	25%	12%	21%	

Fee and No-Fee Articles by Year, Continuing



Fee and No-Fee Articles by Year, Newly-Added



Note that the Continuing vertical axis is 14 times larger.

Article Volume, Continuing

	Journals	Articles	%No-fee	\$/article
Largest: 600+	350	663,032	12%	\$2,095
Large: 150-599	1,246	235,393	30%	\$1,103
Med.: 60-149	3,507	218,021	59%	\$507
Small: 20-59	7,870	204,060	76%	\$203
Smallest: 0-19	1,994	21,483	82%	\$101

Article Volume, Newly-Added

	Journals	Articles	%No-fee	\$/article
Largest: 600+	11	15,796	27%	\$2,141
Large: 150-599	115	24,325	36%	\$1,017
Med.: 60-149	321	20,849	55%	\$552
Small: 20-59	1,058	29,479	67%	\$303
Smallest: 0-19	512	5,704	74%	\$209

Relatively fewer newly-added journals are very large, and the smaller newly-added journals tend to have higher fees (also true in GOA7).

Fee Level, Continuing

	Jour.	%Fee	%All	Art.	%Fee	%All
\$2,000+	999	20%	6%	516,823	55%	39%
\$1,000-\$1,999	1,424	28%	9%	250,362	26%	19%
\$500-4999	657	13%	4%	57,934	6%	4%
\$0.20-\$499	2,000	39%	12%	120,738	13%	9%
No fee	11,071		69%	396,132		30%

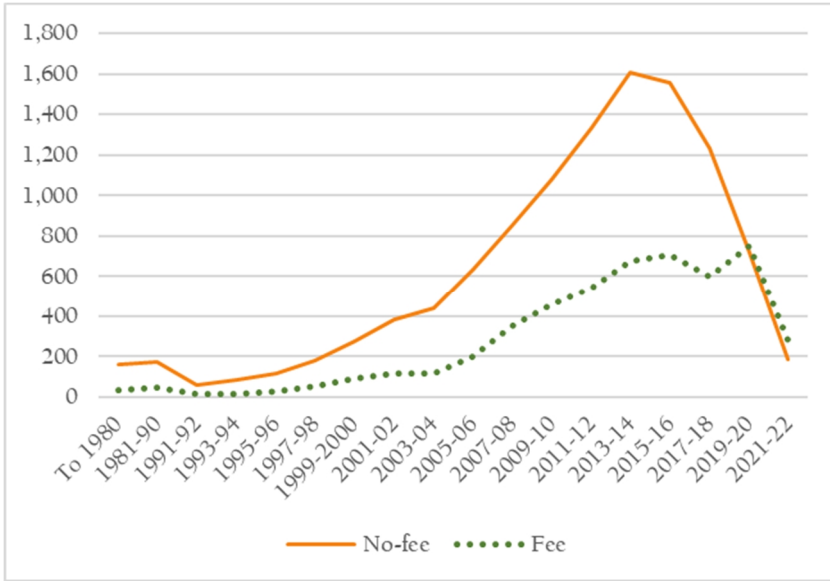
The most expensive journals, 20% of continuing fee journals, account for a majority of fee articles.

That's not true for newly-added journals, where the 17% \$2,000+ journals account for one out of three fee articles.

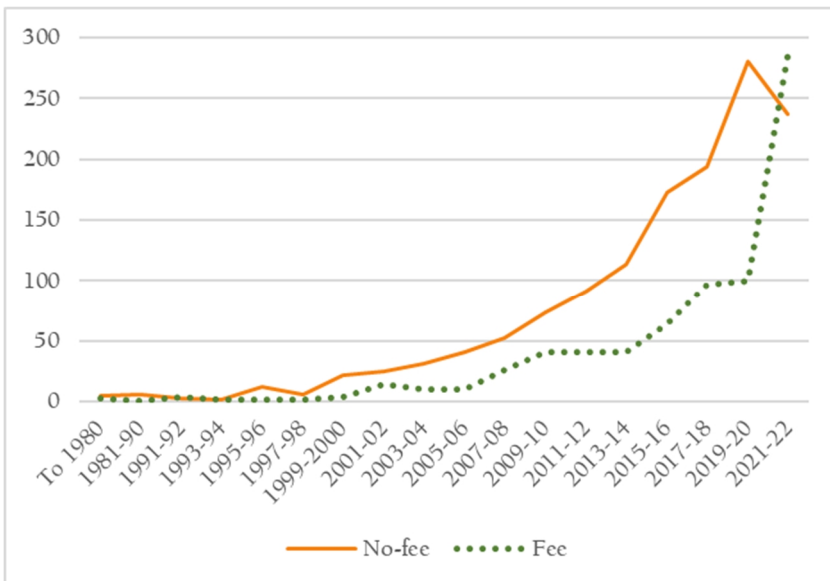
Fee Level, Newly-Added

	Jour.	%Fee	%All	Art.	%Fee	%All
\$2,000+	128	17%	6%	16,997	33%	18%
\$1,000-\$1,999	166	22%	8%	12,501	24%	13%
\$500-4999	61	8%	3%	6,142	12%	6%
\$0.20-\$499	383	52%	18%	16,436	32%	17%
No fee	1,364		65%	44,077		46%

Starting Date, Continuing



Starting Date, Newly-Added



Fees and Revenue, Continuing

	Articles	Revenue	\$/article
\$2,000+	516,823	\$1,339,644,618	\$2,592
\$1,000-\$1,999	250,362	\$401,498,209	\$1,604
\$500-4999	57,934	\$43,677,978	\$754
\$0.20-\$499	120,738	\$18,279,589	\$151
No fee	396,132		
Total	1,341,989	\$1,803,100,395	\$1,344

Fees and Revenue, Newly-Added

	Articles	Revenue	\$/article
\$2,000+	16,997	\$55,287,965	\$3,253
\$1,000-\$1,999	12,501	\$18,961,933	\$1,517
\$500-4999	6,142	\$4,347,814	\$708
\$0.20-\$499	16,436	\$1,584,716	\$96
No fee	44,077		
Total	96,153	\$80,182,428	\$834

Region, Continuing

See Chapter 8 for a discussion of regions. “Pacific/English” is Australia, Canada, New Zealand and the United States. “Latin America” includes all of the Americas except Canada and the United States. As with other demographic tables, order is by descending number of 2022 articles.

Region	Journals	Articles	%No-fee	\$/article
Western Europe	5,141	787,355	13%	\$1,928
Pacific/English	1,249	145,530	16%	\$1,636
Eastern Europe	2,854	116,453	71%	\$91
Asia	2,561	112,196	46%	\$218
Latin America	2,930	106,064	91%	\$27
Middle East	1,201	65,268	55%	\$89
Africa	215	9,123	35%	\$333

Region, Newly-Added

Region	Journals	Articles	%No-fee	\$/article
Western Europe	552	33,038	29%	\$1,811
Asia	531	20,651	37%	\$312
Eastern Europe	343	14,181	71%	\$72
Latin America	256	9,631	95%	\$10
Middle East	208	8,762	49%	\$53
Pacific/English	168	8,579	35%	\$1,413
Africa	44	1,311	32%	\$165

Publisher Category, Continuing

Category	Journals	Articles	%No-fee	\$/article
Open Access	2,174	456,256	11%	\$1,752
Traditional	2,848	437,387	11%	\$2,001
Univ./college	9,502	351,420	69%	\$229
Society/govt	1,627	96,926	55%	\$495

See Chapter 7 for a discussion of these categories.

Publisher Category, Newly-Added

Category	Journals	Articles	%No-fee	\$/article
Univ./college	1,215	39,439	67%	\$169
Traditional	314	27,840	10%	\$2,223
Open Access	307	18,419	42%	\$424
Society/govt	266	10,455	69%	\$366

Growth and Shrinkage, Continuing

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	3,264	22.0%	
Even, \pm 24.99%	7,920	53.4%	75.3%
Shrank 25%+	3,661	24.7%	
Total	14,845		

Only journals with articles in both 2021 and 2022 are included. Shrinking journals now outnumber growing ones.

Growth and Shrinkage, Newly-Added

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	440	24.9%	
Even, $\pm 24.99\%$	922	52.1%	76.9%
Shrank 25%+	408	23.1%	
Total	1,770		

Just to clarify: the difference between these figures and those in Key Facts means that 1,306 continuing journals and 332 newly-added journals either had no articles in 2021 or had none in 2022—the 332, of course, composed mostly of 240 journals starting in 2022.

The next two tables show subjects sorted by descending 2022 article count. The last two tables are partial, showing the 30 or 31 countries with the most articles in each case. This year's database includes 131 countries and named entities, so a full list would take four pages.

For the sake of brevity and clarity, country names are shorter common names in several cases, rather than the name forms used in DOAJ—for example, Venezuela rather than Bolivarian Republic of Venezuela. A list of these alternate forms appears on Page 23 of *Gold Open Access 2015-2020: Articles in Journals (GOA6)*.

Subjects, Continuing

Subject	Journ.	Articles	%No-fee	\$/article
Medicine	3,515	427,402	22%	\$1,668
Other Sciences	282	97,929	6%	\$1,953
Biology	408	81,897	7%	\$2,079
Ecology	542	78,990	13%	\$1,793
Engineering	558	64,618	20%	\$1,341
Chemistry	223	59,506	7%	\$1,880
Agriculture	572	49,857	20%	\$1,364
Education	1,171	48,031	74%	\$128
Earth Sciences	545	44,252	25%	\$1,344
Physics	224	39,863	26%	\$1,398
Economics	951	37,181	49%	\$223
Technology	236	34,224	13%	\$1,813
Anthropology	885	29,459	69%	\$203
Computer Science	390	28,701	28%	\$891
Language & Literature	988	27,351	86%	\$39
Zoology	304	23,821	18%	\$1,162
Sociology	601	22,759	77%	\$208
Mathematics	304	21,601	32%	\$906
Psychology	244	17,470	30%	\$1,593
Arts & Architecture	444	16,374	69%	\$356
Law	516	16,122	91%	\$44
Miscellany	363	16,050	67%	\$182
Political Science	429	14,346	79%	\$125
History	390	10,885	95%	\$24
Media & Communications	313	9,548	83%	\$197
Religion	286	9,155	72%	\$203
Philosophy	296	8,271	90%	\$75
Library Science	171	6,326	90%	\$67

Subjects, Newly-Added

Subject	Journ.	Articles	%No-fee	\$/article
Medicine	418	23,834	34%	\$1,240
Earth Sciences	66	8,696	10%	\$2,875
Agriculture	58	6,546	14%	\$985
Economics	125	6,179	61%	\$71
Education	146	4,220	64%	\$36
Law	87	3,950	58%	\$169
Language & Literature	135	3,468	82%	\$20
Engineering	86	3,412	48%	\$431
Anthropology	115	2,865	77%	\$72
Sociology	96	2,795	64%	\$47
Ecology	71	2,792	42%	\$1,050
Technology	35	2,790	56%	\$382
Biology	43	2,524	10%	\$1,354
Computer Science	59	2,478	32%	\$822
Other Sciences	39	2,254	54%	\$800
Physics	28	2,220	67%	\$292
Mathematics	51	1,800	74%	\$288
Political Science	53	1,799	96%	\$16
Religion	74	1,730	83%	\$21
Arts & Architecture	56	1,652	80%	\$57
Miscellany	45	1,643	50%	\$49
Zoology	45	1,588	45%	\$560
Chemistry	24	1,360	27%	\$1,659
Philosophy	39	904	92%	\$7
History	37	819	88%	\$6
Media & Communications	32	711	81%	\$35
Psychology	23	689	44%	\$279
Library Science	16	435	63%	\$29

Country of Publication, Continuing (partial)

Country	Journals	Articles	%no-fee	\$/article
Switzerland	509	420,364	1%	\$2,314
United Kingdom	1876	233,746	8%	\$2,012
United States	930	128,785	12%	\$1,706
Brazil	1,461	60,508	87%	\$42
Indonesia	1,522	43,258	44%	\$45
Netherlands	341	36,884	24%	\$1,169
Iran	636	35,892	46%	\$61
Russia	504	31,795	88%	\$25
Spain	850	30,273	88%	\$111
India	302	22,726	59%	\$174
Poland	715	22,229	67%	\$203
Germany	307	19,607	55%	\$776
Romania	317	18,642	58%	\$84
Turkey	392	18,226	86%	\$40
Italy	444	16,387	74%	\$290
China	170	15,541	34%	\$642
France	259	12,984	80%	\$398
Ukraine	345	12,218	51%	\$34
Colombia	400	9,964	99%	\$0
Canada	194	9,304	49%	\$989
South Korea	143	9,143	55%	\$186
Argentina	313	8,296	96%	\$3
Australia	107	7,098	39%	\$1,304
Cuba	102	6,864	100%	\$0
Serbia	207	6,507	74%	\$63
Mexico	171	6,154	91%	\$18
South Africa	121	5,191	21%	\$504
Iraq	70	4,872	26%	\$73
Portugal	140	4,628	87%	\$46
Bulgaria	77	3,887	35%	\$345

Country of Publication, Newly-Added (partial)

Country	Journals	Articles	%no-fee	\$/article
United Kingdom	168	15,579	10%	\$2,586
Indonesia	329	7,812	41%	\$21
China	66	7,345	23%	\$590
United States	133	7,216	34%	\$1,381
Switzerland	63	5,162	3%	\$2,498
Russia	67	4,240	99%	\$6
Netherlands	49	4,091	20%	\$1,390
Brazil	90	3,914	91%	\$16
Ukraine	47	3,612	23%	\$64
Iran	77	3,076	47%	\$50
Germany	49	2,996	81%	\$160
Poland	89	2,514	74%	\$275
Turkey	63	2,295	94%	\$4
Spain	88	2,156	95%	\$54
Mexico	23	1,969	96%	\$8
Iraq	21	1,852	7%	\$80
Egypt	33	1,258	30%	\$108
Japan	20	1,038	18%	\$555
Pakistan	35	997	68%	\$35
Australia	21	941	34%	\$2,063
India	20	938	59%	\$61
Argentina	36	922	100%	\$0
France	34	901	97%	\$45
Romania	32	860	88%	\$20
South Korea	19	819	45%	\$187
Portugal	20	660	91%	\$15
Peru	24	601	100%	\$0
Italy	35	574	70%	\$95
South Africa	19	556	14%	\$311
Singapore	8	555	28%	\$1,214

4. Five-Year Comparisons

Is it useful to compare the journal universe of *DOAJ* as it was at the very end of 2018 (*GOA4*), 2019 (*GOA5*), 2020 (*GOA6*), 2021 (*GOA7*), and 2022 (*GOA8*)? Here's a brief attempt in four tables and ten graphs. The key facts are in chronological order; the ten graphs show each report as a separate line. Graphs show journals *active* during each year.

It's useful to note that many journal subject placements are ambiguous at best and subject to change, sometimes from one segment to another.

Key Facts, GOA4 (2013-2018)

GOA4	Journals	Articles	Art%	\$/Art
All	12,180	711,670		\$913
Fee	3,506	413,826	58%	\$1,569
No-fee	8,674	297,844	42%	
Biomed	3,062	252,842	36%	\$1,296
Fee	1,519	177,287	70%	\$1,849
No-fee	1,543	75,555	30%	
STEM	3,181	289,522	41%	\$1,039
Fee	1,203	199,232	69%	\$1,510
No-fee	1,978	90,290	31%	
H&SS	5,937	169,306	24%	\$123
Fee	784	37,307	22%	\$558
No-fee	5,153	131,999	78%	

Key Facts, GOA5 (2014-2019)

GOA5	Journals	Articles	Art%	\$/Art
All	13,938	854,018		\$1,023
Fee	4,090	522,018	61%	\$1,673
No-fee	9,848	332,000	39%	
Biomed	3,387	298,675	35%	\$1,437
Fee	1,699	219,071	73%	\$1,959
No-fee	1,687	79,552	27%	
STEM	3,602	350,764	41%	\$1,186
Fee	1,412	255,098	73%	\$1,630
No-fee	2,190	95,666	27%	
H&SS	6,949	204,579	24%	\$137
Fee	978	47,797	23%	\$588
No-fee	5,971	156,782	77%	

Key Facts, GOA6 (2015-2020)

	Journals	Articles	Art%	\$/Art
All	15,128	1,061,256		\$1,203
Fee	4,585	690,918	65%	\$1,848
No-fee	10,543	370,338	35%	
Biomed	3,643	394,910	37%	\$1,608
Fee	1,892	300,936	76%	\$2,111
No-fee	1,751	93,974	24%	
STEM	3,891	431,004	41%	\$1,404
Fee	1,597	332,599	77%	\$1,819
No-fee	2,294	98,405	23%	
H&SS	7,594	235,342	22%	\$157
Fee	1,096	57,383	24%	\$645
No-fee	6,498	177,959	76%	

Key Facts, GOA7 (2016-2021)

GOA7	Journals	Articles	Art%	\$/Art
All	16,620	1,275,212		\$1,374
Fee	5,347	877,725	69%	\$1,997
No-fee	11,273	397,487	31%	
Biomed	4,012	489,543	38%	\$1,784
Fee	2,151	388,039	79%	\$2,251
No-fee	1,861	101,504	21%	
STEM	4,321	521,353	41%	\$1,576
Fee	1,908	415,408	80%	\$1,978
No-fee	2,413	105,945	20%	
H&SS	8,287	264,316	21%	\$218
Fee	1,288	74,278	28%	\$775
No-fee	6,999	190,038	72%	

Key Facts, GOA8 (2017-2022)

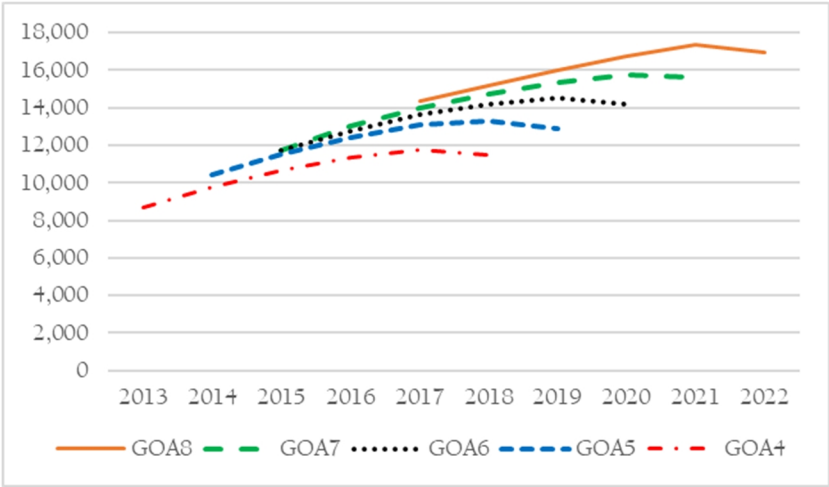
See page 2.

Ten-Year Graphs

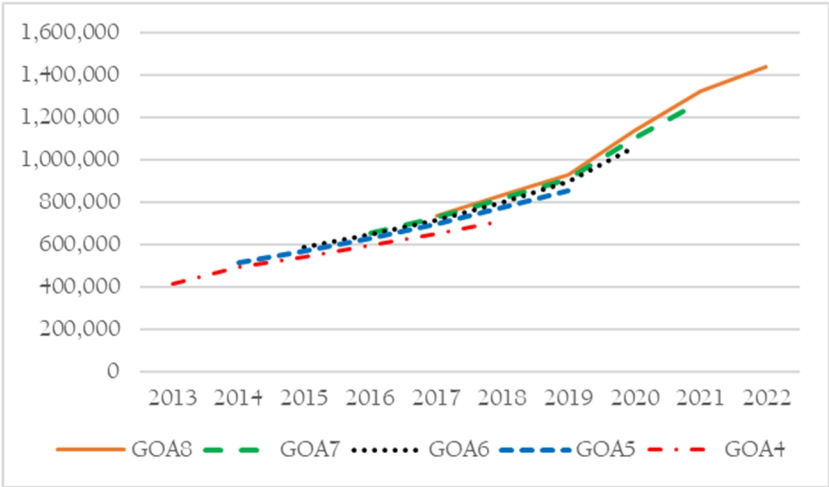
These graphs each show the five most recent reports in one graph.

Note that the journal graph shows *active* journals for each year—that is, journals publishing at least one article in that year.

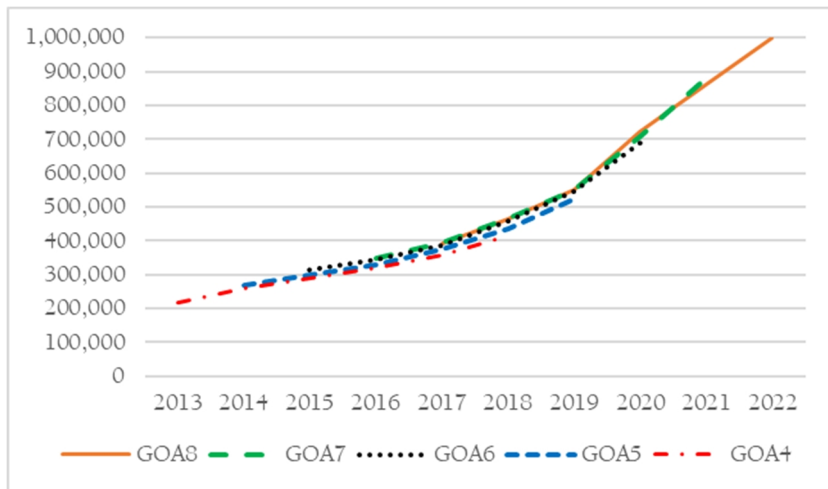
Active Journals, 2013-2022



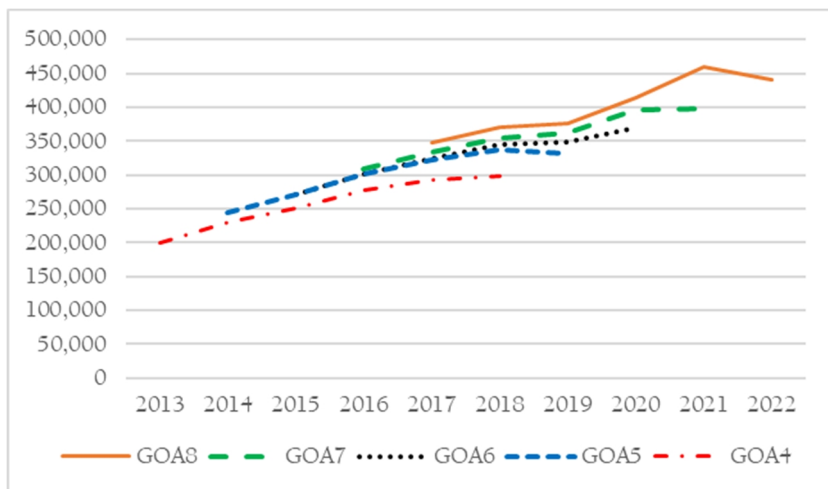
Articles, 2013-2022



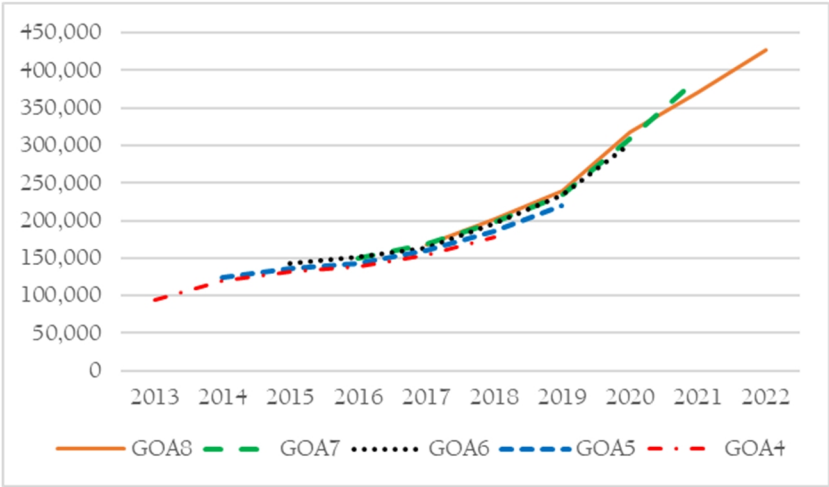
Fee Articles, 2013-2022



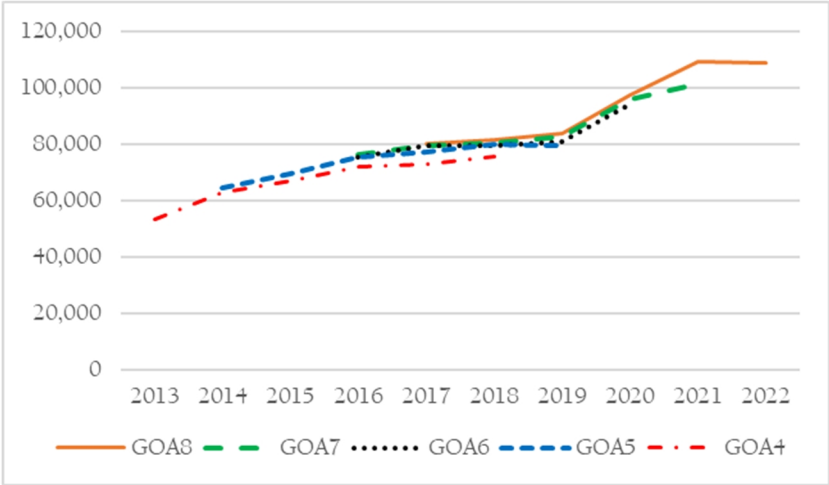
No-Fee Articles, 2013-2022



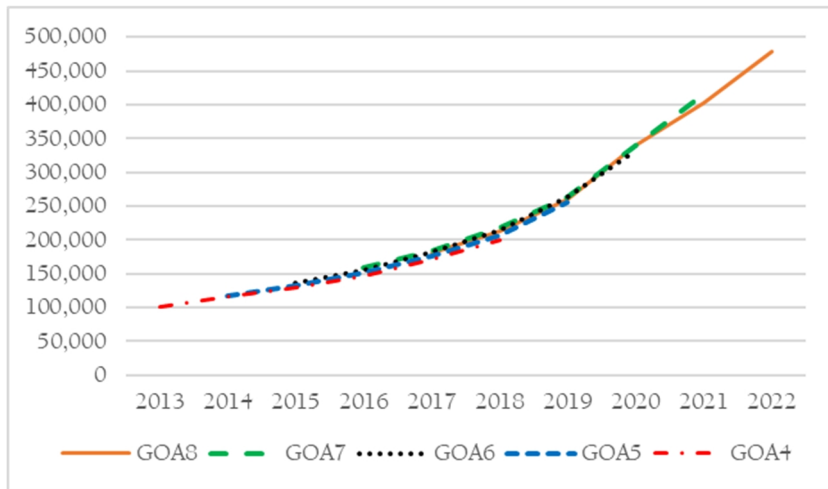
Fee Articles, Biomed, 2013-2022



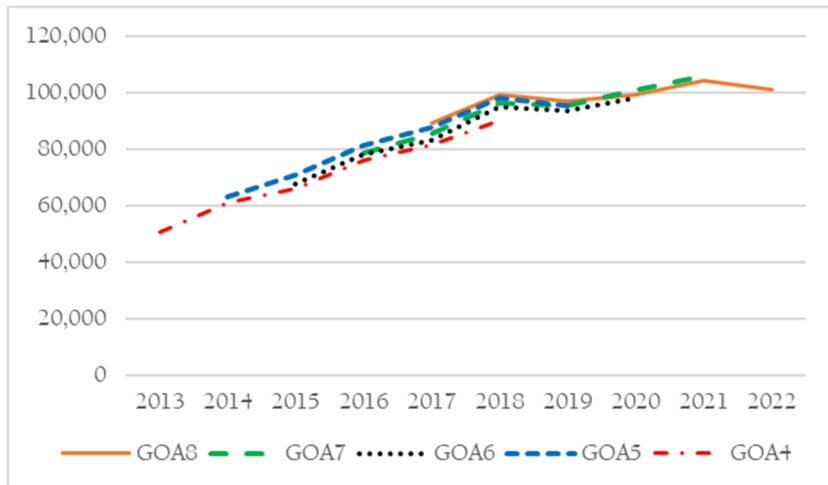
No-Fee Articles, Biomed, 2013-2022



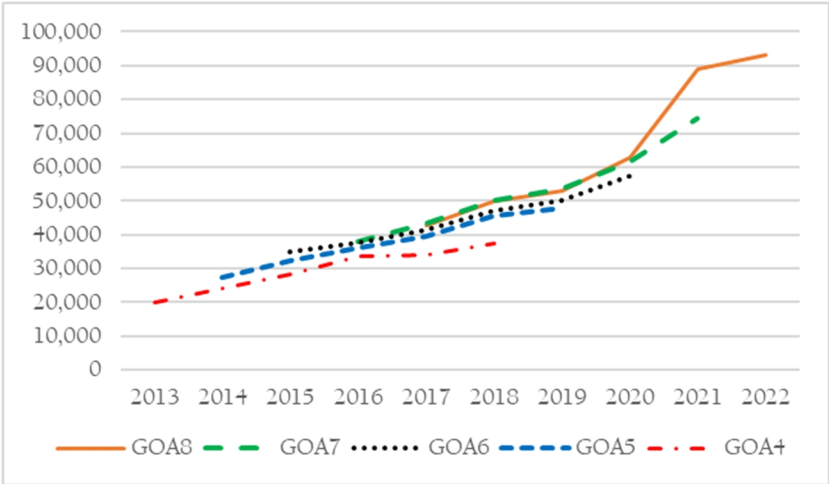
Fee Articles, STEM, 2013-2022



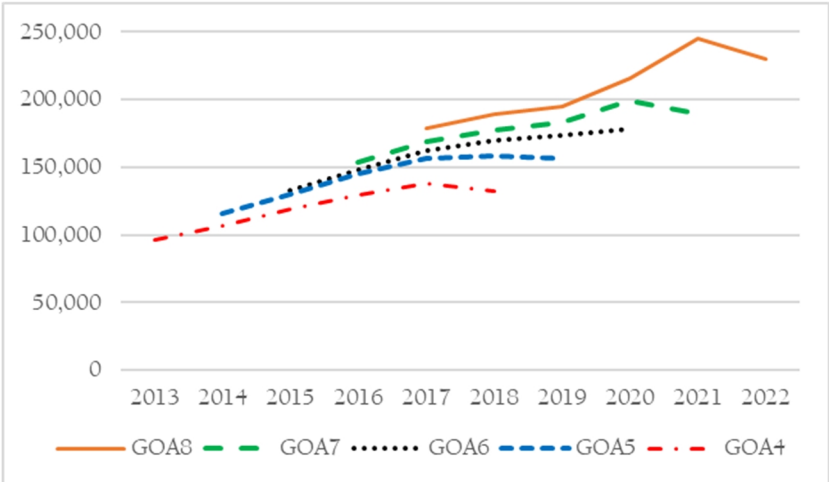
No-Fee Articles, STEM, 2013-2022



Fee Articles, H&SS, 2013-2022



No-Fee Articles, H&SS, 2013-2022



5. Journals by Article Volume

Journals, no matter how they're funded, vary widely in number of articles per year. "Average articles per journal" is almost meaningless as an overall figure, becoming only slightly more meaningful as you narrow the frame of reference.

This chapter looks at journals by article volume, generally using the *peak* of the period 2017-2022. It should help clarify what's out there and how pay-versus-free varies by article volume.

Gold Open Access Journals 2011-2015 discussed various ways to determine appropriate groups of journals by volume. There's no "best" way, so for the sake of consistency this chapter (and the rest of the book) uses the same five-part breakdown as previous years: Largest (600 or more articles in peak year); Large (150 to 599 articles); Medium (60 to 149 articles); Small (20 to 59 articles); Smallest (1 to 19 articles). It also uses the same detailed breakdown as in the last three years.

Article Volume, Overall

	Journals	Articles	%No-fee	\$/article
Largest: 600+	361	678,828	12%	\$2,096
Large: 150-599	1,361	259,718	30%	\$1,095
Med.: 60-149	3,828	238,870	59%	\$511
Small: 20-59	8,928	233,539	75%	\$216
Smallest: 0-19	2,506	27,187	80%	\$124

As usual, the larger the journal, the higher the article fees are likely to be, and the lower the percentage of no-fee articles. Note that this table includes only journals that published articles in 2022.

The next table breaks down peak volume more narrowly. In each row, the peak number is the *lower* limit: thus, the two journals in the first row had *at least* 20,000 articles in their peak year (not always 2022). "Act. 22" is the number of journals publishing articles in 2022.

Article Volume, Detailed

Peak	Journals	Act. 22	Articles	%No-fee	\$/article
20,000	2	2	45,410	0.0%	\$2,096.83
2,000	109	109	449,280	3.4%	\$2,317.84
1,000	121	118	126,989	17.0%	\$1,632.60
800	56	55	40,610	12.2%	\$1,427.75
600	81	78	39,296	8.0%	\$1,584.60
400	205	201	69,190	17.6%	\$1,216.71
300	220	211	51,431	27.3%	\$1,124.62
200	463	452	80,552	28.4%	\$1,111.20
150	510	497	58,545	33.9%	\$901.35
125	470	457	42,881	46.0%	\$724.68
100	748	716	56,325	51.4%	\$604.30
80	990	950	58,736	56.9%	\$440.99
60	1,786	1,705	80,928	62.9%	\$384.72
50	1,356	1,293	50,578	70.9%	\$262.97
40	2,009	1,902	61,894	69.9%	\$241.93
30	2,685	2,544	63,524	74.7%	\$213.27
20	3,446	3,189	57,543	77.7%	\$148.89
15	1,545	1,358	17,295	81.1%	\$123.88
10	1,095	915	8,654	83.0%	\$94.88
5	312	215	1,193	70.2%	\$293.87
1	37	18	45	33.3%	\$1,190.04

The general rule—larger journals have higher fees and are more likely to have fees—is true except at extremes (I doubt that any journals are designed to have fewer than ten articles per year). This may be a good place to remind readers that \$/article *includes* no-fee articles unless fee and no-fee are specifically broken out.

For 2022 (unlike 2021), there's not one clear-cut winner or mode for article volume. 488 journals had 14 articles each, 483 20, 480 12, and three more with more than 400 journals and 12 to 24 articles each.

Profiles by Volume

The remainder of this chapter consists of brief 2022 profiles of each of the five volume categories. As always, Key Facts compares the smaller group to the overall universe.

Key Facts, Largest Journals (600+ Peak Articles)

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	368	678,828			\$2,096	60%
Fee	322	633,848	93%	35%	\$2,245	19%
No-fee	46	44,980	7%	-78%		
Biomed	172	278,147	41%	10%	\$2,355	38%
Fee	157	262,141	94%	18%	\$2,499	16%
No-fee	15	16,006	6%	-72%		
STEM	150	353,874	52%	29%	\$2,059	33%
Fee	137	341,920	97%	17%	\$2,131	14%
No-fee	13	11,954	3%	-81%		
H&SS	46	46,807	7%	-69%	\$842	275%
Fee	28	29,787	64%	121%	\$1,323	70%
No-fee	18	17,020	36%	-49%		

Articles and Journals by Year, Largest

	2022	2021	2020	2019	2018	2017
Journals	361	362	357	346	336	325
%No-fee	12%	13%	13%	12%	13%	12%
Articles	678,828	561,027	434,832	325,177	264,150	209,302
%No-fee	7%	7%	6%	8%	13%	13%
Change	21%	29%	34%	23%	26%	

Key Facts shows *all* journals in a subset while some other tables show *active* journals. This segment is still growing rapidly, with 71 more journals and more than 120,000 more articles than in GOA7, some growth in no-fee articles, and lower average fees. Biomed continues to have the most journals and highest fees, STEM the most articles. Note the large year-to-year growth.

Key Facts, Large Journals (150-599 Peak Articles)

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	1,398	259,718			\$1,095	-16%
Fee	968	190,767	73%	6%	\$1,490	-21%
No-fee	430	68,951	27%	-13%		
Biomed	644	117,559	45%	22%	\$1,443	-16%
Fee	494	95,021	81%	1%	\$1,785	-17%
No-fee	150	22,538	19%	-6%		
STEM	476	90,937	35%	-13%	\$1,061	-31%
Fee	350	70,968	78%	-5%	\$1,359	-27%
No-fee	126	19,969	22%	26%		
H&SS	278	51,222	20%	-12%	\$355	58%
Fee	124	24,778	48%	68%	\$734	-6%
No-fee	154	26,444	52%	-27%		

Articles and Journals by Year, Large

	2022	2021	2020	2019	2018	2017
Journals	1,361	1,355	1,281	1,215	1,156	1,105
%No-fee	30%	31%	31%	33%	33%	33%
Articles	259,718	243,606	211,688	169,534	156,304	141,632
%No-fee	27%	28%	24%	26%	28%	30%
Change	7%	15%	25%	8%	10%	

Unlike last year, large-journal H&SS is now mostly no-fee. Average fees have dropped a *lot*. Heavy on biomed, relatively light in STEM. Fairly little article growth: growing journals tend to move into the Largest category.

Key Facts, Medium-sized Journals (60-149 Peak Articles)

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,994	238,870			\$511	-61%
Fee	1,625	105,902	44%	-36%	\$1,153	-39%
No-fee	2,369	132,968	56%	82%		
Biomed	1,359	87,213	37%	-2%	\$760	-56%
Fee	720	47,911	55%	-31%	\$1,384	-36%
No-fee	639	39,302	45%	122%		
STEM	1,122	69,496	29%	-28%	\$676	-56%
Fee	594	39,793	57%	-31%	\$1,181	-37%
No-fee	528	29,703	43%	144%		
H&SS	1,513	82,161	34%	53%	\$108	-52%
Fee	311	18,198	22%	-23%	\$485	-38%
No-fee	1,202	63,963	78%	9%		

Articles and Journals by Year, Medium-sized

	2022	2021	2020	2019	2018	2017
Journals	3,828	3,872	3,757	3,600	3,436	3,267
%No-fee	59%	59%	61%	62%	63%	63%
Articles	238,870	244,176	228,978	200,625	193,263	178,682
%No-fee	56%	58%	59%	60%	61%	63%
Change	-2%	7%	14%	4%	8%	

At this level, a majority of articles and journals are no-fee. Probably because journals get larger, there were fewer active journals and articles in 2022 than in 2021. Relatively low average article costs across the board. Relatively rich in H&SS and lean in other segments.

Key Facts, Small Journals (20 to 59 Peak Articles)

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	9,496	233,539			\$216	-84%
Fee	2,335	62,315	27%	-62%	\$809	-57%
No-fee	7,161	171,224	73%	140%		
Biomed	1,814	49,466	21%	-43%	\$473	-72%
Fee	748	20,193	41%	-49%	\$1,158	-46%
No-fee	1,066	29,273	59%	191%		
STEM	2,324	59,045	25%	-37%	\$365	-76%
Fee	857	23,909	40%	-51%	\$901	-52%
No-fee	1,467	35,136	60%	240%		
H&SS	5,358	125,028	54%	138%	\$44	-81%
Fee	730	18,213	15%	-49%	\$300	-61%
No-fee	4,628	106,815	85%	20%		

Articles and Journals by Year, Small

	2022	2021	2020	2019	2018	2017
Journals	8,928	9,112	8,813	8,439	7,998	7,546
%No-fee	75%	76%	77%	78%	79%	79%
Articles	233,539	243,517	230,474	207,747	197,046	186,448
%No-fee	73%	75%	77%	78%	79%	79%
Change	-4%	6%	11%	5%	6%	

Most journals are small journals, and no-fee journals and articles dominate: even in biomed, most articles have no fees. Average H&SS fee is down to two digits (largely because only one in five has a fee). Lean in biomed and STEM, very rich in H&SS: indeed, most of this segment is H&SS. Shrinking article count.

Key Facts, Smallest Journals (Fewer than 20 Peak Articles)

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	2,997	27,187			\$124	-91%
Fee	569	5,101	19%	-73%	\$660	-65%
No-fee	2,428	22,086	81%	165%		
Biomed	395	3,272	12%	-68%	\$541	-68%
Fee	192	1,516	46%	-42%	\$1,167	-46%
No-fee	203	1,756	54%	164%		
STEM	670	5,946	22%	-46%	\$169	-89%
Fee	157	1,377	23%	-72%	\$728	-61%
No-fee	513	4,569	77%	339%		
H&SS	1,932	17,969	66%	194%	\$33	-85%
Fee	220	2,208	12%	-57%	\$270	-65%
No-fee	1,712	15,761	88%	23%		

Articles and Journals by Year, Smallest

	2022	2021	2020	2019	2018	2017
Journals	2,506	2,643	2,541	2,406	2,266	2,097
%No-fee	80%	82%	83%	83%	84%	84%
Articles	27,187	29,703	28,097	25,508	24,671	22,975
%No-fee	81%	83%	84%	84%	84%	85%
Change	-8%	6%	10%	3%	7%	

Similar fees and no-fee percentages to small journals, but even more dominated by H&SS, about two-thirds of the category. Shrinking journal and article counts; the smallest journals are most prone to very late article posting, and some healthy ones leave the category.

6. Fees, Maximum Revenue, and The Big Eleven

It takes money to publish even the smallest journal. For small open access journals run out of a university library or department the costs may be so small as to not be worth tracking. This book doesn't say "here's what an article *should* cost" but does offer data on the maximum amount that journals are (or may be) getting from fees.

A few large publishers—some traditional, some OA-based, some university-based—account for most revenue. The latter half of this chapter compares the Big Eleven (these publishers and publishing groups) and the long tail (everybody else).

Fee Level, Overall

	Jour.	%Fee	%All	Articles	%Fee	%All
\$2,000+	1,127	19%	6%	533,820	53%	37%
\$1,000-\$1,999	1,590	27%	9%	262,863	26%	18%
\$500-\$999	718	12%	4%	64,076	6%	4%
\$0.02-\$499	2,383	41%	13%	137,174	14%	10%
No fee	12,435		68%	440,209		31%

The two "%Fee" columns show the level's percentage of all fee journals or articles. While less than one-fifth of the fee journals charge \$2,000 or more, a majority of all fee articles are in the most expensive group.

Revenue Ranges

The next table, including only journals with fees, shows journal and article numbers in a range of revenue-per-journal segments. Revenue brackets are the same as in the last three years.

Revenue	Jour.	Cum J	Articles	Art/J
\$10 to \$54.1 million	31		272,665	8,796
\$4 to \$9.85 million	62	93	167,858	2,707
\$2 to \$3.95 million	68	161	92,765	1,364
\$1 to \$1.99 million	87	248	57,908	666
\$750,000 to \$993,947	83	331	41,309	498
\$500,000 to \$749,740	135	466	45,988	341
\$400,000 to \$493,950	79	545	19,504	247
\$300,000 to \$398,476	128	673	25,009	195
\$250,000 to \$299,250	109	782	16,706	153
\$200,000 to \$249,630	129	911	19,154	148
\$150,000 to \$199,800	216	1,127	28,185	130
\$100,000 to \$149,500	358	1,485	35,222	98
\$75,000 to \$99,839	249	1,734	19,722	79
\$50,000 to \$74,800	403	2,137	25,397	63
\$40,000 to \$49,964	231	2,368	12,356	53
\$30,000 to \$39,975	279	2,647	16,065	58
\$25,000 to \$29,991	162	2,809	7,056	44
\$20,000 to \$24,960	187	2,996	9,074	49
\$15,000 to \$19,985	218	3,214	10,520	48
\$10,000 to \$14,976	273	3,487	11,572	42
\$7,500 to \$9,999	210	3,697	8,584	41
\$5,000 to \$7,495	240	3,937	10,275	43
\$2,500 to \$4,999	408	4,345	15,092	37
\$1,000 to \$2,498	565	4,910	16,467	29
\$0.40 to \$999	647	5,557	13,480	21
\$0 (fee but no 2022 articles)	262	5,819		

Last year, 25 journals had at least \$10 million in potential revenue. This year, that's gone up to 31.

Detailed Fee Breakdown

Fees per article range from just over a cent (probably exchange rate issues) to \$6,000—which continues to be an astonishing figure, if less

astonishing than fees at some “hybrid” journals. So far, no OA journal has gone above \$6,000.

Fee	Journals	Cum J	Articles	Art/J
\$4,000-\$6,000	57		18,944	332
\$3,000-\$3,911	125	182	38,798	310
\$2,500-\$2,990	284	466	215,405	758
\$2,250-\$2,495	257	723	147,566	574
\$2,000-\$2,245	403	1,126	112,930	280
\$1,750-\$1,997	393	1,519	125,784	320
\$1,500-\$1,746	396	1,915	49,093	124
\$1,250-\$1,496	303	2,218	39,783	131
\$1,000-\$1,249	498	2,716	48,203	97
\$750-\$998	387	3,103	34,861	90
\$600-\$747	182	3,285	17,197	94
\$400-\$598	269	3,554	22,054	82
\$300-\$399	191	3,745	11,616	61
\$200-\$295	259	4,004	22,604	87
\$100-\$199	499	4,503	26,984	54
\$0.014-\$98	1,316	5,819	66,111	50

Journals by Segment and Fee Level

Fee Level	Biomed	STEM	H&SS
\$2,000+	785	308	34
\$1,000-\$1,999	657	758	175
\$500-\$999	311	277	130
\$0.01-\$499	558	752	1,074
No fee	2,073	2,647	7,714

Biomed dominates the most expensive category. Very few H&SS journals have more than nominal fees.

Growth and Shrinkage, \$2,000+

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	281	27.3%	
Even, ±24.99%	521	50.5%	77.8%
Shrank 25%+	229	22.2%	
Total	1,031		

This and the next four tables include only those journals with articles in both 2021 and 2022.

Growth and Shrinkage, \$1,000-\$1,999

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	540	37.8%	
Even, ±24.99%	608	42.6%	80.4%
Shrank 25%+	279	19.6%	
Total	1,427		

Growth and Shrinkage, \$500-\$999

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	160	23.9%	
Even, ±24.99%	331	49.4%	73.3%
Shrank 25%+	179	26.7%	
Total	670		

Growth and Shrinkage, \$0.01-\$499

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	468	21.0%	
Even, ±24.99%	1,239	55.6%	76.5%
Shrank 25%+	523	23.5%	
Total	2,230		

Growth and Shrinkage. No-Fee

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	2,255	20.0%	
Even, \pm 24.99%	6,143	54.6%	74.6%
Shrank 25%+	2,859	25.4%	
Total	11,257		

The Big Eleven and The Long Tail

A few publishers dominate OA revenue. The Big Eleven publish 17% of the serious OA journals and 57% of 2022 articles in those journals—and account for 91% of potential revenue.

Note that Holtzbrinck includes Atlantis, BMC, Frontiers, Springer and Nature; Elsevier includes KeAi; Wiley includes BioOne and Hindawi; and Taylor & Francis includes Dove and MedPharm.

The Big Eleven

Name	Articles	Revenue	\$/art
MDPI	297,828	\$648,367,098	\$2,176.99
Holtzbrinck	208,505	\$519,240,881	\$2,490.30
Elsevier	103,434	\$146,039,935	\$1,411.91
Wiley	74,520	\$153,000,939	\$2,053.15
PLoS	32,333	\$68,448,425	\$2,116.98
Wolters Kluwer	27,581	\$20,736,718	\$751.85
Oxford	24,367	\$60,915,498	\$2,499.92
Taylor & Francis	23,027	\$50,253,597	\$2,182.38
SAGE	15,960	\$23,845,416	\$1,494.07
IEEE	12,265	\$21,684,370	\$1,767.99
BMJ	1,335	\$2,421,837	\$1,814.11
TOTAL	821,155	\$1,714,954,713	\$2,088.47

Sorted by number of 2022 articles. MDPI once again has by far the largest increase in articles and revenue—although its average fee per article declined, which was also true for all but one of the others.

Key Facts, The Big Eleven

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,201	821,155			\$2,088	59%
Fee	2,627	776,177	95%	36%	\$2,209	17%
No-fee	574	44,978	5%	-82%		
Biomed	1,799	382,265	47%	25%	\$2,218	30%
Fee	1,457	355,392	93%	17%	\$2,386	11%
No-fee	342	26,873	7%	-65%		
STEM	1,128	402,911	49%	22%	\$2,005	30%
Fee	981	388,231	96%	17%	\$2,081	11%
No-fee	147	14,680	4%	-79%		
H&SS	274	35,979	4%	-81%	\$1,639	631%
Fee	189	32,554	90%	214%	\$1,812	133%
No-fee	85	3,425	10%	-87%		

Little H&SS activity. Slightly lower average fees, but still very high.

Key Facts, The Long Tail

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	15,052	616,987			\$273	-79%
Fee	3,192	221,756	36%	-48%	\$759	-60%
No-fee	11,860	395,231	64%	109%		
Biomed	2,585	153,392	25%	-33%	\$445	-74%
Fee	854	71,390	47%	-42%	\$955	-55%
No-fee	1,731	82,002	53%	163%		
STEM	3,614	176,387	29%	-29%	\$491	-68%
Fee	1,114	89,736	51%	-38%	\$965	-48%
No-fee	2,500	86,651	49%	181%		
H&SS	8,853	287,208	47%	107%	\$47	-79%
Fee	1,224	60,630	21%	-27%	\$223	-71%
No-fee	7,629	226,578	79%	11%		

Mostly no-fee except STEM. Relatively low fees, getting lower.

Articles and Journals by Year, The Big Eleven

	2022	2021	2020	2019	2018	2017
Journals	3,077	2,979	2,634	2,401	2,195	2,073
%No-fee	17%	18%	19%	20%	20%	19%
Articles	821,155	680,812	550,521	403,400	326,697	266,143
%No-fee	5%	6%	7%	8%	9%	11%
Change	21%	24%	36%	23%	23%	

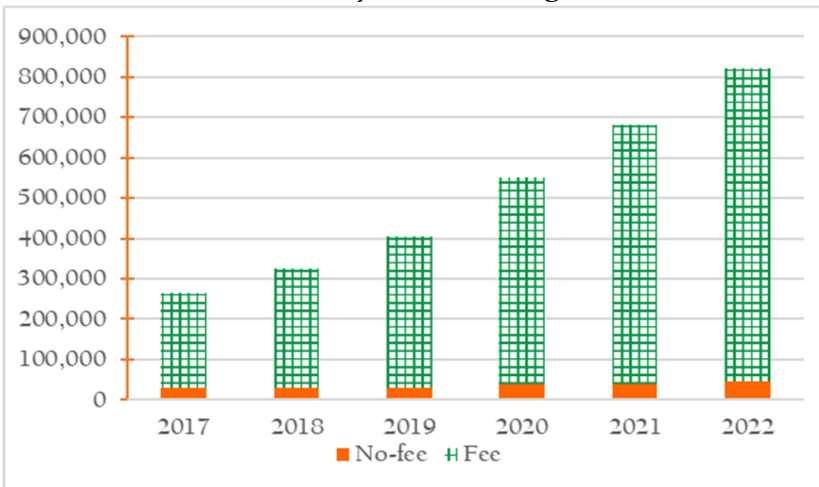
Still rapid growth, slowing again in 2022.

Articles and Journals by Year, The Long Tail

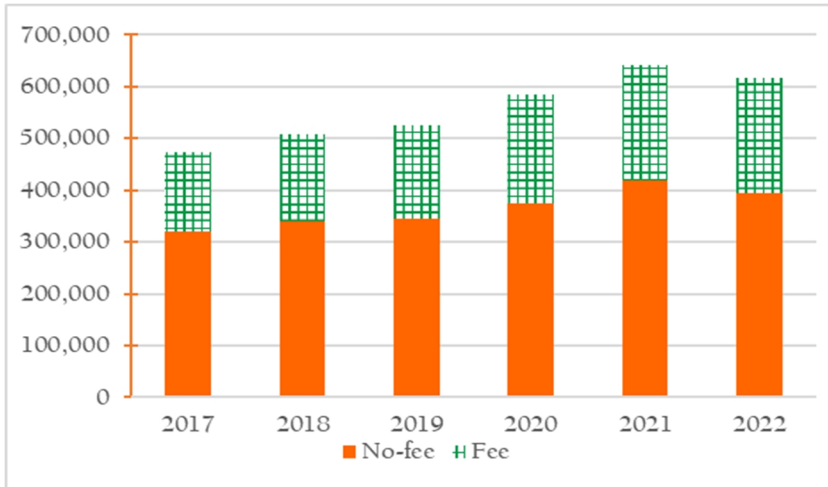
	2022	2021	2020	2019	2018	2017
Journals	13,907	14,365	14,115	13,605	12,997	12,267
%No-fee	78%	79%	79%	79%	80%	80%
Articles	616,987	641,217	583,548	525,191	508,737	472,896
%No-fee	64%	65%	64%	66%	67%	68%
Change	-4%	10%	11%	3%	8%	

A slight decline in 2022.

Fee and No-Fee Articles by Year, The Big Eleven



Fee and No-Fee Articles by Year, The Long Tail



The two graphs speak for themselves,

Article Volume, The Big Eleven

	Journals	Articles	%No-fee	\$/article
Largest: 600+	268	587,014	4%	\$2,295
Large: 150-599	633	131,068	11%	\$1,761
Med.: 60-149	919	68,734	19%	\$1,416
Small: 20-59	1,066	32,539	24%	\$1,146
Smallest: 0-19	191	1,800	9%	\$1,281

More than 70% of articles are in the biggest and most expensive journals, which are less than 9% of the journals. Fees lower at all levels.

Article Volume, The Long Tail

	Journals	Articles	%No-fee	\$/article
Largest: 600+	93	91,814	35%	\$826
Large: 150-599	728	128,650	48%	\$416
Med.: 60-149	2,909	170,136	72%	\$146
Small: 20-59	7,862	201,000	82%	\$65
Smallest: 0-19	2,315	25,387	86%	\$42

The largest are still most expensive, but only 15% of articles (and 0.7% of journals), and the average fee is much lower than in 2021.

Fee Level, The Big Eleven

	Jour.	%Fee	%All	Art.	%Fee	%All
\$2,000+	971	37%	30%	507,734	65%	62%
\$1,000-\$1,999	1,253	48%	39%	227,096	29%	28%
\$500-\$999	335	13%	10%	35,517	5%	4%
\$0.20-\$499	68	3%	2%	5,830	1%	1%
No fee	574		18%	44,978		5%

Fee Level, The Long Tail

	Jour.	%Fee	%All	Articles	%Fee	%All
\$2,000+	156	5%	1%	26,086	12%	4%
\$1,000-\$1,999	337	11%	2%	35,767	16%	6%
\$500-\$999	383	12%	3%	28,559	13%	5%
\$0.20-\$499	2,316	73%	15%	131,344	59%	21%
No fee	11,860		79%	395,231		64%

Starting Date, The Big Eleven



Starting Date, The Long Tail



Fees and Revenue, The Big Eleven

	Articles	Revenue	\$/article
\$2,000+	507,734	\$1,317,174,964	\$2,594
\$1,000-\$1,999	227,096	\$367,885,933	\$1,620
\$500-\$999	35,517	\$28,299,850	\$797
\$0.20-\$499	5,830	\$1,593,965	\$273
No fee	44,978		
Total	821,155	\$1,714,954,713	\$2,088

Fees and Revenue, The Long Tail

	Articles	Revenue	\$/article
\$2,000+	26,086	\$77,757,619	\$2,981
\$1,000-\$1,999	35,767	\$52,574,209	\$1,470
\$500-\$999	28,559	\$19,725,942	\$691
\$0.20-\$499	131,344	\$18,270,340	\$139
No fee	395,231		
Total	616,987	\$168,328,111	\$273

Region, The Big Eleven

Region	Journals	Articles	%No-fee	\$/article
Western Europe	2,417	689,354	4%	\$2,185
Pacific/English	384	100,250	2%	\$1,951
Asia	381	28,559	62%	\$379
Middle East	14	2,818	18%	\$814
Africa	5	174	25%	\$681

This table may not be meaningful, as some publishers report the same country for all journals.

Region, The Long Tail

Region	Journals	Articles	%No-fee	\$/article
Western Europe	3,276	131,039	67%	\$548
Eastern Europe	3,197	130,634	71%	\$89
Latin America	3,186	115,695	91%	\$25
Asia	2,711	104,288	40%	\$193
Middle East	1,394	71,175	56%	\$56
Pacific/English	1,033	53,859	45%	\$1,015
Africa	254	10,260	35%	\$306

Growth and Shrinkage, The Big Eleven

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	979	33.4%	
Even, ±24.99%	1,384	47.3%	80.7%
Shrank 25%+	565	19.3%	
Total	2,928		

Growth and Shrinkage, The Long Tail

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	2,725	19.9%	
Even, ±24.99%	7,458	54.5%	74.4%
Shrank 25%+	3,504	25.6%	
Total	13,687		

Subjects, The Big Eleven

Subject	Jour.	Articles	%No-fee	\$/article
Medicine	1,617	314,330	8%	\$2,187
Other Sciences	68	83,253	1%	\$2,220
Biology	182	67,935	1%	\$2,363
Ecology	202	64,442	3%	\$2,168
Chemistry	99	48,221	1%	\$2,165
Engineering	137	44,345	3%	\$1,878
Agriculture	96	34,642	4%	\$1,991
Earth Sciences	118	30,342	6%	\$1,836
Physics	95	27,525	24%	\$1,485
Technology	73	27,205	1%	\$2,245
Computer Science	126	15,772	3%	\$1,510
Zoology	63	13,879	3%	\$1,909
Mathematics	51	13,285	2%	\$1,431
Psychology	18	9,825	0%	\$2,784
Economics	45	4,631	16%	\$1,159
Education	34	4,146	12%	\$1,110
Sociology	41	3,125	12%	\$1,345
Anthropology	45	3,108	10%	\$1,239
Arts & Architecture	10	3,058	4%	\$1,667
Miscellany	21	2,529	27%	\$859
Media & Communications	13	1,485	10%	\$1,218
Religion	3	1,317	3%	\$1,218
Political Science	18	1,183	27%	\$864
Law	12	534	25%	\$1,011
Philosophy	8	386	6%	\$1,495
Language & Literature	4	353	0%	\$1,410
Library Science	2	299	0%	\$966

More than 300,000 medicine articles—and no History journals at all. Other Sciences includes most megajournals.

Subjects, The Long Tail

Subject	Jour	Articles	%No-fee	\$/article
Medicine	2,316	136,906	56%	\$402
Education	1,283	48,105	78%	\$35
Economics	1,031	38,729	55%	\$87
Language & Literature	1,119	30,466	87%	\$21
Anthropology	955	29,216	76%	\$80
Engineering	507	23,685	56%	\$205
Earth Sciences	493	22,606	46%	\$1,274
Sociology	656	22,429	85%	\$30
Agriculture	534	21,761	45%	\$253
Law	591	19,538	86%	\$43
Ecology	411	17,340	57%	\$282
Other Sciences	253	16,930	39%	\$491
Biology	269	16,486	30%	\$798
Computer Science	323	15,407	55%	\$247
Miscellany	387	15,164	72%	\$55
Arts & Architecture	490	14,968	83%	\$55
Political Science	464	14,962	85%	\$53
Physics	157	14,558	38%	\$1,064
Chemistry	148	12,645	35%	\$773
History	427	11,704	94%	\$23
Zoology	286	11,530	40%	\$180
Mathematics	304	10,116	79%	\$106
Technology	198	9,809	59%	\$209
Religion	357	9,568	84%	\$30
Philosophy	327	8,789	94%	\$5
Media & Communications	332	8,774	95%	\$11
Psychology	249	8,334	66%	\$81
Library Science	185	6,462	92%	\$23

Country of Publication, The Big Eleven (complete)

Country	Journals	Articles	%no-fee	\$/article
Switzerland	486	422,402	0%	\$2,328
United Kingdom	1,538	214,125	5%	\$2,120
United States	339	96,592	2%	\$1,931
Netherlands	294	37,128	18%	\$1,300
India	232	17,186	67%	\$154
Germany	54	8,210	60%	\$1,384
China	116	7,142	53%	\$820
Spain	32	4,112	43%	\$744
Australia	44	3,624	8%	\$2,489
France	7	1,959	0%	\$2,339
South Korea	10	1,844	96%	\$52
Egypt	8	1,566	14%	\$710
Saudi Arabia	6	1,252	24%	\$944
Hong Kong	4	1,116	13%	\$1,030
Italy	2	892	56%	\$730
Taiwan	6	623	47%	\$556
Ireland	3	435	0%	\$1,648
Singapore	10	364	67%	\$512
Japan	3	284	0%	\$1,871
South Africa	5	174	25%	\$681
Greece	1	91	100%	\$0
New Zealand	1	34	100%	\$0

Country of Publication, The Long Tail (partial)

Country	Jour.	Articles	%no-fee	\$/article
Brazil	1,551	64,422	87%	\$41
Indonesia	1,851	51,070	44%	\$42
United States	724	39,409	42%	\$1,093
Iran	713	38,968	46%	\$60
Russia	571	36,035	90%	\$23
United Kingdom	506	35,200	29%	\$1,606
Spain	906	28,317	95%	\$14
Poland	804	24,743	67%	\$211
Turkey	455	20,521	87%	\$36
Romania	349	19,502	59%	\$81
Italy	477	16,069	75%	\$258
Ukraine	392	15,830	45%	\$41
China	120	15,744	20%	\$537
Germany	302	14,393	57%	\$301
France	286	11,926	94%	\$53
Colombia	428	10,466	99%	\$1
Canada	206	9,708	50%	\$970
Argentina	349	9,218	96%	\$3
Mexico	194	8,123	93%	\$16
South Korea	152	8,118	45%	\$216
Cuba	114	7,362	100%	\$0
Serbia	220	6,827	74%	\$61
Iraq	91	6,724	21%	\$75
India	90	6,478	36%	\$210
South Africa	135	5,573	20%	\$479
Portugal	160	5,288	87%	\$42
Pakistan	115	4,491	41%	\$108
Australia	84	4,415	63%	\$494
Bulgaria	87	4,116	37%	\$328
Chile	146	3,918	90%	\$37
Croatia	142	3,856	89%	\$55

7. Publisher Category

Do the characteristics of open access journals vary depending on the type of publisher? This chapter explores that question, breaking serious gold OA journals down into four categories, based on the publisher's name as it appears in *DOAJ* and on known ownership patterns. The categories are:

- **Open access publishers:** Publishers that don't appear to publish subscription journals (and aren't owned by companies or groups that do) but do publish one or more OA journals. Journals that don't clearly fit in another category are included here.
- **University, college or institute:** A university press falls into this category even if it seems to function as a traditional publisher.
- **Traditional publishers:** Companies and groups that publish subscription journals as well as OA journals.
- **Societies, associations and government agencies:** There aren't many government-published OA journals, not enough to create a separate category.

Publisher Category, Overall

Category	Journals	Articles	%No-fee	\$/article
Open Access	2,481	474,675	13%	\$1,700
Traditional	3,162	465,227	11%	\$2,015
Univ./college	10,717	390,859	69%	\$223
Society/govt	1,893	107,381	56%	\$482

The huge differences among categories are obvious from this table. The rest of the chapter discusses each category, in alphabetical order.

Key Facts, OA Publishers

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	2,481	474,675			\$1,700	30%
Fee	1,088	414,907	87%	26%	\$1,945	3%
No-fee	1,393	59,768	13%	-59%		
Biomed	924	169,234	36%	-4%	\$1,618	-5%
Fee	427	140,330	83%	4%	\$1,952	-9%
No-fee	497	28,904	17%	-16%		
STEM	673	264,688	56%	38%	\$1,941	26%
Fee	417	253,427	96%	16%	\$2,027	8%
No-fee	256	11,261	4%	-76%		
H&SS	884	40,753	9%	-62%	\$474	111%
Fee	244	21,150	52%	80%	\$914	17%
No-fee	640	19,603	48%	-32%		

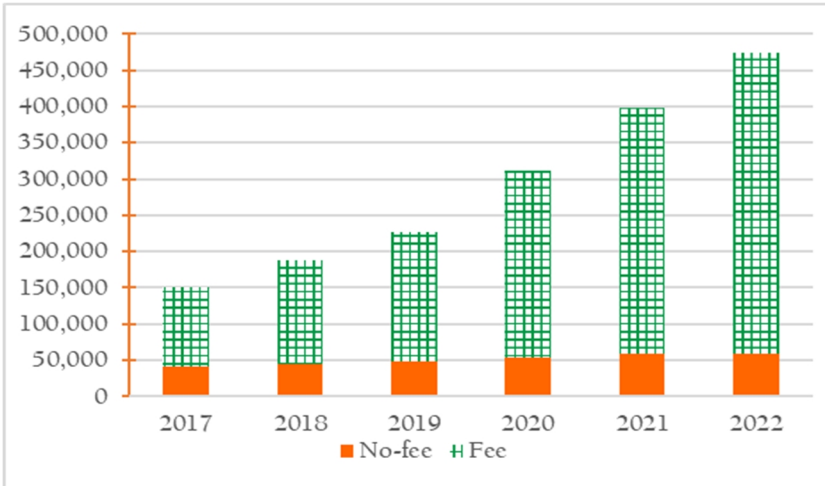
Light on H&SS and no-fee journals in general, rich in STEM.

Articles and Journals by Year, OA Publishers

	2022	2021	2020	2019	2018	2017
Journals	2,307	2,342	2,199	2,047	1,917	1,755
%No-fee	55%	56%	58%	57%	58%	57%
Articles	474,675	397,964	312,149	227,480	187,091	151,576
%No-fee	13%	15%	17%	21%	24%	27%
Change	19%	27%	37%	22%	23%	

While most journals continue to be no-fee, the predominance of fee articles continues to rise. Growth is slowing but still strong.

Fee and No-Fee Articles by Year, OA Publishers



Article Volume, OA Publishers

	Journals	Articles	%No-fee	\$/article
Largest: 600+	124	350,892	6%	\$2,073
Large: 150-599	251	52,784	28%	\$993
Med.: 60-149	587	39,147	52%	\$455
Small: 20-59	1,038	28,746	65%	\$299
Smallest: 0-19	307	3,106	70%	\$202

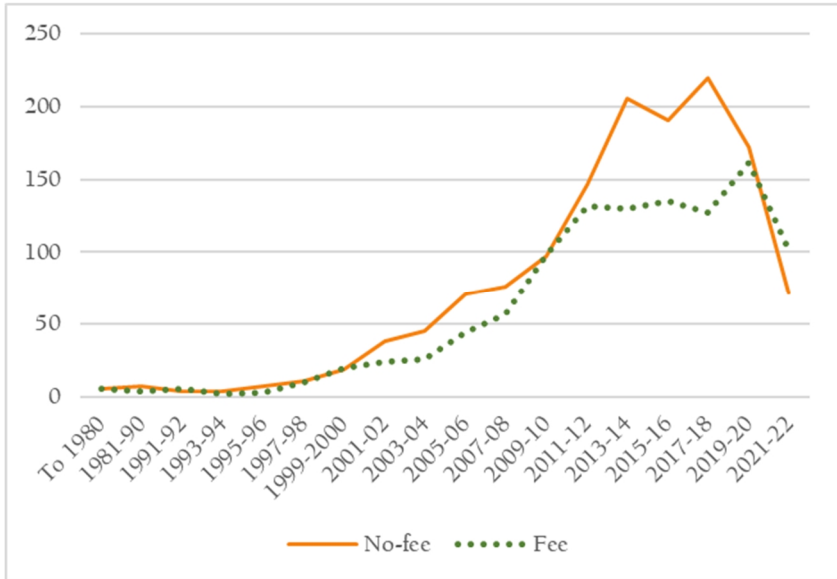
As always, the largest journals dominate and charge by far the highest fees—but those average fees are down from GOA7.

Fee Level, OA Publishers

	Jour.	%Fee	%All	Articles	%Fee	%All
\$2,000+	103	9%	4%	244,347	59%	51%
\$1,000-\$1,999	418	38%	17%	122,761	30%	26%
\$500-\$999	172	16%	7%	14,433	3%	3%
\$0.20-\$499	395	36%	16%	33,366	8%	7%
No fee	1,393		56%	59,768		13%

The most expensive journals publish just over half of the articles.

Starting Date, OA Publishers



Fees and Revenue, OA Publishers

	Articles	Revenue	\$/article
\$2,000+	244,347	\$586,554,279	\$2,400
\$1,000-\$1,999	122,761	\$203,613,155	\$1,659
\$500-4999	14,433	\$10,261,425	\$711
\$0.20-\$499	33,366	\$6,571,555	\$197
No fee	59,768		
Total	474,675	\$807,000,413	\$1,700

Region, OA Publishers

Region	Journals	Articles	%No-fee	\$/article
Western Europe	988	323,536	4%	\$2,056
Pacific/English	285	66,115	8%	\$1,838
Asia	491	40,213	39%	\$330
Eastern Europe	375	27,482	49%	\$148
Middle East	158	8,368	77%	\$56
Latin America	104	5,039	83%	\$39
Africa	80	3,922	13%	\$599

Growth and Shrinkage, OA Publishers

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	620	27.7%	
Even, $\pm 24.99\%$	1,128	50.4%	78.0%
Shrank 25%+	492	22.0%	
Total	2,240		

Country of Publication, OA Publishers, partial

Of 84 countries, these have at least 1,600 2022 articles.

Country	Journals	Articles	%No-fee	\$/article
Switzerland	347	297,989	0%	\$2,173
United States	196	58,129	7%	\$1,895
India	252	19,799	57%	\$170
Russia	128	11,095	82%	\$34
China	66	10,298	18%	\$589
United Kingdom	151	7,216	25%	\$1,419
Romania	37	6,408	9%	\$192
Canada	58	5,662	18%	\$1,624
Italy	113	5,592	39%	\$657
Turkey	113	4,917	80%	\$67
Germany	111	4,424	68%	\$229
South Africa	69	3,609	11%	\$643
Bulgaria	47	2,908	19%	\$455
Brazil	57	2,736	77%	\$39
Iran	27	2,604	84%	\$33
Ukraine	40	2,560	32%	\$99
Indonesia	61	2,346	19%	\$48
Poland	56	2,282	57%	\$181
Australia	25	2,246	29%	\$966
Uzbekistan	1	2,239	0%	\$23
Spain	86	2,211	93%	\$36
Netherlands	30	1,615	96%	\$41

Key Facts, Society Publishers

	Jour.	Articles	Art%	Rel%	\$/Art	Rel%
All	1,893	107,381			\$482	-63%
Fee	474	46,823	44%	-37%	\$1,106	-41%
No-fee	1,419	60,558	56%	84%		
Biomed	550	30,717	29%	-23%	\$306	-82%
Fee	163	11,747	38%	-52%	\$801	-63%
No-fee	387	18,970	62%	204%		
STEM	613	47,217	44%	9%	\$857	-44%
Fee	232	30,670	65%	-21%	\$1,320	-30%
No-fee	381	16,547	35%	100%		
H&SS	730	29,447	27%	22%	\$64	-71%
Fee	79	4,406	15%	-48%	\$429	-45%
No-fee	651	25,041	85%	19%		

Higher no-fee percentage and lower fees across the board. Lean in biomed, rich in H&SS.

Articles and Journals by Year, Society Publishers

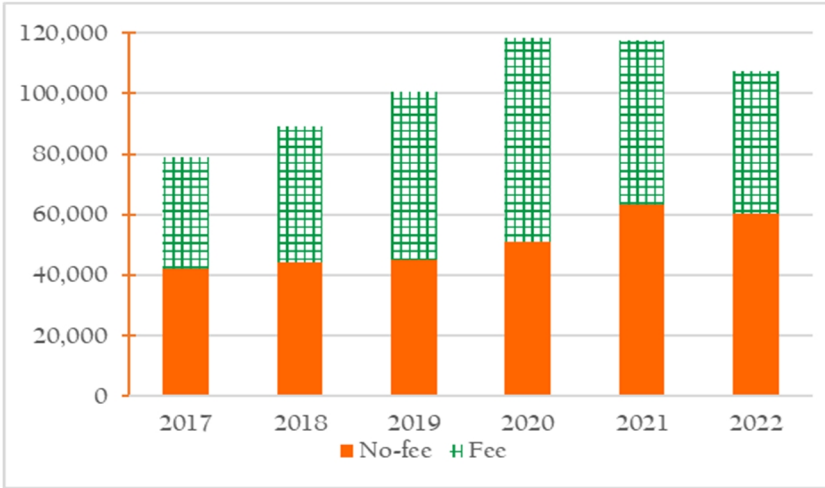
	2022	2021	2020	2019	2018	2017
Journals	1,745	1,786	1,702	1,636	1,582	1,514
%No-fee	74%	74%	75%	76%	76%	76%
Articles	107,381	117,393	118,394	100,514	89,144	78,908
%No-fee	56%	54%	43%	45%	50%	53%
Change	-9%	-1%	18%	13%	13%	

A second year of small declines in article count.

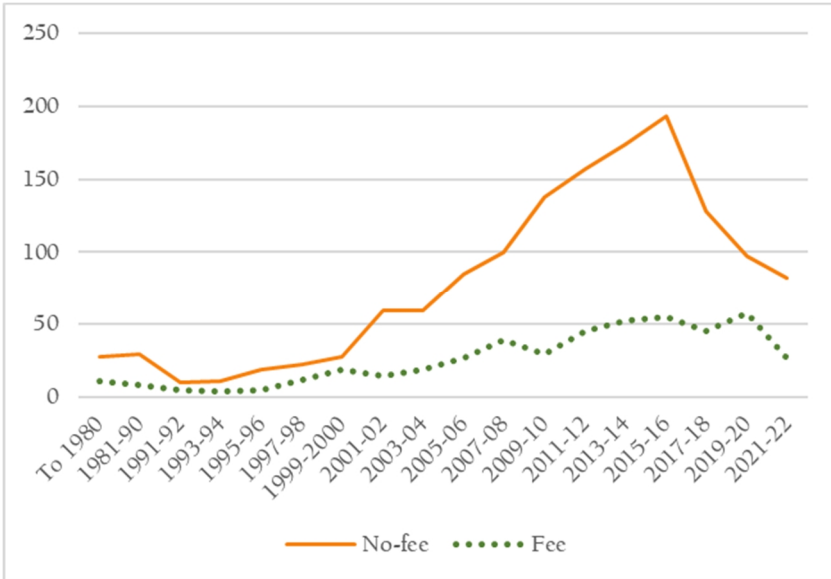
Article Volume, Society Publishers

	Journals	Articles	%No-fee	\$/article
Largest: 600+	21	25,823	29%	\$1,180
Large: 150-599	154	25,845	50%	\$422
Med.: 60-149	488	30,163	69%	\$249
Small: 20-59	891	23,626	79%	\$118
Smallest: 0-19	191	1,924	91%	\$55

Fee and No-Fee Articles by Year, Society Publishers



Starting Date, Society Publishers



Fee Level, Society Publishers

	Journals	%Fee	%All	Articles	%Fee	%All
\$2,000+	51	11%	3%	3,241	7%	3%
\$1,000-\$1,999	65	14%	3%	21,819	47%	20%
\$500-\$999	65	14%	3%	5,237	11%	5%
\$0.20-\$499	293	62%	15%	16,526	35%	15%
No fee	1,419		75%	60,558		56%

Fees and Revenue, Society Publishers

	Articles	Revenue	\$/article
\$2,000+	3,241	\$9,242,852	\$2,852
\$1,000-\$1,999	21,819	\$35,801,977	\$1,641
\$500-4999	5,237	\$3,561,261	\$680
\$0.20-\$499	16,526	\$3,168,806	\$192
No fee	60,558		
Total	107,381	\$51,774,896	\$482

Huge drop in revenue and average fees from GOA7.

Region, Society Publishers

Region	Journals	Articles	%No-fee	\$/article
Western Europe	460	26,486	62%	\$464
Pacific/English	257	23,897	27%	\$1,385
Latin America	341	19,661	81%	\$75
Asia	325	15,515	43%	\$208
Eastern Europe	310	13,323	79%	\$74
Middle East	167	7,454	57%	\$79
Africa	33	1,045	51%	\$109

Growth and Shrinkage, Society Publishers

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	324	19.0%	
Even, ±24.99%	940	55.2%	74.2%
Shrank 25%+	440	25.8%	
Total	1,704		

Country of Publication, Society Publishers (partial)

Country	Jour.	Articles	%no-fee	\$/article
United States	200	21,890	20%	\$1,511
Brazil	204	13,633	76%	\$105
United Kingdom	69	12,479	40%	\$830
South Korea	109	5,758	48%	\$181
Spain	100	3,757	94%	\$27
Turkey	76	3,420	88%	\$59
Iran	65	2,586	46%	\$83
Indonesia	66	2,273	53%	\$24
Japan	47	2,152	13%	\$603
Russia	38	1,936	100%	\$0
France	53	1,913	94%	\$16
Argentina	46	1,899	87%	\$1
Poland	42	1,882	43%	\$279
Serbia	55	1,842	69%	\$114
Italy	38	1,726	63%	\$536
Moldova	9	1,620	95%	\$7
Germany	40	1,598	51%	\$120
Romania	39	1,455	78%	\$33
Cuba	22	1,417	100%	\$0
Ukraine	17	1,386	87%	\$6
Canada	38	1,322	94%	\$12
India	23	1,265	49%	\$173
Egypt	24	1,240	3%	\$112
Pakistan	13	1,027	22%	\$150
China	12	960	14%	\$327
Mexico	10	924	85%	\$21
Croatia	36	775	98%	\$6
Finland	34	770	86%	\$263
Portugal	28	764	82%	\$19

Of 87 countries, these have at least 750 articles in 2022.

Key Facts, Traditional Publishers

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,162	465,227			\$2,015	54%
Fee	2,384	415,767	89%	29%	\$2,254	19%
No-fee	778	49,460	11%	-65%		
Biomed	1,597	254,971	55%	47%	\$2,239	31%
Fee	1,337	233,920	92%	15%	\$2,441	14%
No-fee	260	21,051	8%	-59%		
STEM	1,110	177,672	38%	-5%	\$1,812	17%
Fee	861	158,214	89%	8%	\$2,035	9%
No-fee	249	19,458	11%	-37%		
H&SS	455	32,584	7%	-69%	\$1,364	508%
Fee	186	23,633	73%	152%	\$1,881	142%
No-fee	269	8,951	27%	-61%		

Very little no-fee, very high fees, very little H&SS. No surprises.

Articles and Journals by Year, Traditional Publishers

	2022	2021	2020	2019	2018	2017
Journals	3,012	2,940	2,680	2,457	2,236	2,109
%No-fee	24%	25%	26%	26%	26%	25%
Articles	465,227	399,767	342,006	270,267	242,963	210,056
%No-fee	11%	12%	12%	14%	18%	17%
Change	16%	17%	27%	11%	16%	

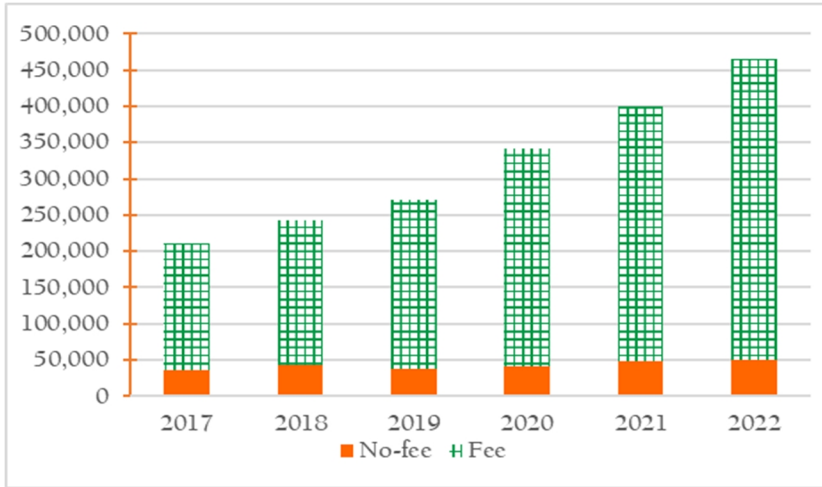
Still healthy growth.

Article Volume, Traditional Publishers

	Journals	Articles	%No-fee	\$/article
Largest: 600+	167	256,471	8%	\$2,399
Large: 150-599	559	112,362	10%	\$1,774
Med.: 60-149	854	61,167	20%	\$1,415
Small: 20-59	1,160	32,616	33%	\$1,041
Smallest: 0-19	272	2,611	39%	\$806

Largest journals account for most articles.

Fee and No-Fee Articles by Year, Traditional Publishers



Fee Level, Traditional Publishers

	Journals	%Fee	%All	Articles	%Fee	%All
\$2,000+	895	38%	28%	267,580	64%	58%
\$1,000-\$1,999	1,025	43%	32%	108,024	26%	23%
\$500-\$999	380	16%	12%	35,946	9%	8%
\$0.20-\$499	84	4%	3%	4,217	1%	1%
No fee	778		25%	49,460		11%

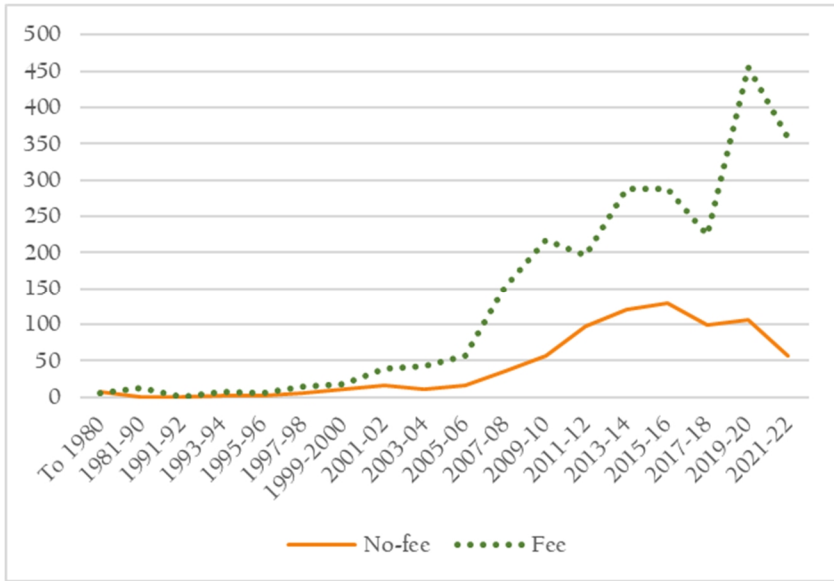
Nearly three of five articles are in the most expensive journals.

Fees and Revenue, Traditional Journals

	Articles	Revenue	\$/article
\$2,000+	267,580	\$743,134,095	\$2,777
\$1,000-\$1,999	108,024	\$164,609,563	\$1,524
\$500-\$999	35,946	\$28,476,410	\$792
\$0.20-\$499	4,217	\$1,053,861	\$250
No fee	49,460		
Total	465,227	\$937,273,929	\$2,015

Those very expensive articles account for 79% of revenue.

Starting Date, Traditional Publishers



Region, Traditional Publishers

Region	Journals	Articles	%No-fee	\$/article
Western Europe	2,269	389,318	8%	\$2,139
Pacific/English	338	46,341	3%	\$1,924
Asia	195	14,390	55%	\$643
Eastern Europe	310	9,913	56%	\$377
Middle East	38	4,546	33%	\$520
Latin America	7	545	100%	\$0
Africa	5	174	25%	\$681

Growth and Shrinkage, Traditional Publishers

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	841	29.3%	
Even, ±24.99%	1,382	48.1%	77.4%
Shrank 25%+	648	22.6%	
Total	2,871		

Country of Publication, Traditional Publishers (partial)

Country	Journals	Articles	%no-fee	\$/article
United Kingdom	1551	200,034	5%	\$2,116
Switzerland	192	126,499	1%	\$2,670
United States	290	42,526	2%	\$1,881
Netherlands	309	37,628	18%	\$1,287
Germany	105	12,072	57%	\$1,179
Poland	285	8,316	50%	\$436
China	126	8,270	50%	\$775
France	45	7,272	66%	\$696
Spain	32	4,112	43%	\$744
Australia	44	3,624	8%	\$2,489
South Korea	10	1,844	96%	\$52
Egypt	7	1,550	13%	\$717
India	18	1,470	67%	\$270
Turkey	15	1,379	67%	\$10
Saudi Arabia	6	1,252	24%	\$944
Hong Kong	4	1,116	13%	\$1,030
Italy	23	1,090	89%	\$94
Singapore	26	808	72%	\$395
Romania	10	655	98%	\$1
Russia	7	626	100%	\$0
Taiwan	5	581	44%	\$596
Brazil	7	545	100%	\$0
Ireland	3	435	0%	\$1,648
Iran	10	365	24%	\$150
Japan	3	284	0%	\$1,871
South Africa	5	174	25%	\$681
Canada	2	154	0%	\$1,085
Croatia	2	105	100%	\$0
Greece	1	91	100%	\$0

Of 36 countries, these 29 have at least 90 articles in 2022.

Key Facts, University Publishers

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	10,717	390,859			\$223	-83%
Fee	1,873	120,436	31%	-56%	\$724	-62%
No-fee	8,844	270,423	69%	126%		
Biomed	1,313	80,735	21%	-45%	\$767	-55%
Fee	384	40,785	51%	-37%	\$1,519	-29%
No-fee	929	39,950	49%	143%		
STEM	2,346	89,721	23%	-43%	\$206	-87%
Fee	585	35,656	40%	-52%	\$518	-72%
No-fee	1,761	54,065	60%	244%		
H&SS	7,058	220,403	56%	151%	\$31	-86%
Fee	904	43,995	20%	-31%	\$155	-80%
No-fee	6,154	176,408	80%	12%		

Mostly no-fee, very heavy H&SS, very light elsewhere.

Articles and Journals by Year, University Publishers

	2022	2021	2020	2019	2018	2017
Journals	9,920	10,276	10,168	9,866	9,457	8,962
%No-fee	82%	82%	83%	83%	84%	84%
Articles	390,859	406,905	361,520	330,330	316,236	298,499
%No-fee	69%	71%	74%	74%	75%	77%
Change	-4%	13%	9%	4%	6%	

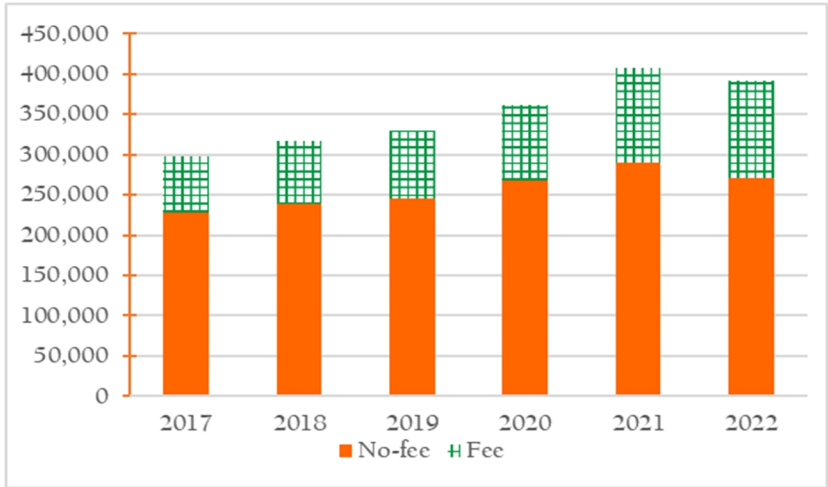
Slight drop in 2022 after four years of slow-to-medium growth.

Article Volume, University Publishers

	Journals	Articles	%No-fee	\$/article
Largest: 600+	49	45,642	39%	\$1,089
Large: 150-599	397	68,727	53%	\$316
Med.: 60-149	1,899	108,393	77%	\$95
Small: 20-59	5,839	148,551	85%	\$34
Smallest: 0-19	1,736	19,546	88%	\$27

Most articles are in small and medium-sized journals, mostly no-fee.

Fee and No-Fee Articles by Year, University Publishers



Fee Level, University Publishers

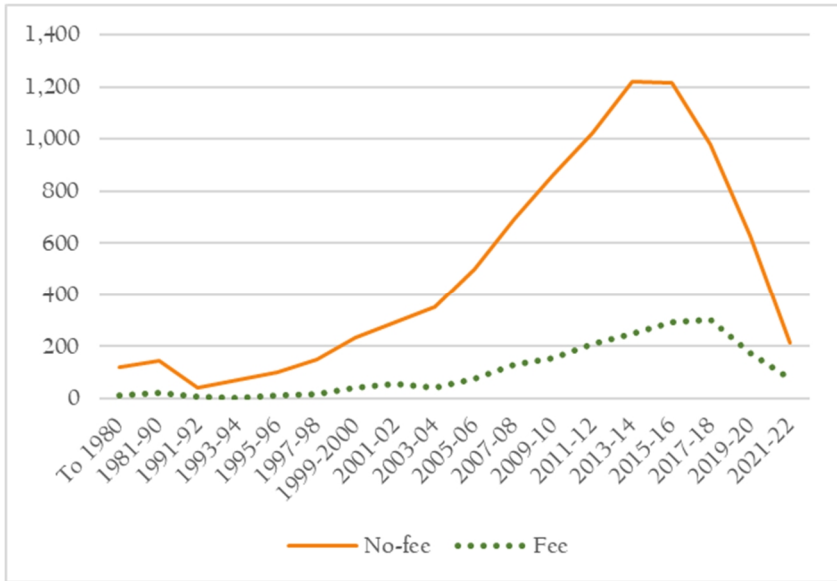
	Jour.	%Fee	%All	Articles	%Fee	%All
\$2,000+	78	4%	1%	18,652	15%	5%
\$1,000-\$1,999	82	4%	1%	10,259	9%	3%
\$500-\$999	101	5%	1%	8,460	7%	2%
\$0.20-\$499	1,612	86%	15%	83,065	69%	21%
No fee	8,844		83%	270,423		69%

Fees and Revenue, University Publishers

	Articles	Revenue	\$/article
\$2,000+	18,652	\$56,001,357	\$3,002
\$1,000-\$1,999	10,259	\$16,435,448	\$1,602
\$500-\$999	8,460	\$5,726,697	\$677
\$0.20-\$499	83,065	\$9,070,083	\$109
No fee	270,423		
Total	390,859	\$87,233,585	\$223

Expensive journals only publish 5% of the articles but that's 64% of the revenue.

Starting Date, University Publishers



Region, University Publishers

Region	Journals	Articles	%No-fee	\$/article
Latin America	2,734	90,450	94%	\$14
Western Europe	1,976	81,053	62%	\$837
Eastern Europe	2,202	79,916	79%	\$36
Asia	2,081	62,729	46%	\$83
Middle East	1,046	53,662	52%	\$53
Pacific/English	537	17,756	74%	\$364
Africa	141	5,293	49%	\$127

Latin America does the most university-based OA, nearly all no-fee.

Growth and Shrinkage, University Publishers

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	1,919	19.6%	
Even, ±24.99%	5,392	55.0%	74.6%
Shrank 25%+	2,489	25.4%	
Total	9,800		

Country of Publication, Journal Publishers (partial)

Country	Journals	Articles	%no-fee	\$/article
Brazil	1,283	47,508	91%	\$23
Indonesia	1,721	46,434	45%	\$42
Iran	611	33,413	44%	\$60
United Kingdom	273	29,596	10%	\$2,254
Russia	398	22,378	92%	\$19
Spain	720	22,349	96%	\$10
United States	377	13,456	66%	\$478
Poland	421	12,263	84%	\$53
Ukraine	333	11,799	43%	\$28
Romania	263	10,984	84%	\$28
Turkey	251	10,805	93%	\$18
Colombia	402	9,571	99%	\$0
Italy	305	8,553	97%	\$11
Argentina	296	7,142	99%	\$3
Mexico	171	6,696	94%	\$15
Iraq	86	6,125	22%	\$74
Cuba	91	5,937	100%	\$0
Serbia	160	4,817	77%	\$42
Germany	100	4,509	53%	\$56
Portugal	113	3,928	97%	\$4
France	143	3,750	100%	\$0
China	32	3,358	27%	\$454
Chile	130	3,324	93%	\$19
Czechia	127	3,036	86%	\$52
Pakistan	85	2,900	43%	\$99
Croatia	98	2,839	86%	\$73
Peru	103	2,716	97%	\$5
Canada	109	2,570	98%	\$14
Costa Rica	71	2,365	100%	\$0
Norway	84	2,237	96%	\$30
Ecuador	75	2,203	100%	\$0

These 31 (of 125) countries have at least 2,200 articles in 2022.

8. Country of Publication

The journals covered in this report come from 131 different countries and named territorial entities. A table of those countries takes up four pages, and one table doesn't provide much information. This book includes a chapter on each region (and "region"), following this chapter.

Region, Overall

Region	Journals	Articles	%No-fee	\$/article
Western Europe	5,687	820,075	14%	\$1,924
Pacific/English	1,417	154,109	17%	\$1,624
Asia	3,092	132,847	45%	\$233
Eastern Europe	3,203	130,952	71%	\$89
Latin America	3,186	115,695	91%	\$25
Middle East	1,409	74,030	54%	\$85
Africa	259	10,434	35%	\$312

Western Europe continues to dominate, which may say more about locations of corporate headquarters than anything else. Asia has now passed Latin America and Eastern Europe.

The remainder of this chapter is three four-page tables of all 131 countries, each with at least one active OA journal: the first in alphabetic order, the second in decreasing order by 2022 article count, the third in increasing order by average article fee.

The book *Diamond OA 2023* will have some details on no-fee publishing in all but seven of these countries (seven, none with more than three journals, have fees for all OA journals).

Countries, Alphabetic Order

Country	Journals	Articles	%no-fee	\$/article
Afghanistan	1	12	0%	\$40
Åland Islands	1	8	100%	\$0
Albania	4	243	57%	\$45
Algeria	24	720	94%	\$6
Angola	5	117	100%	\$0
Argentina	349	9,218	96%	\$3
Armenia	10	177	100%	\$0
Australia	128	8,039	38%	\$1,393
Austria	51	1,430	65%	\$110
Azerbaijan	1	23	100%	\$0
Bahamas	1	7	100%	\$0
Bahrain	1	110	100%	\$0
Bangladesh	21	945	62%	\$32
Barbados	2	98	100%	\$0
Belarus	22	869	99%	\$1
Belgium	52	864	97%	\$4
Bolivia	8	160	83%	\$3
Bosnia and Herzegovina	38	957	91%	\$39
Brazil	1,551	64,422	87%	\$41
Brunei Darussalam	1	7	100%	\$0
Bulgaria	87	4,116	37%	\$328
Cameroon	1	392	0%	\$195
Canada	207	9,708	50%	\$970
Chile	146	3,918	90%	\$37
China	236	22,886	31%	\$625
Colombia	428	10,466	99%	\$1
Costa Rica	73	2,406	100%	\$0
Côte d'Ivoire	3	160	0%	\$76
Croatia	142	3,856	89%	\$55
Cuba	114	7,362	100%	\$0
Cyprus	3	65	100%	\$0
Czechia	138	3,300	83%	\$65

Country	Journals	Articles	%no-fee	\$/article
Dem. Rep. Congo	3	169	33%	\$120
Denmark	45	1,202	96%	\$15
Dominican Republic	7	178	100%	\$0
Ecuador	83	3,093	100%	\$0
Egypt	83	4,707	22%	\$299
El Salvador	3	34	100%	\$0
Estonia	35	992	53%	\$101
Ethiopia	10	283	100%	\$0
Finland	64	1,693	82%	\$182
France	293	13,885	81%	\$375
Gambia	1	3	0%	\$20
Georgia	4	108	100%	\$0
Germany	356	22,603	58%	\$694
Ghana	6	203	48%	\$104
Greece	45	2,049	66%	\$367
Guadeloupe	1	15	100%	\$0
Guam	1	4	0%	\$350
Guatemala	3	202	100%	\$0
Honduras	4	28	100%	\$0
Hong Kong	16	1,765	28%	\$893
Hungary	64	1,709	86%	\$64
Iceland	6	318	100%	\$0
India	322	23,664	59%	\$169
Indonesia	1,851	51,070	44%	\$42
Iran	713	38,968	46%	\$60
Iraq	91	6,724	21%	\$75
Ireland	17	666	35%	\$1,076
Israel	3	102	100%	\$0
Italy	479	16,961	74%	\$283
Japan	80	3,956	13%	\$734
Jordan	1	29	100%	\$0
Kazakhstan	22	1,354	13%	\$11
Kenya	4	68	81%	\$143

Country	Journals	Articles	%no-fee	\$/article
Kyrgyzstan	4	111	34%	\$230
Latvia	13	376	45%	\$428
Lebanon	2	12	100%	\$0
Libya	6	363	56%	\$134
Lithuania	99	2,589	61%	\$220
Luxembourg	2	11	100%	\$0
Malawi	1	42	100%	\$0
Malaysia	93	3,330	64%	\$72
Mali	1	90	100%	\$0
Malta	2	28	100%	\$0
Mexico	194	8,123	93%	\$16
Moldova	37	2,653	85%	\$9
Mongolia	6	65	71%	\$22
Montenegro	8	351	42%	\$95
Morocco	26	604	100%	\$0
Nepal	26	1,558	66%	\$69
Netherlands	390	40,975	24%	\$1,191
New Zealand	19	361	99%	\$2
Nicaragua	8	255	100%	\$0
Nigeria	18	1,130	4%	\$237
North Macedonia	15	359	41%	\$61
Norway	129	3,539	83%	\$193
Oman	7	332	100%	\$0
Pakistan	115	4,491	41%	\$108
Palestine	2	10	100%	\$0
Panama	5	107	100%	\$0
Paraguay	27	828	100%	\$0
Peru	115	3,156	97%	\$4
Philippines	22	473	89%	\$16
Poland	804	24,743	67%	\$211
Portugal	160	5,288	87%	\$42
Puerto Rico	2	9	100%	\$0
Qatar	12	432	88%	\$120

Country	Journals	Articles	%no-fee	\$/article
Romania	349	19,502	59%	\$81
Russia	571	36,035	90%	\$23
Rwanda	1	34	100%	\$0
Saudi Arabia	16	1,545	39%	\$765
Serbia	220	6,827	74%	\$61
Singapore	40	2,155	30%	\$1,197
Slovakia	51	1,428	90%	\$22
Slovenia	67	2,163	92%	\$45
South Africa	140	5,747	20%	\$485
South Korea	162	9,962	54%	\$186
South Sudan	1	40	100%	\$0
Spain	938	32,429	89%	\$107
Sri Lanka	21	696	99%	\$1
Sweden	47	1,593	62%	\$616
Switzerland	572	425,526	1%	\$2,316
Syria	11	162	12%	\$117
Taiwan	34	1,775	36%	\$343
Thailand	27	1,222	82%	\$30
Trinidad and Tobago	1	25	100%	\$0
Tunisia	6	101	100%	\$0
Turkey	455	20,521	87%	\$36
Turkmenistan	1	9	100%	\$0
Uganda	1	136	0%	\$40
Ukraine	392	15,830	45%	\$41
United Arab Emirates	5	279	69%	\$62
United Kingdom	2,044	249,325	8%	\$2,048
United States	1,063	136,001	13%	\$1,688
Uruguay	33	846	100%	\$0
Uzbekistan	2	2,246	0%	\$23
Venezuela	27	735	96%	\$11
Viet Nam	12	458	94%	\$3
Yemen	7	97	54%	\$37
Zimbabwe	1	32	100%	\$0

Countries, Decreasing Number of 2022 Articles

Country	Journals	Articles	%no-fee	\$/article
Switzerland	572	425,526	1%	\$2,316
United Kingdom	2,044	249,325	8%	\$2,048
United States	1,063	136,001	13%	\$1,688
Brazil	1,551	64,422	87%	\$41
Indonesia	1,851	51,070	44%	\$42
Netherlands	390	40,975	24%	\$1,191
Iran	713	38,968	46%	\$60
Russia	571	36,035	90%	\$23
Spain	938	32,429	89%	\$107
Poland	804	24,743	67%	\$211
India	322	23,664	59%	\$169
China	236	22,886	31%	\$625
Germany	356	22,603	58%	\$694
Turkey	455	20,521	87%	\$36
Romania	349	19,502	59%	\$81
Italy	479	16,961	74%	\$283
Ukraine	392	15,830	45%	\$41
France	293	13,885	81%	\$375
Colombia	428	10,466	99%	\$1
South Korea	162	9,962	54%	\$186
Canada	207	9,708	50%	\$970
Argentina	349	9,218	96%	\$3
Mexico	194	8,123	93%	\$16
Australia	128	8,039	38%	\$1,393
Cuba	114	7,362	100%	\$0
Serbia	220	6,827	74%	\$61
Iraq	91	6,724	21%	\$75
South Africa	140	5,747	20%	\$485
Portugal	160	5,288	87%	\$42
Egypt	83	4,707	22%	\$299
Pakistan	115	4,491	41%	\$108
Bulgaria	87	4,116	37%	\$328

Country	Journals	Articles	%no-fee	\$/article
Japan	80	3,956	13%	\$734
Chile	146	3,918	90%	\$37
Croatia	142	3,856	89%	\$55
Norway	129	3,539	83%	\$193
Malaysia	93	3,330	64%	\$72
Czechia	138	3,300	83%	\$65
Peru	115	3,156	97%	\$4
Ecuador	83	3,093	100%	\$0
Moldova	37	2,653	85%	\$9
Lithuania	99	2,589	61%	\$220
Costa Rica	73	2,406	100%	\$0
Uzbekistan	2	2,246	0%	\$23
Slovenia	67	2,163	92%	\$45
Singapore	40	2,155	30%	\$1,197
Greece	45	2,049	66%	\$367
Taiwan	34	1,775	36%	\$343
Hong Kong	16	1,765	28%	\$893
Hungary	64	1,709	86%	\$64
Finland	64	1,693	82%	\$182
Sweden	47	1,593	62%	\$616
Nepal	26	1,558	66%	\$69
Saudi Arabia	16	1,545	39%	\$765
Austria	51	1,430	65%	\$110
Slovakia	51	1,428	90%	\$22
Kazakhstan	22	1,354	13%	\$11
Thailand	27	1,222	82%	\$30
Denmark	45	1,202	96%	\$15
Nigeria	18	1,130	4%	\$237
Estonia	35	992	53%	\$101
Bosnia and Herzegovina	38	957	91%	\$39
Bangladesh	21	945	62%	\$32
Belarus	22	869	99%	\$1
Belgium	52	864	97%	\$4

Country	Journals	Articles	%no-fee	\$/article
Uruguay	33	846	100%	\$0
Paraguay	27	828	100%	\$0
Venezuela	27	735	96%	\$11
Algeria	24	720	94%	\$6
Sri Lanka	21	696	99%	\$1
Ireland	17	666	35%	\$1,076
Morocco	26	604	100%	\$0
Philippines	22	473	89%	\$16
Viet Nam	12	458	94%	\$3
Qatar	12	432	88%	\$120
Cameroon	1	392	0%	\$195
Latvia	13	376	45%	\$428
Libya	6	363	56%	\$134
New Zealand	19	361	99%	\$2
North Macedonia	15	359	41%	\$61
Montenegro	8	351	42%	\$95
Oman	7	332	100%	\$0
Iceland	6	318	100%	\$0
Ethiopia	10	283	100%	\$0
United Arab Emirates	5	279	69%	\$62
Nicaragua	8	255	100%	\$0
Albania	4	243	57%	\$45
Ghana	6	203	48%	\$104
Guatemala	3	202	100%	\$0
Dominican Republic	7	178	100%	\$0
Armenia	10	177	100%	\$0
Dem. Rep. Congo	3	169	33%	\$120
Syria	11	162	12%	\$117
Bolivia	8	160	83%	\$3
Côte d'Ivoire	3	160	0%	\$76
Uganda	1	136	0%	\$40
Angola	5	117	100%	\$0
Kyrgyzstan	4	111	34%	\$230

Country	Journals	Articles	%no-fee	\$/article
Bahrain	1	110	100%	\$0
Georgia	4	108	100%	\$0
Panama	5	107	100%	\$0
Israel	3	102	100%	\$0
Tunisia	6	101	100%	\$0
Barbados	2	98	100%	\$0
Yemen	7	97	54%	\$37
Mali	1	90	100%	\$0
Kenya	4	68	81%	\$143
Cyprus	3	65	100%	\$0
Mongolia	6	65	71%	\$22
Malawi	1	42	100%	\$0
South Sudan	1	40	100%	\$0
El Salvador	3	34	100%	\$0
Rwanda	1	34	100%	\$0
Zimbabwe	1	32	100%	\$0
Jordan	1	29	100%	\$0
Honduras	4	28	100%	\$0
Malta	2	28	100%	\$0
Trinidad and Tobago	1	25	100%	\$0
Azerbaijan	1	23	100%	\$0
Guadeloupe	1	15	100%	\$0
Lebanon	2	12	100%	\$0
Afghanistan	1	12	0%	\$40
Luxembourg	2	11	100%	\$0
Palestine	2	10	100%	\$0
Puerto Rico	2	9	100%	\$0
Turkmenistan	1	9	100%	\$0
Åland Islands	1	8	100%	\$0
Bahamas	1	7	100%	\$0
Brunei Darussalam	1	7	100%	\$0
Guam	1	4	0%	\$350
Gambia	1	3	0%	\$20

Countries, Increasing Average Fee per Article

Country	Journals	Articles	%no-fee	\$/article
Cuba	114	7,362	100%	\$0
Ecuador	83	3,093	100%	\$0
Costa Rica	73	2,406	100%	\$0
Uruguay	33	846	100%	\$0
Paraguay	27	828	100%	\$0
Morocco	26	604	100%	\$0
Oman	7	332	100%	\$0
Iceland	6	318	100%	\$0
Ethiopia	10	283	100%	\$0
Nicaragua	8	255	100%	\$0
Guatemala	3	202	100%	\$0
Dominican Republic	7	178	100%	\$0
Armenia	10	177	100%	\$0
Angola	5	117	100%	\$0
Bahrain	1	110	100%	\$0
Georgia	4	108	100%	\$0
Panama	5	107	100%	\$0
Israel	3	102	100%	\$0
Tunisia	6	101	100%	\$0
Barbados	2	98	100%	\$0
Mali	1	90	100%	\$0
Cyprus	3	65	100%	\$0
Malawi	1	42	100%	\$0
South Sudan	1	40	100%	\$0
El Salvador	3	34	100%	\$0
Rwanda	1	34	100%	\$0
Zimbabwe	1	32	100%	\$0
Jordan	1	29	100%	\$0
Honduras	4	28	100%	\$0
Malta	2	28	100%	\$0
Trinidad and Tobago	1	25	100%	\$0
Azerbaijan	1	23	100%	\$0

Country	Journals	Articles	%no-fee	\$/article
Guadeloupe	1	15	100%	\$0
Lebanon	2	12	100%	\$0
Luxembourg	2	11	100%	\$0
Palestine	2	10	100%	\$0
Puerto Rico	2	9	100%	\$0
Turkmenistan	1	9	100%	\$0
Åland Islands	1	8	100%	\$0
Bahamas	1	7	100%	\$0
Brunei Darussalam	1	7	100%	\$0
Colombia	428	10,466	99%	\$1
Belarus	22	869	99%	\$1
Sri Lanka	21	696	99%	\$1
New Zealand	19	361	99%	\$2
Bolivia	8	160	83%	\$3
Argentina	349	9,218	96%	\$3
Viet Nam	12	458	94%	\$3
Peru	115	3,156	97%	\$4
Belgium	52	864	97%	\$4
Algeria	24	720	94%	\$6
Moldova	37	2,653	85%	\$9
Kazakhstan	22	1,354	13%	\$11
Venezuela	27	735	96%	\$11
Denmark	45	1,202	96%	\$15
Mexico	194	8,123	93%	\$16
Philippines	22	473	89%	\$16
Gambia	1	3	0%	\$20
Slovakia	51	1,428	90%	\$22
Mongolia	6	65	71%	\$22
Russia	571	36,035	90%	\$23
Uzbekistan	2	2,246	0%	\$23
Thailand	27	1,222	82%	\$30
Bangladesh	21	945	62%	\$32
Turkey	455	20,521	87%	\$36

Country	Journals	Articles	%no-fee	\$/article
Yemen	7	97	54%	\$37
Chile	146	3,918	90%	\$37
Bosnia and Herzegovina	38	957	91%	\$39
Afghanistan	1	12	0%	\$40
Uganda	1	136	0%	\$40
Ukraine	392	15,830	45%	\$41
Brazil	1,551	64,422	87%	\$41
Indonesia	1,851	51,070	44%	\$42
Portugal	160	5,288	87%	\$42
Slovenia	67	2,163	92%	\$45
Albania	4	243	57%	\$45
Croatia	142	3,856	89%	\$55
Iran	713	38,968	46%	\$60
North Macedonia	15	359	41%	\$61
Serbia	220	6,827	74%	\$61
United Arab Emirates	5	279	69%	\$62
Hungary	64	1,709	86%	\$64
Czechia	138	3,300	83%	\$65
Nepal	26	1,558	66%	\$69
Malaysia	93	3,330	64%	\$72
Iraq	91	6,724	21%	\$75
Côte d'Ivoire	3	160	0%	\$76
Romania	349	19,502	59%	\$81
Montenegro	8	351	42%	\$95
Estonia	35	992	53%	\$101
Ghana	6	203	48%	\$104
Spain	938	32,429	89%	\$107
Pakistan	115	4,491	41%	\$108
Austria	51	1,430	65%	\$110
Syria	11	162	12%	\$117
Qatar	12	432	88%	\$120
Dem. Rep. Congo	3	169	33%	\$120
Libya	6	363	56%	\$134

Country	Journals	Articles	%no-fee	\$/article
Kenya	4	68	81%	\$143
India	322	23,664	59%	\$169
Finland	64	1,693	82%	\$182
South Korea	162	9,962	54%	\$186
Norway	129	3,539	83%	\$193
Cameroon	1	392	0%	\$195
Poland	804	24,743	67%	\$211
Lithuania	99	2,589	61%	\$220
Kyrgyzstan	4	111	34%	\$230
Nigeria	18	1,130	4%	\$237
Italy	479	16,961	74%	\$283
Egypt	83	4,707	22%	\$299
Bulgaria	87	4,116	37%	\$328
Taiwan	34	1,775	36%	\$343
Guam	1	4	0%	\$350
Greece	45	2,049	66%	\$367
France	293	13,885	81%	\$375
Latvia	13	376	45%	\$428
South Africa	140	5,747	20%	\$485
Sweden	47	1,593	62%	\$616
China	236	22,886	31%	\$625
Germany	356	22,603	58%	\$694
Japan	80	3,956	13%	\$734
Saudi Arabia	16	1,545	39%	\$765
Hong Kong	16	1,765	28%	\$893
Canada	207	9,708	50%	\$970
Ireland	17	666	35%	\$1,076
Netherlands	390	40,975	24%	\$1,191
Singapore	40	2,155	30%	\$1,197
Australia	128	8,039	38%	\$1,393
United States	1,063	136,001	13%	\$1,688
United Kingdom	2,044	249,325	8%	\$2,048
Switzerland	572	425,526	1%	\$2,316

9. Africa

Key Facts, Africa

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	259	10,434			\$312	-76%
Fee	133	6,778	65%	-6%	\$480	-75%
No-fee	126	3,656	35%	14%		
Biomed	60	3,119	30%	-20%	\$303	-82%
Fee	31	2,075	67%	-17%	\$456	-79%
No-fee	29	1,044	33%	65%		
STEM	70	2,478	24%	-41%	\$172	-89%
Fee	23	1,173	47%	-43%	\$364	-81%
No-fee	47	1,305	53%	201%		
H&SS	129	4,837	46%	106%	\$389	73%
Fee	79	3,530	73%	153%	\$533	-31%
No-fee	50	1,307	27%	-62%		

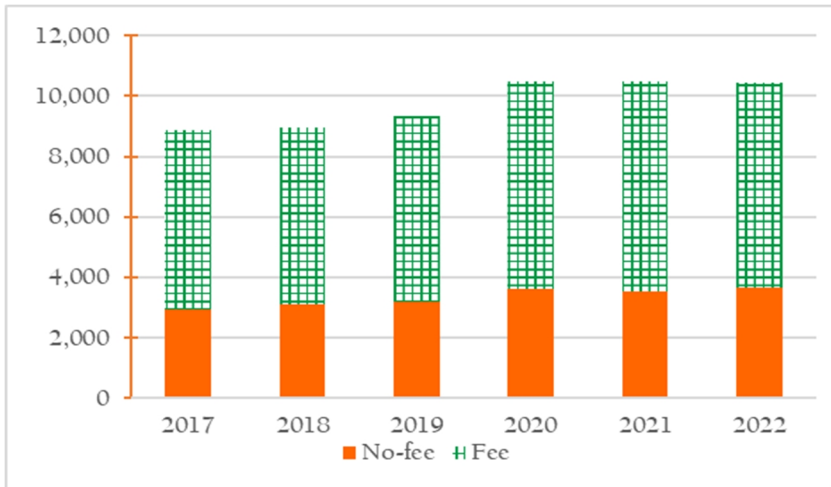
Strong on H&SS, but light on no-fee H&SS. All low fees.

Articles and Journals by Year, Africa

	2022	2021	2020	2019	2018	2017
Journals	247	249	241	228	209	206
%No-fee	49%	49%	50%	50%	49%	47%
Articles	10,434	10,466	10,476	9,349	8,972	8,873
%No-fee	35%	34%	34%	34%	34%	33%
Change	0%	0%	12%	4%	1%	

Added journals break the 10K mark. Essentially flat since 2020.

Fee and No-Fee Articles by Year, Africa



Article Volume, Africa

	Journals	Articles	%No-fee	\$/article
Largest: 600+	1	903	0%	\$825
Large: 150-599	12	1,555	17%	\$373
Med.: 60-149	64	4,154	42%	\$288
Small: 20-59	131	3,384	51%	\$196
Smallest: 0-19	39	438	64%	\$164

Fee Level, Africa

	Journals	%Fee	%All	Articles	%Fee	%All
\$1,000-\$1,999	3	2%	1%	113	2%	1%
\$500-\$999	54	41%	21%	3,434	51%	33%
\$0.20-\$499	76	57%	29%	3,231	48%	31%
No fee	126		49%	3,656		35%

No very expensive journals and few moderately expensive ones.

Starting Date, Africa



Fees and Revenue, Africa

	Articles	Revenue	\$/article
\$1,000-\$1,999	113	\$130,003	\$1,150
\$500-\$999	3,434	\$2,519,969	\$734
\$0.20-\$499	3,231	\$605,570	\$187
No fee	3,656		
Total	10,434	\$3,255,543	\$312

Publisher Category, Africa

Category	Journals	Articles	%No-fee	\$/article
Univ./college	141	5,293	49%	\$127
Open Access	80	3,922	13%	\$599
Society/govt	33	1,045	51%	\$109
Traditional	5	174	25%	\$681

University journals publish a majority of articles.

Growth and Shrinkage, Africa

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	72	30.1%	
Even, \pm 24.99%	119	49.8%	79.9%
Shrank 25%+	48	20.1%	
Total	239		

A reminder: the total here means that 20 journals either had no 2021 articles or no 2022 articles.

Country of Publication, Africa

Country	Journals	Articles	%no-fee	\$/article
South Africa	140	5,747	20%	\$485
Nigeria	18	1,130	4%	\$237
Algeria	24	720	94%	\$6
Morocco	26	604	100%	\$0
Cameroon	1	392	0%	\$195
Libya	6	363	56%	\$134
Ethiopia	10	283	100%	\$0
Ghana	6	203	48%	\$104
Dem. Rep. Congo	3	169	33%	\$120
Côte d'Ivoire	3	160	0%	\$76
Uganda	1	136	0%	\$40
Angola	5	117	100%	\$0
Tunisia	6	101	100%	\$0
Mali	1	90	100%	\$0
Kenya	4	68	81%	\$143
Malawi	1	42	100%	\$0
South Sudan	1	40	100%	\$0
Rwanda	1	34	100%	\$0
Zimbabwe	1	32	100%	\$0
Gambia	1	3	0%	\$20

Moved here to save a page. South Africa now publishes a majority of all articles in Africa; its average fee has declined slightly.

Subjects, Africa

Subject	Journ.	Articles	%No-fee	\$/article
Medicine	56	3,059	34%	\$307
Economics	30	1,794	25%	\$556
Education	16	746	25%	\$309
Other Sciences	12	610	100%	\$0
Miscellany	13	464	53%	\$228
Language & Literature	12	456	27%	\$204
Religion	17	392	8%	\$379
Engineering	9	338	26%	\$108
Zoology	6	291	4%	\$365
Ecology	16	285	74%	\$61
Sociology	8	250	0%	\$374
Earth Sciences	5	219	100%	\$0
Law	8	207	24%	\$208
Chemistry	5	150	35%	\$523
Mathematics	2	150	13%	\$782
Psychology	3	150	0%	\$741
Technology	2	138	16%	\$156
Political Science	5	135	52%	\$235
Agriculture	8	120	51%	\$72
Physics	2	117	0%	\$118
Anthropology	7	91	62%	\$35
Arts & Architecture	3	67	100%	\$0
Biology	4	60	2%	\$115
Computer Science	3	60	20%	\$466
Library Science	4	55	44%	\$368
History	2	18	39%	\$37
Media & Communications	1	12	0%	\$220

10. Asia

Key Facts, Asia

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,092	132,847			\$233	-82%
Fee	1,239	73,615	55%	-20%	\$420	-78%
No-fee	1,853	59,232	45%	46%		
Biomed	806	53,119	40%	7%	\$326	-81%
Fee	336	27,576	52%	-35%	\$627	-71%
No-fee	470	25,543	48%	137%		
STEM	872	43,086	32%	-19%	\$272	-82%
Fee	389	27,889	65%	-22%	\$421	-78%
No-fee	483	15,197	35%	102%		
H&SS	1,414	36,642	28%	23%	\$52	-77%
Fee	514	18,150	50%	72%	\$105	-86%
No-fee	900	18,492	50%	-29%		

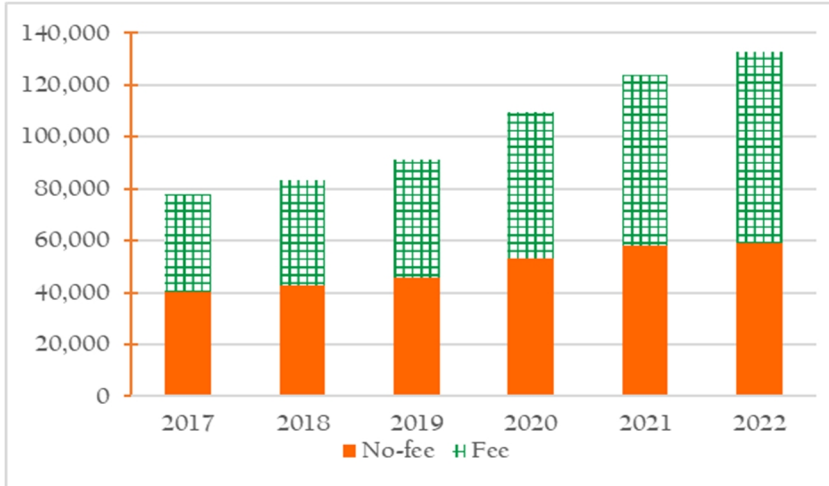
Strong on H&SS (especially fee H&SS, but with low fees), lean on STEM. Low fees. Big growth in journals, articles since GOA7.

Articles and Journals by Year, Asia

	2022	2021	2020	2019	2018	2017
Journals	2,923	2,977	2,866	2,692	2,515	2,310
%No-fee	59%	60%	60%	60%	61%	61%
Articles	132,847	123,976	109,430	90,962	83,427	77,966
%No-fee	45%	47%	48%	50%	51%	52%
Change	7%	13%	20%	9%	7%	

Modest growth after two strong years.

Fee and No-Fee Articles by Year, Asia



Article Volume, Asia

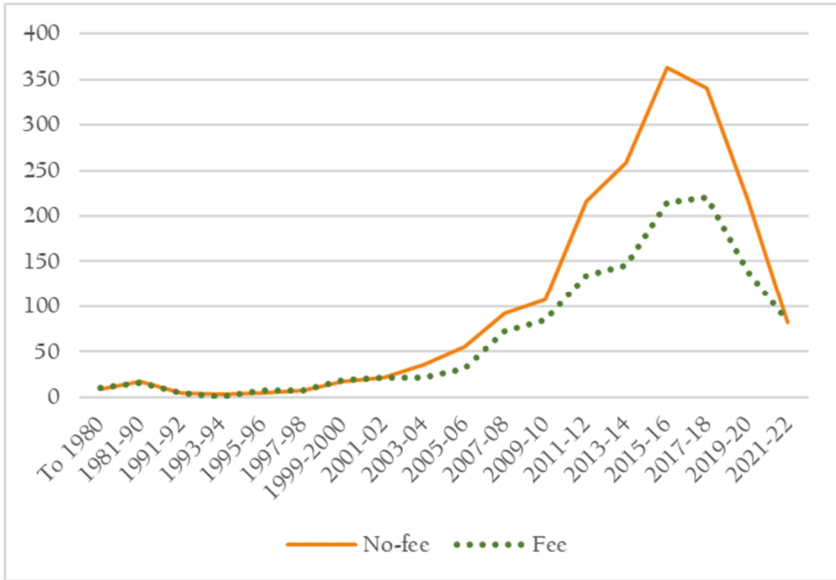
	Journals	Articles	%No-fee	\$/article
Largest: 600+	18	15,604	33%	\$440
Large: 150-599	183	36,133	34%	\$416
Med.: 60-149	496	32,629	50%	\$164
Small: 20-59	1,559	40,366	58%	\$87
Smallest: 0-19	667	8,115	75%	\$26

Fee Level, Asia

	Jour.	%Fee	%All	Art.	%Fee	%All
\$2,000+	11	1%	0%	1,933	3%	1%
\$1,000-\$1,999	61	5%	2%	7,049	10%	5%
\$500-\$999	132	11%	4%	13,529	18%	10%
\$0.20-\$499	1,035	84%	33%	51,104	69%	38%
No fee	1,853		60%	59,232		45%

Most fees are very low or nominal.

Starting Date, Asia



Fees and Revenue, Asia

	Articles	Revenue	\$/article
\$2,000+	1,933	\$5,377,442	\$2,782
\$1,000-\$1,999	7,049	\$9,612,378	\$1,364
\$500-\$999	13,529	\$9,383,055	\$694
\$0.20-\$499	51,104	\$6,570,908	\$129
No fee	59,232		
Total	132,847	\$30,943,784	\$233

Most revenue is in moderate and moderately-expensive journals, while two-thirds of fee articles are in the very low/nominal range. Average fees dropped in the top two ranges.

Publisher Category, Asia

Category	Journals	Articles	%No-fee	\$/article
Univ./college	2,081	62,729	46%	\$83
Open Access	491	40,213	39%	\$330
Society/govt	325	15,515	43%	\$208
Traditional	195	14,390	55%	\$643

Growth and Shrinkage, Asia

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	651	22.7%	
Even, ±24.99%	1,701	59.2%	81.9%
Shrank 25%+	521	18.1%	
Total	2,873		

Growing journals still outnumber shrinking journals.

Subjects, Asia

As is frequently the case, medicine is the largest subject. Somewhat less common: the most expensive subject (still under \$500) is biology.

Subject	Journals	Articles	%No-fee	\$/article
Medicine	728	49,445	50%	\$314
Education	352	11,073	42%	\$28
Economics	265	7,077	52%	\$67
Agriculture	123	6,320	30%	\$320
Engineering	138	5,876	47%	\$226
Computer Science	121	4,952	46%	\$225
Earth Sciences	73	4,879	31%	\$479
Ecology	90	4,401	32%	\$294
Other Sciences	53	4,299	25%	\$69
Biology	78	3,674	24%	\$484
Zoology	58	3,491	19%	\$274
Technology	67	3,349	34%	\$309
Language & Literature	133	3,076	52%	\$39
Religion	158	2,968	67%	\$27
Anthropology	88	2,667	47%	\$121
Physics	48	2,492	49%	\$304
Law	109	2,131	70%	\$34
Sociology	74	2,117	36%	\$26
Miscellany	45	1,843	34%	\$68
Mathematics	64	1,610	43%	\$60
Chemistry	37	1,417	38%	\$356
Political Science	53	1,079	69%	\$142
Psychology	36	670	50%	\$120
Arts & Architecture	29	669	80%	\$16
Media & Communications	32	596	67%	\$44
Library Science	21	402	61%	\$190
Philosophy	12	185	78%	\$16
History	7	89	44%	\$36

Country of Publication, Asia

Country	Journals	Articles	%no-fee	\$/article
Indonesia	1,851	51,070	44%	\$42
India	322	23,664	59%	\$169
China	236	22,886	31%	\$625
South Korea	162	9,962	54%	\$186
Pakistan	115	4,491	41%	\$108
Japan	80	3,956	13%	\$734
Malaysia	93	3,330	64%	\$72
Uzbekistan	2	2,246	0%	\$23
Singapore	40	2,155	30%	\$1,197
Taiwan	34	1,775	36%	\$343
Hong Kong	16	1,765	28%	\$893
Nepal	26	1,558	66%	\$69
Thailand	27	1,222	82%	\$30
Bangladesh	21	945	62%	\$32
Sri Lanka	21	696	99%	\$1
Philippines	22	473	89%	\$16
Viet Nam	12	458	94%	\$3
Kyrgyzstan	4	111	34%	\$230
Mongolia	6	65	71%	\$22

Even excluding 245 long-standing malware cases, Indonesia has by far the most OA journals, 60% of the Asia total (but only 38% of the articles)—and the already very low average cost is even lower. Singapore now stands out as the most expensive, the only four-digit average, followed by Hong Kong, Japan, and China, the only others averaging more than \$350.

11. Eastern Europe

Key Facts, Eastern Europe

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,197	130,634			\$89	-93%
Fee	632	38,323	29%	-58%	\$304	-84%
No-fee	2,565	92,311	71%	131%		
Biomed	458	32,129	25%	-34%	\$124	-93%
Fee	127	12,623	39%	-51%	\$314	-85%
No-fee	331	19,506	61%	199%		
STEM	973	37,565	29%	-29%	\$153	-90%
Fee	244	13,214	35%	-57%	\$436	-77%
No-fee	729	24,351	65%	271%		
H&SS	1,766	60,940	47%	108%	\$31	-86%
Fee	261	12,486	20%	-29%	\$153	-80%
No-fee	1,505	48,454	80%	12%		

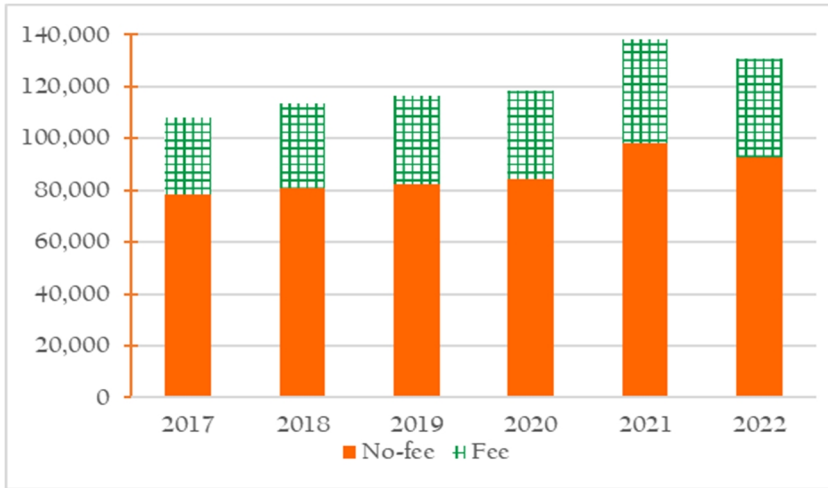
Very rich in H&SS. Even lower fees, and more than 70% no-fee.

Articles and Journals by Year, Eastern Europe

	2022	2021	2020	2019	2018	2017
Journals	2,893	3,027	2,993	2,915	2,793	2,621
%No-fee	80%	80%	80%	80%	80%	80%
Articles	130,634	138,018	118,304	116,175	113,040	107,837
%No-fee	71%	71%	71%	71%	71%	72%
Change	-5%	17%	2%	3%	5%	

Slight decline in 2022 after a strong 2021.

Fee and No-Fee Articles by Year, Eastern Europe



Article Volume, Eastern Europe

	Journals	Articles	%No-fee	\$/article
Largest: 600+	16	18,356	63%	\$75
Large: 150-599	145	24,553	50%	\$187
Med.: 60-149	722	41,590	72%	\$90
Small: 20-59	1,624	42,179	84%	\$44
Smallest: 0-19	386	3,956	91%	\$31

Fee Level, Eastern Europe

	Journals	%Fee	%All	Articles	%Fee	%All
\$2,000+	1	0%	0%	174	0%	0%
\$1,000-\$1,999	50	8%	2%	2,730	7%	2%
\$500-\$999	81	13%	3%	5,059	13%	4%
\$0.20-\$499	500	79%	16%	30,360	79%	23%
No fee	2,565		80%	92,311		71%

One solitary very expensive journal; most fees are low or nominal.

Starting Date, Eastern Europe



Fees and Revenue, Eastern Europe

	Articles	Revenue	\$/article
\$2,000+	174	\$365,727	\$2,102
\$1,000-\$1,999	2,730	\$3,360,798	\$1,231
\$500-\$999	5,059	\$3,347,233	\$662
\$0.20-\$499	30,360	\$4,573,779	\$151
No fee	92,311		
Total	130,634	\$11,647,537	\$89

The middle three fee categories all yield similar revenue.

Publisher Category, Eastern Europe

Category	Journals	Articles	%No-fee	\$/article
Univ./college	2,202	79,916	79%	\$36
Open Access	375	27,482	49%	\$148
Society/govt	310	13,323	79%	\$74
Traditional	310	9,913	56%	\$377

Another region where universities dominate, with low fees getting even lower.

Growth and Shrinkage, Eastern Europe

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	476	16.7%	
Even, $\pm 24.99\%$	1,626	56.9%	73.6%
Shrank 25%+	755	26.4%	
Total	2,857		

Country of Publication, Eastern Europe

Country	Journals	Articles	%No-fee	\$/article
Russia	571	36,035	90%	\$23
Poland	804	24,743	67%	\$211
Romania	349	19,502	59%	\$81
Ukraine	392	15,830	45%	\$41
Serbia	220	6,827	74%	\$61
Bulgaria	87	4,116	37%	\$328
Croatia	142	3,856	89%	\$55
Czechia	138	3,300	83%	\$65
Moldova	37	2,653	85%	\$9
Lithuania	99	2,589	61%	\$220
Slovenia	67	2,163	92%	\$45
Hungary	64	1,709	86%	\$64
Slovakia	51	1,428	90%	\$22
Kazakhstan	22	1,354	13%	\$11
Estonia	35	992	53%	\$101
Bosnia and Herzegovina	38	957	91%	\$39
Belarus	22	869	99%	\$1
Latvia	13	376	45%	\$428
North Macedonia	15	359	41%	\$61
Montenegro	8	351	42%	\$95
Albania	4	243	57%	\$45
Armenia	10	177	100%	\$0
Georgia	4	108	100%	\$0
Cyprus	3	65	100%	\$0
Azerbaijan	1	23	100%	\$0

Subjects, Eastern Europe

Subject	Jour.	Articles	%No-fee	\$/article
Medicine	358	18,973	65%	\$165
Economics	284	9,298	53%	\$75
Language & Literature	240	6,713	86%	\$29
Engineering	146	6,527	56%	\$210
Agriculture	129	5,634	56%	\$172
Anthropology	163	5,451	56%	\$73
Political Science	152	4,919	82%	\$19
Sociology	103	4,000	75%	\$28
Earth Sciences	139	3,497	84%	\$72
Ecology	94	3,284	47%	\$254
Computer Science	92	3,242	78%	\$87
Law	104	3,124	85%	\$24
Education	104	3,119	63%	\$47
History	106	3,033	86%	\$18
Biology	61	2,918	49%	\$228
Zoology	62	2,484	44%	\$316
Philosophy	78	2,374	84%	\$44
Mathematics	88	2,368	76%	\$151
Technology	56	2,187	67%	\$105
Arts & Architecture	66	2,140	67%	\$76
Chemistry	46	2,139	52%	\$383
Other Sciences	32	1,741	46%	\$154
Psychology	52	1,664	78%	\$22
Religion	49	1,510	90%	\$41
Miscellany	41	1,433	67%	\$29
Physics	37	1,402	76%	\$121
Media & Communications	38	794	89%	\$13
Library Science	30	527	95%	\$1

Only zoology and chemistry exceed \$300, and no subject exceeds \$400. (Also true last year.)

12. Latin America

Key Facts, Latin America

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,186	115,695			\$25	-98%
Fee	157	10,002	9%	-88%	\$295	-84%
No-fee	3,029	105,693	91%	198%		
Biomed	426	21,851	19%	-49%	\$45	-97%
Fee	50	3,114	14%	-82%	\$313	-85%
No-fee	376	18,737	86%	322%		
STEM	609	19,544	17%	-58%	\$57	-96%
Fee	81	4,639	24%	-71%	\$242	-87%
No-fee	528	14,905	76%	336%		
H&SS	2,151	74,300	64%	186%	\$11	-95%
Fee	26	2,249	3%	-90%	\$378	-51%
No-fee	2,125	72,051	97%	36%		

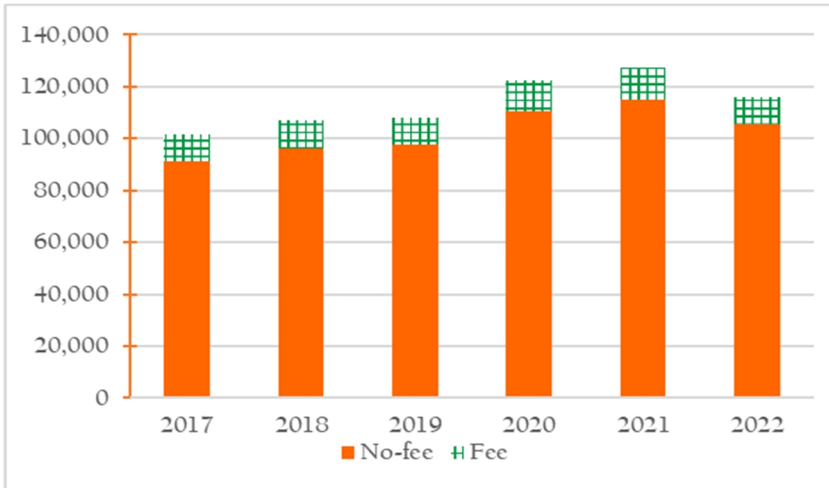
Predominantly no-fee, very rich in H&SS, lean elsewhere.

Articles and Journals by Year, Latin America

	2022	2021	2020	2019	2018	2017
Journals	2,973	3,079	3,091	3,049	2,978	2,871
%No-fee	95%	95%	95%	95%	95%	95%
Articles	115,695	127,335	122,400	108,046	107,240	101,339
%No-fee	91%	90%	90%	90%	89%	90%
Change	-9%	4%	13%	1%	6%	

Down somewhat—and tending even more toward no-fee.

Fee and No-Fee Articles by Year, Latin America



Article Volume, Latin America

	Journals	Articles	%No-fee	\$/article
Largest: 600+	6	6,416	67%	\$88
Large: 150-599	126	19,151	80%	\$66
Med.: 60-149	725	39,874	90%	\$24
Small: 20-59	1,813	46,725	97%	\$3
Smallest: 0-19	303	3,529	97%	\$4

Mostly medium and small journals that are almost all no-fee.

Fee Level, Latin America

	Journals	%Fee	%All	Articles	%Fee	%All
\$1,000-\$1,999	5	3%	0%	284	3%	0%
\$500-\$999	11	7%	0%	1,268	13%	1%
\$0.20-\$499	141	90%	4%	8,450	84%	7%
No fee	3,029		95%	105,693		91%

No very expensive and almost no expensive publishing.

Starting Date, Latin America



Fees and Revenue, Latin America

	Articles	Revenue	\$/article
\$1,000-\$1,999	284	\$397,171	\$1,398
\$500-\$999	1,268	\$873,772	\$689
\$0.20-\$499	8,450	\$1,678,838	\$199
No fee	105,693		
Total	115,695	\$2,949,782	\$25

Total revenue is *down* more than a third from GOA7; average fee per article is also down by more than a third.

Publisher Category, Latin America

Category	Journals	Articles	%No-fee	\$/article
Univ./college	2,734	90,450	94%	\$14
Society/govt	341	19,661	81%	\$75
Open Access	104	5,039	83%	\$39
Traditional	7	545	100%	\$0

Growth and Shrinkage, Latin America

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	549	18.6%	
Even, ±24.99%	1,548	52.4%	70.9%
Shrank 25%+	860	29.1%	
Total	2,957		

Country of Publication, Latin America

Country	Journals	Articles	%no-fee	\$/article
Brazil	1,551	64,422	87%	\$41
Colombia	428	10,466	99%	\$1
Argentina	349	9,218	96%	\$3
Mexico	194	8,123	93%	\$16
Cuba	114	7,362	100%	\$0
Chile	146	3,918	90%	\$37
Peru	115	3,156	97%	\$4
Ecuador	83	3,093	100%	\$0
Costa Rica	73	2,406	100%	\$0
Uruguay	33	846	100%	\$0
Paraguay	27	828	100%	\$0
Venezuela	27	735	96%	\$11
Nicaragua	8	255	100%	\$0
Guatemala	3	202	100%	\$0
Dominican Republic	7	178	100%	\$0
Bolivia	8	160	83%	\$3
Panama	5	107	100%	\$0
Barbados	2	98	100%	\$0
El Salvador	3	34	100%	\$0
Honduras	4	28	100%	\$0
Trinidad and Tobago	1	25	100%	\$0
Guadeloupe	1	15	100%	\$0
Puerto Rico	2	9	100%	\$0
Bahamas	1	7	100%	\$0
Guam	1	4	0%	\$350

Subjects, Latin America

Subject	Jour.	Articles	%No-fee	\$/article
Medicine	389	19,898	88%	\$32
Education	322	15,313	99%	\$2
Sociology	194	7,883	99%	\$1
Economics	215	7,016	99%	\$1
Anthropology	221	6,586	95%	\$37
Language & Literature	206	6,576	100%	\$0
Agriculture	129	4,812	57%	\$121
Miscellany	132	4,810	96%	\$3
Law	181	4,744	99%	\$1
Political Science	122	4,544	73%	\$122
History	124	3,868	100%	\$0
Earth Sciences	106	3,473	87%	\$17
Arts & Architecture	116	3,468	100%	\$0
Ecology	89	2,763	90%	\$19
Philosophy	85	2,712	100%	\$0
Media & Communications	90	2,693	100%	\$0
Psychology	77	2,258	97%	\$1
Zoology	61	2,203	51%	\$119
Engineering	80	2,156	89%	\$31
Biology	37	1,953	68%	\$171
Other Sciences	50	1,516	95%	\$2
Library Science	36	1,032	94%	\$4
Mathematics	29	897	100%	\$0
Religion	30	797	100%	\$0
Technology	22	617	94%	\$1
Chemistry	15	552	41%	\$170
Computer Science	19	301	100%	\$0
Physics	9	254	75%	\$14

13. Middle East

Key Facts, Middle East

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	1,409	74,030			\$85	-94%
Fee	419	33,762	46%	-34%	\$186	-90%
No-fee	990	40,268	54%	78%		
Biomed	454	23,396	32%	-15%	\$97	-94%
Fee	101	7,856	34%	-58%	\$288	-87%
No-fee	353	15,540	66%	227%		
STEM	407	19,555	26%	-34%	\$104	-93%
Fee	139	9,038	46%	-44%	\$224	-88%
No-fee	268	10,517	54%	207%		
H&SS	548	31,079	42%	87%	\$64	-71%
Fee	179	16,868	54%	88%	\$118	-85%
No-fee	369	14,211	46%	-36%		

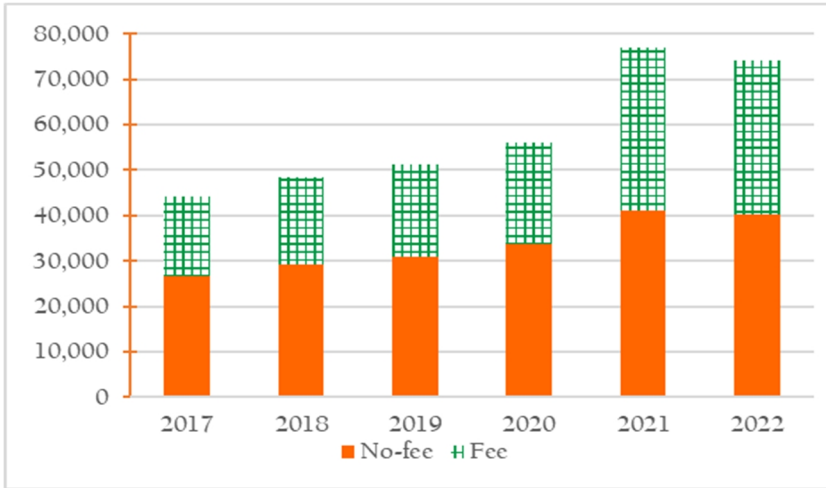
Mostly no-fee, light on STEM, rich in H&SS.

Articles and Journals by Year, Middle East

	2022	2021	2020	2019	2018	2017
Journals	1,337	1,375	1,325	1,268	1,220	1,147
%No-fee	70%	70%	70%	70%	70%	71%
Articles	74,030	76,868	56,189	51,154	48,489	44,101
%No-fee	54%	53%	60%	60%	60%	60%
Change	-4%	37%	10%	5%	10%	

Down just a bit after a very strong 2021.

Fee and No-Fee Articles by Year, Middle East



Article Volume, Middle East

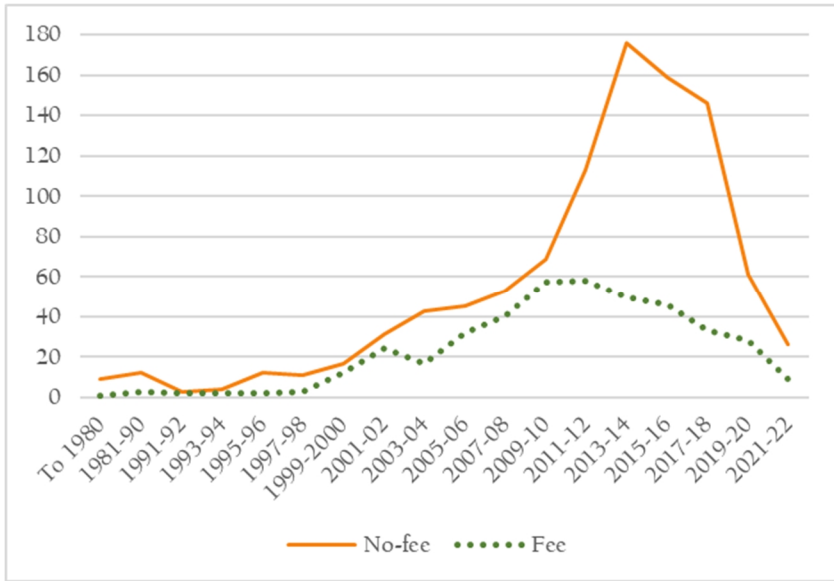
	Journals	Articles	%No-fee	\$/article
Largest: 600+	14	12,627	21%	\$198
Large: 150-599	90	17,781	40%	\$102
Med.: 60-149	318	19,573	65%	\$66
Small: 20-59	814	22,916	74%	\$28
Smallest: 0-19	101	1,133	86%	\$19

Fee Level, Middle East

	Journals	%Fee	%All	Articles	%Fee	%All
\$1,000-\$1,999	4	1%	0%	1,013	3%	1%
\$500-\$999	18	4%	1%	2,395	7%	3%
\$0.20-\$499	397	95%	28%	30,354	90%	41%
No fee	990		70%	40,268		54%

No remaining very expensive journals, very few expensive ones.

Starting Date, Middle East



Fees and Revenue, Middle East

	Articles	Revenue	\$/article
\$1,000-\$1,999	1,013	\$1,288,119	\$1,272
\$500-\$999	2,395	\$1,863,781	\$778
\$0.20-\$499	30,354	\$3,123,826	\$103
No fee	40,268		
Total	74,030	\$6,275,726	\$85

Nearly half of the modest revenue is from nominally-priced journals.

Publisher Category, Middle East

Category	Journals	Articles	%No-fee	\$/article
Univ./college	1,046	53,662	52%	\$53
Open Access	158	8,368	77%	\$56
Society/govt	167	7,454	57%	\$79
Traditional	38	4,546	33%	\$520

Growth and Shrinkage, Middle East

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	246	18.5%	
Even, ±24.99%	782	58.9%	77.4%
Shrank 25%+	300	22.6%	
Total	1,328		

Country of Publication, Middle East

Country	Journals	Articles	%No-fee	\$/article
Iran	713	38,968	46%	\$60
Turkey	455	20,521	87%	\$36
Iraq	91	6,724	21%	\$75
Egypt	83	4,707	22%	\$299
Saudi Arabia	16	1,545	39%	\$765
Qatar	12	432	88%	\$120
Oman	7	332	100%	\$0
United Arab Emirates	5	279	69%	\$62
Syria	11	162	12%	\$117
Bahrain	1	110	100%	\$0
Israel	3	102	100%	\$0
Yemen	7	97	54%	\$37
Jordan	1	29	100%	\$0
Lebanon	2	12	100%	\$0
Palestine	2	10	100%	\$0

Subjects, Middle East

Subject	Jour.	Articles	%No-fee	\$/article
Medicine	422	20,680	73%	\$67
Economics	93	9,590	20%	\$97
Engineering	68	4,291	44%	\$273
Agriculture	73	3,638	36%	\$52
Anthropology	65	3,243	31%	\$110
Education	85	2,747	67%	\$59
Biology	32	2,716	20%	\$322
Zoology	43	2,271	45%	\$57
Library Science	9	2,100	98%	\$4
Language & Literature	53	1,936	48%	\$37
Religion	36	1,931	93%	\$5
Arts & Architecture	27	1,839	45%	\$59
Ecology	51	1,826	60%	\$38
Miscellany	26	1,821	35%	\$50
Other Sciences	28	1,664	60%	\$69
Sociology	40	1,582	72%	\$32
Psychology	21	1,525	21%	\$74
Earth Sciences	42	1,508	63%	\$44
Mathematics	34	1,346	86%	\$19
Computer Science	25	1,193	70%	\$16
Law	27	888	62%	\$37
Chemistry	20	829	67%	\$219
Technology	10	658	88%	\$7
History	20	534	69%	\$42
Political Science	18	519	71%	\$15
Media & Communications	15	461	76%	\$35
Philosophy	13	363	40%	\$21
Physics	13	331	40%	\$168

Only two subjects average more than \$220.

14. Pacific/English

Key Facts, Pacific/English

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	1,417	154,109			\$1,624	24%
Fee	570	127,609	83%	19%	\$1,961	4%
No-fee	847	26,500	17%	-44%		
Biomed	474	67,428	44%	17%	\$1,903	11%
Fee	332	62,176	92%	16%	\$2,064	-4%
No-fee	142	5,252	8%	-62%		
STEM	324	68,074	44%	10%	\$1,755	14%
Fee	198	62,694	92%	12%	\$1,906	2%
No-fee	126	5,380	8%	-55%		
H&SS	619	18,607	12%	-46%	\$130	-42%
Fee	40	2,739	15%	-49%	\$886	14%
No-fee	579	15,868	85%	20%		

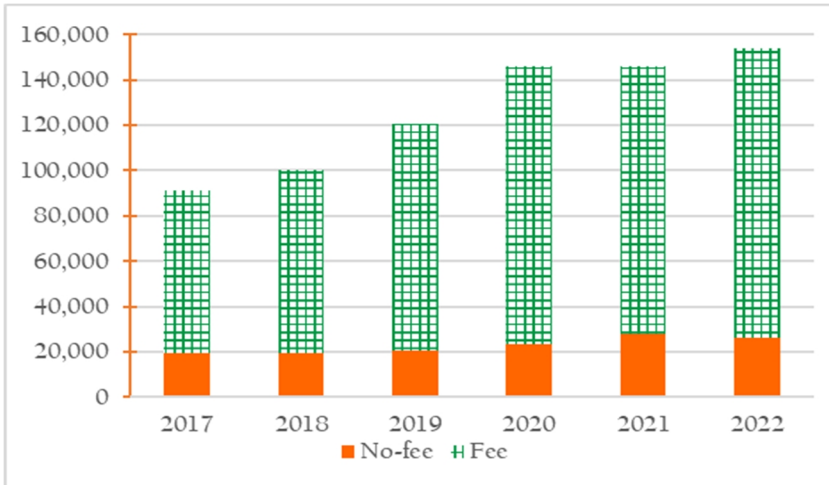
Wondered where the fee-heavy, expensive, H&SS-thin regions are? Here and Western Europe, but average costs have declined even here.

Articles and Journals by Year, Pacific/English

	2022	2021	2020	2019	2018	2017
Journals	1,303	1,311	1,243	1,142	1,050	999
%No-fee	58%	60%	62%	64%	66%	67%
Articles	154,109	146,119	146,009	120,568	100,194	91,478
%No-fee	17%	19%	16%	17%	19%	21%
Change	5%	0%	21%	20%	10%	

Slow or no growth in 2021-2022 after two strong years.

Fee and No-Fee Articles by Year, Pacific/English



Article Volume, Pacific/English

	Journals	Articles	%No-fee	\$/article
Largest: 600+	46	80,688	4%	\$1,928
Large: 150-599	178	34,101	19%	\$1,763
Med.: 60-149	315	22,678	41%	\$1,126
Small: 20-59	552	14,607	74%	\$589
Smallest: 0-19	212	2,035	87%	\$215

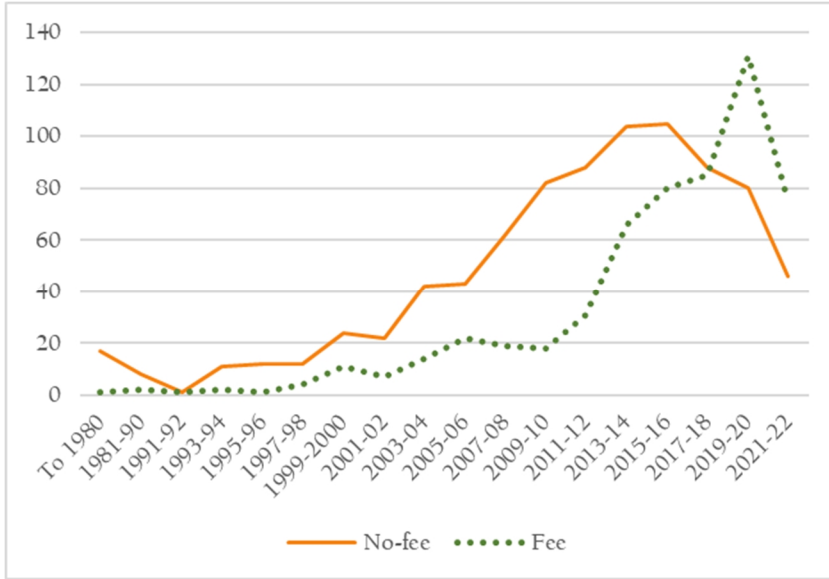
More than half of the articles are in the largest journals.

Fee Level, Pacific/English

	Journals	%Fee	%All	Articles	%Fee	%All
\$2,000+	234	41%	17%	46,981	37%	30%
\$1,000-\$1,999	225	39%	16%	71,179	56%	46%
\$500-\$999	52	9%	4%	6,334	5%	4%
\$0.20-\$499	59	10%	4%	3,115	2%	2%
No fee	847		60%	26,500		17%

Fewer articles in very expensive journals, more in expensive.

Starting Date, Pacific/English



Fees and Revenue, Pacific/English

	Articles	Revenue	\$/article
\$2,000+	46,981	\$127,147,573	\$2,706
\$1,000-\$1,999	71,179	\$118,010,082	\$1,658
\$500-\$999	6,334	\$4,275,080	\$675
\$0.20-\$499	3,115	\$812,949	\$261
No fee	26,500		
Total	154,109	\$250,245,684	\$1,624

Publisher Category, Pacific/English

Category	Journals	Articles	%No-fee	\$/article
Open Access	285	66,115	8%	\$1,838
Traditional	338	46,341	3%	\$1,924
Society/govt	257	23,897	27%	\$1,385
Univ./college	537	17,756	74%	\$364

Most active in most regions, universities are least active here.

Growth and Shrinkage, Pacific/English

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	335	26.8%	
Even, \pm 24.99%	595	47.7%	74.5%
Shrank 25%+	318	25.5%	
Total	1,248		

Country of Publication, Pacific/English

Country	Journals	Articles	%No-fee	\$/article
United States	1,063	136,001	13%	\$1,688
Canada	207	9,708	50%	\$970
Australia	128	8,039	38%	\$1,393
New Zealand	19	361	99%	\$2

This pseudo-region offers very different stories: one expensive country with very few no-fee articles; one slightly less expensive country with more than 60% fee articles; one moderately-priced country with half no-fee publishing—and one country that had no fees at all in 2020 and almost none in 2021 and 2022.

Subjects, Pacific/English

That medicine is the largest subject isn't unusual—but even here, several subjects have either no fee articles (philosophy, library science, law, religion, history) or almost none. The two largest subjects or groupings both dropped below \$2,000 average cost.

Subject	Jour.	Articles	%No-fee	\$/article
Medicine	442	62,896	8%	\$1,895
Other Sciences	32	28,811	2%	\$1,820
Engineering	34	11,260	2%	\$1,753
Physics	25	7,229	3%	\$2,180
Biology	32	4,532	6%	\$2,026
Ecology	54	4,438	16%	\$1,514
Earth Sciences	33	4,127	10%	\$2,302
Education	131	4,082	90%	\$69
Computer Science	33	3,460	39%	\$706
Agriculture	36	2,871	2%	\$1,729
Chemistry	17	2,507	5%	\$2,299
Anthropology	75	1,983	89%	\$27
Mathematics	34	1,854	82%	\$167
Language & Literature	63	1,764	91%	\$29
Political Science	35	1,585	96%	\$42
Miscellany	29	1,322	31%	\$794
Sociology	58	1,242	81%	\$105
Philosophy	37	1,057	100%	\$0
Library Science	36	977	100%	\$0
Economics	31	920	79%	\$191
Law	15	839	100%	\$0
Media & Communications	31	828	80%	\$351
Zoology	14	826	31%	\$958
Technology	12	691	11%	\$1,518
Religion	16	624	100%	\$0
Arts & Architecture	29	606	81%	\$161
Psychology	13	441	37%	\$521
History	20	337	100%	\$0

15. Western Europe

Key Facts, Western Europe

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	5,693	820,393			\$1,923	47%
Fee	2,669	707,844	86%	24%	\$2,229	18%
No-fee	3,024	112,549	14%	-55%		
Biomed	1,706	334,615	41%	10%	\$2,278	33%
Fee	1,334	311,362	93%	17%	\$2,448	14%
No-fee	372	23,253	7%	-66%		
STEM	1,487	388,996	47%	18%	\$1,939	26%
Fee	1,021	359,320	92%	12%	\$2,099	12%
No-fee	466	29,676	8%	-56%		
H&SS	2,500	96,782	12%	-48%	\$636	183%
Fee	314	37,162	38%	33%	\$1,656	113%
No-fee	2,186	59,620	62%	-13%		

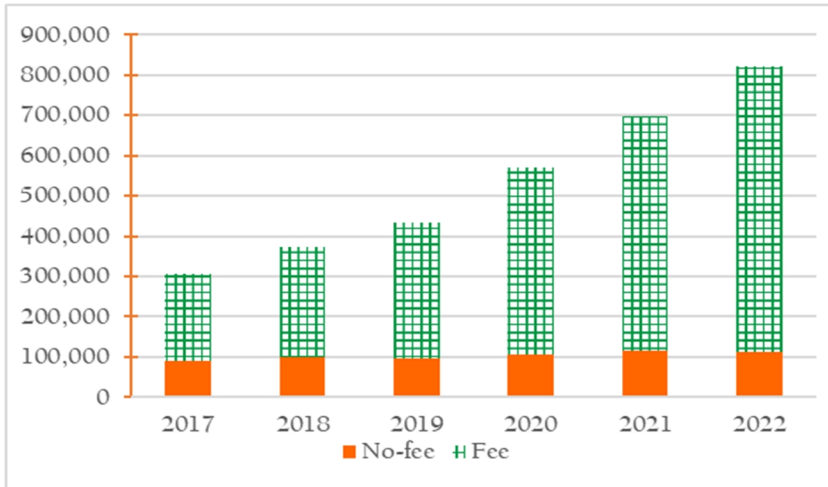
More than half of all articles. Very low (and very expensive) in H&SS, low in no-fee throughout.

Articles and Journals by Year, Western Europe

	2022	2021	2020	2019	2018	2017
Journals	5,308	5,326	4,990	4,712	4,427	4,186
%No-fee	52%	53%	56%	57%	57%	57%
Articles	820,393	699,247	571,261	432,337	374,072	307,445
%No-fee	14%	17%	18%	22%	27%	29%
Change	17%	22%	32%	16%	22%	

Rapid growth continues—as does shift toward fee articles. Only one-sixth of articles were no-fee in 2022, compared to one-third in GOA7.

Fee and No-Fee Articles by Year, Western Europe



Article Volume, Western Europe

	Journals	Articles	%No-fee	\$/article
Largest: 600+	260	544,234	8%	\$2,307
Large: 150-599	627	126,444	17%	\$1,589
Med.: 60-149	1,188	78,372	40%	\$1,073
Small: 20-59	2,435	63,362	65%	\$552
Smallest: 0-19	798	7,981	72%	\$312

Two-thirds of the articles are in the largest journals.

Fee Level, Western Europe

	Jour.	%Fee	%All	Articles	%Fee	%All
\$2,000+	881	33%	15%	484,732	68%	59%
\$1,000-\$1,999	1,242	47%	22%	180,495	25%	22%
\$500-\$999	370	14%	7%	32,057	5%	4%
\$0.20-\$499	176	7%	3%	10,560	1%	1%
No fee	3,024		53%	112,549		14%

Nearly six out of ten articles are in the most expensive journals.

Starting Date, Western Europe



Fees and Revenue, Western Europe

	Articles	Revenue	\$/article
\$2,000+	484,732	\$1,262,041,841	\$2,604
\$1,000-\$1,999	180,495	\$287,661,589	\$1,594
\$500-\$999	32,057	\$25,762,901	\$804
\$0.20-\$499	10,560	\$2,498,434	\$237
No fee	112,549		
Total	820,393	\$1,577,964,766	\$1,924

Five-sixths of all OA revenue, mostly in costly journals.

Publisher Category, Western Europe

Category	Journals	Articles	%No-fee	\$/article
Traditional	2,269	389,318	8%	\$2,139
Open Access	988	323,536	4%	\$2,056
Univ./college	1,976	81,053	62%	\$837
Society/govt	460	26,486	62%	\$464

Growth and Shrinkage, Western Europe

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	1,375	26.9%	
Even, \pm 24.99%	2,471	48.3%	75.2%
Shrank 25%+	1,267	24.8%	
Total	5,113		

Country of Publication, Western Europe

Country	Journals	Articles	%No-fee	\$/article
Switzerland	572	425,526	1%	\$2,316
United Kingdom	2,044	249,325	8%	\$2,048
Netherlands	390	40,975	24%	\$1,191
Spain	938	32,429	89%	\$107
Germany	356	22,603	58%	\$694
Italy	479	16,961	74%	\$283
France	293	13,885	81%	\$375
Portugal	160	5,288	87%	\$42
Norway	129	3,539	83%	\$193
Greece	45	2,049	66%	\$367
Finland	64	1,693	82%	\$182
Sweden	47	1,593	62%	\$616
Austria	51	1,430	65%	\$110
Denmark	45	1,202	96%	\$15
Belgium	52	864	97%	\$4
Ireland	17	666	35%	\$1,076
Iceland	6	318	100%	\$0
Malta	2	28	100%	\$0
Luxembourg	2	11	100%	\$0
Åland Islands	1	8	100%	\$0

Switzerland added another 100,000+ articles this year, but its average fee decreased by \$91.

Subjects, Western Europe

Subject	Jour.	Articles	%No-fee	\$/article
Medicine	1,504	265,957	8%	\$2,263
Biology	202	68,658	2%	\$2,338
Ecology	224	64,777	6%	\$2,097
Other Sciences	84	60,789	1%	\$2,302
Chemistry	107	53,598	4%	\$1,998
Earth Sciences	217	35,444	9%	\$2,040
Engineering	146	35,308	8%	\$1,818
Agriculture	134	34,198	7%	\$1,932
Physics	117	30,151	30%	\$1,314
Technology	89	27,666	1%	\$2,201
Computer Science	166	18,097	10%	\$1,306
Mathematics	104	14,994	14%	\$1,261
Zoology	99	13,974	8%	\$1,835
Education	270	13,393	66%	\$386
Psychology	64	11,240	9%	\$2,443
Anthropology	348	11,208	62%	\$440
Arts & Architecture	228	9,379	61%	\$589
Language & Literature	390	9,162	94%	\$66
Sociology	206	7,306	54%	\$606
Economics	134	6,039	34%	\$889
Miscellany	97	4,874	69%	\$321
Media & Communications	143	4,791	73%	\$327
History	167	4,559	97%	\$52
Law	135	4,372	84%	\$267
Political Science	106	3,133	74%	\$311
Religion	62	3,094	58%	\$524
Philosophy	102	2,775	86%	\$210
Library Science	48	1,457	73%	\$220

Chemistry stands out as the only one of the five most popular subjects with less than \$2,000 average cost.

16. Biology and Medicine

Key Facts. Biomed

	Journals	Articles	Art%	\$/Art
Biomed	4,384	535,657	37%	\$1,710
Fee	2,311	426,782	80%	\$2,147
No-fee	2,073	108,875	20%	

Articles and Journals by Year, Biomed

	2022	2021	2020	2019	2018	2017
Journals	4,164	4,182	3,958	3,785	3,564	3,379
%No-fee	47%	47%	48%	49%	49%	49%
Articles	535,657	479,993	414,852	323,887	283,505	247,759
%No-fee	20%	23%	24%	26%	29%	32%
Change	12%	16%	28%	14%	14%	

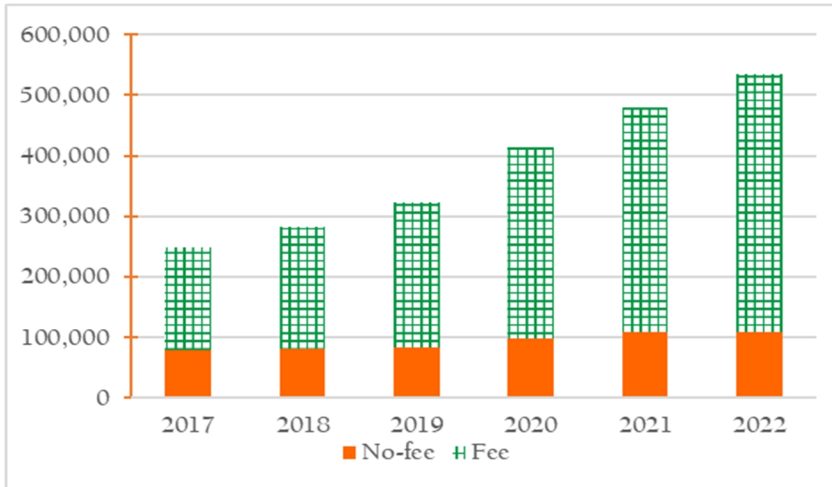
Slower growth but still strong; no-fee articles down to a fifth.

Article Volume, Biomed

	Journals	Articles	%No-fee	\$/article
Largest: 600+	169	278,147	9%	\$2,355
Large: 150-599	630	117,559	23%	\$1,443
Med.: 60-149	1,314	87,213	47%	\$760
Small: 20-59	1,729	49,466	58%	\$473
Smallest: 0-19	322	3,272	51%	\$541

The largest journals published about 60,000 more articles than in GOA7—and the average fee for those articles fell by \$110. For the third year in a row, big journals increased by more than 40%. Fees are down at all levels, especially for large journals.

Fee and No-Fee Articles by Year, Biomed



Fee Level, Biomed

	Journals	%Fee	%All	Articles	%Fee	%All
\$2,000+	785	34%	18%	272,490	64%	51%
\$1,000-\$1,999	657	28%	15%	89,756	21%	17%
\$500-\$999	311	13%	7%	22,796	5%	4%
\$0.20-\$499	558	24%	13%	41,740	10%	8%
No fee	2,073		47%	108,875		20%

More than half of all articles are (still) in the most expensive journals.

Fees and Revenue, Biomed

	Articles	Revenue	\$/article
\$2,000+	272,490	\$747,315,124	\$2,743
\$1,000-\$1,999	89,756	\$144,691,013	\$1,612
\$500-\$999	22,796	\$16,391,122	\$719
\$0.20-\$499	41,740	\$7,744,970	\$186
No fee	108,875		
Total	535,657	\$916,142,229	\$1,710

Starting Date, Biomed



Region, Biomed

Region	Journals	Articles	%No-fee	\$/article
Western Europe	1,706	334,615	7%	\$2,278
Pacific/English	474	67,428	8%	\$1,903
Asia	806	53,119	48%	\$326
Eastern Europe	458	32,129	61%	\$124
Middle East	454	23,396	66%	\$97
Latin America	426	21,851	86%	\$45
Africa	60	3,119	33%	\$303

Publisher Category, Biomed

Category	Journals	Articles	%No-fee	\$/article
Traditional	1,597	254,971	8%	\$2,239
Open Access	924	169,234	17%	\$1,618
Univ./college	1,313	80,735	49%	\$767
Society/govt	550	30,717	62%	\$306

Growth and Shrinkage, Biomed

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	960	23.6%	
Even, \pm 24.99%	2,150	52.9%	76.6%
Shrank 25%+	951	23.4%	
Total	4,061		

Subjects, Biomed

Subject	Journals	Articles	%No-fee	\$/article	Page
Biology	451	84,421	7%	\$2,057	149
Medicine	3,933	451,236	23%	\$1,645	191

Biology articles still have higher average fees than medicine (but down \$220 from last year) and are even less likely to be no-fee. “Page” refers to the starting page of the subject chapter (subject chapters are in alphabetic order following Chapter 18).

Country of Publication, Biomed

The table on the next page shows 30 countries with more than 1,300 biomed articles in 2022—compared to 32 with more than 1,000 in 2021 in GOA7. There are 73 more countries with fewer articles.

Changes from last year: Switzerland has both the most articles and the highest fees, and the United States’ average fee is under \$2,000.

At the other extreme, Cuba and 39 countries with many fewer articles are entirely no-fee.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	218	169,489	0%	\$2,519
United Kingdom	1,027	125,367	7%	\$2,333
United States	376	58,706	6%	\$1,943
India	266	21,136	60%	\$158
Netherlands	150	18,864	15%	\$1,471
Iran	271	13,380	65%	\$63
Russia	133	11,916	91%	\$16
Brazil	195	11,789	76%	\$74
Indonesia	211	7,434	41%	\$53
South Korea	105	6,868	58%	\$163
Romania	39	6,526	10%	\$187
China	54	6,381	20%	\$1,022
Poland	107	5,727	56%	\$347
Turkey	114	5,639	92%	\$38
Spain	96	5,507	68%	\$398
Australia	48	4,702	15%	\$1,803
Italy	68	4,163	27%	\$901
Canada	49	4,005	22%	\$1,449
Germany	52	3,467	64%	\$704
Ukraine	61	3,225	62%	\$17
Cuba	45	3,012	100%	\$0
France	15	2,798	31%	\$1,595
Pakistan	35	2,578	30%	\$144
Colombia	53	1,778	97%	\$2
Singapore	17	1,638	15%	\$1,486
Hong Kong	9	1,549	23%	\$978
Iraq	18	1,501	11%	\$77
Nepal	17	1,422	62%	\$76
South Africa	32	1,339	29%	\$476
Portugal	28	1,333	95%	\$7

17. Science, Technology, Engineering, and Math

Key Facts, STEM

	Journals	Articles	Art%	\$/Art
STEM	4,742	579,298	40%	\$1,544
Fee	2,095	477,967	83%	\$1,872
No-fee	2,647	101,331	17%	

Articles and Journals by Year, STEM

	2022	2021	2020	2019	2018	2017
Journals	4,413	4,463	4,213	3,939	3,716	3,503
%No-fee	55%	56%	58%	59%	61%	61%
Articles	579,298	507,684	440,355	356,757	312,730	269,875
%No-fee	17%	21%	23%	27%	32%	33%
Change	14%	15%	23%	14%	16%	

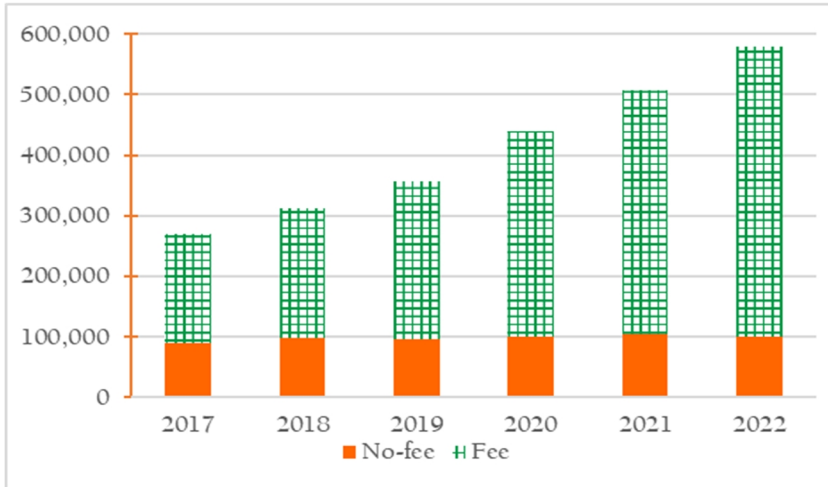
Still strong growth, still almost all the growth is in fee journals.

Article Volume, STEM

	Journals	Articles	%No-fee	\$/article
Largest: 600+	147	353,874	8%	\$2,059
Large: 150-599	460	90,937	26%	\$1,061
Med.: 60-149	1,071	69,496	47%	\$676
Small: 20-59	2,176	59,045	63%	\$365
Smallest: 0-19	559	5,946	75%	\$169

The largest journals (and most expensive) publish 61% of the articles.

Fee and No-Fee Articles by Year, STEM



Fee Level, STEM

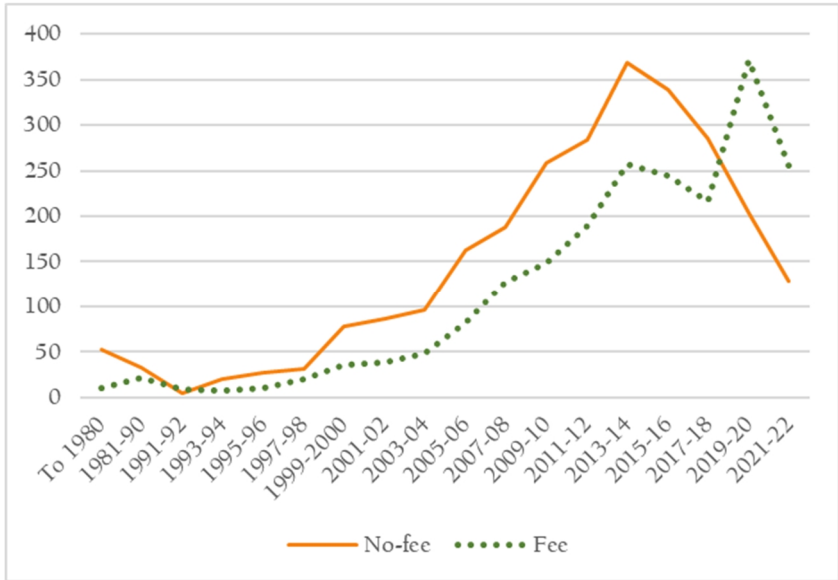
	Jour.	%Fee	%All	Articles	%Fee	%All
\$2,000+	308	15%	6%	250,451	52%	43%
\$1,000-\$1,999	758	36%	16%	153,640	32%	27%
\$500-\$999	277	13%	6%	31,085	7%	5%
\$0.20-\$499	752	36%	16%	42,791	9%	7%
No fee	2,647		56%	101,331		17%

Fees and Revenue, STEM

	Articles	Revenue	\$/article
\$2,000+	250,451	\$616,784,080	\$2,463
\$1,000-\$1,999	153,640	\$247,759,628	\$1,613
\$500-\$999	31,085	\$23,644,346	\$761
\$0.20-\$499	42,791	\$6,452,068	\$151
No fee	101,331		
Total	579,298	\$894,640,122	\$1,544

Potential revenue is up more than \$70 million from GOA7—but the average fee is down just a bit (\$32).

Starting Date, STEM



Region, STEM

Region	Journals	Articles	%No-fee	\$/article
Western Europe	1,487	388,996	8%	\$1,939
Pacific/English	324	68,074	8%	\$1,755
Asia	872	43,086	35%	\$272
Eastern Europe	973	37,565	65%	\$153
Middle East	407	19,555	54%	\$104
Latin America	609	19,544	76%	\$57
Africa	70	2,478	53%	\$172

Publisher Category, STEM

Category	Journals	Articles	%No-fee	\$/article
Open Access	673	264,688	4%	\$1,941
Traditional	1,110	177,672	11%	\$1,812
Univ./college	2,346	89,721	60%	\$206
Society/govt	613	47,217	35%	\$857

Growth and Shrinkage, STEM

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	1,070	25.0%	
Even, \pm 24.99%	2,227	52.0%	77.0%
Shrank 25%+	986	23.0%	
Total	4,283		

Subjects, STEM

Subject	Jour.	Articles	%No-fee	\$/article	Page
Agriculture	630	56,403	20%	\$1,320	140
Chemistry	247	60,866	8%	\$1,876	152
Computer Science	449	31,179	29%	\$886	155
Earth Sciences	611	52,948	23%	\$1,596	158
Ecology	613	81,782	14%	\$1,768	161
Engineering	644	68,030	21%	\$1,295	170
Mathematics	355	23,401	35%	\$858	185
Other Sciences	321	100,183	7%	\$1,927	198
Physics	252	42,083	28%	\$1,339	204
Technology	271	37,014	16%	\$1,705	219
Zoology	349	25,409	20%	\$1,124	222

“Other Sciences”—still the largest and most expensive STEM subject, and the one with fewest no-fee articles—includes megajournals.

Country of Publication, STEM

This table lists 32 countries with more than 1,200 2022 articles; another 70 have fewer articles. This time, only Switzerland (entirely fee!) exceeds the \$2,000 mark (but it's down by \$129)—and this year Colombia is the only prolific country with no fees at all.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	259	233,497	0%	\$2,209
United Kingdom	618	108,690	7%	\$1,863
United States	265	64,306	6%	\$1,764
Netherlands	142	18,686	24%	\$1,059
China	167	15,417	33%	\$487
Indonesia	477	14,221	38%	\$68
Germany	153	13,851	51%	\$920
Brazil	283	10,998	67%	\$84
Russia	172	8,681	91%	\$18
Iran	220	8,042	60%	\$36
Poland	222	7,681	44%	\$372
France	76	5,029	88%	\$126
Turkey	86	4,572	87%	\$3
Romania	101	4,339	72%	\$62
Ukraine	121	4,091	62%	\$40
Iraq	49	3,203	25%	\$77
Italy	70	3,032	67%	\$307
Serbia	79	3,010	62%	\$104
Egypt	33	3,001	16%	\$413
Spain	81	2,907	73%	\$334
Japan	32	2,351	4%	\$716
Uzbekistan	1	2,239	0%	\$23
Bulgaria	41	2,235	24%	\$473
Canada	27	2,169	27%	\$1,587
Colombia	95	2,013	100%	\$0
India	30	1,860	35%	\$342
Malaysia	41	1,815	61%	\$78
South Korea	23	1,644	55%	\$196
Australia	28	1,558	47%	\$1,690
Croatia	39	1,471	79%	\$93
Argentina	52	1,362	74%	\$18
Mexico	30	1,251	62%	\$88

18. Humanities & Social Sciences

Key Facts, H&SS

	Journals	Articles	Art%	\$/Art
H&SS	9,127	323,187	22%	\$224
Fee	1,413	93,184	29%	\$778
No-fee	7,714	230,003	71%	

Articles and Journals by Year, H&SS

	2022	2021	2020	2019	2018	2017
Journals	8,407	8,699	8,578	8,282	7,912	7,458
%No-fee	84%	84%	85%	85%	86%	86%
Articles	323,187	334,352	278,862	247,947	239,199	221,405
%No-fee	71%	73%	78%	79%	79%	81%
Change	-3%	20%	12%	4%	8%	

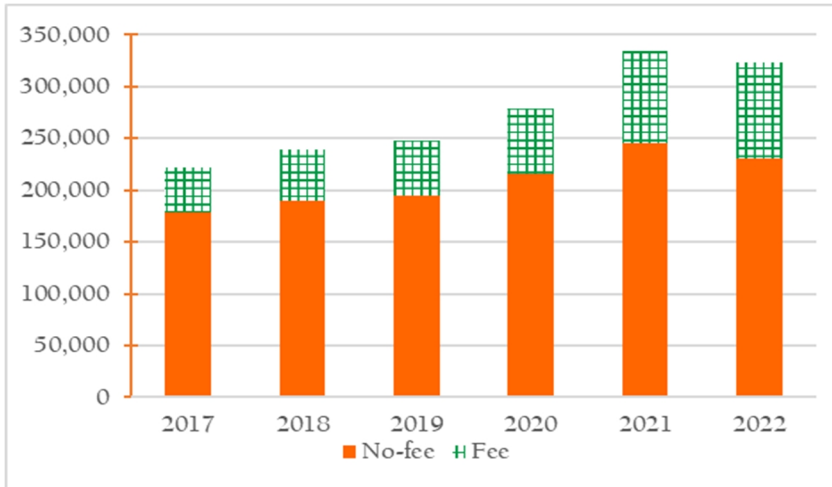
Down a bit, but added journals put H&SS above 300,000 articles.

Article Volume, H&SS

	Journals	Articles	%No-fee	\$/article
Largest: 600+	45	46,807	40%	\$842
Large: 150-599	271	51,222	55%	\$355
Med.: 60-149	1,443	82,161	79%	\$108
Small: 20-59	5,023	125,028	86%	\$44
Smallest: 0-19	1,625	17,969	88%	\$33

Still mostly small and medium-sized.

Fee and No-Fee Articles by Year, H&SS



Fee Level, H&SS

	Jour.	%Fee	%All	Articles	%Fee	%All
\$2,000+	34	2%	0%	10,879	12%	3%
\$1,000-\$1,999	175	12%	2%	19,467	21%	6%
\$500-\$999	130	9%	1%	10,195	11%	3%
\$0.20-\$499	1,074	76%	12%	52,643	56%	16%
No fee	7,714		85%	230,003		71%

More than half of articles with fees have modest ones.

Fees and Revenue, H&SS

	Articles	Revenue	\$/article
\$2,000+	10,879	\$30,833,379	\$2,834
\$1,000-\$1,999	19,467	\$28,009,501	\$1,439
\$500-\$999	10,195	\$7,990,324	\$784
\$0.20-\$499	52,643	\$5,667,268	\$108
No fee	230,003		
Total	323,187	\$72,500,472	\$224

Starting Date, H&SS



Region, H&SS

Region	Journals	Articles	%No-fee	\$/article
Western Europe	2,500	96,782	62%	\$636
Latin America	2,151	74,300	97%	\$11
Eastern Europe	1,766	60,940	80%	\$31
Asia	1,414	36,642	50%	\$52
Middle East	548	31,079	46%	\$64
Pacific/English	619	18,607	85%	\$130
Africa	129	4,837	27%	\$389

Publisher Category, H&SS

Category	Journals	Articles	%No-fee	\$/article
Univ./college	7,058	220,403	80%	\$31
Open Access	884	40,753	48%	\$474
Traditional	455	32,584	27%	\$1,364
Society/govt	730	29,447	85%	\$64

Academic publishers still dominate, and the average cost is still very low (and the same as in GOA7).

Growth and Shrinkage, H&SS

Change 2021-2022	Count	Percent	Cum%
Grew 25%+	1,674	20.2%	
Even, \pm 24.99%	4,465	54.0%	74.2%
Shrank 25%+	2,132	25.8%	
Total	8,271		

Subjects, H&SS

Subject	Jour.	Articles	%No-fee	\$/article	Page
Anthropology	1,000	32,324	70%	\$191	143
Arts & Architecture	500	18,026	70%	\$328	146
Economics	1,076	43,360	51%	\$201	164
Education	1,317	52,251	73%	\$121	167
History	427	11,704	94%	\$23	173
Language & Literature	1,123	30,819	86%	\$37	176
Law	603	20,072	84%	\$69	179
Library Science	187	6,761	88%	\$65	182
Media & Communications	345	10,259	83%	\$186	188
Miscellany	408	17,693	66%	\$170	195
Philosophy	335	9,175	90%	\$68	201
Political Science	482	16,145	81%	\$113	207
Psychology	267	18,159	30%	\$1,544	210
Religion	360	10,885	74%	\$174	213
Sociology	697	25,554	76%	\$191	216

As in Chapters 16 and 17, this table is alphabetic. Psychology stands out as the only four-digit average cost, more than four times as much as Arts & Architecture, the second highest.

Country of Publication, H&SS

The 32 countries in this table each had at least 1,700 H&SS articles in 2022; another 84 had fewer articles. Brazil and Switzerland stand out in different ways: Brazil for by far the most articles and a very low average cost, Switzerland for average cost almost twice as high as any other country. Argentina, Colombia, Cuba and Ecuador have no fee journals in H&SS; that's also true for quite a few other countries.

Country	Journals	Articles	%no-fee	\$/article
Brazil	1,073	41,635	95%	\$20
Indonesia	1,163	29,415	48%	\$26
Spain	761	24,015	95%	\$12
Switzerland	95	22,540	6%	\$1,902
Iran	222	17,546	26%	\$69
Russia	266	15,438	88%	\$30
United Kingdom	399	15,268	31%	\$1,019
United States	422	12,989	81%	\$167
Poland	475	11,335	89%	\$32
Turkey	255	10,310	84%	\$50
Italy	341	9,766	96%	\$12
Romania	209	8,637	90%	\$10
Ukraine	210	8,514	30%	\$50
Argentina	272	6,921	100%	\$0
Colombia	280	6,675	99%	\$0
France	202	6,058	98%	\$19
Mexico	139	6,053	98%	\$3
Germany	151	5,285	71%	\$96
Cuba	39	3,572	100%	\$0
Canada	131	3,534	95%	\$47
South Africa	86	3,480	13%	\$523
Netherlands	98	3,425	69%	\$369
Portugal	120	3,331	88%	\$55
Serbia	115	3,020	86%	\$24
Chile	109	2,583	94%	\$5
Moldova	24	2,316	86%	\$6
Norway	107	2,299	79%	\$220
Czechia	85	2,212	95%	\$14
Iraq	24	2,020	23%	\$69
Ecuador	52	1,921	100%	\$0
Croatia	88	1,841	95%	\$40
Australia	52	1,779	93%	\$50

19. Agriculture

Key Facts, Agriculture

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	630	56,403			\$1,320	-4%
Fee	294	45,352	80%	17%	\$1,642	-18%
No-fee	336	11,051	20%	-37%		

For subject chapters, "Rel%" are relative to all, not to a subject segment.

Articles and Journals by Year, Agriculture

	2022	2021	2020	2019	2018	2017
Journals	584	600	587	566	540	517
%No-fee	53%	54%	55%	56%	57%	57%
Articles	56,403	46,248	40,139	32,335	28,472	25,477
%No-fee	20%	27%	31%	35%	40%	44%
Change	22%	15%	24%	14%	12%	

Growth every year; shift toward fees seems to have reversed for 2022.

Article Volume, Agriculture

	Journals	Articles	%No-fee	\$/article
Largest: 600+	15	29,182	0%	\$2,038
Large: 150-599	57	9,525	21%	\$803
Med.: 60-149	180	9,477	45%	\$535
Small: 20-59	303	7,491	56%	\$297
Smallest: 0-19	75	728	78%	\$76

The largest journals have *by far* the highest fees. That's not rare.

Fees and Revenue, Agriculture

	Journals	Articles	Revenue	\$/article
\$2,000+	35	18,971	\$46,421,960	\$2,447
\$1,000-\$1,999	56	15,274	\$24,631,768	\$1,613
\$500-\$999	29	3,671	\$2,551,537	\$695
\$0.01-\$499	155	7,436	\$859,990	\$116
No fee	309	11,051		
Total	584	56,403	\$74,465,255	\$1,320

Region, Agriculture

Region	Journals	Articles	%No-fee	\$/article
Western Europe	134	34,198	7%	\$1,932
Asia	123	6,320	30%	\$320
Latin America	129	4,812	57%	\$121
Eastern Europe	127	4,444	60%	\$144
Middle East	73	3,638	36%	\$52
Pacific/English	36	2,871	2%	\$1,729
Africa	8	120	51%	\$72

Publisher Category, Agriculture

Category	Journals	Articles	%No-fee	\$/article
Open Access	62	22,630	4%	\$1,686
Traditional	108	17,223	9%	\$1,873
Univ./college	370	12,633	54%	\$192
Society/govt	90	3,917	42%	\$410

Country of Publication, Agriculture, >170 articles in 2022

In addition to these 30, there are 34 countries with fewer articles. Switzerland's very high costs have declined by \$159/article.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	16	24,273	0%	\$2,198
United Kingdom	52	6,120	6%	\$1,623
United States	30	2,699	2%	\$1,651
Brazil	58	2,625	48%	\$175
China	14	2,526	8%	\$684
Indonesia	82	2,346	48%	\$34
Netherlands	11	1,560	13%	\$1,530
Iran	39	1,542	31%	\$47
Turkey	21	1,125	62%	\$9
Italy	22	1,122	71%	\$166
Russia	19	1,067	71%	\$15
Romania	18	823	51%	\$71
Bulgaria	7	596	17%	\$621
Poland	26	566	51%	\$292
Iraq	6	554	0%	\$133
Argentina	13	474	53%	\$36
Mexico	8	444	18%	\$172
Colombia	16	431	100%	\$0
Ukraine	14	405	54%	\$10
France	7	348	91%	\$87
Egypt	5	336	24%	\$80
Spain	9	333	100%	\$0
Malaysia	2	323	4%	\$96
India	6	314	96%	\$1
Cuba	11	269	100%	\$0
South Korea	4	218	34%	\$419
Croatia	7	215	100%	\$0
Serbia	13	208	100%	\$0
Japan	1	183	0%	\$305
Germany	7	175	69%	\$59

20. Anthropology

Key Facts, Anthropology

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	1,000	32,324			\$191	-86%
Fee	150	9,834	30%	-56%	\$629	-69%
No-fee	850	22,490	70%	123%		

Includes archaeology, sports sciences and tourism. Mostly no-fee, and the fees are relatively low. Some ambiguous journals have moved here.

Articles and Journals by Year, Anthropology

	2022	2021	2020	2019	2018	2017
Journals	929	955	926	893	864	813
%No-fee	84%	85%	86%	87%	87%	88%
Articles	32,324	34,411	28,467	25,849	25,586	23,293
%No-fee	70%	72%	79%	78%	78%	81%
Change	-6%	21%	10%	1%	10%	

Article Volume, Anthropology

	Journals	Articles	%No-fee	\$/article
Largest: 600+	3	1,389	0%	\$554
Large: 150-599	30	6,136	40%	\$486
Med.: 60-149	174	9,197	71%	\$151
Small: 20-59	593	13,638	86%	\$72
Smallest: 0-19	200	1,964	91%	\$26

Few articles in larger (and more expensive) journals, typical of H&SS.

Fees and Revenue, Anthropology

	Journals	Articles	Revenue	\$/article
\$2,000+	4	173	\$360,256	\$2,082
\$1,000-\$1,999	32	2,693	\$4,110,375	\$1,526
\$500-\$999	12	1,101	\$921,027	\$837
\$0.01-\$499	96	5,867	\$793,493	\$135
No fee	785	22,490		
Total	929	32,324	\$6,185,151	\$191

Fewer very expensive journals, lower fees in general.

Region, Anthropology

Region	Journals	Articles	%No-fee	\$/article
Western Europe	348	11,208	62%	\$440
Latin America	221	6,586	95%	\$37
Eastern Europe	196	6,546	79%	\$43
Middle East	65	3,243	31%	\$110
Asia	88	2,667	47%	\$121
Pacific/English	75	1,983	89%	\$27
Africa	7	91	62%	\$35

Publisher Category, Anthropology

Category	Journals	Articles	%No-fee	\$/article
Univ/college	735	23,173	76%	\$68
Open Access	119	3,693	46%	\$486
Society/govt	94	2,861	86%	\$106
Traditional	52	2,597	25%	\$969

As is typical for H&SS, universities dominate.

Country of Publication, Anthropology, >160 articles in 2022

In addition to these 31, another 42 have fewer articles.

Country	Journals	Articles	%no-fee	\$/article
Brazil	103	3,766	92%	\$64
Spain	102	2,932	75%	\$58
Switzerland	17	1,937	8%	\$1,184
Iran	23	1,863	11%	\$98
Indonesia	60	1,738	43%	\$24
France	49	1,727	95%	\$67
United Kingdom	46	1643	19%	\$1,315
United States	56	1573	88%	\$31
Russia	25	1,534	83%	\$40
Poland	56	1,380	73%	\$85
Romania	28	1,204	73%	\$39
Italy	36	975	100%	\$0
Turkey	29	885	88%	\$122
Argentina	39	853	100%	\$0
Colombia	23	527	97%	\$3
Ukraine	15	513	39%	\$77
Slovenia	5	500	100%	\$0
Germany	19	485	89%	\$179
Portugal	21	464	78%	\$46
Serbia	18	398	100%	\$0
Cuba	7	381	100%	\$0
Mexico	14	369	100%	\$0
Canada	15	354	95%	\$18
Netherlands	12	349	75%	\$192
China	5	331	50%	\$386
Iraq	5	269	0%	\$97
Chile	12	254	100%	\$0
Norway	15	242	78%	\$46
Egypt	7	226	11%	\$184
Malaysia	6	174	100%	\$0
Croatia	10	163	100%	\$0

21. Arts & Architecture

Key Facts, Arts & Architecture

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	500	18,026			\$328	-76%
Fee	59	5,412	30%	-56%	\$1,093	-45%
No-fee	441	12,614	70%	124%		

Fees are up somewhat, with higher fee-based percentage.

Articles and Journals by Year, Arts & Architecture

	2022	2021	2020	2019	2018	2017
Journals	467	475	476	465	438	406
%No-fee	88%	88%	88%	88%	88%	89%
Articles	18,026	17,255	14,003	12,677	12,023	10,226
%No-fee	70%	78%	81%	80%	80%	83%
Change	4%	23%	10%	5%	18%	

Modest growth following strong year; quite a few added journals.

Article Volume, Arts & Architecture

	Journals	Articles	%No-fee	\$/article
Largest: 600+	3	4,095	24%	\$1,093
Large: 150-599	12	1,952	80%	\$202
Med.: 60-149	71	4,118	71%	\$175
Small: 20-59	302	6,860	90%	\$42
Smallest: 0-19	112	1,001	96%	\$35

Extreme case of biggest journals being by far the most expensive.

Fees and Revenue, Arts & Architecture

	Journals	Articles	Revenue	\$/article
\$2,000+	2	37	\$92,102	\$2,489
\$1,000-\$1,999	13	3,114	\$5,355,117	\$1,720
\$500-\$999	6	184	\$123,820	\$673
\$0.01-\$499	35	2,077	\$346,250	\$167
No fee	411	12,614		
Total	467	18,026	\$5,917,289	\$328

Big increase in moderately-expensive journals.

Region, Arts & Architecture

Region	Journals	Articles	%No-fee	\$/article
Western Europe	228	9,379	61%	\$589
Latin America	116	3,468	100%	\$0
Eastern Europe	68	1,998	73%	\$88
Middle East	27	1,839	45%	\$59
Asia	29	669	80%	\$16
Pacific/English	29	606	81%	\$161
Africa	3	67	100%	\$0

The average Western Europe cost has increased by \$183—but the average Latin America cost is back down to \$0.

Publisher Category, Arts & Architecture

Category	Journals	Articles	%No-fee	\$/article
Univ./college	377	11,604	84%	\$40
Open Access	71	4,524	34%	\$1,081
Society/govt	33	1,048	94%	\$20
Traditional	19	850	39%	\$641

Country of Publication, Arts & Architecture, 70+ articles in 2022

In addition to these 32 countries, 35 have fewer articles. Most countries have no fee-charging journals in this category.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	5	2,504	1%	\$1,828
Italy	56	2,430	86%	\$47
Spain	76	1,905	98%	\$4
Brazil	52	1,629	100%	\$0
Iran	7	973	4%	\$92
United Kingdom	26	733	42%	\$711
Argentina	22	724	100%	\$0
Turkey	15	688	100%	\$0
Russia	10	532	35%	\$296
Indonesia	24	515	73%	\$21
Netherlands	9	471	81%	\$177
United States	24	471	87%	\$32
Ukraine	14	462	68%	\$9
France	9	303	100%	\$0
Germany	11	303	66%	\$190
Colombia	12	285	100%	\$0
Poland	8	283	100%	\$0
Portugal	9	261	62%	\$344
Cuba	3	233	100%	\$0
Romania	5	229	100%	\$0
Chile	8	198	100%	\$0
Serbia	10	166	100%	\$0
Norway	13	164	66%	\$439
Mexico	6	128	100%	\$0
Slovenia	7	113	100%	\$0
Greece	2	98	100%	\$0
Iraq	2	97	100%	\$0
Ecuador	4	88	100%	\$0
Egypt	3	81	9%	\$239
Peru	4	80	100%	\$0
China	1	78	100%	\$0
Finland	5	75	100%	\$0

22. Biology

Key Facts, Biology

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	451	84,421			\$2,057	50%
Fee	302	78,586	93%	35%	\$2,210	11%
No-fee	149	5,835	7%	-78%		

Much as you'd expect: very few no-fee, very high fees (but \$242/article less than in *GOA7*).

Articles and Journals by Year, Biology

	2022	2021	2020	2019	2018	2017
Journals	423	434	401	379	364	347
%No-fee	32%	33%	34%	34%	34%	35%
Articles	84,421	75,094	58,201	42,583	36,962	29,905
%No-fee	7%	9%	9%	10%	11%	14%
Change	12%	29%	37%	15%	24%	

Strong growth continues.

Article Volume, Biology

	Journals	Articles	%No-fee	\$/article
Largest: 600+	35	59,586	1%	\$2,414
Large: 150-599	59	13,125	10%	\$1,475
Med.: 60-149	104	6,209	25%	\$1,148
Small: 20-59	196	5,078	41%	\$630
Smallest: 0-19	57	423	59%	\$378

Seven of ten articles are in the largest 8% of journals.

Fees and Revenue, Biology

	Journals	Articles	Revenue	\$/art
\$2,000+	92	51,002	\$137,202,681	\$2,690
\$1,000-\$1,999	85	20,337	\$34,209,741	\$1,682
\$500-\$999	29	2,175	\$1,426,659	\$656
\$0.01-\$499	80	5,072	\$835,733	\$165
No fee	137	5,835		
Total	423	84,421	\$173,674,813	\$2,057

Very expensive journals continue to dominate.

Region, Biology

Region	Journals	Articles	%No-fee	\$/article
Western Europe	202	68,658	2%	\$2,338
Pacific/English	32	4,532	6%	\$2,026
Asia	78	3,674	24%	\$484
Eastern Europe	66	2,828	46%	\$344
Middle East	32	2,716	20%	\$322
Latin America	37	1,953	68%	\$171
Africa	4	60	2%	\$115

Four of five articles are published in Western Europe.

Publisher Category, Biology

Category	Journals	Articles	%No-fee	\$/article
Open Access	89	36,621	1%	\$2,167
Traditional	158	33,714	4%	\$2,377
Univ./college	153	10,288	31%	\$1,073
Society/govt	51	3,798	18%	\$825

Country of Publication, Biology, >100 articles in 2022

31 countries in the table; 32 more with fewer articles. Average fees have declined slightly in the four most expensive countries.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	39	44,884	0%	\$2,425
United Kingdom	114	19,148	2%	\$2,368
United States	26	4,045	6%	\$2,099
Netherlands	17	2,086	0%	\$2,202
Iran	15	1,120	32%	\$54
Brazil	14	1,066	41%	\$312
Spain	6	1,045	11%	\$1,333
Indonesia	36	853	23%	\$88
India	7	788	38%	\$385
Pakistan	6	731	12%	\$178
Bulgaria	12	722	35%	\$329
France	3	700	100%	\$0
Russia	12	669	55%	\$61
Saudi Arabia	1	610	0%	\$1,250
Iraq	2	586	15%	\$44
Poland	14	556	15%	\$1,146
Australia	4	456	0%	\$1,517
Singapore	5	450	10%	\$1,510
Colombia	10	407	100%	\$0
Germany	9	375	59%	\$586
Egypt	10	331	8%	\$83
Japan	5	250	0%	\$1,761
Ukraine	11	244	36%	\$36
Ecuador	1	227	100%	\$0
Italy	8	212	51%	\$71
China	5	177	53%	\$437
South Korea	3	166	30%	\$343
Finland	2	159	0%	\$518
Serbia	3	159	100%	\$0
Malaysia	4	138	34%	\$62
Romania	3	109	100%	\$0

23. Chemistry

Key Facts, Chemistry

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	247	60,866			\$1,876	36%
Fee	152	56,177	92%	34%	\$2,032	2%
No-fee	95	4,689	8%	-75%		

Articles and Journals by Year, Chemistry

	2022	2021	2020	2019	2018	2017
Journals	235	235	210	192	171	166
%No-fee	37%	38%	43%	46%	51%	50%
Articles	60,866	53,621	43,713	34,465	27,923	25,477
%No-fee	8%	9%	12%	16%	18%	18%
Change	14%	23%	27%	23%	10%	

Strong growth every year (some journals have been relabeled).

Article Volume, Chemistry

	Journals	Articles	%No-fee	\$/article
Largest: 600+	17	46,189	4%	\$2,109
Large: 150-599	36	6,891	6%	\$1,376
Med.: 60-149	63	4,836	27%	\$1,090
Small: 20-59	106	2,802	43%	\$694
Smallest: 0-19	25	148	72%	\$347

The largest journals publish three-quarters of all articles (but have declined slightly in average fee).

Fees and Revenue, Chemistry

	Journals	Articles	Revenue	\$/article
\$2,000+	28	34,973	\$85,399,849	\$2,442
\$1,000-\$1,999	72	17,552	\$26,922,105	\$1,534
\$500-\$999	24	2,112	\$1,534,563	\$727
\$0.01-\$499	25	1,540	\$298,894	\$194
No fee	86	4,689		
Total	235	60,866	\$114,155,411	\$1,876

Region, Chemistry

Region	Journals	Articles	%No-fee	\$/article
Western Europe	107	53,598	4%	\$1,998
Pacific/English	17	2,507	5%	\$2,299
Eastern Europe	46	1,813	52%	\$256
Asia	37	1,417	38%	\$356
Middle East	20	829	67%	\$219
Latin America	15	552	41%	\$170
Africa	5	150	35%	\$523

Publisher Category, Chemistry

Category	Journals	Articles	%No-fee	\$/article
Open Access	44	39,443	1%	\$2,270
Traditional	80	10,254	2%	\$1,537
Society/govt	45	8,578	32%	\$942
Univ./college	78	2,591	56%	\$298

Country of Publication, Chemistry, >30 articles in 2022

In addition to the 29 countries in the table, 13 others published fewer articles—but Switzerland published two-thirds of the articles.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	35	40,815	0%	\$2,272
United Kingdom	39	8,828	19%	\$1,097
Netherlands	18	2,694	2%	\$1,328
United States	16	2,464	3%	\$2,339
Germany	8	787	26%	\$767
Indonesia	20	578	30%	\$109
Iran	15	557	75%	\$29
China	10	413	58%	\$349
Brazil	6	408	21%	\$231
Spain	3	362	26%	\$1,115
Poland	10	358	3%	\$1,014
Serbia	7	343	62%	\$40
Hungary	4	254	42%	\$61
Japan	3	246	0%	\$1,049
Russia	5	198	94%	\$114
Romania	2	161	16%	\$264
Ukraine	7	149	89%	\$2
India	2	146	79%	\$257
Saudi Arabia	1	132	0%	\$1,250
South Africa	2	116	16%	\$676
Turkey	2	116	100%	\$0
Croatia	4	115	100%	\$0
Slovenia	1	92	100%	\$0
Italy	3	82	32%	\$682
Kazakhstan	3	76	0%	\$83
Cuba	2	48	100%	\$0
Canada	1	43	100%	\$0
Mexico	2	31	100%	\$0
France	1	30	100%	\$0

24. Computer Science

Key Facts, Computer Science

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	449	31,179			\$886	-36%
Fee	197	22,272	71%	4%	\$1,240	-38%
No-fee	252	8,907	29%	-8%		

Relatively inexpensive for STEM.

Articles and Journals by Year, Computer Science

	2022	2021	2020	2019	2018	2017
Journals	420	421	390	356	334	317
%No-fee	55%	55%	59%	61%	62%	62%
Articles	31,179	26,020	20,624	17,093	16,778	13,345
%No-fee	29%	33%	37%	42%	41%	47%
Change	20%	26%	21%	2%	26%	

Strong growth in recent years, no-fee percentage dropping.

Article Volume, Computer Science

	Journals	Articles	%No-fee	\$/article
Largest: 600+	8	8,463	0%	\$1,117
Large: 150-599	49	9,716	22%	\$1,093
Med.: 60-149	94	6,820	47%	\$733
Small: 20-59	223	5,504	55%	\$449
Smallest: 0-19	75	676	86%	\$108

Fees and Revenue, Computer Science

	Journals	Articles	Revenue	\$/article
\$2,000+	27	1,958	\$5,125,256	\$2,618
\$1,000-\$1,999	81	11,930	\$18,711,826	\$1,568
\$500-\$999	30	4,544	\$3,486,869	\$767
\$0.01-\$499	53	3,840	\$295,818	\$77
No fee	229	8,907		
Total	420	31,179	\$27,619,769	\$886

Region, Computer Science

Region	Journals	Articles	%No-fee	\$/article
Western Europe	166	18,097	10%	\$1,306
Asia	121	4,952	46%	\$225
Pacific/English	33	3,460	39%	\$706
Eastern Europe	82	3,116	73%	\$123
Middle East	25	1,193	70%	\$16
Latin America	19	301	100%	\$0
Africa	3	60	20%	\$466

Only Western Europe exceeds \$710. Asia articles increased a lot.

Publisher Category, Computer Science

Category	Journals	Articles	%No-fee	\$/article
Traditional	121	12,965	9%	\$1,392
Univ./college	217	10,434	47%	\$348
Open Access	61	6,213	27%	\$929
Society/govt	50	1,567	77%	\$109

Country of Publication, Computer Science, >60 articles in 2022

In addition to the 32 countries in the table, 24 others published fewer articles.

Country	Journals	Articles	%no-fee	\$/article
United Kingdom	75	8,309	3%	\$1,627
Switzerland	30	4,653	0%	\$1,552
United States	24	2,562	34%	\$666
Indonesia	79	2,487	48%	\$31
Germany	12	2,379	6%	\$496
China	16	1,477	18%	\$603
Netherlands	17	1,400	13%	\$1,212
Russia	18	976	100%	\$0
Poland	19	798	79%	\$168
Iran	16	747	98%	\$2
Canada	6	644	34%	\$1,143
France	6	611	92%	\$28
Ukraine	12	419	41%	\$10
Romania	9	387	34%	\$349
Malaysia	6	363	100%	\$0
Australia	2	254	100%	\$0
Spain	7	223	100%	\$0
Turkey	4	215	19%	\$22
Iraq	4	202	19%	\$60
Singapore	6	196	100%	\$0
Portugal	4	170	100%	\$0
Belgium	9	161	94%	\$1
Serbia	4	145	100%	\$0
Japan	3	141	0%	\$977
Italy	4	111	100%	\$0
Brazil	8	109	100%	\$0
Latvia	3	82	30%	\$731
Belarus	3	81	100%	\$0
Thailand	2	80	100%	\$0
India	2	77	100%	\$0
Austria	1	68	100%	\$0
Taiwan	2	61	100%	\$0

25. Earth Sciences

Key Facts, Earth Sciences

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	611	52,948			\$1,596	16%
Fee	213	40,903	77%	12%	\$2,066	3%
No-fee	398	12,045	23%	-27%		

A number of journals moved here from other subjects.

Articles and Journals by Year, Earth Sciences

	2022	2021	2020	2019	2018	2017
Journals	567	569	552	522	506	483
%No-fee	65%	67%	68%	69%	69%	69%
Articles	52,948	42,222	37,436	29,917	26,566	21,645
%No-fee	23%	30%	32%	38%	40%	45%
Change	25%	13%	25%	13%	23%	

Solid growth each year. Very sharp drop in no-fee percentage.

Article Volume, Earth Sciences

	Journals	Articles	%No-fee	\$/article
Largest: 600+	16	27,369	0%	\$2,385
Large: 150-599	50	9,574	20%	\$1,296
Med.: 60-149	119	6,918	52%	\$631
Small: 20-59	330	8,323	71%	\$291
Smallest: 0-19	96	764	92%	\$41

The largest journals are nearly twice as expensive as the large ones, partly because they're entirely fee-based.

Fees and Revenue, Earth Sciences

	Journals	Articles	Revenue	\$/article
\$2,000+	32	20,267	\$60,044,346	\$2,963
\$1,000-\$1,999	83	15,950	\$22,295,288	\$1,398
\$500-\$999	30	2,154	\$1,676,925	\$779
\$0.01-\$499	53	2,532	\$480,845	\$190
No fee	369	12,045		
Total	567	52,948	\$84,497,404	\$1,596

Region, Earth Sciences

Region	Journals	Articles	%No-fee	\$/article
Western Europe	217	35,444	9%	\$2,040
Asia	73	4,879	31%	\$479
Pacific/English	33	4,127	10%	\$2,302
Latin America	106	3,473	87%	\$17
Eastern Europe	135	3,298	88%	\$75
Middle East	42	1,508	63%	\$44
Africa	5	219	100%	\$0

Pacific/English is now even more expensive than Western Europe.

Publisher Category, Earth Sciences

Category	Journals	Articles	%No-fee	\$/article
Open Access	100	20,265	7%	\$1,527
Traditional	122	19,655	10%	\$2,567
Univ./college	291	9,038	76%	\$126
Society/govt	98	3,990	44%	\$491

Country of Publication, Earth Sciences, >120 articles in 2022

In addition to these 31, there are 30 others with fewer articles.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	31	21,715	0%	\$1,935
United Kingdom	58	8,798	3%	\$3,097
China	30	3,549	36%	\$463
United States	25	3,100	8%	\$2,258
Brazil	66	2,418	87%	\$11
Netherlands	15	1,846	22%	\$1,298
Canada	4	984	11%	\$2,541
Russia	27	949	94%	\$19
Germany	38	807	42%	\$558
Poland	30	768	67%	\$257
Iran	25	723	53%	\$45
Japan	8	688	0%	\$898
France	16	610	87%	\$120
Spain	20	544	98%	\$10
Turkey	12	450	100%	\$0
Indonesia	23	436	33%	\$46
Romania	19	364	100%	\$0
Colombia	10	314	100%	\$0
Denmark	5	273	100%	\$0
Italy	9	239	100%	\$0
Slovakia	7	221	100%	\$0
Chile	7	205	64%	\$125
Ukraine	12	204	90%	\$2
Iraq	2	194	0%	\$167
Mexico	6	173	79%	\$23
Argentina	10	160	94%	\$7
Croatia	9	155	100%	\$0
Portugal	3	150	100%	\$0
Egypt	3	141	88%	\$3
Bulgaria	3	132	100%	\$0
South Africa	2	124	100%	\$0

26. Ecology

Key Facts, Ecology

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	613	81,782			\$1,768	29%
Fee	290	70,131	86%	25%	\$2,061	3%
No-fee	323	11,651	14%	-54%		

Articles and Journals by Year, Ecology

	2022	2021	2020	2019	2018	2017
Journals	564	568	534	486	441	408
%No-fee	51%	54%	55%	57%	59%	59%
Articles	81,782	67,320	49,973	35,112	27,612	22,512
%No-fee	14%	17%	19%	24%	29%	34%
Change	21%	35%	42%	27%	23%	

Growth slowing but still strong. No-fee percentage dropping badly.

Article Volume, Ecology

	Journals	Articles	%No-fee	\$/article
Largest: 600+	16	51,560	0%	\$2,316
Large: 150-599	64	12,423	26%	\$1,027
Med.: 60-149	144	9,416	40%	\$863
Small: 20-59	309	7,683	54%	\$531
Smallest: 0-19	80	700	71%	\$257

The largest journals predominate and cost by far the most.

Fees and Revenue, Ecology

	Journals	Articles	Revenue	\$/article
\$2,000+	57	50,486	\$122,267,398	\$2,422
\$1,000-\$1,999	115	12,850	\$19,583,799	\$1,524
\$500-\$999	30	2,232	\$1,778,406	\$797
\$0.01-\$499	73	4,563	\$933,182	\$205
No fee	289	11,651		
Total	564	81,782	\$144,562,785	\$1,768

Region, Ecology

Region	Journals	Articles	%No-fee	\$/article
Western Europe	224	64,777	6%	\$2,097
Pacific/English	54	4,438	16%	\$1,514
Asia	90	4,401	32%	\$294
Eastern Europe	89	3,292	52%	\$172
Latin America	89	2,763	90%	\$19
Middle East	51	1,826	60%	\$38
Africa	16	285	74%	\$61

Publisher Category, Ecology

Category	Journals	Articles	%No-fee	\$/article
Open Access	85	39,690	2%	\$2,287
Traditional	196	28,155	6%	\$1,818
Univ./college	250	8,104	61%	\$171
Society/govt	82	5,833	70%	\$210

Country of Publication, Ecology, >120 articles in 2022

In addition to the 32 countries in the table, another 30 published fewer articles. (As elsewhere, if a country has journals but no 2021 articles, it's omitted.)

Country	Journals	Articles	%no-fee	\$/article
Switzerland	33	45,338	0%	\$2,356
United Kingdom	120	15,245	16%	\$1,593
United States	42	4,053	16%	\$1,413
Netherlands	23	2,393	16%	\$1,540
Indonesia	33	1,656	15%	\$179
Brazil	49	1,445	82%	\$36
China	27	1,441	54%	\$414
Iran	38	1,364	56%	\$43
Poland	27	1,083	33%	\$263
Germany	17	765	54%	\$981
India	8	594	6%	\$525
Russia	15	539	81%	\$56
Croatia	4	473	90%	\$52
Argentina	7	333	93%	\$1
France	9	300	51%	\$851
Bulgaria	8	291	5%	\$298
Australia	7	286	4%	\$3,337
Spain	10	274	100%	\$0
Mexico	4	239	100%	\$0
Turkey	6	233	100%	\$0
Romania	9	221	85%	\$6
Colombia	10	214	100%	\$0
Lithuania	4	202	18%	\$568
Denmark	1	189	100%	\$0
Italy	7	183	92%	\$48
Ukraine	7	183	33%	\$28
Thailand	3	182	69%	\$94
Taiwan	1	174	0%	\$300
Egypt	5	148	61%	\$39
Costa Rica	3	142	100%	\$0
Malaysia	6	129	100%	\$0

27. Economics

Key Facts, Economics

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	1,087	43,704			\$200	-85%
Fee	274	21,163	48%	-30%	\$412	-79%
No-fee	813	22,541	52%	65%		

Articles and Journals by Year, Economics

	2022	2021	2020	2019	2018	2017
Journals	1,000	1,038	1,025	991	946	901
%No-fee	75%	75%	75%	75%	76%	76%
Articles	43,704	44,749	34,936	30,144	29,755	27,695
%No-fee	52%	49%	59%	62%	63%	65%
Change	-2%	28%	16%	1%	7%	

Slight decline after a strong 2021.

Article Volume, Economics

	Journals	Articles	%No-fee	\$/article
Largest: 600+	12	9,941	15%	\$245
Large: 150-599	44	9,073	35%	\$469
Med.: 60-149	155	7,767	63%	\$140
Small: 20-59	620	14,473	75%	\$62
Smallest: 0-19	256	2,450	88%	\$18

Large (not largest) journals the most expensive.

Fees and Revenue, Economics

	Journals	Articles	Revenue	\$/article
\$2,000+	2	67	\$177,580	\$2,650
\$1,000-\$1,999	25	3,633	\$5,120,159	\$1,409
\$500-\$999	22	2,918	\$2,058,717	\$706
\$0.01-\$499	205	14,545	\$1,364,287	\$94
No fee	746	22,541		
Total	1,000	43,704	\$8,720,743	\$200

Region, Economics

Region	Journals	Articles	%No-fee	\$/article
Eastern Europe	308	10,924	59%	\$71
Middle East	93	9,590	20%	\$97
Asia	269	7,344	54%	\$64
Latin America	217	7,062	99%	\$1
Western Europe	134	6,039	34%	\$889
Africa	30	1,794	25%	\$556
Pacific/English	36	951	80%	\$185

Publisher Category, Economics

Category	Journals	Articles	%No-fee	\$/article
Univ/college	799	28,507	57%	\$42
Open Access	112	8,152	30%	\$479
Traditional	99	4,261	41%	\$773
Society/govt	77	2,784	74%	\$113

Two-thirds of articles from academia.

Country of Publication, Economics, >150 articles in 2022

In addition to these 31 (nine with no fees), another 46 published fewer articles.

Country	Journals	Articles	%no-fee	\$/article
Iran	44	7,173	10%	\$79
Indonesia	214	5,446	51%	\$30
Ukraine	40	2,810	10%	\$100
Brazil	95	2,792	97%	\$3
United Kingdom	55	2,774	32%	\$900
Turkey	44	2,342	49%	\$155
Russia	43	2,218	95%	\$6
Switzerland	10	1,894	5%	\$1,383
Mexico	21	1,870	100%	\$0
Romania	55	1,802	85%	\$9
Poland	71	1,384	70%	\$65
South Africa	17	1,307	3%	\$760
Serbia	25	806	72%	\$37
Colombia	43	781	100%	\$0
Ecuador	9	763	100%	\$0
United States	26	643	70%	\$273
South Korea	8	597	11%	\$434
Viet Nam	8	534	1	0
Spain	24	506	89%	\$40
Lithuania	12	394	18%	\$405
Pakistan	18	380	78%	\$41
Netherlands	8	279	59%	\$682
Morocco	8	261	100%	\$0
Argentina	19	260	100%	\$0
Moldova	4	251	13%	\$46
Cuba	6	227	100%	\$0
Canada	7	226	100%	\$0
Croatia	16	224	94%	\$20
Czechia	12	191	54%	\$151
Italy	9	190	100%	\$0
Germany	7	166	90%	\$108

28. Education

Key Facts, Education

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	1,317	52,251			\$121	-91%
Fee	271	14,147	27%	-61%	\$445	-78%
No-fee	1,046	38,104	73%	134%		

Articles and Journals by Year, Education

	2022	2021	2020	2019	2018	2017
Journals	1,244	1,264	1,250	1,198	1,128	1,074
%No-fee	79%	79%	80%	80%	81%	81%
Articles	52,251	52,176	42,968	37,284	35,070	33,005
%No-fee	73%	76%	76%	77%	79%	81%
Change	0%	21%	15%	6%	6%	

Article Volume, Education

	Journals	Articles	%No-fee	\$/article
Largest: 600+	6	6,846	57%	\$353
Large: 150-599	48	10,416	64%	\$201
Med.: 60-149	278	15,158	77%	\$75
Small: 20-59	722	17,229	80%	\$33
Smallest: 0-19	263	2,602	77%	\$34

Most articles are in medium and small journals.

Fees and Revenue, Education

	Journals	Articles	Revenue	\$/article
\$2,000+	4	300	\$687,160	\$2,291
\$1,000-\$1,999	16	2,224	\$3,068,882	\$1,380
\$500-\$999	17	2,035	\$1,739,150	\$855
\$0.01-\$499	223	9,588	\$805,496	\$84
No fee	984	38,104		
Total	1,244	52,251	\$6,300,689	\$121

Region, Education

Region	Journals	Articles	%No-fee	\$/article
Latin America	322	15,313	99%	\$2
Western Europe	270	13,393	66%	\$386
Asia	352	11,073	42%	\$28
Eastern Europe	141	4,897	79%	\$25
Pacific/English	131	4,082	90%	\$69
Middle East	85	2,747	67%	\$59
Africa	16	746	25%	\$309

Latin America is largest with extremely low fees.

Publisher Category, Education

Category	Journals	Articles	%No-fee	\$/article
Univ/college	1,031	39,207	78%	\$19
Open Access	117	4,723	56%	\$469
Society/govt	115	4,723	90%	\$20
Traditional	54	3,598	22%	\$905

Three-quarters of the articles are from universities and colleges.

Country of Publication, Education, >150 articles in 2022

In addition to 32 countries in the table (12 no-fee), another 43 published fewer articles.

Country	Journals	Articles	%no-fee	\$/article
Indonesia	321	10,296	40%	\$25
Brazil	185	9,035	99%	\$1
Spain	92	5,080	98%	\$7
United States	88	2,903	88%	\$52
United Kingdom	53	2,262	33%	\$902
Switzerland	7	2,139	5%	\$1,127
Cuba	10	1,950	100%	\$0
Russia	22	1,392	74%	\$53
Turkey	46	1,343	90%	\$31
Colombia	41	1,155	100%	\$0
Mexico	16	1,036	93%	\$14
Germany	20	1,022	45%	\$222
Iran	30	999	40%	\$73
Poland	37	996	92%	\$25
Argentina	27	933	100%	\$0
Ukraine	30	833	45%	\$14
Czechia	12	803	99%	\$2
Norway	22	774	59%	\$504
South Africa	15	733	23%	\$315
Italy	17	722	100%	\$0
Canada	30	717	89%	\$178
Greece	5	380	100%	\$0
Australia	10	349	100%	\$0
Costa Rica	6	333	100%	\$0
Portugal	11	265	100%	\$0
Romania	11	224	82%	\$19
France	9	213	100%	\$0
Ecuador	7	174	100%	\$0
Serbia	11	172	100%	\$0
Malaysia	4	170	62%	\$131
Peru	7	161	100%	\$0
Iraq	2	153	71%	\$44

29. Engineering

Key Facts, Engineering

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	644	68,030			\$1,295	-6%
Fee	271	53,480	79%	14%	\$1,648	-17%
No-fee	373	14,550	21%	-31%		

Articles and Journals by Year, Engineering

	2022	2021	2020	2019	2018	2017
Journals	598	610	576	535	510	478
%No-fee	56%	58%	60%	63%	65%	65%
Articles	68,030	66,417	63,056	57,337	49,930	33,288
%No-fee	21%	23%	23%	29%	46%	51%
Change	2%	5%	10%	15%	50%	

Article Volume, Engineering

	Journals	Articles	%No-fee	\$/article
Largest: 600+	21	38,674	6%	\$1,835
Large: 150-599	61	10,937	28%	\$822
Med.: 60-149	166	9,515	37%	\$597
Small: 20-59	305	7,996	63%	\$298
Smallest: 0-19	91	908	79%	\$120

Fees and Revenue, Engineering

	Journals	Articles	Revenue	\$/article
\$2,000+	35	23,695	\$54,196,128	\$2,287
\$1,000-\$1,999	77	16,984	\$28,364,568	\$1,670
\$500-\$999	42	6,044	\$4,349,932	\$720
\$0.01-\$499	108	6,757	\$1,216,449	\$180
No fee	336	14,550		
Total	598	68,030	\$88,127,077	\$1,295

Region, Engineering

Region	Journals	Articles	%No-fee	\$/article
Western Europe	146	35,308	8%	\$1,818
Pacific/English	34	11,260	2%	\$1,753
Eastern Europe	169	8,801	56%	\$182
Asia	138	5,876	47%	\$226
Middle East	68	4,291	44%	\$273
Latin America	80	2,156	89%	\$31
Africa	9	338	26%	\$108

Publisher Category, Engineering

Category	Journals	Articles	%No-fee	\$/article
Open Access	63	22,213	6%	\$1,945
Traditional	143	17,923	15%	\$1,317
Univ./college	373	15,361	64%	\$80
Society/govt	65	12,533	6%	\$1,602

Country of Publication, Engineering, >170 articles in 2022

In addition to these 31 countries (four of which have no fees), another 40 countries—32 with no fees—published fewer articles.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	21	20,334	0%	\$2,240
United States	29	11,010	1%	\$1,779
United Kingdom	72	9,622	6%	\$1,634
Netherlands	16	2,250	18%	\$812
China	21	2,070	48%	\$436
Indonesia	77	1,861	49%	\$24
Romania	19	1,734	92%	\$9
Poland	38	1,610	24%	\$492
Russia	28	1,493	89%	\$22
Egypt	5	1,386	0%	\$801
Serbia	21	1,289	46%	\$107
France	6	1,236	88%	\$120
Iran	29	1,169	64%	\$13
Ukraine	16	946	20%	\$151
Turkey	14	861	100%	\$0
Brazil	21	853	71%	\$77
Malaysia	15	778	48%	\$142
Iraq	14	686	18%	\$56
Spain	10	565	24%	\$898
Colombia	28	560	100%	\$0
Greece	3	466	32%	\$283
Lithuania	10	438	3%	\$578
Germany	12	435	18%	\$689
Japan	5	411	0%	\$583
Czechia	11	355	59%	\$189
Croatia	7	340	23%	\$325
Taiwan	5	268	32%	\$74
Italy	1	267	100%	\$0
Cuba	6	189	100%	\$0
Australia	4	186	36%	\$676
Pakistan	5	179	58%	\$21

30. History

Key Facts, History

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	427	11,704			\$23	-98%
Fee	22	669	6%	-92%	\$403	-80%
No-fee	405	11,035	94%	202%		

Articles and Journals by Year, History

	2022	2021	2020	2019	2018	2017
Journals	389	408	408	397	391	372
%No-fee	95%	95%	95%	95%	95%	95%
Articles	11,704	12,832	12,433	11,173	11,110	10,858
%No-fee	94%	94%	95%	94%	94%	93%
Change	-9%	3%	11%	1%	2%	

Article Volume, History

	Journals	Articles	%No-fee	\$/article
Large: 150-599	9	890	81%	\$3
Med.: 60-149	75	3,705	94%	\$42
Small: 20-59	260	6,358	97%	\$17
Smallest: 0-19	83	751	91%	\$6

No largest journals, and most articles are in small journals.

Fees and Revenue, History

	Journals	Articles	Revenue	\$/article
\$2,000+	1	39	\$85,642	\$2,196
\$1,000-\$1,999	1	94	\$150,755	\$1,604
\$500-\$999	1	16	\$11,421	\$714
\$0.01-\$499	17	520	\$22,060	\$42
No fee	369	11,035		
Total	389	11,704	\$269,878	\$23

Region, History

Region	Journals	Articles	%No-fee	\$/article
Western Europe	167	4,559	97%	\$52
Latin America	124	3,868	100%	\$0
Eastern Europe	87	2,299	87%	\$3
Middle East	20	534	69%	\$42
Pacific/English	20	337	100%	\$0
Asia	7	89	44%	\$36
Africa	2	18	39%	\$37

Publisher Category, History

Category	Journals	Articles	%No-fee	\$/article
Univ./college	355	9,886	94%	\$12
Society/govt	37	1,045	91%	\$144
Open Access	33	665	100%	\$0
Traditional	2	108	100%	\$0

Country of Publication, History, >50 articles in 2022

Of the 32 countries in the table, 27 had no fees. Of 15 other countries with fewer articles, only two had any fees.

Country	Journals	Articles	%no-fee	\$/article
Spain	70	2,301	100%	\$0
Brazil	58	1,857	100%	\$0
Argentina	32	1,025	100%	\$0
Russia	15	786	100%	\$0
Italy	33	715	100%	\$0
Ukraine	14	471	34%	\$15
Poland	19	431	100%	\$0
France	17	362	100%	\$0
Mexico	10	358	100%	\$0
Portugal	9	315	100%	\$0
Colombia	11	314	100%	\$0
Turkey	12	270	74%	\$10
United Kingdom	9	255	48%	\$927
Chile	10	244	100%	\$0
Netherlands	5	160	100%	\$0
Canada	7	159	100%	\$0
Iraq	1	138	100%	\$0
Finland	5	130	100%	\$0
Serbia	6	129	100%	\$0
Norway	5	109	100%	\$0
Iran	5	108	30%	\$167
United States	9	108	100%	\$0
Slovenia	2	77	100%	\$0
Austria	4	76	100%	\$0
Greece	4	75	100%	\$0
Indonesia	6	71	30%	\$46
Australia	4	70	100%	\$0
Costa Rica	3	70	100%	\$0
Romania	6	66	100%	\$0
Slovakia	3	64	100%	\$0
Croatia	8	60	100%	\$0
Germany	5	51	100%	\$0

31. Language & Literature

Key Facts, Language & Literature

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	1,123	30,819			\$37	-97%
Fee	112	4,442	14%	-79%	\$258	-87%
No-fee	1,011	26,377	86%	175%		

Low fees and high no-fee percentage even for H&SS.

Articles and Journals by Year, Language & Literature

	2022	2021	2020	2019	2018	2017
Journals	1,015	1,067	1,066	1,030	995	943
%No-fee	90%	90%	90%	90%	90%	91%
Articles	30,819	34,268	29,940	27,669	26,595	25,333
%No-fee	86%	87%	89%	89%	88%	88%
Change	-10%	14%	8%	4%	5%	

Article Volume, Language & Literature

	Journals	Articles	%No-fee	\$/article
Largest: 600+	2	1,590	61%	\$28
Large: 150-599	16	2,189	58%	\$291
Med.: 60-149	174	8,989	89%	\$20
Small: 20-59	684	15,838	89%	\$16
Smallest: 0-19	247	2,213	93%	\$14

Odd, with three-digit fees only in large (not largest) journals.

Fees and Revenue, Language & Literature

	Journals	Articles	Revenue	\$/article
\$1,000-\$1,999	4	367	\$517,909	\$1,411
\$500-\$999	10	389	\$232,723	\$598
\$0.01-\$499	87	3,686	\$395,471	\$107
No fee	914	26,377		
Total	1,015	30,819	\$1,146,102	\$37

Region, Language & Literature

Region	Journals	Articles	%No-fee	\$/article
Western Europe	390	9,162	94%	\$66
Eastern Europe	266	7,849	88%	\$26
Latin America	206	6,576	100%	\$0
Asia	133	3,076	52%	\$39
Middle East	53	1,936	48%	\$37
Pacific/English	63	1,764	91%	\$29
Africa	12	456	27%	\$204

Publisher Category, Language & Literature'

Category	Journals	Articles	%No-fee	\$/article
Univ./college	926	25,117	88%	\$13
Open Access	93	2,605	61%	\$267
Society/govt	77	2,572	93%	\$14
Traditional	27	525	78%	\$150

Universities publish 81% of the articles.

Country of Publication, Language & Literature, >190 2022 articles

In addition to the 32 countries in the table (19 with no fees), another 36 countries published fewer articles.

Country	Journals	Articles	%no-fee	\$/article
Brazil	129	4,386	100%	\$0
Spain	138	3,531	100%	\$0
Indonesia	105	2,274	45%	\$31
Poland	92	2,065	98%	\$10
Russia	31	1,803	75%	\$75
Italy	63	1,617	100%	\$0
United States	48	1,443	89%	\$36
Romania	25	1,429	92%	\$8
Iran	31	1,350	27%	\$50
France	65	1,130	100%	\$0
Argentina	25	662	100%	\$0
United Kingdom	35	651	67%	\$214
Colombia	17	457	100%	\$0
Czechia	17	410	100%	\$0
Switzerland	7	399	23%	\$1,134
Ukraine	17	394	37%	\$21
Turkey	17	389	100%	\$0
Portugal	10	325	100%	\$0
Norway	15	321	100%	\$0
Germany	21	317	100%	\$0
Peru	8	311	100%	\$0
Slovenia	14	310	100%	\$0
Chile	8	269	100%	\$0
India	7	264	100%	\$0
Mexico	11	261	100%	\$0
Serbia	10	260	78%	\$113
Canada	10	258	100%	\$0
Lithuania	15	251	100%	\$0
Netherlands	9	249	90%	\$50
Pakistan	7	237	57%	\$49
South Africa	7	203	0%	\$405
Malaysia	4	196	36%	\$193

32. Law

Key Facts, Law

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	603	20,072			\$69	-95%
Fee	66	3,172	16%	-77%	\$434	-78%
No-fee	537	16,900	84%	170%		

Few fee articles even by H&SS standards.

Articles and Journals by Year, Law

	2022	2021	2020	2019	2018	2017
Journals	541	564	561	525	500	460
%No-fee	88%	88%	90%	90%	90%	92%
Articles	20,072	20,112	17,116	13,983	14,431	13,176
%No-fee	84%	86%	89%	89%	91%	91%
Change	0%	18%	22%	-3%	10%	

Flat (well, down 0.2%) after two strong years.

Article Volume, Law

	Journals	Articles	%No-fee	\$/article
Largest: 600+	2	1,524	100%	\$0
Large: 150-599	24	4,239	72%	\$146
Med.: 60-149	94	5,115	86%	\$96
Small: 20-59	359	8,157	86%	\$31
Smallest: 0-19	124	1,037	93%	\$7

Fees and Revenue, Law

	Journals	Articles	Revenue	\$/article
\$2,000+	1	239	\$602,964	\$2,523
\$1,000-\$1,999	8	361	\$541,506	\$1,500
\$500-\$999	4	132	\$81,298	\$616
\$0.01-\$499	50	2,440	\$149,496	\$61
No fee	478	16,900		
Total	541	20,072	\$1,375,264	\$69

Region, Law

Region	Journals	Articles	%No-fee	\$/article
Eastern Europe	128	6,891	81%	\$8
Latin America	181	4,744	99%	\$1
Western Europe	135	4,372	84%	\$267
Asia	109	2,131	70%	\$34
Middle East	27	888	62%	\$37
Pacific/English	15	839	100%	\$0
Africa	8	207	24%	\$208

Publisher Category, Law

Category	Journals	Articles	%No-fee	\$/article
Univ/college	480	15,647	83%	\$51
Open Access	55	1,696	89%	\$87
Society/govt	48	1,517	99%	\$0
Traditional	20	1,212	74%	\$356

Country of Publication, Law, >80 articles in 2022

Of the 31 countries in the table, 21 have no fees. An additional 30 countries published fewer articles, 25 of them without fees.

Country	Journals	Articles	%no-fee	\$/article
Brazil	89	2,569	98%	\$1
Indonesia	97	1,851	68%	\$22
Russia	26	1,756	100%	\$0
Romania	9	1,640	100%	\$0
Spain	45	1,597	100%	\$0
Ukraine	16	1,319	17%	\$34
Poland	37	1,032	97%	\$3
Colombia	38	773	100%	\$0
Australia	7	694	100%	\$0
Germany	9	613	100%	\$0
Italy	23	608	94%	\$2
Netherlands	11	551	65%	\$464
United Kingdom	25	551	32%	\$1,445
Iran	12	445	47%	\$60
Paraguay	3	344	100%	\$0
Serbia	11	330	88%	\$16
Turkey	9	257	100%	\$0
Argentina	13	247	100%	\$0
Chile	9	214	100%	\$0
Croatia	7	212	100%	\$0
South Africa	7	190	17%	\$227
Mexico	7	155	100%	\$0
Peru	8	153	100%	\$0
Kazakhstan	2	126	0%	\$1
Switzerland	6	124	31%	\$870
France	6	115	100%	\$0
South Korea	2	99	64%	\$84
Ecuador	6	95	100%	\$0
Lithuania	4	95	100%	\$0
Czechia	2	86	100%	\$0
Uruguay	3	83	100%	\$0

33. Library Science

Key Facts, Library Science

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	187	6,761			\$65	-95%
Fee	19	800	12%	-83%	\$546	-73%
No-fee	168	5,961	88%	183%		

A relatively small field with very few fee journals or articles.

Articles and Journals by Year, Library Science

	2022	2021	2020	2019	2018	2017
Journals	177	179	175	169	169	161
%No-fee	89%	89%	90%	90%	91%	91%
Articles	6,761	6,026	4,859	4,584	4,996	4,838
%No-fee	88%	85%	88%	88%	84%	83%
Change	12%	24%	6%	-8%	3%	

Healthy growth the past two years.

Article Volume, Library Science

	Journals	Articles	%No-fee	\$/article
Largest: 600+	1	1,793	100%	\$0
Large: 150-599	4	501	31%	\$620
Med.: 60-149	27	1,585	87%	\$56
Small: 20-59	104	2,485	91%	\$7
Smallest: 0-19	51	397	94%	\$53

Fees and Revenue, Library Science

	Journals	Articles	Revenue	\$/article
\$1,000-\$1,999	2	67	\$72,927	\$1,088
\$500-\$999	2	345	\$310,770	\$901
\$0.01-\$499	15	388	\$52,778	\$136
No fee	158	5,961		
Total	177	6,761	\$436,476	\$65

No very expensive journals.

Region, Library Science

Region	Journals	Articles	%No-fee	\$/article
Middle East	9	2,100	98%	\$4
Western Europe	48	1,457	73%	\$220
Latin America	36	1,032	94%	\$4
Pacific/English	36	977	100%	\$0
Eastern Europe	33	738	85%	\$9
Asia	21	402	61%	\$190
Africa	4	55	44%	\$368

Pacific/English being all no-fee is unusual.

Publisher Category, Library Science

Category	Journals	Articles	%No-fee	\$/article
Univ./college	131	2,909	91%	\$12
Open Access	21	2,509	91%	\$64
Society/govt	31	953	92%	\$5
Traditional	4	390	36%	\$604

Country of Publication, Library Science, 30+ articles in 2022

In addition to 31 countries in the table (21 with no fees), another 21 had fewer articles (16 with no fees).

Country	Journals	Articles	%no-fee	\$/article
Iran	3	1,891	100%	\$0
Brazil	25	733	92%	\$5
United States	28	679	100%	\$0
Switzerland	3	326	8%	\$886
Ukraine	8	287	71%	\$16
Germany	5	226	68%	\$136
Italy	5	201	100%	\$0
Indonesia	11	195	72%	\$4
Poland	11	171	100%	\$0
Australia	3	159	100%	\$0
Turkey	3	149	100%	\$0
United Kingdom	11	140	98%	\$8
Canada	5	139	100%	\$0
Portugal	4	131	83%	\$3
Spain	8	111	100%	\$0
China	1	97	0%	\$775
Netherlands	4	94	100%	\$0
Cuba	1	74	100%	\$0
Argentina	3	70	100%	\$0
France	2	64	100%	\$0
Mexico	2	63	100%	\$0
South Korea	2	62	100%	\$0
Sweden	1	56	100%	\$0
Bulgaria	2	55	56%	\$37
Moldova	1	53	100%	\$0
Finland	1	45	100%	\$0
Romania	3	41	100%	\$0
Uruguay	1	38	100%	\$0
Lithuania	2	33	100%	\$0
Norway	3	32	100%	\$0
Austria	1	31	100%	\$0

34. Mathematics

Key Facts, Mathematics

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	355	23,401			\$858	-38%
Fee	106	15,111	65%	-6%	\$1,329	-33%
No-fee	249	8,290	35%	14%		

Articles and Journals by Year, Mathematics

	2022	2021	2020	2019	2018	2017
Journals	327	333	318	302	289	269
%No-fee	71%	71%	69%	69%	70%	70%
Articles	23,401	21,169	18,178	13,969	12,148	10,666
%No-fee	35%	41%	38%	44%	48%	53%
Change	11%	16%	30%	15%	14%	

Continued strong growth, almost doubling since 2018.

Article Volume, Mathematics

	Journals	Articles	%No-fee	\$/article
Largest: 600+	7	10,223	0%	\$1,467
Large: 150-599	18	3,806	50%	\$712
Med.: 60-149	63	4,089	59%	\$414
Small: 20-59	189	4,587	74%	\$138
Smallest: 0-19	78	696	85%	\$76

Fees and Revenue, Mathematics

	Journals	Articles	Revenue	\$/article
\$2,000+	4	651	\$1,376,534	\$2,114
\$1,000-\$1,999	39	8,704	\$14,741,017	\$1,694
\$500-\$999	15	4,390	\$3,777,817	\$861
\$0.01-\$499	37	1,366	\$189,263	\$139
No fee	232	8,290		
Total	327	23,401	\$20,084,631	\$858

Region, Mathematics

Region	Journals	Articles	%No-fee	\$/article
Western Europe	104	14,994	14%	\$1,261
Eastern Europe	88	2,550	76%	\$245
Pacific/English	34	1,854	82%	\$167
Asia	64	1,610	43%	\$60
Middle East	34	1,346	86%	\$19
Latin America	29	897	100%	\$0
Africa	2	150	13%	\$782

Publisher Category, Mathematics

Category	Journals	Articles	%No-fee	\$/article
Open Access	51	9,170	15%	\$1,439
Traditional	72	6,860	9%	\$977
Univ./college	200	6,327	83%	\$26
Society/govt	32	1,044	96%	\$27

Country of Publication, Mathematics, 40+ articles in 2022

Of the 31 countries in the table, 16 have no fees. Of 18 more countries with fewer articles, 15 have no fees.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	15	7,661	0%	\$1,727
United Kingdom	39	5,930	12%	\$952
United States	29	1,459	81%	\$192
Indonesia	50	1,261	37%	\$38
Poland	32	1,025	47%	\$606
Iran	21	718	89%	\$9
Brazil	15	685	100%	\$0
Germany	18	609	100%	\$0
Turkey	10	483	100%	\$0
Russia	13	482	100%	\$0
Australia	2	298	100%	\$0
Ukraine	11	245	96%	\$1
Netherlands	4	191	86%	\$47
France	9	176	100%	\$0
Romania	9	165	84%	\$7
Lithuania	6	164	93%	\$14
Spain	7	146	71%	\$212
Italy	9	136	100%	\$0
South Africa	1	131	0%	\$896
Pakistan	5	118	100%	\$0
Austria	2	113	100%	\$0
Belarus	1	109	100%	\$0
Canada	2	81	19%	\$367
Argentina	4	79	100%	\$0
India	2	75	0%	\$526
Egypt	1	74	0%	\$200
China	2	70	100%	\$0
Hungary	2	70	100%	\$0
Czechia	2	62	100%	\$0
Colombia	5	59	100%	\$0
Estonia	2	59	100%	\$0

35. Media & Communications

Key Facts, Media & Communications

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	345	10,259			\$186	-86%
Fee	33	1,793	17%	-75%	\$1,062	-47%
No-fee	312	8,466	83%	165%		

Articles and Journals by Year, Media & Communications

	2022	2021	2020	2019	2018	2017
Journals	313	323	319	313	302	283
%No-fee	89%	90%	92%	92%	92%	91%
Articles	10,259	10,609	9,640	8,842	8,502	8,372
%No-fee	83%	85%	91%	92%	91%	93%
Change	-3%	10%	9%	4%	2%	

Article Volume, Media & Communications

	Journals	Articles	%No-fee	\$/article
Large: 150-599	10	1,777	37%	\$820
Med.: 60-149	57	3,254	94%	\$55
Small: 20-59	209	4,552	91%	\$57
Smallest: 0-19	69	676	89%	\$10

No largest journals.

Fees and Revenue, Media & Communications

	Journals	Articles	Revenue	\$/article
\$2,000+	3	329	\$691,518	\$2,102
\$1,000-\$1,999	7	307	\$472,670	\$1,540
\$500-\$999	4	745	\$682,996	\$917
\$0.01-\$499	19	412	\$56,885	\$138
No fee	280	8,466		
Total	313	10,259	\$1,904,069	\$186

Region, Media & Communications

Region	Journals	Articles	%No-fee	\$/article
Western Europe	143	4,791	73%	\$327
Latin America	90	2,693	100%	\$0
Eastern Europe	33	878	99%	\$1
Pacific/English	31	828	80%	\$351
Asia	32	596	67%	\$44
Middle East	15	461	76%	\$35
Africa	1	12	0%	\$220

Publisher Category, Media & Communications

Category	Journals	Articles	%No-fee	\$/article
Univ./college	262	6,728	94%	\$11
Society/govt	40	1,529	87%	\$171
Traditional	17	1,356	16%	\$1,108
Open Access	26	646	89%	\$104

Country of Publication, Media & Communications, 60+ articles in 2022

In addition to the 31 countries in the table (of which 20 have no fees), there are 15 countries with fewer articles (12 with no fees).

Country	Journals	Articles	%no-fee	\$/article
Brazil	52	1,648	100%	\$0
Spain	45	1,184	95%	\$15
United Kingdom	17	1,091	30%	\$1,009
United States	21	619	73%	\$469
Switzerland	5	564	29%	\$740
Portugal	16	469	99%	\$16
Italy	16	451	100%	\$0
Indonesia	25	387	59%	\$31
Turkey	10	323	99%	\$0
Argentina	10	266	100%	\$0
Serbia	1	260	100%	\$0
France	9	247	87%	\$5
Poland	7	197	100%	\$0
Russia	5	192	100%	\$0
Netherlands	5	183	100%	\$0
Cuba	3	177	100%	\$0
Germany	10	161	84%	\$147
Mexico	6	149	100%	\$0
Canada	5	138	100%	\$0
Colombia	6	121	100%	\$0
Ecuador	4	118	100%	\$0
China	1	114	100%	\$0
Finland	4	111	100%	\$0
Iraq	3	110	29%	\$127
Austria	4	99	100%	\$0
Peru	3	84	100%	\$0
Ireland	2	75	100%	\$0
South Korea	3	75	49%	\$186
Chile	4	73	100%	\$0
Croatia	4	66	100%	\$0
Romania	6	66	100%	\$0

36. Medicine

Key Facts, Medicine

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	3,933	451,236			\$1,645	20%
Fee	2,009	348,196	77%	12%	\$2,132	7%
No-fee	1,924	103,040	23%	-27%		

By far the largest subject.

Articles and Journals by Year, Medicine

	2022	2021	2020	2019	2018	2017
Journals	3,741	3,748	3,557	3,406	3,200	3,032
%No-fee	48%	49%	50%	51%	51%	51%
Articles	451,236	404,899	356,651	281,304	246,543	217,854
%No-fee	23%	25%	26%	28%	31%	35%
Change	11%	14%	27%	14%	13%	

Continued solid growth. No-fee has dropped below one-quarter.

Article Volume, Medicine

	Journals	Articles	%No-fee	\$/article
Largest: 600+	137	218,561	7%	\$2,339
Large: 150-599	585	104,434	20%	\$1,439
Med.: 60-149	1,255	81,004	47%	\$730
Small: 20-59	1,618	44,388	61%	\$454
Smallest: 0-19	338	2,849	53%	\$565

The largest journals have come down slightly in average cost.

Fees and Revenue, Medicine

	Journals	Articles	Revenue	\$/article
\$2,000+	669	221,488	\$610,112,443	\$2,755
\$1,000-\$1,999	536	69,419	\$110,481,273	\$1,592
\$500-\$999	273	20,621	\$14,964,463	\$726
\$0.01-\$499	459	36,668	\$6,909,237	\$188
No fee	1,804	103,040		
Total	3,741	451,236	\$742,467,415	\$1,645

Very expensive: 18% of journals, 49% of articles, 82% of revenue.

Region, Medicine

Region	Journals	Articles	%No-fee	\$/article
Western Europe	1,504	265,957	8%	\$2,263
Pacific/English	442	62,896	8%	\$1,895
Asia	728	49,445	50%	\$314
Eastern Europe	392	29,301	62%	\$102
Middle East	422	20,680	73%	\$67
Latin America	389	19,898	88%	\$32
Africa	56	3,059	34%	\$307

Western Europe is the only region with over \$2,000 average cost.

Publisher Category, Medicine

Category	Journals	Articles	%No-fee	\$/article
Traditional	1,439	221,257	9%	\$2,218
Open Access	835	132,613	21%	\$1,467
Univ./college	1,160	70,447	52%	\$723
Society/govt	499	26,919	68%	\$233

Country of Publication, Medicine, >170 articles in 2022

A special two-page list of 64 countries (12 with no fees) still omits another 34 countries (26 with no fees).

Country	Jour.	Articles	%no-fee	\$/article
Switzerland	179	124,605	1%	\$2,552
United Kingdom	913	106,219	7%	\$2,327
United States	350	54,661	6%	\$1,931
India	259	20,348	61%	\$149
Netherlands	133	16,778	17%	\$1,380
Iran	256	12,260	69%	\$64
Russia	121	11,247	93%	\$13
Brazil	181	10,723	79%	\$51
South Korea	102	6,702	58%	\$159
Indonesia	175	6,581	43%	\$49
Romania	36	6,417	8%	\$190
China	49	6,204	19%	\$1,039
Turkey	111	5,581	92%	\$38
Poland	93	5,171	60%	\$261
Spain	90	4,462	82%	\$179
Australia	44	4,246	16%	\$1,834
Canada	48	3,989	22%	\$1,455
Italy	60	3,951	26%	\$945
Germany	43	3,092	65%	\$718
Cuba	43	2,988	100%	\$0
Ukraine	50	2,981	64%	\$16
France	12	2,098	8%	\$2,127
Pakistan	29	1,847	37%	\$131
Hong Kong	7	1,536	22%	\$987
Nepal	17	1,422	62%	\$76
Colombia	43	1,371	96%	\$3
Portugal	28	1,333	95%	\$7
South Africa	31	1,315	30%	\$481
Singapore	12	1,188	16%	\$1,477
Norway	12	1,141	94%	\$133
Japan	23	1,032	25%	\$667
Iraq	16	915	8%	\$98

Country	Jour.	Articles	%no-fee	\$/article
Argentina	22	873	100%	\$0
Sweden	7	776	37%	\$1,052
Mexico	23	764	95%	\$1
Egypt	22	728	65%	\$26
Taiwan	8	726	51%	\$418
Peru	17	711	100%	\$0
Greece	14	707	57%	\$760
Saudi Arabia	7	638	68%	\$400
Serbia	23	638	65%	\$51
Chile	12	579	76%	\$144
Nigeria	5	550	0%	\$390
Costa Rica	6	544	100%	\$0
Bulgaria	7	518	47%	\$69
Ecuador	11	503	100%	\$0
Bangladesh	10	476	99%	\$2
Croatia	13	465	100%	\$0
Sri Lanka	10	450	100%	\$0
Kazakhstan	3	409	27%	\$1
Cameroon	1	392	0%	\$195
Malaysia	11	367	69%	\$31
Ireland	4	355	6%	\$1,557
Thailand	7	342	85%	\$15
Paraguay	11	285	100%	\$0
Uruguay	9	283	100%	\$0
Hungary	9	252	88%	\$112
Oman	2	223	100%	\$0
Iceland	1	220	100%	\$0
Slovenia	6	212	76%	\$303
Bosnia and Herzegovina	8	208	70%	\$174
Czechia	7	188	63%	\$46
Finland	6	182	61%	\$943
Belarus	2	170	100%	\$0

37. Miscellany

Key Facts, Miscellany

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	408	17,693			\$170	-88%
Fee	73	6,047	34%	-50%	\$497	-75%
No-fee	335	11,646	66%	111%		

Mostly multidisciplinary journals in or including H&SS.

Articles and Journals by Year, Miscellany

	2022	2021	2020	2019	2018	2017
Journals	383	391	381	371	350	318
%No-fee	83%	82%	83%	84%	85%	86%
Articles	17,693	22,078	19,597	16,947	15,862	13,404
%No-fee	66%	66%	71%	77%	78%	81%
Change	-20%	13%	16%	7%	18%	

Article Volume, Miscellany

	Journals	Articles	%No-fee	\$/article
Largest: 600+	7	3,129	47%	\$329
Large: 150-599	29	3,734	45%	\$181
Med.: 60-149	75	4,611	66%	\$230
Small: 20-59	233	5,610	87%	\$36
Smallest: 0-19	64	609	94%	\$64

Fees and Revenue, Miscellany

	Journals	Articles	Revenue	\$/article
\$2,000+	1	18	\$37,834	\$2,102
\$1,000-\$1,999	10	1,780	\$2,192,650	\$1,232
\$500-\$999	7	529	\$403,317	\$762
\$0.01-\$499	48	3,720	\$372,090	\$100
No fee	317	11,646		
Total	383	17,693	\$3,005,890	\$170

Region, Miscellany

Region	Journals	Articles	%No-fee	\$/article
Western Europe	97	4,874	69%	\$321
Latin America	132	4,810	96%	\$3
Eastern Europe	66	2,559	69%	\$22
Asia	45	1,843	34%	\$68
Middle East	26	1,821	35%	\$50
Pacific/English	29	1,322	31%	\$794
Africa	13	464	53%	\$228

Publisher Category, Miscellany

Category	Journals	Articles	%No-fee	\$/article
Univ/college	204	7,530	78%	\$21
Traditional	19	5,150	55%	\$540
Open Access	20	769	56%	\$323
Society/govt	13	348	69%	\$30

Country of Publication, Miscellany, 130+ articles in 2022

In addition to the 32 countries listed (14 with no fees), there are 37 more with fewer articles (28 with no fees). Note the fee discrepancies among the top five countries.

Country	Journals	Articles	%no-fee	\$/article
Brazil	47	2,015	98%	\$0
France	13	1,369	100%	\$0
United States	23	1,254	27%	\$837
Indonesia	28	1,135	20%	\$21
Switzerland	11	1,115	42%	\$758
Iraq	5	1,088	4%	\$75
United Kingdom	21	1,010	32%	\$651
Colombia	23	717	100%	\$0
Russia	10	618	76%	\$19
Turkey	8	425	100%	\$0
Spain	14	400	97%	\$20
Mexico	11	355	100%	\$0
Argentina	12	324	100%	\$0
Chile	7	305	51%	\$39
Ecuador	8	305	100%	\$0
Poland	11	291	67%	\$46
Ukraine	6	290	10%	\$13
Netherlands	6	258	54%	\$183
Romania	7	257	100%	\$0
Moldova	3	239	82%	\$3
Portugal	9	235	100%	\$0
Peru	8	211	100%	\$0
Iran	6	204	38%	\$46
South Korea	1	194	0%	\$450
Germany	3	180	100%	\$0
Costa Rica	5	179	100%	\$0
Croatia	8	176	100%	\$0
Philippines	5	176	80%	\$38
South Africa	4	168	35%	\$529
Venezuela	4	156	100%	\$0
Bulgaria	1	131	0%	\$79
India	3	130	32%	\$57

38. Other Sciences

Key Facts, Other Sciences

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	321	100,183			\$1,927	40%
Fee	122	93,026	93%	35%	\$2,076	4%
No-fee	199	7,157	7%	-77%		

Includes megajournals and multidisciplinary science journals.

Articles and Journals by Year, Other Sciences

	2022	2021	2020	2019	2018	2017
Journals	299	297	279	266	251	227
%No-fee	60%	62%	64%	64%	66%	67%
Articles	100,183	92,849	87,994	70,293	64,258	66,475
%No-fee	7%	8%	8%	9%	10%	9%
Change	8%	6%	25%	9%	-3%	

Article Volume, Other Sciences

	Journals	Articles	%No-fee	\$/article
Largest: 600+	20	84,837	0%	\$2,163
Large: 150-599	41	6,585	19%	\$913
Med.: 60-149	79	4,903	65%	\$507
Small: 20-59	144	3,532	71%	\$283
Smallest: 0-19	37	326	69%	\$279

Here again, the largest journals show some price moderation.

Fees and Revenue, Other Sciences

	Journals	Articles	Revenue	\$/article
\$2,000+	23	55,397	\$137,642,843	\$2,485
\$1,000-\$1,999	43	31,337	\$54,067,972	\$1,725
\$500-\$999	12	1,279	\$899,109	\$703
\$0.01-\$499	41	5,013	\$478,900	\$96
No fee	180	7,157		
Total	299	100,183	\$193,088,824	\$1,927

Region, Other Sciences

Region	Journals	Articles	%No-fee	\$/article
Western Europe	84	60,789	1%	\$2,302
Pacific/English	32	28,811	2%	\$1,820
Asia	53	4,299	25%	\$69
Eastern Europe	62	2,494	71%	\$108
Middle East	28	1,664	60%	\$69
Latin America	50	1,516	95%	\$2
Africa	12	610	100%	\$0

Publisher Category, Other Sciences

Category	Journals	Articles	%No-fee	\$/article
Open Access	55	57,182	1%	\$1,935
Traditional	48	31,227	2%	\$2,409
Univ./college	181	7,826	62%	\$381
Society/govt	37	3,948	29%	\$1,074

Country of Publication, Other Sciences, 100+ articles in 2022

Of 32 listed, nine have no fees; of 36 with fewer articles, 28 have no fees. The startling row in this table: Germany's \$4,519 average cost.

Country	Journals	Articles	%no-fee	\$/article
United Kingdom	29	28751	1%	\$2,274
Switzerland	23	28,693	0%	\$2,317
United States	23	28364	1%	\$1,814
Uzbekistan	1	2239	0%	\$23
Germany	11	1,683	4%	\$4,519
Iraq	12	1,039	50%	\$53
Netherlands	5	948	11%	\$442
Brazil	21	818	91%	\$3
Indonesia	20	645	35%	\$73
Russia	15	610	84%	\$52
Serbia	9	459	47%	\$331
China	11	420	46%	\$209
Thailand	6	343	100%	\$0
Ukraine	9	298	92%	\$2
Poland	5	280	56%	\$121
Turkey	5	266	100%	\$0
Italy	3	242	25%	\$43
Taiwan	1	240	0%	\$457
Australia	4	236	0%	\$3,674
Canada	5	211	46%	\$562
Colombia	10	201	100%	\$0
Libya	3	190	100%	\$0
Ecuador	6	189	100%	\$0
Portugal	1	188	0%	\$158
Romania	6	183	51%	\$20
Bulgaria	4	181	47%	\$167
France	6	171	74%	\$170
Mexico	3	140	100%	\$0
Bangladesh	2	130	41%	\$6
South Africa	2	122	100%	\$0
United Arab Emirates	1	119	100%	\$0
Sri Lanka	2	106	100%	\$0

39. Philosophy

Key Facts, Philosophy

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	335	9,175			\$68	-95%
Fee	24	901	10%	-86%	\$694	-65%
No-fee	311	8,274	90%	189%		

Articles and Journals by Year, Philosophy

	2022	2021	2020	2019	2018	2017
Journals	310	319	318	307	300	284
%No-fee	92%	92%	93%	93%	94%	95%
Articles	9,175	9,629	9,255	8,625	8,403	8,224
%No-fee	90%	90%	90%	90%	91%	93%
Change	-5%	4%	7%	3%	2%	

Article Volume, Philosophy

	Journals	Articles	%No-fee	\$/article
Large: 150-599	4	433	61%	\$560
Med.: 60-149	53	2,981	88%	\$61
Small: 20-59	210	5,072	94%	\$26
Smallest: 0-19	68	689	88%	\$102

No largest journals, mostly small.

Fees and Revenue, Philosophy

	Journals	Articles	Revenue	\$/article
\$2,000+	1	106	\$234,077	\$2,208
\$1,000-\$1,999	6	255	\$342,815	\$1,344
\$500-\$999	2	41	\$22,905	\$559
\$0.01-\$499	15	499	\$25,313	\$51
No fee	286	8,274		
Total	310	9,175	\$625,109	\$68

Region, Philosophy

Region	Journals	Articles	%No-fee	\$/article
Western Europe	102	2,775	86%	\$210
Latin America	85	2,712	100%	\$0
Eastern Europe	86	2,083	87%	\$15
Pacific/English	37	1,057	100%	\$0
Middle East	13	363	40%	\$21
Asia	12	185	78%	\$16

Only Western Europe exceeds \$21—by an order of magnitude!

Publisher Category, Philosophy

Category	Journals	Articles	%No-fee	\$/article
Univ./college	262	7,130	94%	\$3
Society/govt	32	1,047	91%	\$10
Open Access	25	614	77%	\$290
Traditional	16	384	35%	\$1,082

Country of Publication, Philosophy, >40 articles in 2022

Of 31 countries in the table, 23 have no fees. Of 17 more with fewer articles, 15 have no fees.

Country	Journals	Articles	%no-fee	\$/article
Brazil	46	1,699	100%	\$0
Spain	30	928	100%	\$0
Italy	29	821	98%	\$1
United States	20	592	100%	\$0
Poland	23	438	93%	\$38
Canada	13	421	100%	\$0
Russia	8	353	100%	\$0
United Kingdom	14	347	37%	\$1,149
Ukraine	13	333	50%	\$17
Iran	9	300	28%	\$26
Romania	12	300	100%	\$0
Colombia	9	262	100%	\$0
Chile	10	256	100%	\$0
Mexico	5	215	100%	\$0
Argentina	10	173	100%	\$0
Portugal	7	164	100%	\$0
Switzerland	3	163	13%	\$1,093
France	6	140	100%	\$0
Slovakia	4	112	100%	\$0
Czechia	9	111	100%	\$0
Croatia	5	110	100%	\$0
Indonesia	6	80	88%	\$8
North Macedonia	1	65	0%	\$128
Slovenia	2	65	100%	\$0
Austria	3	64	100%	\$0
Lithuania	2	64	100%	\$0
Turkey	4	63	100%	\$0
Serbia	2	62	100%	\$0
Peru	2	53	100%	\$0
Bulgaria	3	47	100%	\$0
Netherlands	2	47	100%	\$0

40. Physics

Key Facts, Physics

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	252	42,083			\$1,339	-3%
Fee	149	30,092	72%	4%	\$1,873	-6%
No-fee	103	11,991	28%	-9%		

Articles and Journals by Year, Physics

	2022	2021	2020	2019	2018	2017
Journals	236	239	217	195	174	165
%No-fee	40%	42%	44%	45%	47%	47%
Articles	42,083	39,436	37,522	32,256	28,047	25,362
%No-fee	28%	30%	37%	44%	46%	50%
Change	7%	5%	16%	15%	11%	

Article Volume, Physics

	Journals	Articles	%No-fee	\$/article
Largest: 600+	18	26,466	27%	\$1,474
Large: 150-599	38	8,680	28%	\$1,381
Med.: 60-149	56	3,824	23%	\$970
Small: 20-59	109	2,869	48%	\$527
Smallest: 0-19	31	244	33%	\$560

Fees and Revenue, Physics

	Journals	Articles	Revenue	\$/article
\$2,000+	21	17,939	\$40,625,522	\$2,265
\$1,000-\$1,999	71	8,439	\$13,716,090	\$1,625
\$500-\$999	15	1,951	\$1,657,756	\$850
\$0.01-\$499	34	1,763	\$357,874	\$203
No fee	95	11,991		
Total	236	42,083	\$56,357,242	\$1,339

Region, Physics

Region	Journals	Articles	%No-fee	\$/article
Western Europe	117	30,151	30%	\$1,314
Pacific/English	25	7,229	3%	\$2,180
Asia	48	2,492	49%	\$304
Eastern Europe	38	1,509	77%	\$107
Middle East	13	331	40%	\$168
Latin America	9	254	75%	\$14
Africa	2	117	0%	\$118

Publisher Category, Physics

Category	Journals	Articles	%No-fee	\$/article
Open Access	56	20,278	9%	\$1,816
Traditional	93	17,154	47%	\$995
Univ./college	78	3,132	52%	\$218
Society/govt	25	1,519	28%	\$1,182

Country of Publication, Physics, >20 articles in 2022

Of 31 countries in the table, eight have no fees. There are only five more with fewer articles, three with no fees.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	23	13,597	0%	\$2,062
United States	25	7,229	3%	\$2,180
Germany	17	5,619	89%	\$265
United Kingdom	48	5,005	8%	\$1,542
Netherlands	17	3,812	64%	\$371
China	16	1,396	36%	\$456
France	9	1,351	92%	\$58
Ukraine	11	544	100%	\$0
South Korea	2	524	92%	\$19
Russia	11	397	100%	\$0
Italy	1	389	0%	\$1,673
Indonesia	23	371	28%	\$18
Iran	11	297	44%	\$180
Austria	1	276	0%	\$210
Poland	5	181	41%	\$621
Nigeria	2	117	0%	\$118
Brazil	2	110	100%	\$0
Singapore	3	107	44%	\$895
Ireland	1	102	0%	\$1,608
Estonia	1	95	0%	\$158
Japan	3	77	81%	\$119
Kazakhstan	3	75	45%	\$6
Argentina	2	63	0%	\$57
Czechia	1	60	0%	\$420
Romania	1	42	100%	\$0
Cuba	2	40	100%	\$0
Moldova	1	35	100%	\$0
Iraq	1	33	0%	\$60
Serbia	1	31	0%	\$158
Hungary	1	24	100%	\$0
Colombia	2	22	100%	\$0

41. Political Science

Key Facts, Political Science

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	482	16,145			\$113	-92%
Fee	56	3,115	19%	-72%	\$585	-71%
No-fee	426	13,030	81%	159%		

Articles and Journals by Year, Political Science

	2022	2021	2020	2019	2018	2017
Journals	436	459	456	438	413	385
%No-fee	88%	88%	89%	89%	89%	89%
Articles	16,145	17,624	13,541	12,370	11,728	11,157
%No-fee	81%	84%	88%	89%	90%	84%
Change	-8%	30%	9%	5%	5%	

Fairly common H&SS pattern, down in 2022.

Article Volume, Political Science

	Journals	Articles	%No-fee	\$/article
Largest: 600+	2	1,206	0%	\$489
Large: 150-599	18	3,647	83%	\$203
Med.: 60-149	75	3,983	89%	\$22
Small: 20-59	278	6,423	89%	\$52
Smallest: 0-19	109	886	83%	\$80

Fees and Revenue, Political Science

	Journals	Articles	Revenue	\$/article
\$2,000+	3	109	\$287,350	\$2,636
\$1,000-\$1,999	7	199	\$257,318	\$1,293
\$500-\$999	10	763	\$660,222	\$865
\$0.01-\$499	34	2,044	\$616,440	\$302
No fee	382	13,030		
Total	436	16,145	\$1,821,329	\$113

Region, Political Science

Region	Journals	Articles	%No-fee	\$/article
Eastern Europe	143	5,150	91%	\$7
Latin America	122	4,544	73%	\$122
Western Europe	106	3,133	74%	\$311
Pacific/English	35	1,585	96%	\$42
Asia	53	1,079	69%	\$142
Middle East	18	519	71%	\$15
Africa	5	135	52%	\$235

Publisher Category, Political Science

Category	Journals	Articles	%No-fee	\$/article
Univ./college	369	10,449	92%	\$16
Society/govt	37	2,309	45%	\$240
Traditional	41	1,964	56%	\$504
Open Access	35	1,423	91%	\$78

Country of Publication, Political Science, >60 articles in 2022

Of 32 countries in the table, 12 have no fees. There are 29 other countries with fewer articles.

Country	Journals	Articles	%no-fee	\$/article
Brazil	53	2,720	56%	\$203
Russia	24	1,591	97%	\$9
Poland	44	1,372	99%	\$2
Spain	32	1,118	100%	\$0
United States	19	962	94%	\$69
Romania	23	946	99%	\$0
Indonesia	39	670	65%	\$61
Mexico	14	655	96%	\$0
United Kingdom	21	611	44%	\$820
Canada	11	519	100%	\$0
Colombia	19	477	100%	\$0
Switzerland	2	383	0%	\$950
Ukraine	14	352	46%	\$18
Italy	17	348	100%	\$0
Turkey	10	299	88%	\$3
Chile	12	271	100%	\$0
Argentina	12	251	100%	\$0
Iran	8	220	48%	\$30
China	1	184	100%	\$0
Czechia	9	183	100%	\$0
Portugal	5	178	89%	\$118
North Macedonia	3	144	19%	\$83
Croatia	5	123	100%	\$0
Germany	7	123	93%	\$68
South Africa	4	118	45%	\$269
Kazakhstan	2	103	0%	\$1
Taiwan	3	102	10%	\$1,082
Lithuania	4	95	100%	\$0
Netherlands	6	85	13%	\$941
Sweden	3	79	100%	\$0
Slovakia	5	66	100%	\$0
Norway	3	65	100%	\$0

42. Psychology

Key Facts, Psychology

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	267	18,159			\$1,544	12%
Fee	73	12,623	70%	1%	\$2,220	11%
No-fee	194	5,536	30%	-2%		

Some psychology journals may belong in medicine, and the very high fees (especially for H&SS) may reflect that.

Articles and Journals by Year, Psychology

	2022	2021	2020	2019	2018	2017
Journals	242	255	250	252	246	241
%No-fee	71%	72%	74%	75%	76%	76%
Articles	18,159	16,339	11,691	10,741	10,072	8,536
%No-fee	30%	38%	47%	50%	53%	57%
Change	11%	40%	9%	7%	18%	

Article Volume, Psychology

	Journals	Articles	%No-fee	\$/article
Largest: 600+	1	8,535	0%	\$2,950
Large: 150-599	11	2,229	18%	\$651
Med.: 60-149	54	3,298	58%	\$309
Small: 20-59	156	3,689	79%	\$91
Smallest: 0-19	45	408	71%	\$113

One very expensive, very large journal.

Fees and Revenue, Psychology

	Journals	Articles	Revenue	\$/article
\$2,000+	6	8,977	\$26,344,278	\$2,935
\$1,000-\$1,999	13	778	\$1,035,087	\$1,330
\$500-\$999	9	541	\$396,853	\$734
\$0.01-\$499	42	2,327	\$253,136	\$109
No fee	172	5,536		
Total	242	18,159	\$28,029,354	\$1,544

Region, Psychology

Region	Journals	Articles	%No-fee	\$/article
Western Europe	64	11,240	9%	\$2,443
Latin America	77	2,258	97%	\$1
Eastern Europe	53	1,875	82%	\$17
Middle East	21	1,525	21%	\$74
Asia	36	670	50%	\$120
Pacific/English	13	441	37%	\$521
Africa	3	150	0%	\$741

Publisher Category, Psychology

Category	Journals	Articles	%No-fee	\$/article
Traditional	21	9,805	1%	\$2,783
Univ./college	200	6,528	71%	\$37
Society/govt	19	915	61%	\$84
Open Access	27	911	30%	\$467

Country of Publication, Psychology, >60 articles in 2022

Of 33 countries in the table, 16 have no fees. Of 16 more with fewer articles, 13 have no fees.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	4	8,637	0%	\$2,930
Iran	12	1,276	9%	\$87
Brazil	38	1,193	96%	\$1
United Kingdom	18	977	6%	\$1,673
Russia	15	763	90%	\$1
Spain	15	566	85%	\$39
Indonesia	33	552	59%	\$41
Germany	6	343	41%	\$92
Netherlands	4	309	5%	\$1,452
United States	8	290	39%	\$678
Argentina	7	219	100%	\$0
Colombia	12	199	90%	\$2
Poland	7	199	75%	\$133
Peru	6	192	100%	\$0
Ukraine	9	184	36%	\$30
Turkey	7	168	100%	\$0
South Africa	3	150	0%	\$741
Czechia	5	148	100%	\$0
Moldova	1	145	100%	\$0
Canada	4	140	29%	\$235
Portugal	4	123	22%	\$62
Mexico	3	119	100%	\$0
Serbia	5	114	100%	\$0
Guatemala	1	113	100%	\$0
Finland	1	108	100%	\$0
China	1	107	0%	\$542
Kazakhstan	1	91	0%	\$1
Croatia	2	76	100%	\$0
Italy	6	74	100%	\$0
Chile	2	68	100%	\$0
Costa Rica	4	65	100%	\$0
Romania	2	62	100%	\$0
Uruguay	2	61	100%	\$0

43. Religion

Key Facts, Religion

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	360	10,885			\$174	-87%
Fee	70	2,839	26%	-62%	\$667	-67%
No-fee	290	8,046	74%	137%		

Articles and Journals by Year, Religion

	2022	2021	2020	2019	2018	2017
Journals	332	351	334	316	293	275
%No-fee	80%	80%	80%	80%	81%	81%
Articles	10,885	10,491	9,170	8,217	7,222	6,576
%No-fee	74%	73%	70%	71%	74%	74%
Change	4%	14%	12%	14%	10%	

Article Volume, Religion

	Journals	Articles	%No-fee	\$/article
Largest: 600+	2	2,394	48%	\$657
Large: 150-599	3	522	96%	\$28
Med.: 60-149	39	2,152	89%	\$29
Small: 20-59	219	4,769	76%	\$46
Smallest: 0-19	97	1,048	82%	\$24

Fees and Revenue, Religion

	Journals	Articles	Revenue	\$/article
\$1,000-\$1,999	3	1,308	\$1,635,210	\$1,250
\$500-\$999	5	137	\$98,771	\$721
\$0.01-\$499	59	1,394	\$158,487	\$114
No fee	265	8,046		
Total	332	10,885	\$1,892,467	\$174

No very expensive journals, and the moderately expensive ones are near the bottom of that fee range.

Region, Religion

Region	Journals	Articles	%No-fee	\$/article
Western Europe	62	3,094	58%	\$524
Asia	158	2,968	67%	\$27
Middle East	36	1,931	93%	\$5
Eastern Europe	41	1,079	94%	\$30
Latin America	30	797	100%	\$0
Pacific/English	16	624	100%	\$0
Africa	17	392	8%	\$379

Pacific/English joins Latin America in having no fees.

Publisher Category, Religion

Category	Journals	Articles	%No-fee	\$/article
Univ./college	304	8,432	87%	\$16
Open Access	29	1,810	20%	\$924
Society/govt	21	467	57%	\$51
Traditional	6	176	69%	\$355

Country of Publication, Religion, 40+ articles in 2022

Of 30 countries listed, 20 have no fees. Fourteen more countries with fewer articles, 13 of which have no fees.

Country	Journals	Articles	%no-fee	\$/article
Indonesia	134	2,328	74%	\$13
Turkey	21	1,707	100%	\$0
Switzerland	3	1,286	3%	\$1,223
Brazil	20	564	100%	\$0
United States	12	534	100%	\$0
Pakistan	18	486	39%	\$66
Poland	20	483	94%	\$63
Spain	11	375	100%	\$0
Germany	7	361	100%	\$0
South Africa	15	358	9%	\$395
Russia	8	263	100%	\$0
Norway	6	218	90%	\$70
Iran	13	180	28%	\$56
United Kingdom	9	147	80%	\$232
Netherlands	5	129	100%	\$0
Malaysia	3	120	33%	\$154
Belgium	1	110	100%	\$0
France	3	108	100%	\$0
Argentina	4	102	100%	\$0
Croatia	2	102	100%	\$0
Ukraine	3	84	54%	\$19
Finland	5	81	100%	\$0
Ireland	1	78	100%	\$0
Chile	4	67	100%	\$0
Austria	3	64	100%	\$0
Czechia	2	59	100%	\$0
Canada	2	53	100%	\$0
Qatar	1	44	100%	\$0
Portugal	2	41	100%	\$0
Sweden	1	40	100%	\$0

44. Sociology

Key Facts, Sociology

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	697	25,554			\$191	-86%
Fee	111	6,227	24%	-65%	\$782	-61%
No-fee	586	19,327	76%	143%		

Fairly typical figures for H&SS.

Articles and Journals by Year, Sociology

	2022	2021	2020	2019	2018	2017
Journals	640	662	642	625	585	550
%No-fee	84%	85%	86%	85%	86%	86%
Articles	25,554	25,990	21,455	18,978	17,982	16,861
%No-fee	76%	79%	76%	75%	75%	76%
Change	-2%	21%	13%	6%	7%	

Article Volume, Sociology

	Journals	Articles	%No-fee	\$/article
Largest: 600+	5	4,365	86%	\$204
Large: 150-599	17	3,643	29%	\$634
Med.: 60-149	112	6,248	73%	\$158
Small: 20-59	414	10,024	88%	\$63
Smallest: 0-19	149	1,274	90%	\$44

Fees and Revenue, Sociology

	Journals	Articles	Revenue	\$/article
\$2,000+	5	485	\$1,232,619	\$2,541
\$1,000-\$1,999	23	2,287	\$3,136,121	\$1,371
\$500-\$999	9	319	\$246,333	\$772
\$0.01-\$499	66	3,136	\$255,589	\$82
No fee	537	19,327		
Total	640	25,554	\$4,870,662	\$191

Region, Sociology

Region	Journals	Articles	%No-fee	\$/article
Latin America	194	7,883	99%	\$1
Western Europe	206	7,306	54%	\$606
Eastern Europe	117	5,174	91%	\$21
Asia	74	2,117	36%	\$26
Middle East	40	1,582	72%	\$32
Pacific/English	58	1,242	81%	\$105
Africa	8	250	0%	\$374

Publisher Category, Sociology

Category	Journals	Articles	%No-fee	\$/article
Univ./college	515	14,252	85%	\$54
Society/govt	47	4,913	98%	\$5
Open Access	80	4,087	45%	\$396
Traditional	55	2,302	24%	\$1,070

Country of Publication, Sociology, >130 articles in 2022

Of 32 countries in the table, 15 have no fees. 35 more countries with fewer articles, including 23 with no fees.

Country	Journals	Articles	%no-fee	\$/article
Brazil	81	5,029	98%	\$1
United Kingdom	39	2,076	17%	\$1,367
Indonesia	60	1,877	30%	\$21
Russia	23	1,628	97%	\$2
Spain	59	1,481	95%	\$11
Moldova	3	1,308	100%	\$0
Switzerland	12	1,069	6%	\$1,340
Turkey	20	1,002	92%	\$1
Germany	18	911	49%	\$27
United States	40	870	80%	\$143
Argentina	37	812	100%	\$0
Poland	32	613	83%	\$35
Colombia	24	552	100%	\$0
Iran	17	536	35%	\$74
Italy	20	477	100%	\$0
Romania	16	361	69%	\$30
Mexico	13	320	100%	\$0
Croatia	5	308	80%	\$193
Cuba	5	299	100%	\$0
Portugal	8	221	81%	\$120
France	9	216	100%	\$0
Canada	10	214	100%	\$0
Ecuador	6	214	100%	\$0
Chile	10	213	100%	\$0
Serbia	7	187	64%	\$32
Norway	10	184	100%	\$0
Finland	4	174	100%	\$0
Netherlands	7	168	92%	\$116
Slovakia	3	145	100%	\$0
Costa Rica	4	143	100%	\$0
Venezuela	4	141	100%	\$0
South Africa	5	137	0%	\$534

45. Technology

Key Facts, Technology

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	271	37,014			\$1,705	24%
Fee	124	31,033	84%	22%	\$2,034	2%
No-fee	147	5,981	16%	-48%		

Articles and Journals by Year, Technology

	2022	2021	2020	2019	2018	2017
Journals	250	252	226	208	196	183
%No-fee	52%	54%	58%	61%	62%	61%
Articles	37,014	28,890	21,602	18,068	16,376	12,656
%No-fee	16%	21%	22%	28%	28%	35%
Change	28%	34%	20%	10%	29%	

Article Volume, Technology

	Journals	Articles	%No-fee	\$/article
Largest: 600+	7	21,960	4%	\$2,301
Large: 150-599	31	6,694	15%	\$1,133
Med.: 60-149	64	4,212	40%	\$753
Small: 20-59	142	3,905	58%	\$445
Smallest: 0-19	27	243	64%	\$346

Fees and Revenue, Technology

	Journals	Articles	Revenue	\$/article
\$2,000+	25	22,558	\$54,131,459	\$2,400
\$1,000-\$1,999	43	4,794	\$7,708,944	\$1,608
\$500-\$999	20	1,109	\$772,794	\$697
\$0.01-\$499	32	2,572	\$500,422	\$195
No fee	130	5,981		
Total	250	37,014	\$63,113,619	\$1,705

Region, Technology

Region	Journals	Articles	%No-fee	\$/article
Western Europe	89	27,666	1%	\$2,201
Eastern Europe	69	3,895	82%	\$31
Asia	67	3,349	34%	\$309
Pacific/English	12	691	11%	\$1,518
Middle East	10	658	88%	\$7
Latin America	22	617	94%	\$1
Africa	2	138	16%	\$156

Publisher Category, Technology

Category	Journals	Articles	%No-fee	\$/article
Open Access	54	19,465	4%	\$2,183
Traditional	60	9,564	3%	\$1,973
Univ./college	135	6,718	67%	\$144
Society/govt	22	1,267	41%	\$614

Country of Publication, Technology, >40 articles in 2022

Of 30 in the table, nine have no fees, as is true for 18 of the 22 countries with fewer articles. And then there's Australia...

Country	Journals	Articles	%no-fee	\$/article
Switzerland	22	17,970	0%	\$2,364
United Kingdom	43	8,135	2%	\$2,043
Russia	16	1,813	98%	\$1
China	15	1,517	26%	\$316
Indonesia	34	925	51%	\$186
Netherlands	9	901	9%	\$1,575
Poland	13	660	49%	\$115
United States	10	608	6%	\$1,436
Japan	4	476	0%	\$684
Germany	4	400	0%	\$790
Ukraine	12	356	100%	\$0
Turkey	2	317	100%	\$0
Brazil	8	230	85%	\$3
Kazakhstan	1	228	0%	\$14
Serbia	5	206	100%	\$0
Iran	6	205	84%	\$10
Belarus	4	170	100%	\$0
India	4	158	49%	\$154
Spain	4	156	77%	\$162
Iraq	2	136	64%	\$18
Costa Rica	1	134	100%	\$0
Nigeria	1	116	0%	\$185
South Korea	2	110	67%	\$180
Romania	3	104	100%	\$0
Slovenia	2	104	21%	\$241
Malaysia	3	86	100%	\$0
Chile	2	64	100%	\$0
Lithuania	2	62	73%	\$216
Belgium	4	57	100%	\$0
Australia	1	44	0%	\$4,000

46. Zoology

Key Facts, Zoology

	Journals	Articles	Art%	Rel%	\$/Art	Rel%
All	349	25,409			\$1,124	-18%
Fee	177	20,390	80%	17%	\$1,401	-30%
No-fee	172	5,019	20%	-37%		

Includes marine biology and veterinary medicine.

Articles and Journals by Year, Zoology

	2022	2021	2020	2019	2018	2017
Journals	333	339	324	311	304	290
%No-fee	47%	50%	50%	49%	49%	48%
Articles	25,409	23,492	20,118	15,912	14,620	12,972
%No-fee	20%	23%	26%	31%	34%	35%
Change	8%	17%	26%	9%	13%	

Growth every year.

Article Volume, Zoology

	Journals	Articles	%No-fee	\$/article
Largest: 600+	5	8,951	0%	\$2,074
Large: 150-599	31	6,106	11%	\$1,030
Med.: 60-149	94	5,486	34%	\$444
Small: 20-59	164	4,353	49%	\$263
Smallest: 0-19	55	513	68%	\$269

Fees and Revenue, Zoology

	Journals	Articles	Revenue	\$/article
\$2,000+	16	3,556	\$9,552,786	\$2,686
\$1,000-\$1,999	43	9,826	\$17,016,250	\$1,732
\$500-\$999	16	1,599	\$1,158,636	\$725
\$0.01-\$499	100	5,409	\$840,432	\$155
No fee	158	5,019		
Total	333	25,409	\$28,568,106	\$1,124

Region, Zoology

Region	Journals	Articles	%No-fee	\$/article
Western Europe	99	13,974	8%	\$1,835
Asia	58	3,491	19%	\$274
Eastern Europe	68	2,353	39%	\$291
Middle East	43	2,271	45%	\$57
Latin America	61	2,203	51%	\$119
Pacific/English	14	826	31%	\$958
Africa	6	291	4%	\$365

Publisher Category, Zoology

Category	Journals	Articles	%No-fee	\$/article
Open Access	42	8,139	4%	\$1,503
Univ./college	173	7,557	38%	\$409
Traditional	67	6,692	8%	\$1,903
Society/govt	67	3,021	42%	\$167

Country of Publication, Zoology, >100 articles in 2022

The 31 countries in the table include seven with no fees; another 21 with fewer articles include 16 with no fees.

Country	Journals	Articles	%no-fee	\$/article
Switzerland	10	8,448	0%	\$2,121
United Kingdom	43	3,947	4%	\$1,704
Indonesia	36	1,655	20%	\$67
Brazil	29	1,297	25%	\$171
Bulgaria	14	967	15%	\$589
Egypt	11	886	20%	\$89
United States	12	758	26%	\$1,044
Netherlands	7	691	10%	\$1,382
Iran	18	666	50%	\$45
South Korea	8	548	25%	\$330
China	5	538	19%	\$749
Turkey	10	506	100%	\$0
India	2	450	0%	\$494
Poland	17	352	42%	\$219
Ukraine	10	342	48%	\$11
Spain	8	244	100%	\$0
Italy	10	226	100%	\$2
Iraq	4	213	0%	\$101
Germany	9	192	63%	\$221
Peru	3	190	100%	\$0
France	6	186	100%	\$0
Mexico	4	177	60%	\$168
Russia	5	157	100%	\$0
Romania	6	155	23%	\$69
South Africa	4	148	0%	\$407
Libya	1	131	0%	\$350
Chile	3	125	92%	\$80
Argentina	7	124	71%	\$15
Colombia	6	112	100%	\$0
Cuba	3	106	100%	\$0
Czechia	4	101	34%	\$173

Appendix A. Methods, Changes and Caveats

The Situation

This was a year that required special thought before starting. I knew I'd lose two hours of prime checking time each weekday for seven weeks and that in all likelihood I'd have less energy in late March and April. And, of course, there were a lot more journals.

On the other hand, *DOAJ* has become a much more plentiful source of article counts and a reliable place for fee information. By shifting to a *DOAJ*-first model, I suspected data gathering would be faster, more consistent, and probably more accurate.

For details on the process, see my weekly (or more often) posts at [Walt at Random](#), all tagged Open Access, beginning October 7, 2022 and continuing throughout the process. This is a very abbreviated version of that string of posts.

The Investigation

This project began with the dataset prepared for *Gold Open Access 2016-2021: Articles in Journals (GOA7)*. I downloaded *DOAJ* metadata on December 14, 2022 to allow time for matching and normalization. That download included 18,699 journals. The add/delete table showed 1,385 added journals and 391 deletions in 2022.

The 2021 dataset included 16,620 analyzed journals and 625 excluded journals. Direct matching of *DOAJ* URLs (henceforth DURL) yielded 16,739 matches and 12 duplicates. Tests using journal URLs and ISSNs yielded a dozen more matches—leaving 1,948 new journals and 522 unmatched journals. Of the 522, 277 could be matched to *DOAJ* deletions using ISSN matches, 74 more based on title matches.

- Within the matched group, it appears that 257 journals changed from no-fee to fee status and 356 changed from fee to no-fee. There were 128 title changes and 329 publisher changes.
- The final download yielded some last-minute additions. After duplicate checking (some done after January 1, 2023), the dataset

has 18,765 journals. (Some of the posts show 18,789, but there turned out to be 23 duplicates in that count.)

- The first round of testing, with the spreadsheet arranged by publisher then by journal, began January 1, 2023 and was completed on April 19, 2023. The improvements in data sourcing made up for the lost time and energy, so that an extra 1,400-odd journals took one day *less* than last year.
- The second pass involved around 1,650 problematic journals and 864 that might have more 2022 articles. Because things were going well, I did recheck xm2/xx2 journals. The second pass ran from April 21 to April 30, 2023 for problematic journals and May 1 to May 5, 2023 for additional articles.
- I refreshed ISSN values, using the e-ISSN whenever it existed, and did some additional consistency checking. That completed the data gathering process, on May 6, 2023.
- The book begins with 18,253 fully-analyzed journals (including xx and xm journals that were *not* problematic in 2022 and where DOAJ provided article counts) and 512 unanalyzed journals in the exclusions page (which will also be uploaded to Figshare), including 100 dead/duplicates with no articles since 2016; 307 malware cases (down almost 100 from last year); 60 unavailable/unworkable (xx) cases; four that don't appear to be OA journals (including two that now require signin); and 41 that are no longer in DOAJ. Barring restoration, the 41 will be dropped from next year's study if it happens.

Changes

Changes in definitions and practice:

- In most cases (10,081 in all), article counts are taken from DOAJ, with 2022 figures frequently rechecked against journal sites. If the DOAJ numbers seemed off, I checked the journal site.
- In *all* cases, fees are taken from DOAJ, adjusted to include submission fees if DOAJ has the "other fees" notation. The fee code has been dropped because I'm not researching each fee. I would guess that a number of very small submission-only fees are missing: last year, there were 20 such journals. Last year, I calculated 329 variable-fee cases; this year, I used the "up to" figure in DOAJ.

- Where 2022 and 2023 fees were different and both were clear, I used the 2022 fee. This was rarely the case.
- The set of codes has been simplified and clarified. “bi” has changed to “i” for “inactive” and “bx” has been dropped (journals changed to “a”).
- Of 44 non-USD currencies encountered, I used the OFX 2022 average conversion rate (through December 15) for 25 currencies, the Xrates monthly rate for six, December 15 daily rates for eleven—and, after discovering that OFX quoted an absurdly high rate for CNY, the IRS 2022 average rate for CNY (yuan/renminbi).
- DOAJ has restored starting dates, and I use those. It’s important to note that these dates are generally when journals started *reporting* OA publication.

Caveats

The same caveats apply as in previous editions. Briefly, article counts are (generally) whatever DOAJ reports or the easiest count I could obtain directly. There are doubtless a few transcription errors. For newly-added journals with no counts in DOAJ, I did not always attempt to provide pre-2021 counts if it was difficult to do so

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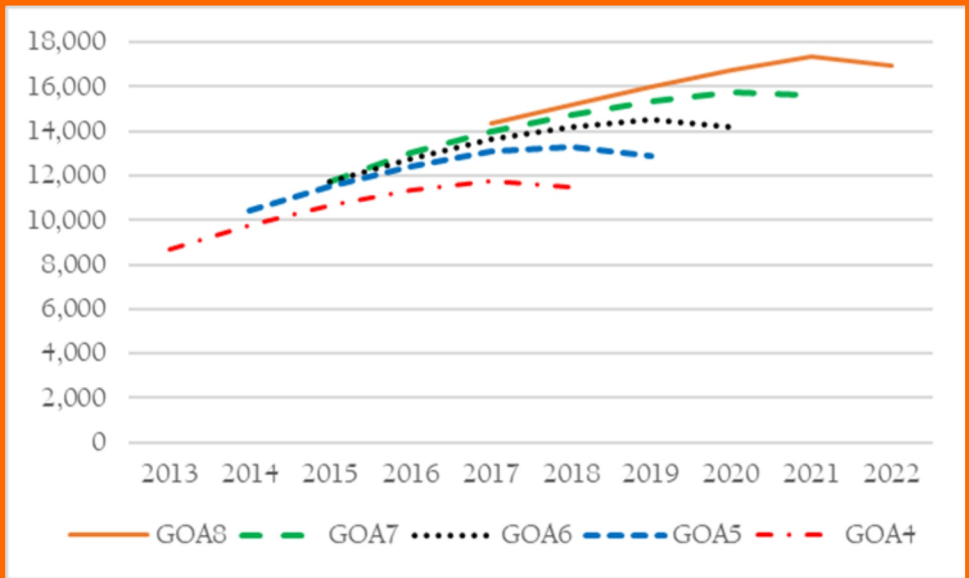
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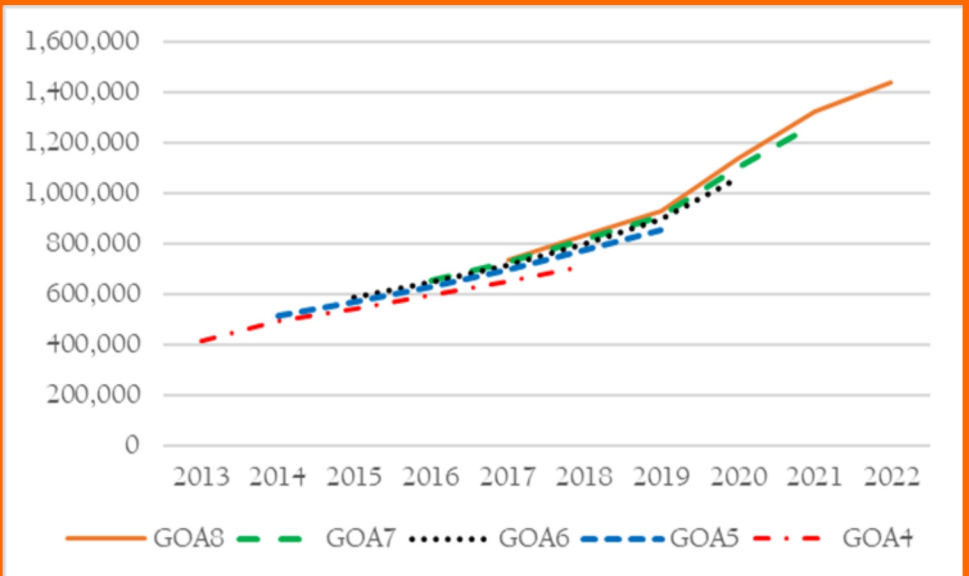
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