

Structural Foundations and Evolution of Knowledge in Social Equity, Economic Disparity, and Welfare Systems.

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Abstract

This study provides a comprehensive quantitative mapping of the intellectual architecture and evolution of global scientific output focused on social welfare, distributive equity, and economic inequality.

Following PRISMA guidelines, the research empirical sample comprises 1,704 peer-reviewed English articles retrieved from the Scopus database spanning a 47-year horizon (1979–2026). Computational science mapping tools—including R-Biblioshiny—were deployed to fit logistic growth curves, compute citation impact metrics (h-index, g-index), and execute Louvain community detection algorithms on co-occurrence networks.

Findings reveal a structural paradigm shift from foundational normative welfare economics toward empirical evaluations of health equity, spatial accessibility, and socio-environmental sustainability. In conclusion, the study proves that economic growth policies failing to incorporate distributive justice metrics systematically compound structural disparities, underscoring the necessity for multi-sectoral, equity-informative evaluation tools in public governance.

Keywords: Social Welfare, Distributive Justice, Health Equity, Economic Inequality, Wellbeing, Spatial Justice

Introduction

Addressing structural inequalities while fostering collective social welfare remains a paramount challenge for contemporary governance and political economy. Over the past four decades, growing wealth concentration, environmental pressures, and systemic health crises have challenged conventional welfare models, forcing scholars to integrate normative ethical theories with complex empirical measurements.

This paper examines the academic literature surrounding economic disparity, social welfare, and distributive justice, focusing on how knowledge has been produced and structured across global scientific networks. It systematically tracks the field's intellectual trajectory, key publishing venues, leading authors, and evolving thematic priorities.

The primary objective of this study is to deliver a comprehensive quantitative synthesis of 1,704 peer-reviewed articles indexed in Scopus from 1979 to 2026 to map the domain's intellectual architecture and growth dynamics. By evaluating publication performance, citation impact, and keyword co-occurrence, the article aims to elucidate how theoretical paradigms of normative social choice have transitioned into empirical assessments of health equity and spatial accessibility.

Methodologically, the study employs computational bibliometric mapping and science mapping techniques —utilizing Biblioshiny— to evaluate performance metrics, fit non-linear growth curves, and execute Louvain community detection algorithms on author keyword networks.

To achieve these research aims, the article is structured into complementary sections. Section 1 details the theoretical foundations spanning classical welfare economics, capability approaches, and spatial justice. Section 2 presents the empirical literature and methods of disparity measurement. Section 3 outlines the data extraction strategy and PRISMA workflow. Section 4 provides the macro-performance analysis and growth modeling. Sections 5 through 7 deliver the detailed bibliometric breakdowns by sources, authors, and documents. Finally, the Discussion and Conclusion synthesize key findings, policy implications, and future research directions.

1. Theoretical Foundations

1.1 Classical Welfare Economics and Normative Justice

The conceptual roots of social welfare measurement stem from classical utility theory and normative social choice frameworks. Arrow (1951) established fundamental limits on aggregating individual preferences, which prompted subsequent shifts toward axiomatic distributive equity and capabilities approach models.

1.2. Distributive Equity, Responsibility, and Capabilities

Normative justice theory matured by distinguishing between fair inequalities resulting from individual choices and unfair inequalities driven by structural luck. Sen (1992) broadened the welfare paradigm by focusing on functional capabilities rather than mere income distribution.

1.3. Health Inequality and the Fair Innings Argument

Translating distributive principles into health policy birthed influential metrics regarding health-adjusted life years and fairness. Williams (1997) introduced the seminal "fair innings" concept, establishing an ethical rationale for prioritizing interventions for those experiencing premature ill health.

1.4. Cumulative Advantage, Spatial Justice, and Modern Syntheses

Contemporary frameworks integrate life-course perspectives with spatial accessibility. Ferraro and Shippee (2009) formalized cumulative inequality theory, demonstrating how early-life disadvantage compounds over time, while Weiss et al. (2018) operationalized spatial equity through global travel-time mapping to healthcare.

2. Data and Methods

2.1. Methodological Evolution of Disparity Measurement

Empirical research on welfare disparities increasingly relies on sophisticated econometric and spatial modeling techniques to capture complex socio-economic dynamics. Building upon this foundation, Cowell (2011) established standardized criteria for income decomposition, which enables the rigorous measurement and comparison of inequality across diverse sub-populations. Modern statistical workflows extend these classical frameworks by integrating geocoded data, multi-level structural equation modeling, and spatial econometric tools to map geographical disparities alongside traditional income metrics. By controlling for localized institutional factors, structural labor market shifts, and regional economic variations, contemporary analytical methods

offer a more nuanced understanding of how wealth is distributed. Consequently, researchers can isolate the specific drivers of systemic disadvantage and evaluate the precise impacts of targeted redistributive social policies.

2.2. Interdisciplinary Approaches and Empirical Frameworks

The integration of public health, economics, and environmental science expanded methodological toolkits. Fleurbaey (2008) provided comprehensive welfare criteria balancing efficiency and equity, while Atkinson (2015) emphasized structural policy mechanisms to curb economic disparities. Further empirical refinements by Marmot (2005) highlighted the social determinants of health, connecting social hierarchy directly to biological vulnerability.

2.3. Quantitative Indicators and Socioeconomic Metrics

Modern welfare evaluations leverage multidimensional indicators beyond Gross Domestic Product. Stiglitz et al. (2009) framed the necessity of tracking quality-of-life metrics alongside economic output. Oishi et al. (2011) demonstrated empirically that income inequality directly diminishes societal subjective well-being. Furthermore, Wilkinson and Pickett (2009) proved that structural inequality systematically impairs health and social outcomes across developed nations.

2.4. Environmental Equity and Policy Integration

Recent quantitative frameworks incorporate ecological and spatial dimensions into social welfare models. Daw et al. (2011) integrated ecosystem services with poverty alleviation metrics, demonstrating complex trade-offs between environmental conservation and local livelihoods. Cookson et al. (2016) developed distributional cost-effectiveness analysis (DCEA) to quantify both overall health gains and equity improvements in policy evaluations. Additionally, Benach et al. (2014) established rigorous quantitative links between precarious employment conditions and health disparities, while Campbell et al. (2021) modeled intersecting demographic vulnerabilities in population health datasets.

3. Methodology

3.1. Data Source and Search Strategy

This study adopts a post-positivist epistemological stance, recognizing that while scientific knowledge production and bibliographic trends represent objective empirical phenomena that can be quantitatively measured, their structural synthesis requires contextualized interpretation. Methodologically, the research relies on a combined inductive-deductive reasoning logic.

Deductively, established theoretical frameworks of distributive justice, welfare economics, and capabilities approaches (e.g., Rawls, Sen, Arrow) guide the formulation of Boolean search strategies, domain boundaries, and conceptual categorizations. Inductively, data-driven computational algorithms—including non-linear logistic growth modeling, Louvain community detection, and keyword co-occurrence mapping—allow structural shifts, thematic clusters, and emerging research fronts (such as spatial accessibility and environmental equity) to arise organically from the empirical Scopus dataset. This dual logic ensures methodological transparency while preserving theoretical grounding.

3.2. Data Source and Search Strategy

The global scientific literature was retrieved from the Scopus database on August 16, 2026. The search string targeted titles, abstracts, and keywords using the standardized Boolean expression: TITLE-ABS-KEY((inequal* OR "income inequality" OR "economic inequality" OR "social inequality" OR "wealth inequality") AND ("social justice" OR "distributive justice" OR fairness OR equity) AND ("social welfare" OR wellbeing OR "well-being" OR "quality of life" OR "welfare economics"))) AND DOCTYPE(ar) AND LANGUAGE(english). Moher et al. (2009) provided the underlying PRISMA guidelines for systematic document identification.

3.3. Inclusion and Exclusion Criteria

The query was restricted exclusively to peer-reviewed original research articles (DOCTYPE(ar)) published in English, ensuring high peer-review rigor and international comparability. Conference papers, editorials, reviews, and non-English publications were excluded.

3.4. Data Processing and Refinement

A primary dataset of 1,704 articles spanning 1979 to 2026 was exported in full CSV format, capturing complete bibliographic details, citation counts, author affiliations, and keyword metadata. Automated deduplication and structural indexing were executed, drawing upon standard bibliometric normalization workflows established by Aria and Cuccurullo (2017).

3.5. Analysis and Bibliometric Mapping

Analytical workflows utilized computational tools including R-based bibliometrix (Biblioshiny). Descriptive statistics, citation impact metrics (h-index, g-index), Louvain community detection algorithms, and PageRank centrality were computed to reveal the structural topology of the corpus.

4. Analysis and Overview

4.1. Macro-Structural Performance and Descriptive Metrics

The macro-structural evaluation of the retrieved dataset establishes a comprehensive empirical profile of global scholarly production situated at the intersection of social welfare, economic inequality, and distributive equity. The corpus encompasses 1,704 peer-reviewed research articles published across 990 distinct academic journals between 1979 and 2026. This four-decade temporal trajectory reflects a structurally mature yet rapidly accelerating domain, where the wide dispersion of articles across nearly a thousand publication outlets underscores a broad multidisciplinary scope spanning political economy, public administration, public health, and social policy.

Figure N°1: Summary Information



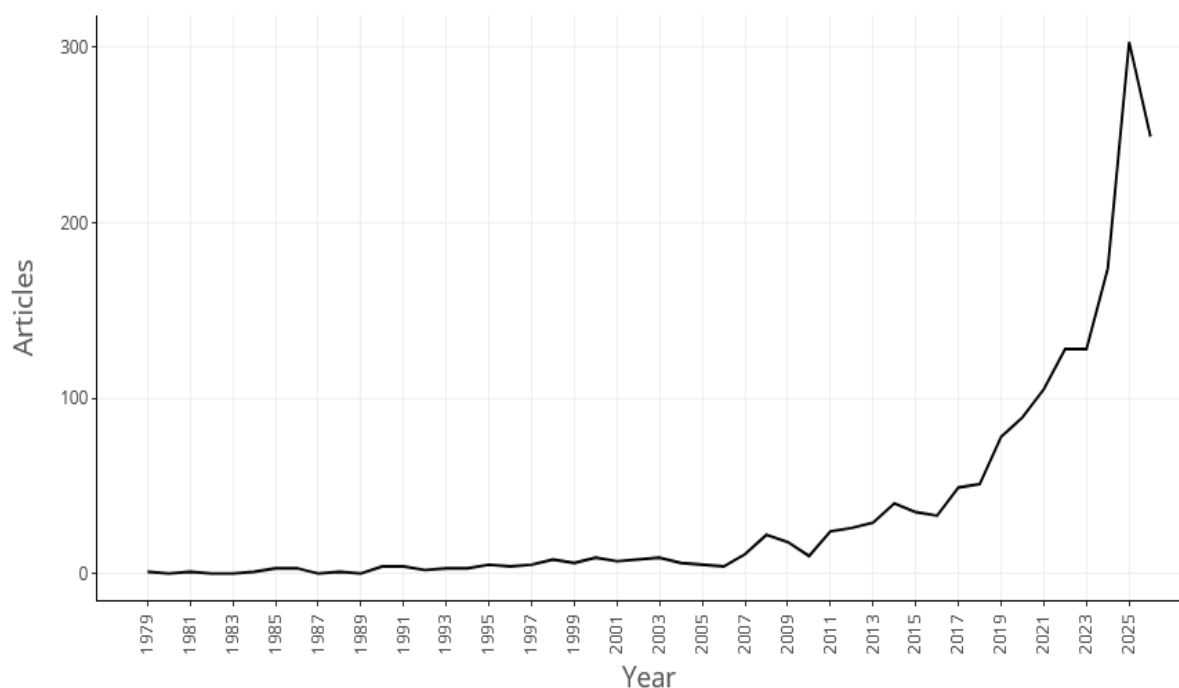
Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

Knowledge production in this field demonstrates extraordinary expansion, growing at a robust annual rate of 12.46% and driven by a community of 6,235 unique authors. Scientific collaboration serves as the primary operational model, with an average of 4.06 co-authors per document, an international co-authorship rate of 28.29%, and single-authored publications representing only 19.54% of the total output. In terms of academic authority, the collection achieves a mean of 21.07 citations per article despite a relatively recent document average age of 6.02 years, while the presence of 4,678 author keywords and 5,246 Keywords Plus highlights a highly nuanced and conceptual research landscape.

4.2. Annual Scientific Production

The longitudinal analysis of scientific production from 1979 to 2026 demonstrates an extraordinary transformation in scholarly output, evolving from a marginal area of inquiry into a highly prioritized global research domain. During the foundational phase spanning from 1979 through the late 1990s, publication rates remained exceptionally modest, typically recording fewer than ten articles per year. The period between 2000 and 2010 marked an initial phase of steady structural consolidation, with annual contributions gradually crossing double-digit thresholds and peaking at 22 articles in 2008 following the global financial crisis.

Figure N°2: Annual Trend of Scientific Production



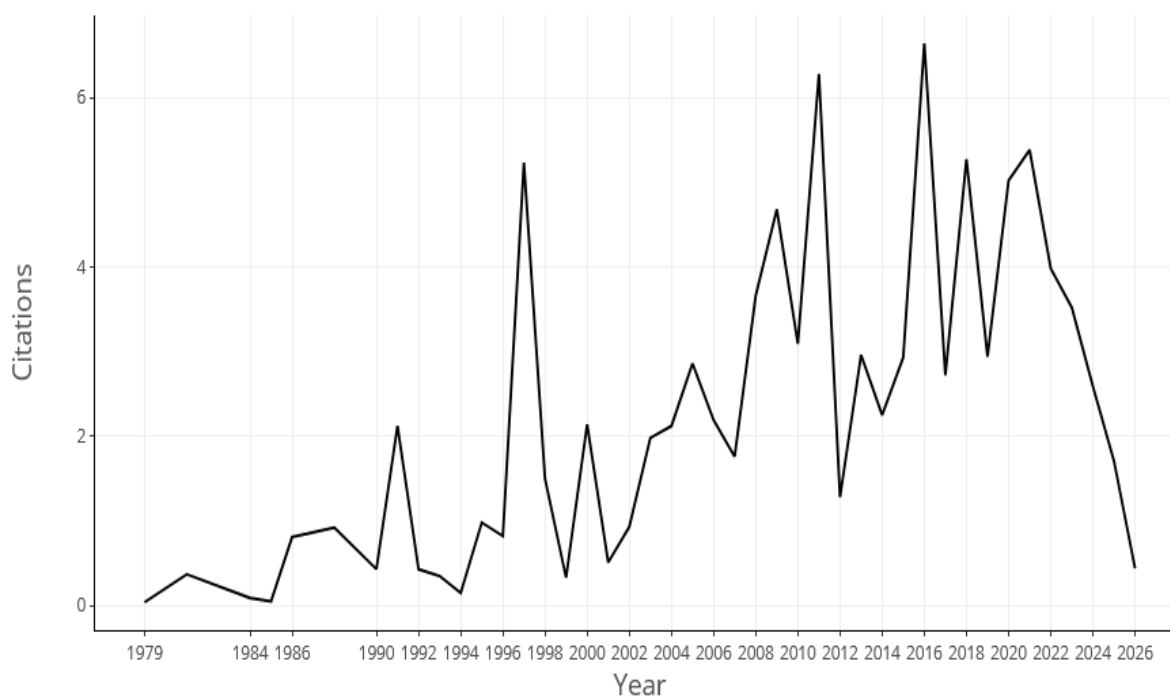
Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

The trajectory experienced an unprecedented acceleration from 2011 onward, characterized by exponential growth in publication volumes. Scientific output expanded rapidly from 24 articles in 2011 to 105 in 2021, eventually reaching major historical peaks of 174 articles in 2024 and 303 articles in 2025. The high volume maintained in 2026 (249 articles) underscores the sustained momentum and critical importance of research surrounding social welfare, economic inequality, and distributive justice in contemporary public policy discourse.

4.3. Annual Mean Citation Trajectory

The longitudinal analysis of citation impact demonstrates a clear evolution in the intellectual footprint and scholarly utilization of the domain over time. In the earlier decades, mean total citations per article (MeanTCperArt) exhibited significant fluctuation, influenced by small annual document volumes and foundational contributions, most notably in 1997 with an exceptional peak of 156.8 citations per article. A sustained period of high scholarly impact consolidated between 2008 and 2011, reaching major historical thresholds in 2009 (84.17 citations per article) and 2011 (100.42 citations per article; 6.28 mean citations per year), reflecting seminal work that continues to anchor contemporary debates in welfare economics and social justice.

Figure N°3: Evolution of Citation Impact Over Time



Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

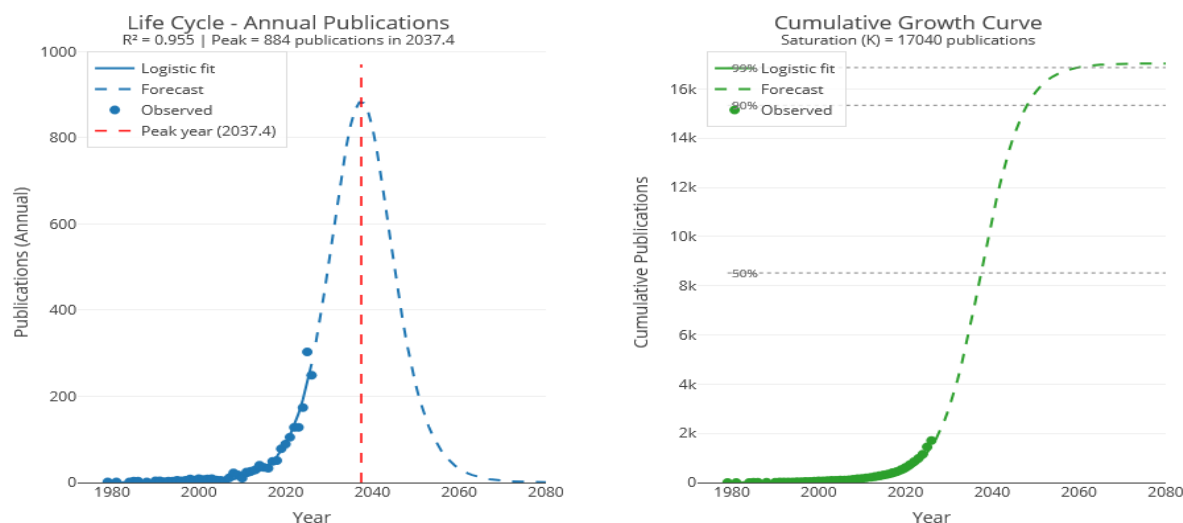
In more recent years, particularly from 2022 onward, the mean citation counts display a natural, time-dependent decline, dropping from 19.88 citations per article in 2022 to 3.42 in 2025 and 0.44 in 2026. This trend aligns with standard scientific indexing dynamics, as recently published papers require a temporal window to accumulate citations within broader academic literature. Nevertheless, the underlying annual citation rate (MeanTCperYear) remained robust through 2020

and 2021 (exceeding 5 citations per year), proving that the rapid expansion in publication volume has been matched by immediate academic engagement and sustained field recognition.

4.4. Bibliometric Growth Analysis and Life Cycle Modeling

The quantitative modeling of the literature's expansion dynamics confirms a classic S-shaped logistic trajectory, providing strong empirical evidence that research at the intersection of social welfare, inequality, and distributive justice is currently situated within a vigorous expansion phase. The applied logistic model demonstrates exceptional goodness-of-fit to the historical publication record, yielding a coefficient of determination ($R^2 = 0.9546$) and a low root mean square error (RMSE = 14.048). Parameter estimations project a theoretical carrying capacity (K) of 17,040 cumulative publications, with a calculated growth duration (Δ_t) of 21.18 years—reflecting an intrinsic annual growth rate (r) of approximately 18.9% at its peak. Crucially, the inflection point (t_0), marking the maximum annual output rate, is projected to occur in 2037.4, demonstrating that publication volume is actively accelerating and remains over a decade away from structural peak maturation.

Figure N°4: Modeling Scientific Growth and Domain Life Cycle



Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

In terms of field evolution, the life cycle modeling delineates three distinct operational phases: a foundational emergence phase spanning from the late 1980s to the early 2000s, characterized by modest single-digit contributions; an active expansion phase extending from the mid-2000s

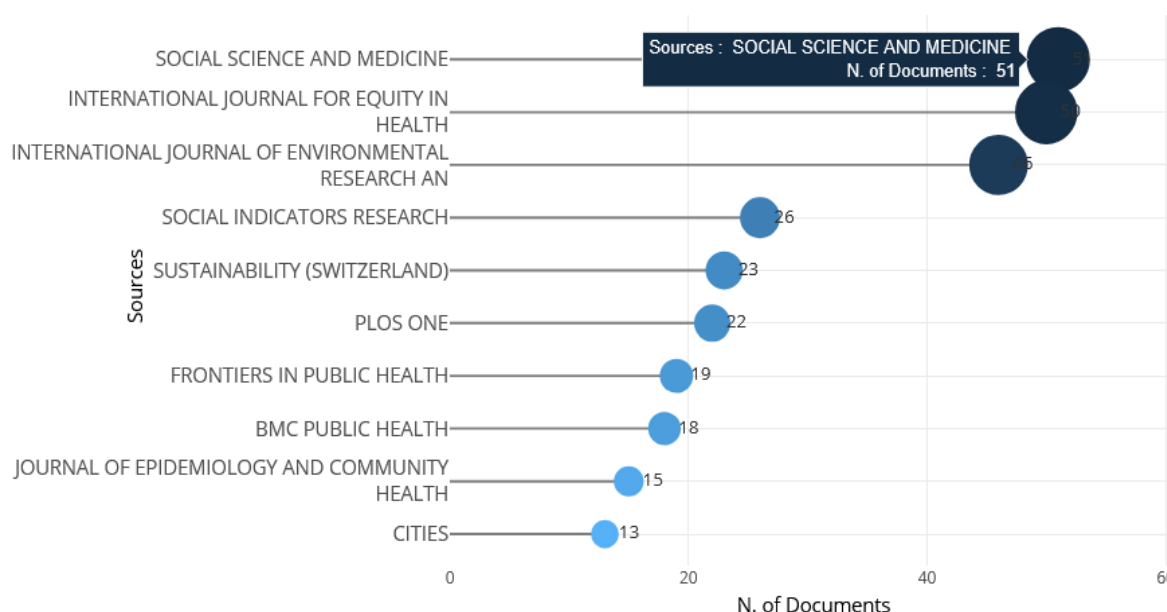
through the present and projected to continue until around 2037; and a long-term maturity phase anticipated post-2037, where cumulative output will gradually asymptote toward carrying capacity. These dynamics suggest that the domain's rapid growth is driven by rising global societal focus on economic disparities, evolving interdisciplinary methodologies, and expanding institutional funding. For policy researchers and funding organizations, these projections confirm a highly dynamic, expanding knowledge landscape with substantial capacity for continuous theoretical innovation and empirical inquiry prior to ultimate field consolidation.

2. Bibliometric Analysis by Sources

5.1. Most Relevant Sources

The structural concentration of literature across scientific journals highlights a prominent multidisciplinary publishing ecosystem anchored at the intersection of public policy, social epidemiology, and economic welfare. Leading the venue landscape, Social Science and Medicine (51 articles) and the International Journal for Equity in Health (50 articles) serve as primary institutional outlets, closely followed by the International Journal of Environmental Research and Public Health (46 articles). The strong presence of these top-tier outlets confirms that empirical inquiries into distributive justice, social safety nets, and economic disparities are predominantly operationalized through social determinants of health and public welfare frameworks.

Figure N°5: Most Relevant Sources



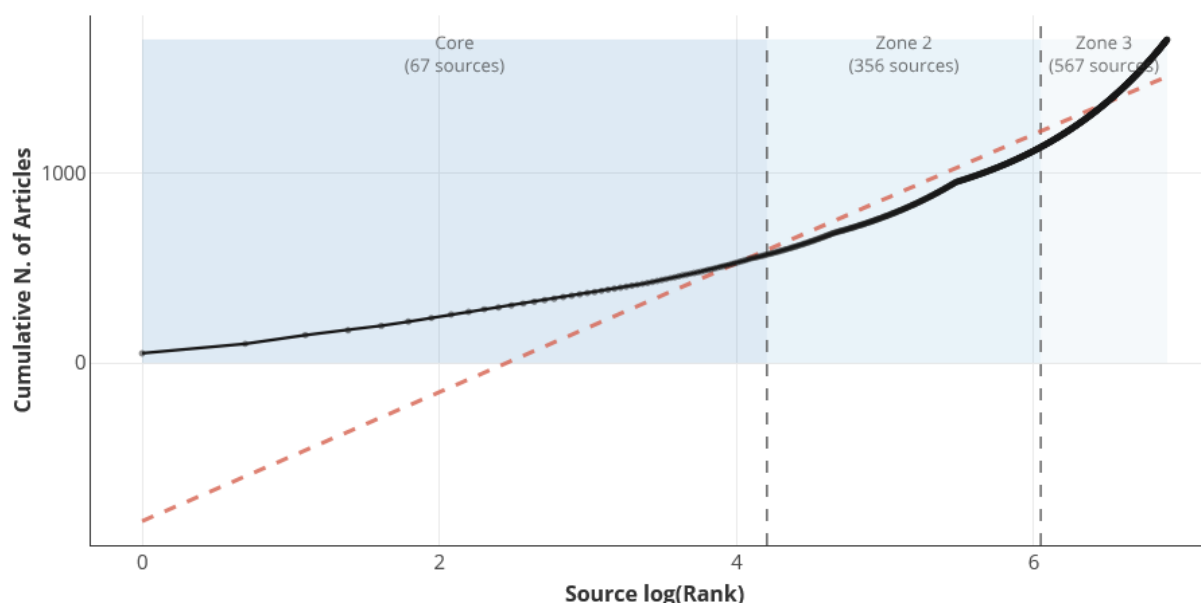
Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

Complementing this public health anchor, specialized quantitative journals provide essential methodological grounding for the domain. Social Indicators Research (26 articles) acts as a critical node for indicator construction, well-being metrics, and socio-economic evaluations, while broad-scope multidisciplinary platforms such as Sustainability (23 articles), PLOS ONE (22 articles), and Frontiers in Public Health (19 articles) facilitate wide open-access dissemination. Furthermore, specialized outlets including BMC Public Health (18 articles), the Journal of Epidemiology and Community Health (15 articles), and Cities (13 articles) emphasize the spatial, urban, and population-level dimensions of social welfare research.

5.2. Core Sources via Bradford's Law

The application of Bradford's Law delineates a clear structural partitioning of the literature into three core zones, revealing high publication concentration within a select group of academic journals. Zone 1, representing the nucleus of core sources, comprises just 67 journals (6.8 percent of all outlets) while capturing a substantial 571 articles, or 33.5 percent of the total output. Zone 2 contains 356 sources (36 percent) accounting for 566 articles (33.2 percent), whereas Zone 3 encompasses 567 peripheral sources (57.3 percent) producing 567 articles (33.3 percent). The calculated Bradford multiplier of 3.45 illustrates a steady geometric dispersion from core to peripheral publishing platforms.

Figure N°6: Core Sources Identified by Bradford's Law



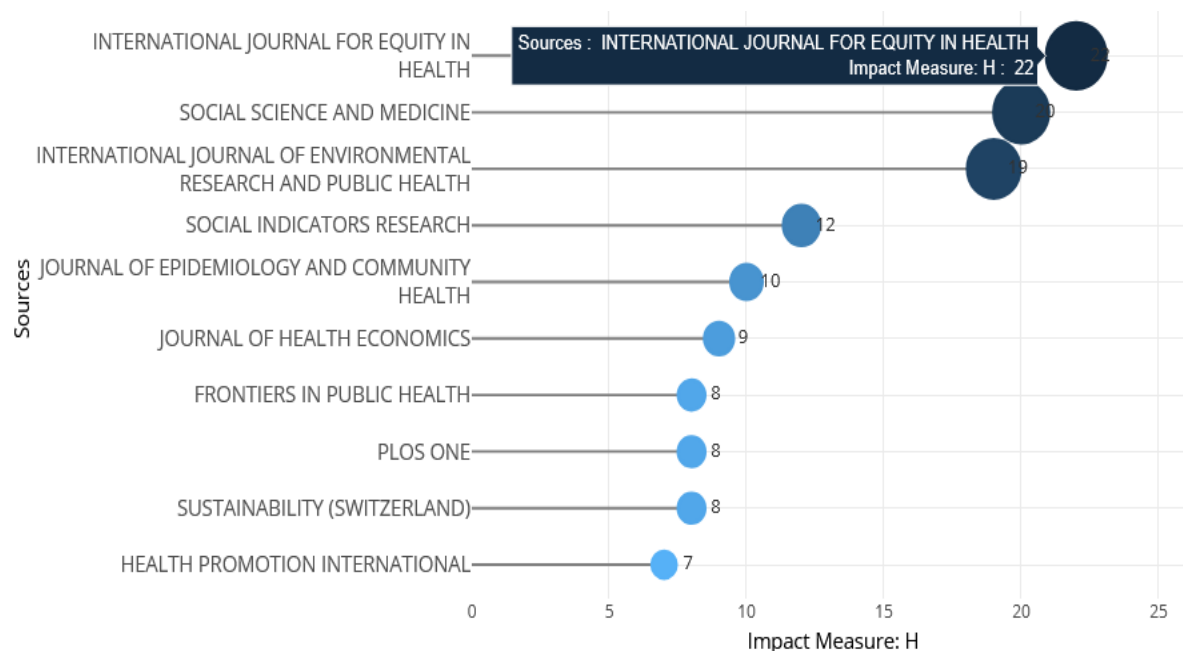
Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

Logarithmic modeling of the cumulative article distribution yields a high coefficient of determination ($R^2 = 0.9103$), demonstrating a strong log-linear alignment with the theoretical Bradford curve. However, the Kolmogorov-Smirnov goodness-of-fit test reveals a statistically significant deviation from the theoretical ideal ($D = 0.197$, $p < 0.001$), leading to the rejection of the null hypothesis. This empirical deviation underscores a hyper-fragmented and multidisciplinary publishing ecosystem where research output in social welfare and economic inequality extends far beyond traditional core boundaries into diverse peripheral venues.

5.3. Local Impact of Sources

The evaluation of local source impact through h-index, g-index, m-index, and total citation counts establishes a clear hierarchy of academic influence within the corpus. The International Journal for Equity in Health leads the domain in academic efficiency and performance, achieving the highest h-index (22), an impressive g-index of 33, and an m-index of 1.100 across 50 publications, accumulating 1,231 total local citations since its first publication in 2007. Social Science and Medicine serves as the primary historical and citation heavy-weight, commanding the highest total citation footprint with 1,838 local citations, alongside an h-index of 20 and a g-index of 42 across 51 articles published since 1985.

Figure N°7: Local Citation Impact of Sources



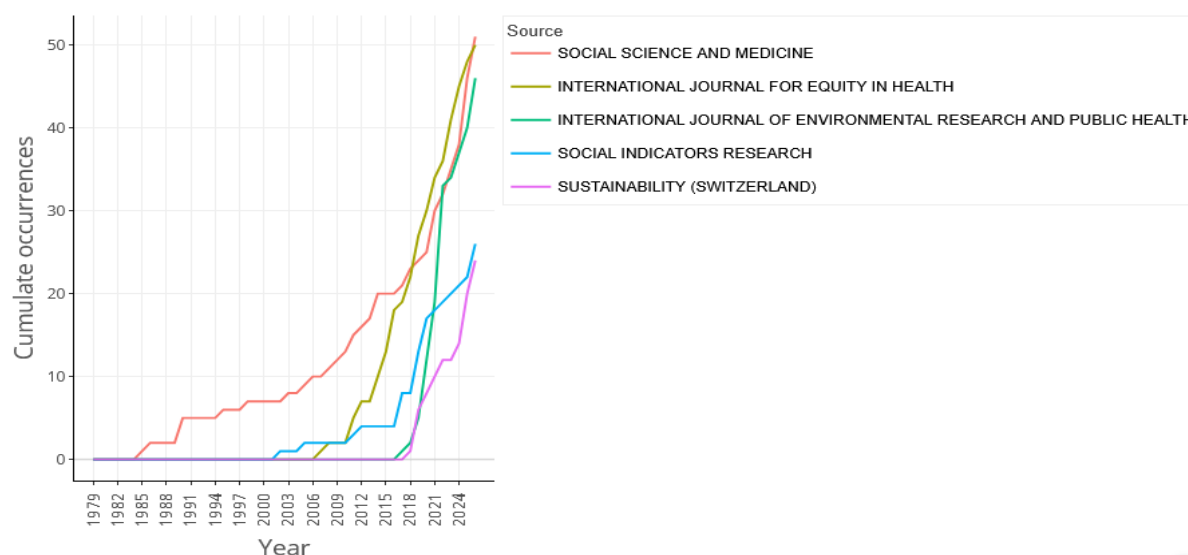
Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

Concurrently, newer high-volume outlets and specialized economics journals exhibit distinct citation trajectories and growth rates. The International Journal of Environmental Research and Public Health shows rapid accumulation of authority since 2017, achieving an h-index of 19, a g-index of 26, and a remarkable m-index of 1.900 with 795 total citations. Furthermore, foundational discipline-specific journals such as the Journal of Health Economics (h-index of 9, 782 total citations across 10 articles) and Social Indicators Research (h-index of 12, 574 total citations) demonstrate high citation density per article, underscoring their vital role in shaping theoretical and empirical paradigms in welfare economics.

5.4. Source Production Dynamics Over Time

The longitudinal analysis of cumulative publishing dynamics among top sources reveals distinct institutional trajectories and shifts in journal leadership over the four-decade timeline. Social Science and Medicine established an early and sustained monopoly as the primary pioneer in this domain, recording initial publications in 1985 and maintaining linear output growth throughout the 1990s and 2000s to reach 51 cumulative articles by 2026. Social Indicators Research similarly represents an early specialized anchor, initiating output in 2002 and maintaining steady, gradual accumulation to reach 26 articles, providing a long-term quantitative foundation for welfare and quality-of-life indicators.

Figure N°8: Source Production Over Time



Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

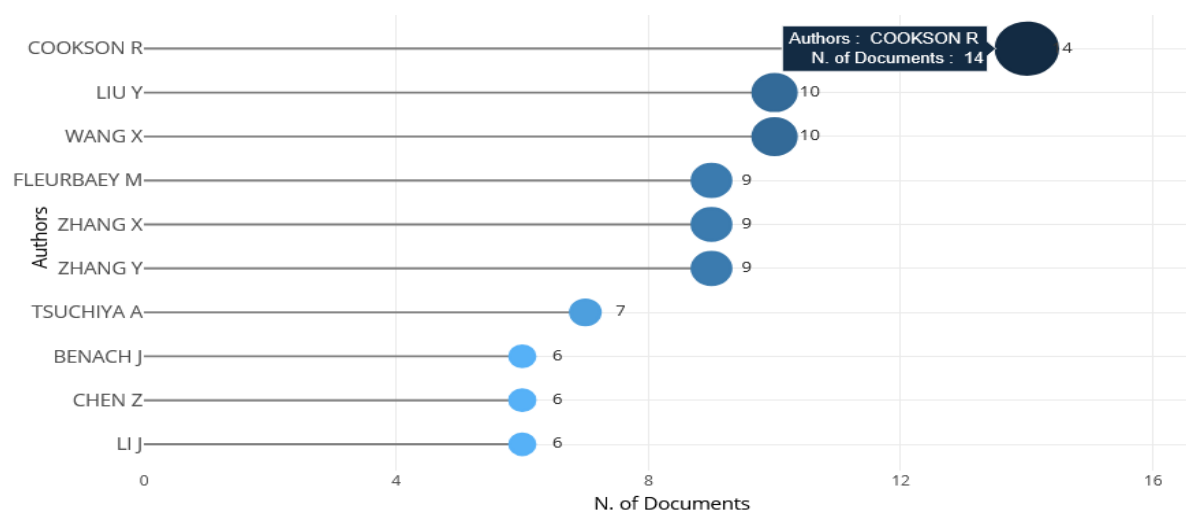
In contrast, the post-2010 era is marked by rapid acceleration from specialized public health and multidisciplinary open-access journals. The International Journal for Equity in Health entered the corpus in 2007 and expanded aggressively after 2014, eventually surging to 50 cumulative articles by 2026 to challenge the historic dominance of traditional social science outlets. Even more striking is the trajectory of newer platforms like the International Journal of Environmental Research and Public Health and Sustainability; entering as late as 2017 and 2018 respectively, both exhibited exponential publication rates during the 2020–2026 period, rapidly reaching 46 and 24 articles and highlighting a major structural transition toward open-access models in contemporary scholarly communication.

3. Bibliometric Analysis by Authors

6.1. Most Relevant Authors

The evaluation of individual research contributions identifies the core group of scholars driving scientific production at the intersection of social welfare, distributive equity, and economic disparity. Cookson R emerges as the most prolific author in the dataset, leading the domain with 14 articles and a high fractionalized article count of 3.39, reflecting substantial intellectual leadership in equity-informative economic evaluations and health inequality metrics. Fleurbaey M similarly stands out as a fundamental theoretical anchor, contributing 9 articles with a fractionalized score of 3.29, which emphasizes significant independent work in welfare economics, social choice theory, and normative justice frameworks.

Figure N°9: Most Relevant Authors



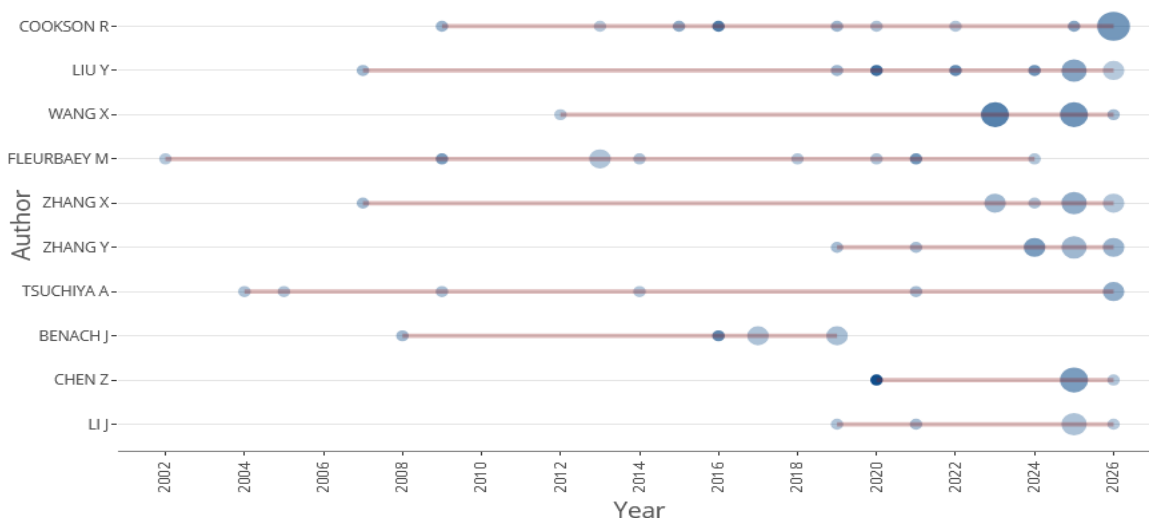
Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

The author profile also reveals a strong presence of prolific researchers from Asian institutions alongside European public health and socio-economic scholars. Prolific contributors such as Liu Y (10 articles, 2.12 fractionalized), Wang X (10 articles, 2.48 fractionalized), Zhang X (9 articles), and Zhang Y (9 articles, 2.89 fractionalized) highlight the growing volume of empirical research centered on economic transition, regional inequality, and welfare policy in emerging economies. Additionally, specialized scholars including Tsuchiya A (7 articles), Benach J (6 articles), Chen Z (6 articles), and Li J (6 articles) contribute essential multidisciplinary perspectives spanning health economics, social determinants of health, and spatial inequalities.

6.2. Authors' Production Dynamics Over Time

The longitudinal trajectory of author productivity and citation impact reveals a clear structural evolution within the discipline, transitioning from established foundational scholars to a rapidly accelerating cohort of contemporary researchers. Early intellectual anchors such as Cookson R, Fleurbaey M, and Tsuchiya A reflect extended, highly consistent academic careers spanning over two decades. Cookson R exhibits a sustained publishing footprint since 2008, marked by influential methodological contributions in distributional cost-effectiveness analysis, while Fleurbaey M and Tsuchiya A demonstrate high qualitative impact per publication, consistently producing seminal theoretical works on social choice, normative justice, and health inequality aversion despite lower annual article volumes.

Figure N°10: Author Production Over Time



Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

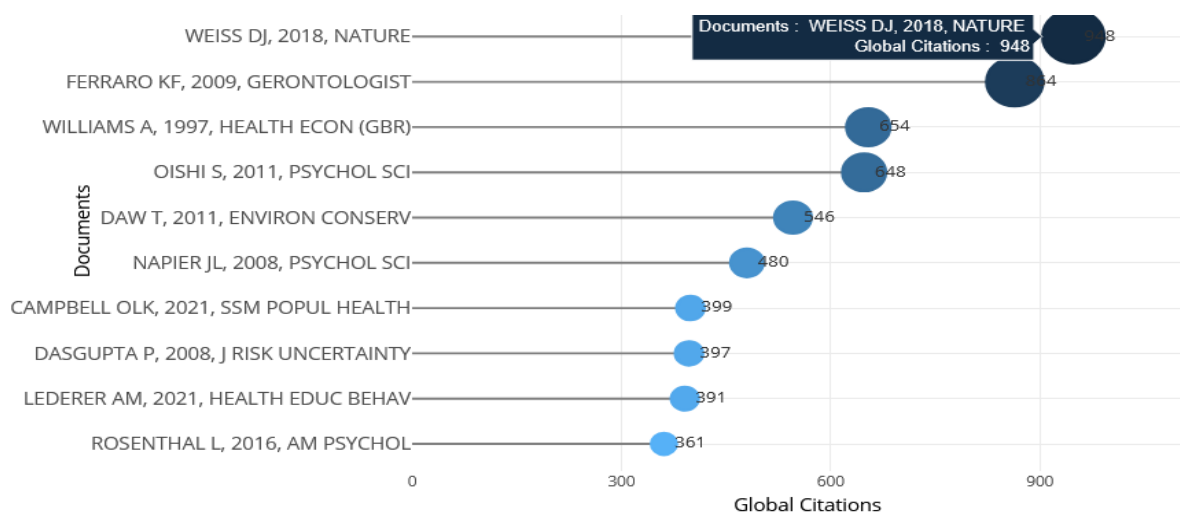
Conversely, the period from 2020 onward highlights a dramatic surge in publication volume and early citation velocity driven by emerging scholars focusing on applied socio-environmental policy and spatial equity. Researchers including Liu Y, Wang X, Zhang Y, and Chen Z demonstrate exponential career trajectories characterized by dense publication bursts and elevated annual citation rates in recent years. This newer generation of authors focuses heavily on intersecting themes of sustainable development goals, digital infrastructure, urban-rural disparities, and climate equity, signaling an ongoing paradigm shift toward data-driven, interdisciplinary, and policy-oriented welfare research.

4. Bibliometric Analysis by Documents

7.1. Most Cited Documents Globally

The global citation analysis identifies the landmark publications that have established the intellectual foundations and interdisciplinary bridges of social welfare, health equity, and inequality research. Weiss DJ (2018, Nature) stands as the most influential paper in the corpus, commanding 948 total citations and an exceptional normalized citation impact of 19.99, alongside a annual citation rate of 105.30. This study illustrates the high impact of geospatial modeling in mapping access to healthcare and urban infrastructure. Similarly, Ferraro KF (2009, Gerontologist) acts as a classic foundational reference with 864 citations, establishing cumulative inequality theory as a critical framework for understanding life-course health trajectories and socioeconomic disparities.

Figure N°11: Most Cited Documents Globally



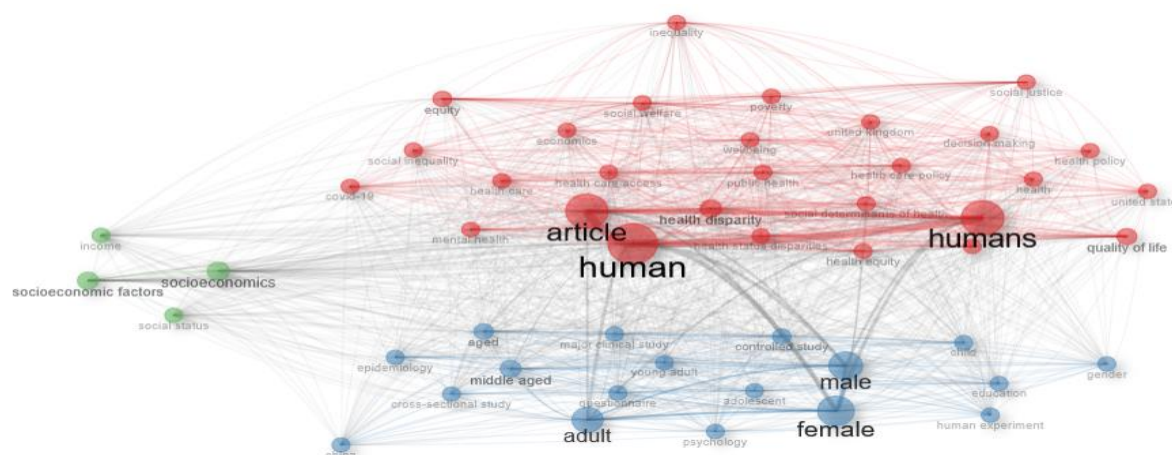
Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

The remaining top-cited documents highlight the rich integration of health economics, psychological well-being, and environmental sustainability. Seminal works such as Williams A (1997, Health Economics; 654 citations) and Oishi S (2011, Psychological Science; 648 citations) offer pioneering insights into QALY distribution, fair innings arguments, and the psychological costs of income inequality. Concurrently, environmental equity contributions like Daw T (2011, Environmental Conservation; 546 citations) and recent high-velocity publications such as Campbell OLK (2021, SSM - Population Health; 399 citations) demonstrate how contemporary scholarship increasingly links ecosystem services, population health, and social welfare indicators.

7.2. Co-occurrence Network

The network analysis of keyword co-occurrences utilizing the Louvain community detection algorithm delineates the conceptual backbone of the corpus, organizing research themes into three distinct structural clusters. The first and largest thematic community (Red Cluster: Social and Health Equity) focuses heavily on policy determinants, distributive justice, and health disparities. Keywords such as inequality, poverty, social welfare, social determinants of health, and health equity form a dense core, with prominent influential publications—including Ghorbany S (2025, Int J Environ Res Public Health; PageRank 0.664) and Beltrán-Sánchez H (2016, Int J Equity Health; PageRank 0.622)—highlighting how institutional frameworks and crisis events like COVID-19 compound structural inequities.

Figure N°12: Co-occurrence Network



Source: Generated by the author(s) using R-Bibliometrix software based on Scopus data

The remaining clusters establish the methodological and empirical foundations that support health and welfare policy analysis. The second community (Blue Cluster: Demographics and Empirical Methodologies) anchors quantitative population studies, linking demographic stratifications (adult, female, child, adolescent) with epidemiological designs and cross-sectional surveys, led by high-centrality works such as Xiamusiya A (2026, Qual Life Res; PageRank 0.661). Concurrently, the third community (Green Cluster: Socioeconomic Fundamentals) encapsulates foundational economic variables including income, social status, and socioeconomic factors. Strong inter-cluster ties between these foundational economic metrics and the health equity cluster demonstrate an integrated conceptual pathway, where empirical demographic methodologies and socioeconomic indicators directly inform policy-oriented social justice research.

5. Discussion

The structural synthesis of 1,704 articles reveals a fundamental evolution in how academic scholarship conceptualizes social welfare and distributive justice. Historically grounded in normative welfare economics and theoretical social choice, the field has undergone a decisive empirical turn. Modern research increasingly operationalizes distributive fairness through granular, multi-dimensional indicators such as spatial healthcare accessibility, ecosystem service equity, and population-level health disparities. This transition underscores a growing recognition that theoretical justice models must be paired with actionable, spatially explicit empirical metrics to effectively inform policy design.

A central insight emerging from the thematic clustering is the crucial role of public health and spatial equity as primary arenas for modern social welfare research. The high impact of journals like International Journal for Equity in Health and high-velocity papers on global travel times to healthcare indicates that well-being is increasingly evaluated through physical access to vital public infrastructure. Furthermore, the rapid growth of publications addressing environmental sustainability and climate justice highlights an ongoing broadening of the welfare concept, extending distributive equity beyond income distribution to include environmental hazards and ecological resources.

Despite these advancements, the field exhibits notable methodological and regional imbalances. The author co-occurrence and institutional networks demonstrate that while research from emerging economies—particularly China—has expanded rapidly in volume, foundational

theoretical frameworks and high-citation hubs remain predominantly anchored in Western institutions. Additionally, the heavy reliance on cross-sectional survey data and macro-level indicators in demographic clusters suggests a continuous need for longitudinal datasets capable of capturing causal mechanisms underlying cumulative inequality over individual life courses.

From a policy perspective, the integration of Distributional Cost-Effectiveness Analysis (DCEA) represents a critical bridge between academic research and public administration. By explicit quantification of trade-offs between overall efficiency and equity, DCEA enables policy makers to evaluate social interventions beyond aggregate economic gains. The findings suggest that future social welfare policies must move away from isolated sector interventions and adopt integrated, cross-sectoral frameworks that simultaneously address health disparities, income security, and spatial accessibility.

Looking forward, the research landscape is primed for further convergence between digital infrastructure, environmental resilience, and social justice. As artificial intelligence, big data analytics, and high-resolution spatial mapping become mainstream methodological tools, scholars have an unprecedented opportunity to monitor real-time inequalities. Future research must leverage these technological advancements to analyze how digital transformation and climate adaptation policies impact vulnerable populations, ensuring that distributive justice remains central to global development strategies.

Conclusion

This study has presented a systematic overview of the intellectual structure, scientific performance, and thematic evolution of global research at the nexus of social welfare, distributive justice, and economic inequality. Based on a corpus of 1,704 Scopus-indexed articles published between 1979 and 2026, the analysis illustrates a dynamic, expanding field that has successfully transitioned from abstract normative theory to empirical, policy-relevant scholarship. By tracking publication trends, journal performance, author networks, and keyword co-occurrences, the paper maps the key contributors and conceptual shifts that have defined the discipline over four decades.

The main findings highlight a clear structural reorientation of the domain toward health equity, spatial justice, and socio-environmental sustainability. Traditional social science journals have been complemented by open-access and multidisciplinary platforms that accelerate the dissemination of empirical disparities research. Key theoretical contributions, such as cumulative inequality theory and distributional cost-effectiveness frameworks, now serve as major intellectual anchors connecting health economics, urban planning, and environmental governance.

The academic implications of this synthesis reside in providing scholars with a clear roadmap of established intellectual clusters and emerging frontiers. The identified thematic networks demonstrate that interdisciplinary approaches combining spatial modeling, epidemiology, and welfare economics are driving current innovation in inequality research. Scholars can utilize these insights to identify under-researched intersections, particularly surrounding digital equity, climate adaptation, and multidimensional quality-of-life measurement in developing contexts.

For policy makers and public administrators, the findings emphasize the necessity of adopting equity-informative evaluation tools in policy formulation. The evidence compiled across the corpus demonstrates that growth-oriented economic policies failing to incorporate distributive justice considerations exacerbate structural disparities in health and well-being. Consequently, institutional frameworks must prioritize targeted interventions that address spatial barriers, safeguard vulnerable demographic groups, and ensure fair access to essential public services and environmental resources.

In conclusion, addressing global economic and social disparities requires sustained alignment between theoretical equity principles and rigorous empirical measurement. As societal challenges become increasingly complex and interconnected, the interdisciplinary field of social welfare and

distributive justice will remain indispensable for guiding equitable public policy. Future research must continue to refine empirical methods, expand global collaborative networks, and ensure that scientific insights translate effectively into transformative social action.

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