

RESEARCH ARTICLE

JASIST WILEY

The role of editorial boards in shaping scholarly communication: A large-scale mapping of their composition and structure

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Funding information

Consejo Superior de Investigaciones Científicas; NextGenerationEU; Momentum CSIC Programme: Develop Your Digital Talent, Grant/Award Number: MMT24-IESA-01

Abstract

Editorial boards play a central role in shaping scholarly communication by influencing what research is published and how disciplinary boundaries are defined. Despite their importance, large-scale, systematic evidence on their composition and structure remains limited. This study provides a comprehensive descriptive analysis of editorial boards across major scholarly publishers, with the aim of characterizing their organizational structure and the distribution of editorial positions. Using a corpus of over 810,000 editorial positions across more than 10,000 journals from 15 publishers, we examine board size and its relationship to journal output, develop a harmonized nine-class ontology of editorial roles, and analyze gender representation, institutional sectors, and geographic distribution. We also benchmark coverage against the Open Editors dataset, a previously released resource on editorial board composition. The results reveal stratified editorial structures dominated by operational roles, a positive association between board size and journal throughput, and a strong concentration of editors in academic institutions. Women represent approximately one-third of identified editors, and editorial presence is concentrated in the United States and Western Europe. This study provides large-scale descriptive evidence on editorial board organization and establishes an empirical baseline for future research on editorial governance, diversity, and the distribution of influence in scholarly publishing.

1 | INTRODUCTION

Scholarly journals are the principal mechanism through which scientific knowledge is communicated, evaluated, and legitimized. They not only preserve the scientific record but also shape research agendas, allocate prestige, and tacitly police the boundaries of expertise (Heidt, 2023; Ziman, 2000). Within this system, editorial boards play a pivotal role: they define a journal's

intellectual scope and make decisions that determine which research becomes part of the canonical literature, as editors ultimately decide which voices and topics enter the permanent scientific record.

Because of this central function, the composition of editorial boards is far from a neutral issue. Who serves as an editor can shape which topics are prioritized, which methodologies are legitimized, and which communities gain visibility. Prior research has suggested that editorial

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selection may reflect existing hierarchies within science, thereby affecting the diversity and inclusivity of published scholarship (Heidt, 2023; Ziman, 2000). These imbalances have implications not only for fairness in scholarly communication but also for the global circulation of ideas and the epistemic reach of scientific communities.

Despite their importance, editorial boards have received relatively little systematic attention. Most existing evidence comes from small-scale studies limited to individual fields or journals, providing valuable insights but lacking the scale to capture broader structural patterns. This has long been constrained by the absence of standardized, accessible data on board composition (Nishikawa-Pacher et al., 2023). Large-scale, comparative analyses are required to determine whether editorial gatekeeping mirrors the diversity of the global research community—or instead reinforces enduring asymmetries across gender, regions, and institutions.

This study responds to that need by providing a large-scale descriptive analysis of the composition and structure of editorial boards across major academic publishers. By examining how editorial boards are structured, who occupies these positions, and how composition varies across publishing models, we provide a comprehensive empirical foundation for studying editorial governance as a key dimension of scholarly communication.

This article contributes a large-scale descriptive analysis based on a new, wide-coverage dataset of journal editors and demonstrates how such an empirical resource can support core information-science questions about scholarly communication. First, by harvesting data beyond previous efforts, harmonizing role vocabularies into a reusable ontology, and making the cleaned corpus openly available, we advance editormetrics as an approach to the systematic, large-scale study of editorial ecosystems. Second, by examining board size, roles, gender, geography, and institutional sectors across publishers, we provide a comprehensive descriptive characterization of how editorial boards are structured across major segments of the scholarly publishing landscape. In doing so, the study establishes an empirical baseline for future research on editorial governance and its implications for the organization of scholarly communication (Santos Green & Johnston, 2022).

Rather than testing causal relationships, this study aims to systematically characterize editorial board structures at scale, providing an empirical baseline for future analytical research.

This study addresses the following research questions:

1. To what extent does this new dataset expand and improve upon previous large-scale efforts?
2. How do editorial board size and structure vary across publishers and disciplines?
3. What types of editorial roles are most prevalent, and how are they distributed across publishers?
4. What is the gender composition of editorial boards?
5. How is editorial representation distributed geographically?
6. Which institutional sectors dominate editorial appointments?

Collectively, these questions provide a systematic descriptive account of editorial board structures and contribute to ongoing research on diversity, representation, and governance in scholarly publishing.

1.1 | Literature review

Most of what we know derives from narrowly circumscribed inquiries—single fields, a few flagship titles, or restricted regional slices—that provide valuable vignettes but leave the wider landscape unmapped.

Bedeian et al. (2009) found that membership in editorial boards of management and accounting journals correlated strongly with scientific productivity and institutional privilege, suggesting that editorship is both a reward and a mechanism for consolidating academic influence. Similar findings emerged in finance, where Andrikopoulos and Economou (2015) revealed dense interlocks—scholars holding multiple editorial positions simultaneously—indicating the existence of a limited circle of disciplinary gatekeepers.

Gender and geographic inequalities have been recurrent themes across multiple disciplines. Cho et al. (2014) documented systematic underrepresentation of women and non-US editors in medical journals, while Mauleón et al. (2013) showed that Spanish journals led by women editors-in-chief tended to publish proportionally more female authors. Pinho-Gomes et al. (2021) conducted a comprehensive cross-sectional analysis of top-ranked medical journals, finding that women represented only 21% of editors-in-chief, with wide variation across specialties.

Geographic representation presents equally stark patterns. Espin et al. (2017) examined 24 environmental biology journals between 1985 and 2014, documenting that scientists based in the US and UK comprised an overwhelming majority (55% and 12%, respectively) of the editor community. Goyanes (2020) analyzed 39 top communication journals and found that five countries—the US, UK, Canada, Australia, and Germany—monopolized nearly 80% of total editorial board members. Csomós (2024) similarly mapped editors-in-chief

across 11,915 journals in the Social Sciences Citation Index, confirming a high concentration in North America and Western Europe.

Goyanes et al. (2025) reinforced that institutions from English-speaking countries disproportionately control editorial positions across the social sciences. Geographic diversity is not only an equity measure but also affects epistemic breadth: Araújo and Shideler (2019) reported that journals with more geographically diverse boards displayed broader topical coverage and higher Scimago rankings.

The phenomenon of editorial board interlocking—where scholars serve on multiple journal boards simultaneously—has emerged as a key indicator of influence (Burgess & Shaw, 2010; Goyanes & de Marcos, 2020). Goyanes et al. (2022) mapped more than 13,000 editors across six disciplines, revealing substantial interconnection among American and European institutions. Lockstone-Binney et al. (2021) confirmed similar dynamics in tourism journals, demonstrating temporal stability in board membership across decades. Collectively, these findings suggest that interlocking relationships reinforce editorial hierarchies and may limit intellectual diversity (Goyanes et al., 2022; Palladino et al., 2022).

The relationship between editorial board membership and institutional scientific output has also been explored. Wang (2019) found a strong positive correlation between the number of editorial board members and institutional bibliometric performance in chemistry, suggesting mutual reinforcement between prestige and editorial influence. Sverdlitchenko et al. (2022) reported that nearly half of ophthalmology journal publications originated from institutions linked to editors, raising concerns of potential affiliation bias. White et al. (2021) observed similar patterns in surgical journals, albeit with signs of increasing gender diversity among younger editorial appointees.

Efforts to quantify editorial diversity have led to methodological innovations. Bhaumik and Jagnoor (2019) developed the Composite Editorial Board Diversity Score (CEBDS), combining gender, region, and income-level indicators. Behlau et al. (2024) later proposed refined classification systems—non-index, single-index, cross-index, and inter-index metrics—providing a unified typology for board diversity measurements. Such comparative frameworks have become essential to assessing trends across publishers and disciplines (Behlau et al., 2024; DORA, 2013).

Transparency in governance also remains a major issue. Gasparian et al. (2018) stressed the importance of consistent role definitions, clear accountability, and disclosure of conflicts of interest. The Committee on

Publication Ethics (COPE Council, 2011) and the Declaration on Research Assessment (DORA, 2013) explicitly encourage journals to report demographic data of editorial members. However, comprehensive indicators and standardized reporting practices remain scarce (Altman & Cohen, 2023).

Within library and information science, Santos Green and Johnston (2022) offer a complementary perspective by examining publishing-ethics policies and documented cases of editorial misconduct in 33 LIS journals. They show that the presence or absence of clear editorial policies has tangible effects on the integrity of the LIS digital record and on researchers' willingness to submit to particular outlets, highlighting editorial agents as powerful actors in the academic information ecosystem. Their findings reinforce that editorial boards and their practices are not neutral administrative structures but active components of scholarly communication, which strengthens the case for systematic, large-scale evidence on who occupies these roles and how they are distributed across publishers.

Persistent underrepresentation of low- and middle-income countries (LMICs) has been noticed across fields. Espin et al. (2017) identified a severe imbalance in environmental sciences; later work in global health journals confirmed similar trends (Bhaumik & Jagnoor, 2019).

Most studies remain limited in scope because editor name data are not standardized or machine-readable (Nishikawa-Pacher et al., 2023). The Open Editors project (2022) demonstrated large-scale feasibility using web scraping across 7000 journals, producing nearly 600,000 entries. While board size and diversity patterns became visible, the dataset remained static and publisher coverage uneven. Nishikawa-Pacher et al. (2023) introduced editormetrics as a term for systematic, computational study of editorial ecosystems—a methodological advance echoed by Altman and Cohen (2023).

Recent calls also emphasize ontological harmonization of roles and longitudinal monitoring of diversity indicators (COPE Council, 2021).

In summary, research to date has revealed systematic gender, geographic, and institutional inequalities, but remains fragmented and methodologically inconsistent. The emergence of infrastructure such as Open Editors opens a path toward unified, large-scale analysis integrating both human and computational perspectives (Goyanes et al., 2022; Nishikawa-Pacher et al., 2023).

2 | METHODOLOGY

This study provides a large-scale descriptive analysis of who sits on journal editorial boards and how those

boards are structured across major publishing models. The analysis draws on a corpus comprising approximately 0.81 million editorial positions from over 10,000 journals and 15 publishers.

2.1 | Sampling frame and publishers

We targeted 15 major publishers that represent a diverse range of business models within scholarly publishing. These include the commercial “big four” (Elsevier, Springer Nature, Taylor & Francis, Wiley); three large open-access platforms (MDPI, Frontiers, PLOS); four specialized scientific societies (American Chemical Society—ACS; American Institute of Physics—AIP; Institute of Physics—IOP; Royal Society of Chemistry—RSC); two university presses (Cambridge University Press and Oxford University Press); and two small-to-medium-sized publishers (De Gruyter and SAGE). These categories are used as comparative analytical groupings within a structured, extraction-dependent sample, rather than as exhaustive representations of the full diversity of each publishing sector.

This selection was designed to capture variation in editorial structures across a set of major publishers representing different publishing models. Although scraping was initiated over complete publisher journal lists, effective recovery depended on whether editorial information was directly exposed and technically extractable at the journal level. For AIP, De Gruyter, and IOP, we prioritized journals ranked in the first quartile (Q1) of the SCImago Journal Rank to obtain a comparable subset of high-visibility journals within their respective portfolios. In these cases, full portfolio coverage was not feasible due to technical barriers such as non-standardized web templates, CAPTCHAs, or restrictive robots.txt files that prevented automated extraction. However, regarding their relevance within the selected sample, we considered it preferable to include them through a curated subset of high-impact journals rather than exclude them entirely.

2.2 | Data collection

Journal lists were identified directly from each publisher's official website. Using Web Scraper (webscraper.io), we extracted standardized metadata for each journal, including journal name, homepage URL, editorial board URL, ISSN, and any other publicly available fields relevant to sample construction. These lists served as the basis for identifying the editorial board pages from which editor-level data were subsequently retrieved.

Masthead information was then extracted from the editorial board URLs using the same scraping infrastructure. The target fields included editor name, role label, institutional affiliation, country, and—when available—ORCID identifiers.

For publishers with complex or non-standard architectures (e.g., variation in how editorial information is exposed across journal pages or infinite-scroll interfaces), we developed bespoke Python-based scrapers tailored to each site's structure to ensure reliable data capture.

All extracted data were cleaned and standardized to harmonize formats, resolve inconsistencies, and merge outputs from all scraping sessions.

All data were collected from publicly accessible journal webpages without authentication or circumvention of access controls. Nonetheless, public accessibility does not eliminate all ethical or legal considerations; accordingly, this study uses only openly exposed professional information for non-commercial research purposes.

2.3 | Role normalization and ontology mapping

Accurate cross-publisher comparison requires a unified taxonomy of editorial roles. To this end, we developed a nine-class ontology that distinguishes between executive and non-executive functions: *Editor-in-Chief*, *Deputy Editor*, *Associate Editor*, *Section Editor*, *Editorial Board*, *Review Editor*, *Assistant Editor*, *Editorial Staff*, and *Honorary Editor*.

We implemented a semi-automated role classification pipeline. First, we manually identified and truncated key terms within role labels after preprocessing, using keyword-based matching to capture core semantic elements. Then, we applied OpenRefine's built-in clustering functions (key collision and nearest-neighbor methods) to group orthographic and linguistic variants of semantically equivalent roles across languages.

These clusters were mapped to the nine ontology classes using a hierarchical set of regular-expression rules, guided by deterministic precedence criteria (specific-over-generic, executive-over-non-executive, longest-pattern wins). This approach resolved common ambiguities—such as “Co-Editor,” “Managing/Executive Editor,” or “Board Member/Associate”—without requiring manual adjudication.

Cross-lingual variants (e.g., *Redactor/a Jefe/a, Rédacteur en chef, Direttore*) were normalized using multilingual anchors embedded in the pattern library. In cases of pattern conflict, the pipeline defaulted to a composite score based on pattern specificity and label length.

TABLE 1 Nine-class ontology and executive status for >600 raw role labels.

Status	Role	Definition	Most common source labels
Executive role	Editor in Chief	Editor in Chief is the main responsible of the content of a journal.	Editor-in-Chief, Chief Editor, Executive Editor, Journal Director
	Deputy Editor	This replaces and makes decisions instead of Editor in Chief.	Deputy Editor, Vice-Editor, Deputy EiC, Senior Deputy Editor
	Associate Editor	They are in charge of managing manuscripts and they advise on editorial policies.	Associate Editor, Academic Editor, Handling Editor, Area Editor
	Section Editor	They are in charge of specific thematic, geographical or type sections of the journal.	Section Editor, Specialty Chief Editor, Series Editor, Regional Editor
Non-executive role	Editorial Board	They advisor Editor in Chief according specific editorial decisions.	Editorial Board Member, Advisory Board, Consulting Editor
	Review Editor	Editors specifically in charge of managing manuscripts, without executive duties.	Review Editor, Guest Handling Editor, Invited Editor
	Assistant Editor	He/she supports Editor in Chief in technical, administrative and economic tasks.	Assistant Editor, Editorial Assistant, Assistant Managing Editor
	Editorial Staff	Publisher's employees in charge of administrative and commercial tasks.	Managing Editor, Production Editor, Publishing Editor, Journal Coordinator
	Honorary Editor	Former editors.	Honorary Editor, Emeritus Editor, Founding Editor (Emeritus)

Records were assigned to the “Unknown” category only in two situations: when role information could not be extracted from the source, and when the label was ambiguous or did not clearly correspond to a functional editorial position—for example, representatives of associations or institutional delegates.

To illustrate the classification logic, Table 1 presents representative examples of frequently encountered role labels mapped to each of the nine ontology classes, along with their executive status and typical definitions.

2.4 | Institutional normalization and gender inference

Institutional affiliations were first cleaned and reduced to the first organizational level in OpenRefine, and then matched to the Research Organization Registry (ROR) to assign parent organizations and organization types. When country information was explicitly available on the journal webpage, it was retained and normalized to ISO format; when missing but an affiliation could be matched to ROR, the corresponding country was completed from the matched organization record.

Gender inference was performed programmatically using the World Gender Name Dictionary (WGND 2.0), via a TypeScript pipeline that linked editor names to WGND entries. For cases where names were ambiguous, rare, or initials-only, targeted manual checks were conducted to improve classification accuracy.

Given names are not consistently gendered in some contexts (notably Italy and China), potentially biasing automated gender inference.

An “Unknown” category was retained for unresolved entries, either due to missing name data or because the name could not be confidently assigned a gender. This approach preserves uncertainty and avoids overclassification.

2.5 | Benchmarking and quality assurance

To assess the completeness and reliability of the dataset, we benchmarked our results against the Open Editors corpus (February 2022), focusing on the eight publishers common to both samples. This comparison allowed us to quantify improvements in coverage and editor recovery, particularly for publishers with previously limited extractability.

We assessed metadata completeness across publishers (affiliations, roles, subject-area tags) to contextualize cross-publisher variation in downstream analyses. In addition, we enriched the dataset with external quality indicators. Each journal was matched to its SCImago Journal Rank (SJR) classification to enable stratified analyses by impact level. At the geographic level, we compared the distribution of editors by country with global research capacity, using World Bank statistics on full-time equivalent (FTE) R&D researchers. This allowed us to identify over- and under-representation relative to national scientific workforces.

Publisher	Journals	Coverage	Coverage of journals in Q1	Editors
ACS	84	84.8%	75%	5133
AIP (Q1)	11	100.0%	100%	606
Cambridge UP	360	85.7%	76%	12,391
De Gruyter (Q1)	18	100.0%	100%	698
Elsevier Group	2878	58.0%	100%	156,092
Frontiers	197	87.2%	100%	286,978
IOP (Q1)	30	100.0%	100%	1355
MDPI	428	99.5%	100%	77,358
Oxford UP	296	54.4%	60%	9709
PLOS	14	100.0%	100%	13,402
RSC	56	98.2%	72%	2989
SAGE	1197	99.6%	85%	60,185
SpringerNature	1759	45.8%	75%	72,946
Taylor & Francis	2204	71.0%	100%	83,479
Wiley	972	69.0%	46%	28,339
Total	10,504	83.5%	86%	811,660

TABLE 2 Number of journals and editorial members by publisher.

The dataset was collected in November 2023. All analyses reflect the editorial composition and journal meta-data as observed during that period.

Given the heterogeneity of publisher websites and the technical constraints of automated extraction, coverage varies across editorial portfolios and is not uniformly exhaustive across publishers. These differences affect the completeness and comparability of certain indicators and should be considered when interpreting the results.

3 | RESULTS

This section presents a large-scale descriptive analysis of the editorial dataset compiled for this study. The corpus spans a range of journal types and publishing models, including commercial conglomerates, open-access platforms, society-led titles, and university presses. It offers a comprehensive view of editorial board structures across disciplines and regions.

The following subsections examine key dimensions of editorial composition, including sample coverage, role architecture, gender representation, geographic distribution, and institutional affiliation.

3.1 | Coverage and sample composition

Before examining specific indicators—such as role distribution, gender representation, or institutional affiliation—it is

important to establish the empirical scope of the study: how many journals and editors were captured, and how this coverage varies across publishers.

Table 2 summarizes the scope and balance of the dataset that underpins all subsequent analyses. In aggregate, the crawl yielded 811,660 editorial positions across 10,504 journals, corresponding to 83.5% of the titles catalogued by the 15 target publishers. Coverage among journals ranked in the first quartile (Q1) of the SCImago Journal Rank (SJR) reached 86%, reflecting a strong representation of high-impact titles.

Three patterns stand out in the sample, but the coverage is broad across models; residual gaps cluster by workflow rather than at random:

1. Commercial publishers dominate in absolute volume. Elsevier alone contributes nearly 156,000 editors, while Springer Nature, Taylor & Francis, and Wiley together add another 184,000. However, these publishers also show the lowest retrieval rates—ranging from 46% (Springer Nature) to 71% (Taylor & Francis)—due to frequent use of PDF front matter or bespoke HTML components that hinder automated parsing.
2. Open-access platforms skew the distribution upward. Frontiers accounts for over one-third of all editors (286,978) despite representing fewer than 2% of journals. MDPI shows a similar but less extreme pattern. These inflated counts reflect a mega-journal model, which distributes manuscript handling across large pools of review editors.



FIGURE 1 Number of journals and editors obtained from eight publishers according to our sample and open editors.

- The sampled society and university presses achieve near-complete coverage when editorial boards are exposed in plain HTML. ACS, PLOS, AIP, IOP, and RSC all exceed 98% retrieval. Although their boards are smaller in absolute terms, they are proportionally well represented in Q1 rankings—for example, all PLOS and AIP titles fall within the top quartile.

3.2 | Comparison with Open Editors (2022)

To assess the reliability and added value of our dataset, we benchmarked it against the only prior large-scale effort to map editorial boards: the Open Editors corpus (February 2022).

Our dataset includes a slightly larger number of journals and editors, primarily due to its more recent extraction and enhanced technical capabilities. As illustrated in Figure 1, our crawl recovered more journals and

substantially more editors for every shared publisher. This improvement is largely attributable to the 18th-month gap between the two extractions and to methodological advances in overcoming dynamic web architectures.

Figure 1 also shows that the most pronounced divergence appears at Springer Nature. By successfully parsing JavaScript-rendered mastheads, our pipeline retrieved editorial boards for nearly half of its catalogue—yielding 73,650 editors compared to only 1319 in Open Editors, a ≈ 55 -fold increase. A second, though less extreme, discrepancy is observed for MDPI. Both projects captured the same 428 journals, yet our dataset includes approximately eight times as many editors. Manual verification suggests that the earlier scrape truncated scroll-loaded rosters after the first few hundred entries.

Elsevier also shows notable differences, likely due to the limitations of the ScienceDirect portal and the inconsistent presentation formats of editorial boards, which hinder automated extraction.

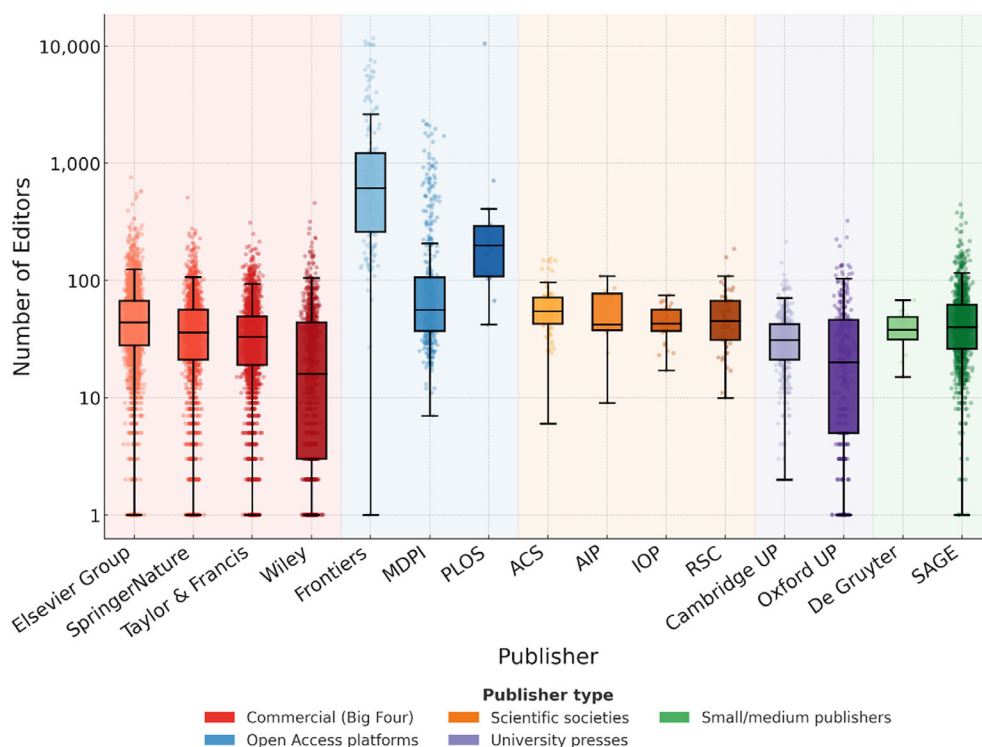


FIGURE 2 Variability in the number of editors per journal by publisher.

Across the remaining publishers, gains are incremental—typically a few hundred additional journals or tens of thousands of editors—and reflect site expansions, journal launches, and routine editorial turnover since 2022. In total, for the overlapping set, our dataset adds approximately 5700 journals (+125%) and 210,000 editors (+40%) relative to Open Editors, significantly closing the coverage gap for commercial publishers and hybrid titles.

Metadata completeness also varies substantially by publisher. While editor names are universally available, the presence of affiliations and contact details ranges from near-exhaustive (PLOS, MDPI, Frontiers) to fragmentary (e.g., Wiley 92.5%, De Gruyter 94.7%). Subject-area tags—essential in broad-scope outlets—appear in 95% of PLOS and 99.9% of MDPI records, but fall below 20% for AIP and IOP and are virtually absent elsewhere. Explicit role labels are consistently provided by AIP, Cambridge, De Gruyter, Frontiers, IOP, MDPI, Oxford, and SAGE, but remain elusive for Elsevier, Springer Nature, and Taylor & Francis, where roles are embedded in PDF front matter or omitted entirely.

These patterns underscore two key conclusions. First, coverage deficits are not random; they cluster around specific web architectures and publisher workflows. Analyses based on older snapshots may therefore underestimate editorial influence in large commercial portfolios. Second, even when editorial boards are fully harvested, metadata richness remains publisher-specific,

requiring cautious interpretation of indicators related to diversity, institutional affiliation, or editorial workload. The expanded and more granular dataset presented here mitigates—though does not entirely eliminate—these structural blind spots, and thus offers the most comprehensive foundation to date for quantitative inquiries into journal governance.

3.3 | Number of editors per journal

Beyond the overall coverage of journals and editors, it is equally important to examine how editorial labor is distributed within individual titles. The number of editors per journal offers insight into the internal organization of editorial boards and reflects differences in publishing scale, review models, and disciplinary practices.

Figure 2 illustrates the variability in the number of editors per journal across publishers. The distribution is notably wide, with an overall mean of 78 editors per journal. Open-access publishers—particularly MDPI and Frontiers—show the highest average editorial board sizes, reflecting their operational model based on large pools of review editors.

This variability is not only evident between publishers but also within them: journals from the same publisher can differ substantially in editorial board size. Several factors may contribute to this dispersion, including journal

FIGURE 3 Number of editors per journal by disciplinary area.

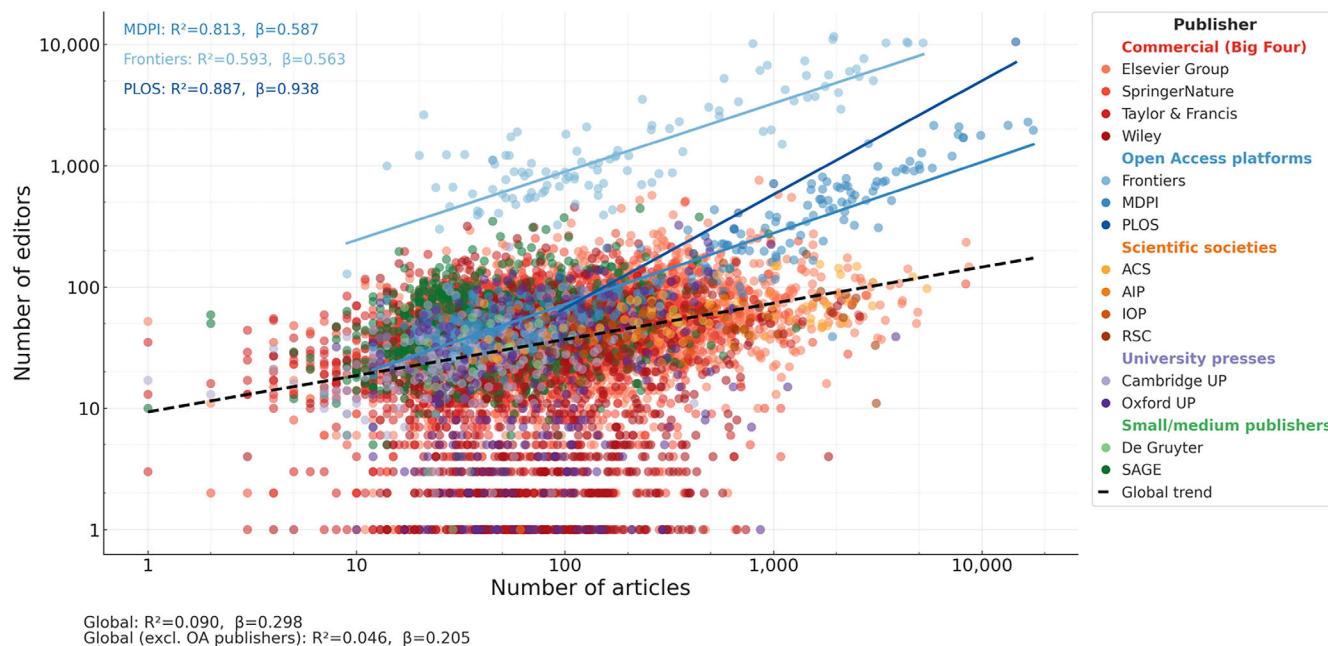
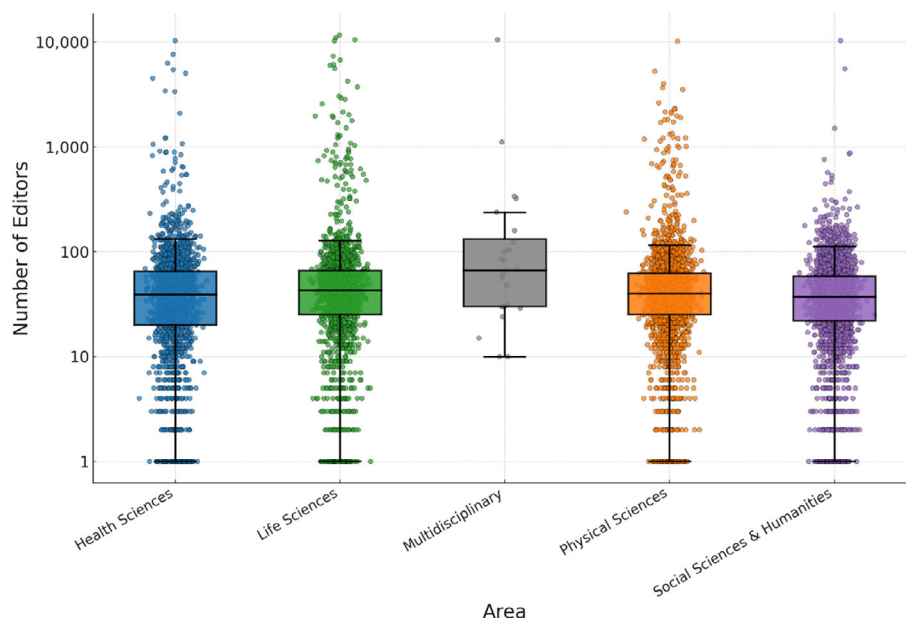


FIGURE 4 Correlation between number of editors and publications per journal.

scope, article volume, disciplinary norms, and internal editorial workflows.

Figure 3 reflect that the size of editorial board is broadly similar across disciplines. Medians and inter-quartile ranges largely overlap, with only a modest upward shift for Multidisciplinary titles and a slightly tighter spread in Social Sciences & Humanities. A Kruskal–Wallis test detects cross-area differences, but the effect is small in practical terms ($H \approx 46.2$, $p < 0.001$, $\epsilon^2 \approx 0.005$). Pairwise post hoc contrasts (e.g., Dunn tests with Holm correction) indicate larger boards in Life Sciences and Physical Sciences than in Social Sciences &

Humanities, and Multidisciplinary exceeding Physical Sciences and Social Sciences & Humanities; other contrasts are not significant after correction. Notably, Multidisciplinary shows a long right tail (a few very large boards) and a small n , so its higher median should be interpreted with caution. Overall, these results reinforce that discipline per se explains little of the variance; editorial workflow and portfolio design (e.g., submission routing, handling-editor models, throughput strategies) likely play a more central role.

Figure 4 shows that, in the aggregate, editorial-board size and article output rise in lockstep yielding a modest

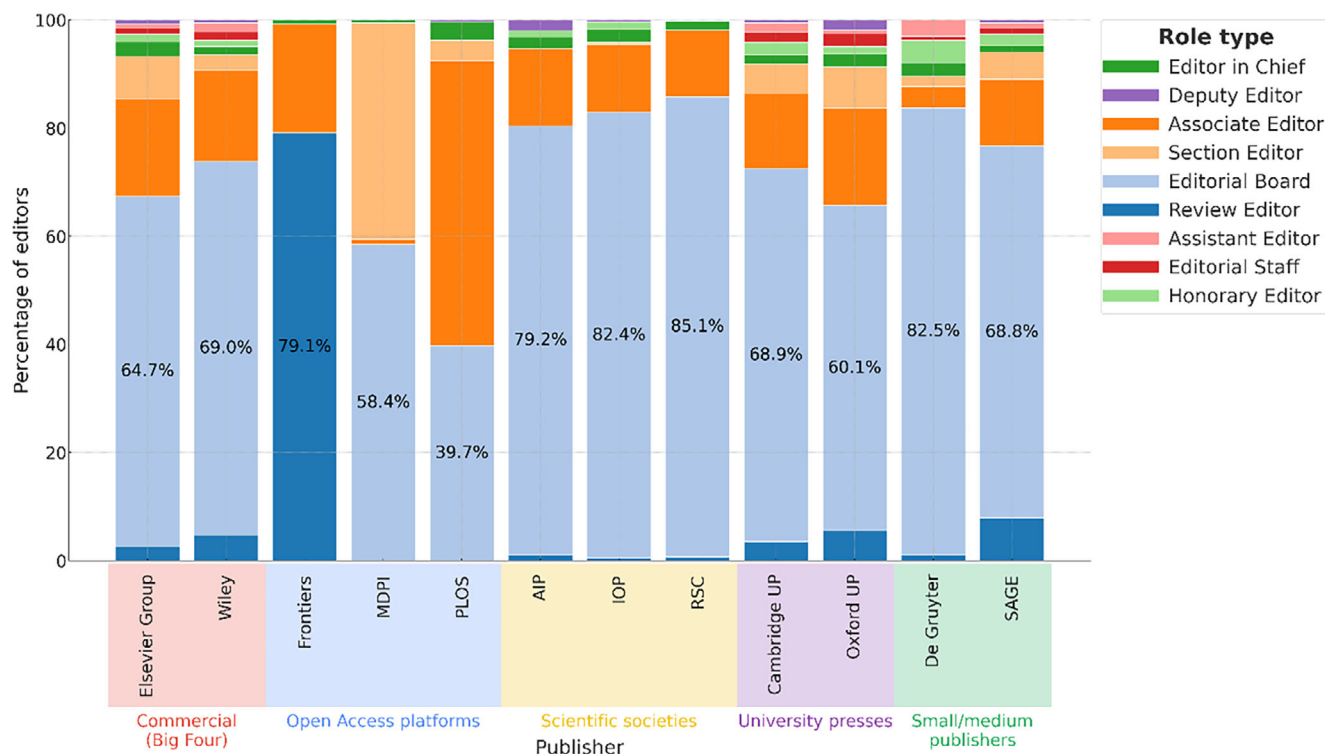


FIGURE 5 Distribution of role types in the sample for each publisher (Springer Nature, Taylor & Francis, and ACS are not shown because role information could not be consistently recovered from their editorial-board pages).

global association. In a log–log regression, the global elasticity is $\beta = 0.298$ ($R^2 = 0.090$), implying that a 10% increase in articles corresponds to roughly 3% more editors. Open-access platforms scale markedly faster: MDPI and Frontiers, $\sim 6\%$ more editors for $+10\%$ articles, while PLOS approaches proportionality $\sim +9\%$ for $+10\%$. These PLOS estimates should be interpreted with caution given the small number of journals. By contrast, mixed or selective portfolios (university presses, learned societies, and segments of commercial groups) cluster around or below the global baseline—consistent with more segmented editorial architectures in which comparable outputs coexist with both small and large boards. Excluding OA publishers yields a flatter baseline ($+10\%$ articles $\rightarrow \sim +2\%$ editors), indicating that most portfolios expand editorial capacity more slowly than throughput.

Taken together, the evidence indicates that editorial-board scale is primarily shaped by publisher model and editorial workflow. Overall, board size reflects portfolio design and throughput management more than intrinsic field characteristics.

3.4 | Editorial roles distribution

Editorial roles were classified using the nine-category ontology explained in the methodology (Table 1),

enabling cross-publisher comparisons of board structure and functional responsibilities. Despite this harmonization, 25.15% of editorial positions remain unclassified due to ambiguous or missing role labels.

Figure 5 presents the distribution of editorial roles across the entire sample and by publisher. The most frequent categories are Review Editors (38.5%) and Editorial Board Members (37.6%), followed by Associate Editors (21%) and Section Editors (1.3%). Editors-in-Chief represent only 0.9% of the sample, with an average of 1.2 per journal.

Role distributions vary significantly across publishers. Traditional publishers such as Cambridge University Press, Oxford University Press, and Wiley exhibit greater diversity in editorial roles, reflecting the influence of scholarly societies and legacy governance structures. These publishers often include multiple editorial layers and specialized functions.

In contrast, newer open-access platforms like Frontiers and MDPI display less variability. Their journals are typically launched with a fixed editorial structure, dominated by Review Editors and Associate Editors. Notably, Frontiers replaces Editorial Board Members with Review Editors, standardizing editorial functions across their portfolio.

The inclusion of Editorial Staff also differs by publisher. While recent platforms exclude these roles from

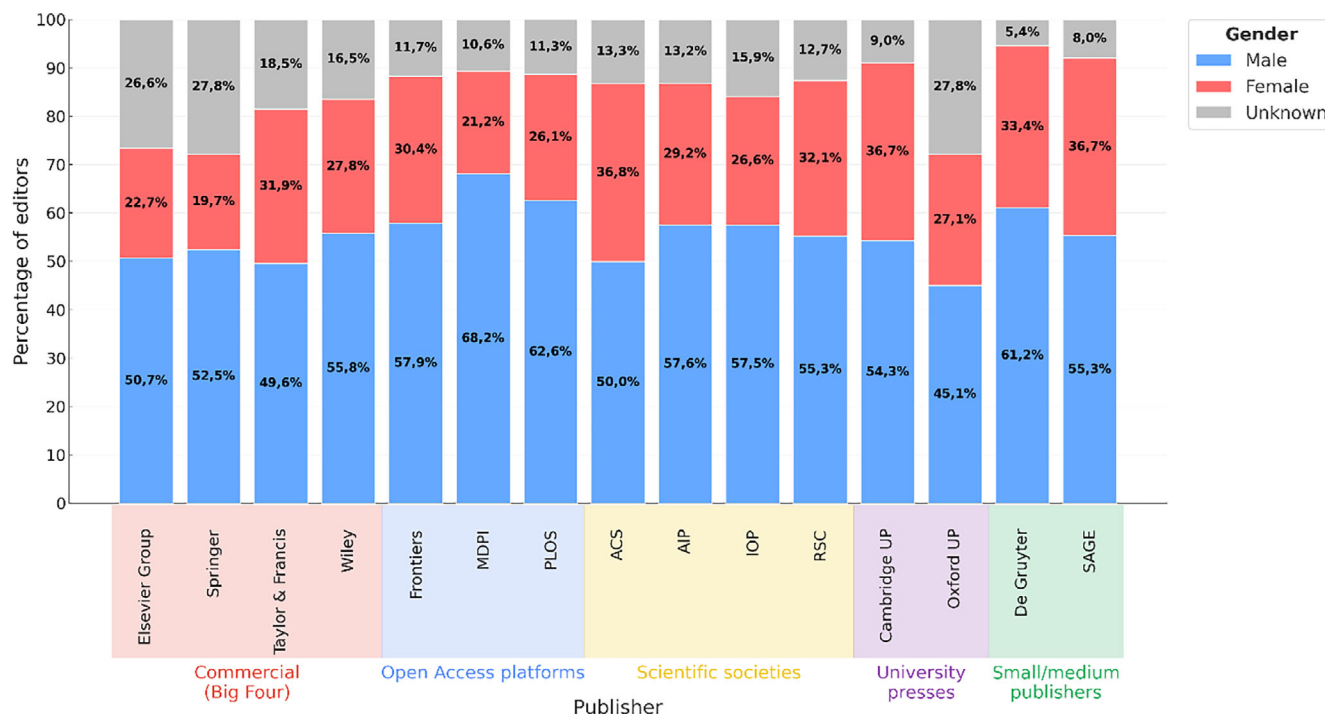


FIGURE 6 Gender distribution for each publisher.

mastheads, traditional presses such as Oxford UP (1.4%), Cambridge UP (1.3%), and SAGE (0.8%) explicitly list staff members involved in administrative or technical tasks. This distinction underscores divergent conceptions of editorial labor and transparency.

Overall, the taxonomy reveals structural contrasts between the sampled legacy and born-digital publishers. Traditional houses accommodate heterogeneous editorial models shaped by disciplinary norms and societal governance, whereas newer platforms favor streamlined, scalable structures. These differences have implications for editorial workload, decision-making authority, and the visibility of support roles within scholarly publishing.

3.5 | Gender distribution

Gender inference was performed using the World Gender Name Dictionary (WGND 2.0), yielding the following distribution across all editorial positions: 55.7% were identified as men, 27.6% as women, and 16.7% remained unclassified (“Unknown”). When excluding the unclassified group, women represent 33.2% of identified editors, compared to 66.8% men, resulting in an approximate 2:1 male-to-female ratio and a 33.6-percentage-point gap. Including the Unknown group in the denominator reduces the gap to 28.1 points, but the imbalance remains substantial.

Because a fraction of records falls into an “Unknown” gender category, the magnitude of the gender gap should be

interpreted with caution. Even under conservative assumptions, the data reveal a persistent under-representation of women among editorial board members.

Figure 6 illustrates gender distribution across the 15 publishers. All editorial boards remain male-majority, with the proportion of men ranging from 45.1% (Oxford University Press) to 68.2% (MDPI). The share of women varies from 19.7% (Taylor & Francis) to approximately 36.8% (ACS) and 36.7% (Springer). The Unknown category also varies widely—from 5.4% (De Gruyter) to nearly 27.8% (Oxford UP and Taylor & Francis)—introducing additional uncertainty in publisher-level comparisons.

When restricting the analysis to identified editors only, women’s representation improves in some cases: ACS, Cambridge University Press, and Springer approach 40–42%, while MDPI, Elsevier, Frontiers, and PLOS remain below 32%. These patterns suggest that gender imbalance is more pronounced in some publishing models in the sample, particularly among large commercial and open-access platforms.

3.6 | Geographic distribution

The geographic distribution in the sample reveals a pronounced concentration in the United States and Western Europe. The United States alone accounts for 28% of editors in the sample, followed by the United Kingdom

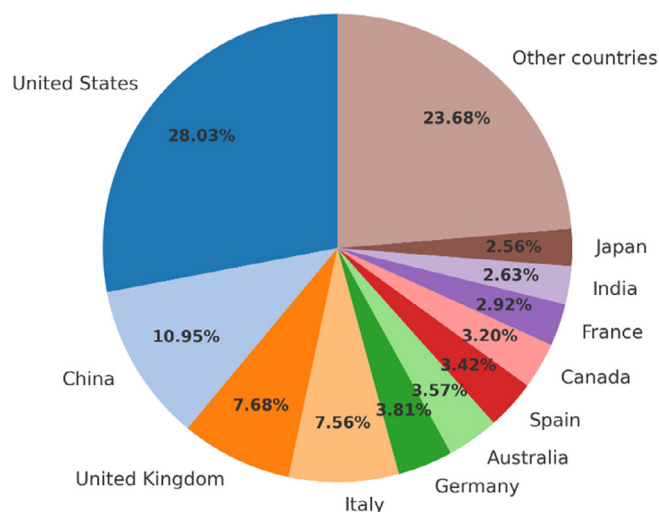


FIGURE 7 Geographic distribution in the sample.

(7.7%), Italy (7.6%), and Germany (3.8%). This information is reflected in Figure 7, which summarizes the overall country-level composition of editors.

To contextualize this figure, we compared the distribution of editors with global researcher shares derived from World Bank (2025) and UNESCO statistics. For each country, the number of researchers was estimated by multiplying researchers per million inhabitants by population (latest available year ≤ 2023). Country classifications follow World Bank regional groupings.

Figure 8 examines the relationship between each country's proportion of editors and its proportion of global researchers.

The strongest relative over-representation is found in smaller, high-income European countries with strong publishing traditions (e.g., Netherlands, Switzerland, Denmark, Austria, Belgium, Portugal, Greece) as well as Australia, New Zealand, and Israel. The most pronounced under-representation appears in China, Japan, Korea, and large emerging systems such as India, Brazil, Türkiye, and Russia.

At the regional level, the sample shows North America and Europe & Central Asia together accounting for a disproportionately high share of editors, while East Asia & Pacific—despite its substantial researcher population—contributes markedly fewer editorial positions. Latin America & Caribbean and Sub-Saharan Africa remain marginal both in research and in editorial participation, with the latter particularly under-represented.

To explore how these geographic patterns vary by publishing model, Figure 9 shows the share of editors from the five most frequent countries—United States, United Kingdom, China, Italy, and Germany—plus a residual category labeled “Other countries”, across the 15 major publishers.

The United States dominates across all publishers, but its presence varies markedly with editorial model. In the large commercial conglomerates and English-language publishers—such as Oxford University Press, Wiley, SAGE, and ACS—US editors constitute over 40% of the total. Their prevalence decreases only in high-volume, open-access platforms like MDPI, Frontiers, and PLOS, where the proportion falls below 25%, reflecting the more international composition of these portfolios.

The United Kingdom also maintains a strong footprint, particularly in publishers with historic or institutional ties to British academia. At Oxford and Cambridge University Press, editors affiliated with United Kingdom institutions represent about 19%, and still account for notable shares in Taylor & Francis (15%) and the Royal Society of Chemistry (11%).

A distinct pattern emerges for China, whose representation concentrates in the physical sciences. Chinese editors account for 21% of the boards at IOP, and roughly 16% at both the Royal Society of Chemistry and the American Institute of Physics—as well as around 14–15% in large commercial groups such as Elsevier and ACS.

Italy stands out among the open-access publishers: it contributes 18% of editors to MDPI and 10% to Frontiers, with more moderate shares in PLOS (6%) and Springer (5%). Similarly, Germany shows its greatest presence in science-focused publishers—Springer (7%), RSC (6%), and IOP (6%)—consistent with its disciplinary strengths in physics and chemistry.

Finally, the residual category “Other countries” reveals where geographic diversification is most pronounced. In globally oriented and open-access publishers such as PLOS (55%), MDPI (46%), and Frontiers (45%), editors are drawn from a far wider range of regions, underscoring how broader submission bases and multilingual reach can translate into more internationally composed editorial boards.

Together, these results confirm that United States editors are systematically dominant but that the degree of concentration varies by publisher type: university presses and commercial conglomerates remain heavily United States and United Kingdom centered, whereas open-access and society publishers exhibit a more international profile.

These findings remain robust across alternative normalization strategies—whether based on global benchmarks or aggregated country totals—and hold consistently for both absolute and relative measures. Nevertheless, several methodological considerations should be borne in mind. First, the editorial data reflect only the journals included in our sample, whose disciplinary and linguistic profiles may influence country representation. Second, the researcher statistics are based on FTE counts

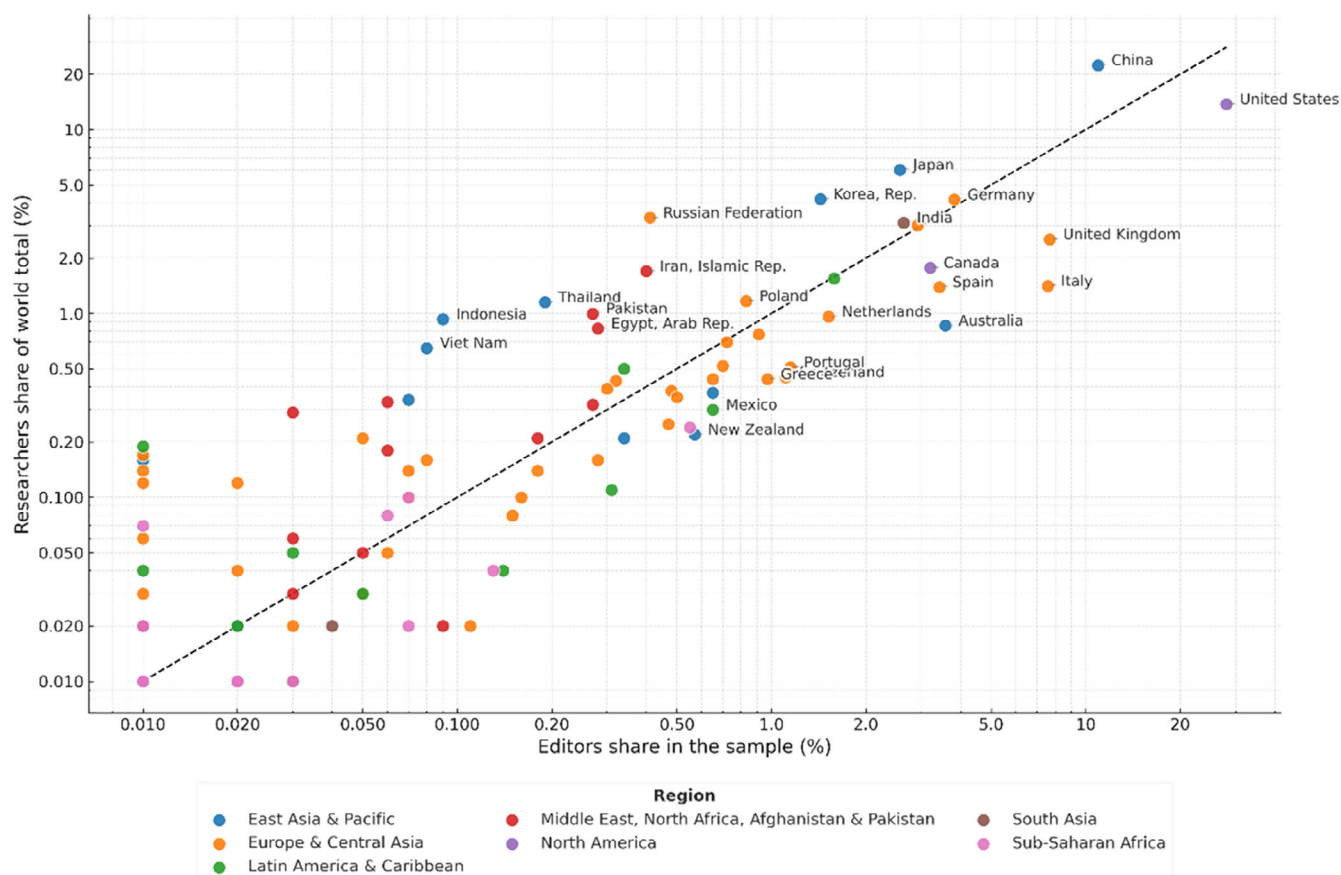


FIGURE 8 Relationship between countries' share of editors and their share of global researchers.

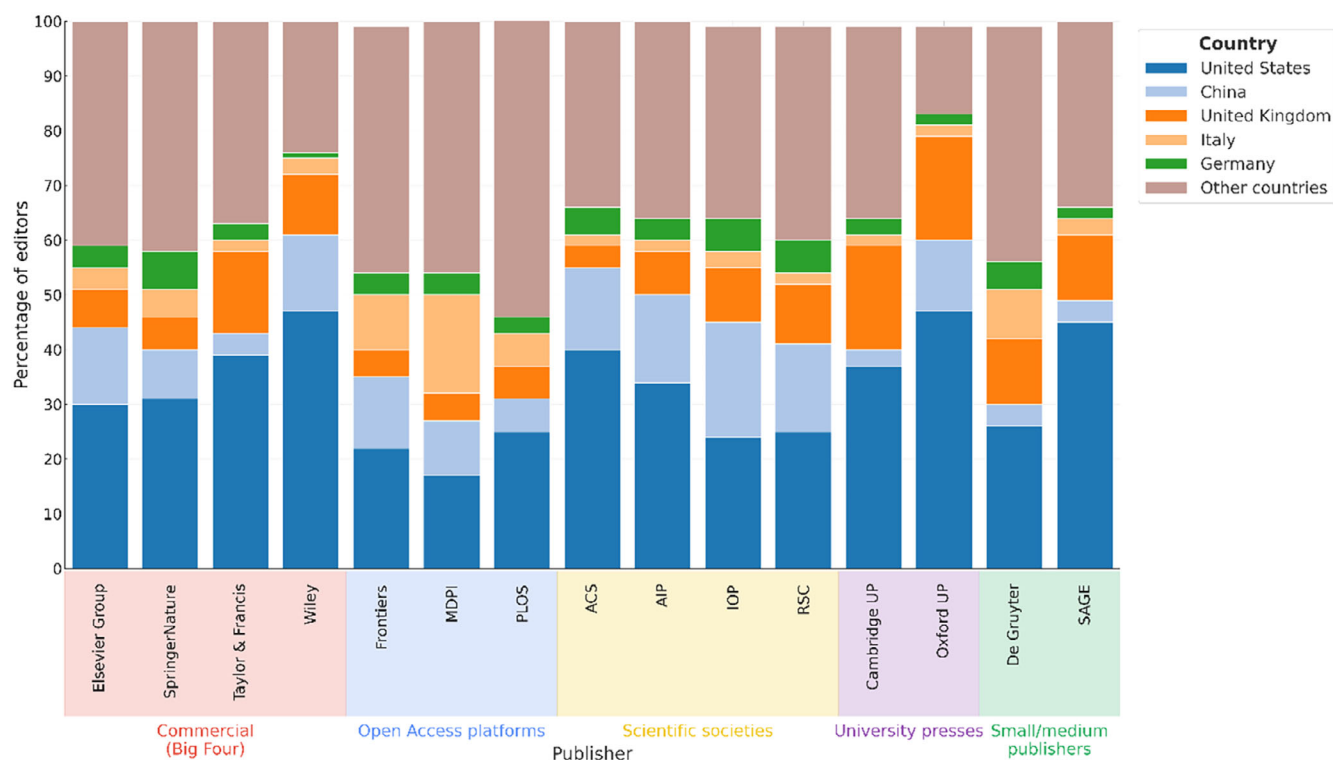


FIGURE 9 Top 5 country distribution of editors by publisher.

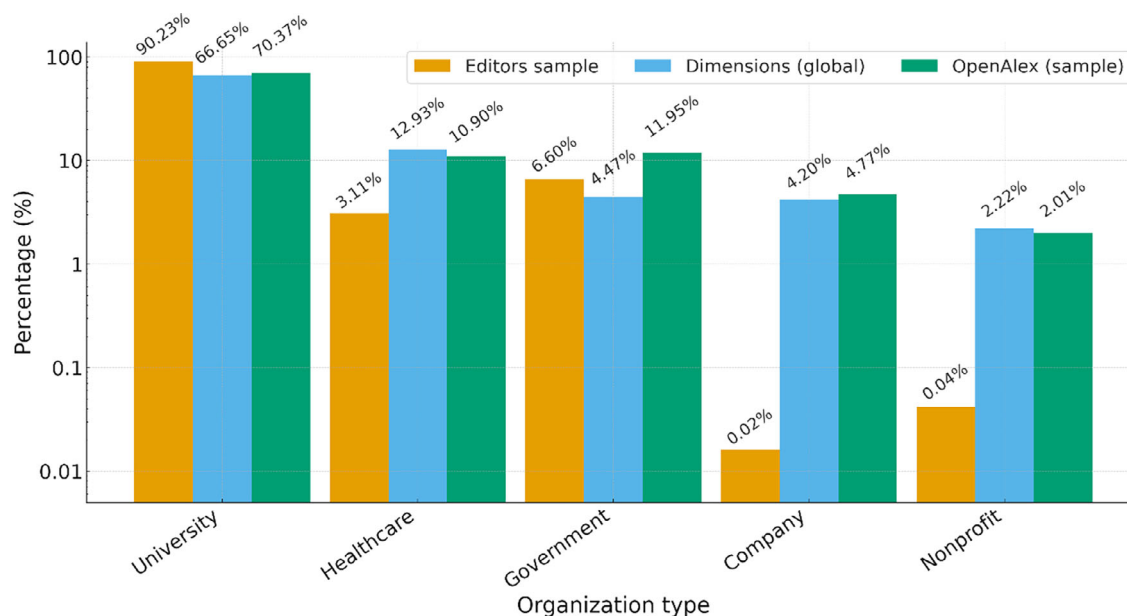


FIGURE 10 Editors' affiliations vs. authors' affiliations by organization type (Dimensions and OpenAlex).

for the latest available year (≤ 2023), which may introduce minor temporal mismatches. Third, non-sovereign territories were excluded to ensure comparability. While variations in journal coverage might slightly affect the magnitude of observed disparities, they are unlikely to alter the overall pattern.

3.7 | Institutional affiliations

Institutional affiliation data reveal a pronounced dominance of the academic sector in editorial-board composition. Across the entire sample, above 90% of editors are affiliated with institutions classified under Universities, above 6% with Government, and above 3% with Healthcare. The remaining categories are collective. This academic predominance is observed across all publishers analyzed, with slight variations—for example, MDPI ($\approx 12.5\%$) and IOP ($\approx 10.7\%$) show a higher share of Government affiliations, both above the sample mean. By contrast, university presses and small/medium publishers show very low government shares (below $<3\%$), reinforcing the pattern observed here.

To provide external context, Figure 10 compares the institutional distribution of editors' affiliations in this study with authors' affiliations from two independent sources—Dimensions and OpenAlex (variable Organization type). For Dimensions, percentages correspond to the entire global dataset indexed on the platform. For OpenAlex, results come from a random sample of 100,000 publications, offering an indicative snapshot

of author-affiliation patterns consistent with global tendencies.

Relative to these baselines, editorial boards are more concentrated in universities and thinner in non-academic sectors: universities account for $\sim 67\text{--}70\%$ of author affiliations (Dimensions/OpenAlex) versus $\sim 90\%$ among editors; Healthcare and Government contribute $\sim 11\text{--}13\%$ and $\sim 4\text{--}12\%$ of author affiliations, respectively, but only 3.11% and 6.6% among editors; Company ($\sim 4\%$ in authorship) and Nonprofit ($\sim 2\%$) are nearly absent on editorial boards. Two classification notes help interpret these gaps. First, in our corpus dual hospital–university affiliations were assigned to the university, reflecting where research activity typically occurs; this shifts some Healthcare into the University category and partly explains the editor–author difference for these sectors. Second, sector coverage and labeling vary across sources (e.g., treatment of national labs), which contributes to the Government spread between Dimensions and OpenAlex.

4 | DISCUSSION

The results presented in this article corroborate and extend prior work on editorial boards by providing a large-scale map of editorial governance within the scholarly communication system. This section situates the findings within the existing literature, indicating areas of convergence or divergence, and noting methodological considerations that inform interpretation.

4.1 | Coverage and benchmarking with open editors

Benchmarking against Open Editors—a structured dataset reporting $\approx 594,580$ editorial positions from ≈ 7352 journals across 26 publishers—confirms both the value and the limitations of infrastructure-driven editormetrics (Nishikawa-Pacher et al., 2023). Our corpus fills gaps in Open Editors by extending capture in areas where static scraping underperforms (e.g., non-standard templates), thus improving coverage without claiming completeness. The comparison reveals that coverage issues vary by publisher group and are dependent on publisher architecture (templates, page depth, and how mastheads are exposed). In contrast, born-digital open access models (e.g., PLOS ONE, Frontiers, MDPI) publish editorial data via stable, portfolio-wide templates, making mastheads more consistently discoverable and machine-readable across all their journals. In short, our dataset extends the shift toward reproducible, machine-readable evidence initiated by Open Editors, with indicators still conditional on web exposure at the snapshot date.

4.2 | Number of editors per journal

The near-linear association on log–log axes between board size and publication output indicates proportional (not explosive) scaling of editorial labor with throughput. This aligns with qualitative accounts of workflow segmentation in high-volume models (e.g., mega-journals) and with prior observations of wide dispersion in board sizes across fields (Ioannidis et al., 2020). Earlier observations were often discipline-bounded; our evidence extends the pattern across the sampled publishers. Apparent deviations (e.g., rapid expansion in particular subfields) are best read as field-specific contingencies, consistent with a stable underlying demand for editorial labor relative to volume.

Our results indicate that, when journals are aggregated into four broad thematic areas, between-area differences in editorial-board size are substantively small. However, more fine-grained disciplinary or journal-scope heterogeneity may still exist and can be masked by this level of aggregation, as suggested by field or specialty specific studies (e.g., Goyanes et al., 2022; Pinho-Gomes et al., 2021; Wang, 2019). In addition, cross-study differences may partly reflect methodological and data-extraction choices (Nishikawa-Pacher et al., 2023); future work will therefore examine patterns at a more specific disciplinary/topic level.

At the institutional level, Wang (2019) shows in chemistry that universities with more editorial board

members tend to exhibit higher scientific output (publications, citations, h-index), using quantile regression and time-series/Granger tests; the co-movement is robust, though causality is mixed for top institutions—supporting the view that editorial capacity and research productivity co-vary. In the social sciences, Goyanes and Demeter (2020) document that who is on boards relates to what gets published: journals with more internationally diverse boards tend to publish more diverse research (e.g., author country/data origin). While this speaks to composition rather than sheer size, it is consistent with our interpretation that larger, operationally segmented boards in high-throughput models facilitate both capacity and topical breadth.

Finally, the mega-journal mechanism that underpins this scaling is well documented: editors describe distributed/federated structures designed to handle large inflows (Wakeling, Spezi, Creaser, et al., 2017; Wakeling, Spezi, Fry, et al., 2017), and some portfolios illustrate the required magnitude—for example, Frontiers in Psychology listing 13,967 editorial board members in Open Editors (Nishikawa-Pacher et al., 2023)—which exemplifies how scale is achieved via expansion of operational tiers.

4.3 | Editorial roles distribution

The present mapping reveals a steep functional hierarchy: operational roles are abundant, whereas executive positions are comparatively scarce. Although publisher-specific vocabularies complicate direct comparisons (Ioannidis et al., 2020), the underlying stratification is robust across the sampled models. In communication sciences, Goyanes and Demeter (2020) also find heterogeneity in role taxonomies but the same macro-pattern: operational layers dominate, while executives remain pivotal for quality control and final decisions.

Publishing models help explain variance in how these hierarchies are expressed. Traditional portfolios (e.g., Cambridge UP, Oxford UP, Wiley) mix house titles with society-owned journals, inheriting heterogeneous governance and idiosyncratic role labels/board architectures; society layers add variability (Horbach & Halfman, 2020). By contrast, born-digital open access platforms (e.g., Frontiers, MDPI) deploy portfolio-wide templates that standardize handling/associate/review tiers, yielding lower within-publisher variance (Nishikawa-Pacher et al., 2023). This template-driven standardization supports centralized coordination and uniform workflows, reflected in the fast and tightly distributed turnaround times reported for some large open access portfolios (Crosetto, 2021; Hanson et al., 2024). While such standardization increases efficiency and

scalability, it may also reduce diversity in review procedures within large publishers, potentially mismatching the needs of smaller or more specialized fields (Horbach & Halfman, 2020).

Taken together, these findings indicate that terminological and functional heterogeneity in roles reflects deeper organizational and market logics—ownership, governance, and process engineering—rather than mere nomenclature.

4.4 | Gender distribution

Across the sample, women constitute ≈ 27 – 28% of all editorial positions ($\approx 33\%$ among identified records), which sits below the widely used gender-balance “parity zone” of 40–60% adopted in diversity dashboards and assessments. This finding reinforces previous research that highlighted the male dominance of editorial boards, particularly in leadership roles (Cho et al., 2014; Dada et al., 2022; Fox et al., 2019; Pinho-Gomes et al., 2021).

As an external benchmark, the UCL–Elsevier dashboard places the global average of women authors at $\approx 36\%$ (University College London & Elsevier, 2024), closer to the lower bound of parity than editorial representation; Elsevier's 2024 global gender update further estimates $\approx 41\%$ women among active researchers (van der Linden et al., 2024). Together, these comparators indicate that editorial composition lags broader participation trends in authorship and the researcher workforce, even allowing for disciplinary heterogeneity.

Publisher-level analysis reveals important variations in gender representation. When restricting the analysis to identified editors only, some traditional publishers such as ACS, Cambridge University Press, and Springer approach 40–42% women, while MDPI, Elsevier, Frontiers, and PLOS remain below 32%. These patterns suggest that gender imbalance is more pronounced in certain publishing models, particularly among large commercial and open-access platforms.

Recent studies confirm this divergence. Altman and Cohen (2023) found that editorial boards of open-access journals exhibit lower gender diversity ($>7\%$ less in full editorial boards) compared with their closed-access counterparts. This finding contradicts the expectation that journals committed to open access and research transparency would have greater gender diversity among their editors if motivated by egalitarian ends. As the authors note, there is no strong association between open access, research transparency, and editorial team diversity, and multiple forms of diversity are not necessarily connected.

This lower female representation in the sampled open-access platforms may relate to the specific

characteristics of these models. Open-access mega-journals, with their large pools of Review Editors and standardized structures, may reproduce and amplify existing biases in editorial recruitment through network mechanisms and productivity-based selection, where women have historically been underrepresented (Helmer et al., 2017).

4.5 | Geographic distribution

In the sample, editors are disproportionately concentrated in the United States and Western Europe relative to national researcher shares, with consistent underrepresentation of East Asia, Latin America, and Africa (i.e., the Global South). These findings align with long-run evidence of a persistent lack of international representation on editorial boards, such as the three-decade analysis by Espin et al. (2017) in environmental biology journals, which found that $\approx 67.2\%$ of editors were based in the United States or the United Kingdom, with minimal change in the representation from the Global South.

The broader context mirrors the global concentration of scientific influence: Clarivate's Highly Cited Researchers 2023 analysis shows 83.8% of recognitions clustered in 10 countries and 72.7% in the top five (United States 37.5%, Mainland China 17.9%, United Kingdom 8.1%, Germany 4.7%, Australia 4.5%). This distribution is congruent with the editorial centrality observed here, where the United States alone accounts for 28% of editors (Clarivate, 2023).

However, a significant divergence is the continuing underrepresentation of Mainland China on editorial boards. Despite its rapid rise in scientific output and citation impact—a shift confirmed by Ioannidis et al. (2020) regarding top-cited scientists—this expansion is not proportionally reflected in editorial appointments. This suggests a lag between research productivity and editorial inclusion for certain high-output regions, a pattern that underscores the inertia of existing editorial networks and selection processes.

Publisher-level analysis reveals that open-access models display more diversified geographic profiles. Altman and Cohen (2023) confirm this pattern, finding that international diversity is substantially higher ($>11\%$) for the review boards of open-access journals. This suggests that broader submission bases and multilingual reach may translate into editorial boards with more international composition.

This geographic imbalance may limit the diversity of perspectives and may also reproduce epistemic hierarchies that marginalize non-Western scholarship. The persistent underrepresentation of the Global South despite

increased research capacity—what several authors have described as “academic colonialism” (Breetzke, 2025; Goyanes, 2020)—suggests that editorial selection mechanisms reproduce not only linguistic hegemony but also the regional concentration of publishing infrastructures.

4.6 | Institutional affiliations

Benchmarked against OpenAlex and Dimensions author baselines, editorial boards are overwhelmingly drawn from Education institutions (universities and academic units) and, to a lesser extent, from Government research organizations. In contrast, Company and Nonprofit affiliations are consistently marginal in our sample, despite their non-trivial presence among publishing authors in those datasets. This cross-model pattern suggests that editorial work is predominantly configured as an academic function, largely reserved for academics and publicly funded researchers, thereby leaving applied sectors underrepresented (industry, NGOs, healthcare providers) even in fields where those sectors both conduct research and are major knowledge users.

The implications are twofold. First, the narrow pipeline likely constrains the range of perspectives represented in editorial decision-making—particularly around problem-oriented or translational work. Second, prior evidence indicates that greater institutional diversity on boards can be performance-relevant: in economics journals, Wu et al. (2020) find a positive association between institutional diversity and journal quality outside the US, suggesting that more heterogeneous boards may broaden evaluative criteria and topic selection. Taken together, our results and the literature point to a structural academic bias in board composition. While this may reflect norms of editorial independence and the historical locus of expertise, it also narrows the epistemic aperture of journals. Where appropriate, broadening recruitment to include qualified researchers from non-academic sectors—with transparent role definitions and conflict management—could improve both relevance and rigor without compromising editorial standards.

4.7 | Limitations and scope conditions

The empirical reach of prior study has been constrained by the absence of standardized, machine-readable editor metadata and by the need for manual transcription from heterogeneous web sources. Our approach mitigates—but does not eliminate—these constraints. Editorial rosters are exposed across thousands of journal pages rendered in diverse formats (HTML, PDF, and dynamic

components); structures vary (bulleted lists, accordions, infographics), affiliations may be abbreviated or omitted, and role titles proliferate with limited semantic discipline (e.g., Academic Editor, Section Editor, Area Chair, Managing Editor) while often denoting similar responsibilities.

Such heterogeneity, coupled with periodic web redesigns and inconsistent metadata exposure, introduces retrievability bias: some portfolios or role types are easier to harvest than others. The composition of the dataset therefore reflects a structured sample shaped both by the selection of major publishers and by the technical accessibility of editorial information across platforms. In practice, this yields incomplete capture for a subset of titles, residual noise in role normalization, and uncertainty in person-level attributes (e.g., gender when names are ambiguous). These factors likely attenuate magnitudes rather than alter directional findings, but they set important scope conditions: estimates should be interpreted as lower bounds on coverage and as contingent on web exposure at the snapshot date.

While not exhaustive or fully representative of all existing journals or publishers, the dataset captures a substantial and highly visible segment of the scholarly publishing ecosystem, particularly among large and internationally indexed journals. Given the strong concentration of journals within major publishing groups and the use of standardized editorial formats, this sample provides a meaningful approximation of editorial structures across major publishing models, enabling comparative analysis at scale.

Accordingly, findings should be interpreted as descriptive evidence within this large-scale and systematically constructed sample, rather than as a fully exhaustive representation of the global journal landscape.

Additionally, when comparing traditional versus open-access publishing models, it is important to recognize that “traditional publishing” encompasses considerable diversity—from large commercial publishers to university presses and scholarly societies—each with their own governance structures. Similarly, open-access platforms vary from for-profit mega-journals (MDPI, Frontiers) to nonprofit models (PLOS) and community-led projects.

Our finding of greater variability in traditional publishers may be partially confounded by the fact that these publishers have larger and more diverse portfolios that include journals owned by external societies with their own editorial traditions. However, this itself constitutes a key structural difference between models: traditional publishers typically accommodate multiple governance structures, while newer open-access platforms exercise more direct and uniform control over their portfolios.

5 | CONCLUSIONS

By analyzing over 10,000 journals and more than 810,000 editorial positions, this study establishes a large-scale baseline of editorial board composition and structure across major scholarly publishing models. The findings address the research questions and provide large-scale descriptive evidence on diversity, transparency, and workload governance. Benchmarking against the Open Editors dataset confirms substantial gains in scale, coverage, and metadata richness; by releasing a FAIR-compliant corpus and a transparent role-mapping ontology, we provide foundational infrastructure for editor-metrics and enable longitudinal tracking, comparative analyses, and evidence-informed policy evaluation.

The analysis of board architecture revealed a near-linear relationship between board size and publication output, indicating a proportional scaling of editorial labor relative to journal throughput. This consistency in scaling suggests recurrent patterns in workload governance across models (commercial, society-led, and open-access).

Our nine-class role ontology showed steep functional hierarchies. Operational roles, such as Editorial Board Members and Review/Associate Editors, are the most prevalent, representing the bulk of editorial labor. Conversely, executive and strategic positions (e.g., Editors-in-Chief) are comparatively scarce. This architecture is observed across the sampled publishers, demonstrating a consistent stratification in editorial responsibilities.

Gender disparities remain pronounced. Women occupy only one-third of all identified editorial positions, a rate that lags behind the global representation of women in the active research workforce. Furthermore, leadership and executive roles exhibit greater male dominance, reflecting persistent structural barriers to gender equity in editorial governance. This persistent imbalance underscores the need for transparent monitoring and targeted interventions; future study should test whether gaps vary by role type, board size, discipline, and publisher policies.

Geographically, editorial influence is highly concentrated. Editors affiliated with institutions in the United States and Western Europe overwhelmingly dominate board representation. Conversely, countries from East Asia, Latin America, and Africa are significantly underrepresented relative to their growing research output and capacity. This concentration is consistent with established regional power structures in scholarly communication, with implications for epistemic inclusion and the global visibility of non-Western scholarship. These disparities also vary by publisher model and disciplinary scope, suggesting that editorial selection may reproduce linguistic and infrastructural concentration.

Addressing this imbalance will require deliberate diversification strategies and ongoing monitoring of geographic representation.

The investigation into affiliations found that academic institutions overwhelmingly dominate editorial appointments. Editors affiliated with universities and research institutes constitute the vast majority of board members, with minimal representation from government, healthcare, non-profit, and other non-academic sectors. Compared with authorship baselines, boards overrepresent universities and structurally underrepresent companies and nonprofits, with healthcare partly reduced by dual-affiliation coding. This high institutional concentration suggests that editorial selection may often prioritize academic prestige, potentially excluding valuable perspectives from sectors outside the traditional scholarly environment.

Overall, the results suggest that structural imbalances persist in editorial governance, reinforcing disciplinary, institutional, and regional hierarchies. To foster more inclusive and representative boards, publishers and scholarly societies could adopt transparent selection criteria, rotate roles, and diversify recruitment channels to better reflect the global research community. The open availability of this corpus supports reproducible monitoring of editorial equity and governance within scientometrics.

From an information-science perspective, our findings speak to debates on the governance of scholarly communication infrastructures. Editorial boards occupy a central position in the academic information ecosystem. By establishing a large-scale, multi-publisher baseline of editorial composition and role architectures, this study provides the descriptive groundwork needed to examine, in future work, how specific configurations of editorial governance relate to downstream indicators of journal impact, ethical practice, and the robustness and inclusiveness of the scientific record. In this sense, the present article should be read as the first step in a broader research agenda that connects large-scale evidence on editorial governance with questions of quality, equity, and ethics in scholarly publishing.

ACKNOWLEDGMENTS

This study was carried out within the framework of the Doctoral Programme in Sociology, Political Science, and Anthropology at the University of Córdoba.

FUNDING INFORMATION

This research work was funded by the European Commission—NextGenerationEU, through Momentum CSIC Programme: Develop Your Digital Talent. Evangelina Becerra-Rodero staff hired under the Generation D initiative, promoted by Red.es, an organization attached

to the Ministry for Digital Transformation and the Civil Service, for the attraction and retention of talent through grants and training contracts, financed by the Recovery, Transformation and Resilience Plan through the European Union's Next Generation funds.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in OSF at <https://osf.io/py8q6/> (Becerra-Rodero, 2025).

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How to cite this article: Becerra-Rodero, E., & Ortega, J. L. (2026). The role of editorial boards in shaping scholarly communication: A large-scale mapping of their composition and structure. *Journal of the Association for Information Science and Technology*, 1–20. <https://doi.org/10.1002/asi.70108>