

# Income and Employment Inequalities: A Bibliometric Analysis

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**Abstract**—The study conducts a bibliometric analysis of research on income and employment disparities, exploring publication trends, key contributors, and emerging themes within the field. This analysis is carried out by R-package biblioshiny tool. The study examined research articles published between 2015 and 2024, focusing on annual scientific production, citation impact, country scientific production, thematic map and co-occurrence network. The sample includes 1743 publications from the Scopus database. The study's findings indicate a mixed pattern in publication growth with periods of significant increase and noticeable decline, leading to an overall negative growth rate. The study analyses major contributors like world development and social indicators research through metrics such as h-index and total citation counts, emphasising their significant roles in the field. This study highlights key research trends and gaps, providing a basis for future studies to address the challenges of income and employment inequalities.

**Keyword:** bibliometric analysis, biblioshiny, economic disparities, employment inequality, Income inequalities.

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## I. INTRODUCTION

Income and employment inequalities represent gaps in wealth distribution and labour market opportunities that profoundly affect the well-being of society (Atkinson, 2015; Milanovic, 2016). These disparities include income levels, employment prospects, working environment, and the gap between formal and informal employment sectors. The subject of inequality is central when evaluating the issue of employment generation and decent work wages. Labour market disparities are evident across various sectors affecting salaries and earnings, work quality, access to employment opportunities, and the gap between organised and unorganised sectors (Mahendra Dev, 2018).

Atkinson (2015) evaluated that increasing income gaps intensifies social tensions and hinders economic development by restricting human capital and innovation development opportunities. Moreover, inequalities in the quality of employment and opportunities exacerbate these inequalities, impacting the security of jobs and the welfare of workers (International Labour Organization, 2022). Recent studies have sought to unpack the complex correlation between disparity and growth, estimating how various types of inequality may affect subsequent growth at different points of the income distribution (Weide & Milanović, 2018). For example, one study found that disparity is bad for the growth of the poor, but not for that of the rich (Weide & Milanović, 2018).

Bibliometric analysis provides a robust methodological framework for examining the extensive literature on income and employment inequalities. Bibliometric analysis, a quantitative approach to studying written publications, has gained prominence recently as a valuable tool for understanding the impact and evolution of research domains (Ellegaard & Wallin, 2015). This method involves the quantitative examination of factors such as author affiliations, journal impact, citation networks, and keyword co-occurrences to uncover patterns and insights (Fang et al., 2020) (Thursina, 2023). Rodriguez *et al.* (2023) examined the literature on income disparity concerning existing policy frameworks, taxation and gender. Research on income inequality related to global productivity is the most extensive, although it has declined recently. Policies rank second in research volume, followed by taxes and gender, which received the least attention.

The primary objective of this study is to conduct a comprehensive bibliometric analysis of the research literature on income and employment inequalities. As the gap between the rich and the poor widens, the need for a thorough understanding of the underlying factors and potential solutions becomes increasingly urgent (Piketty, 2014). This research paper employs a bibliometric analysis to map the intellectual landscape of scholarly work on income and employment inequalities, aiming to identify trends, key contributors, and the evolution of research themes over time.

## II. REVIEW OF LITERATURE

Investigating the correlation between income and employment has been a topic of extensive research (Cysne, 2009). There was empirical evidence that a rise in structural employment could significantly worsen income disparity (Sharpe and Zybblock, 1997)

(Cysne and Turchick, 2012). (Somanchi, 2023) presents three distinct methods to accurately reconstruct income inequality in India from 2000 to 2020 by utilising household surveys, tax data, and national accounts. The findings show that the share of national income received by the top 10% rose from 39.9% in 2000-01 to 59.5% in 2019-20, while the share for the top 1% rose from 15.1% to 25.1% during this period.

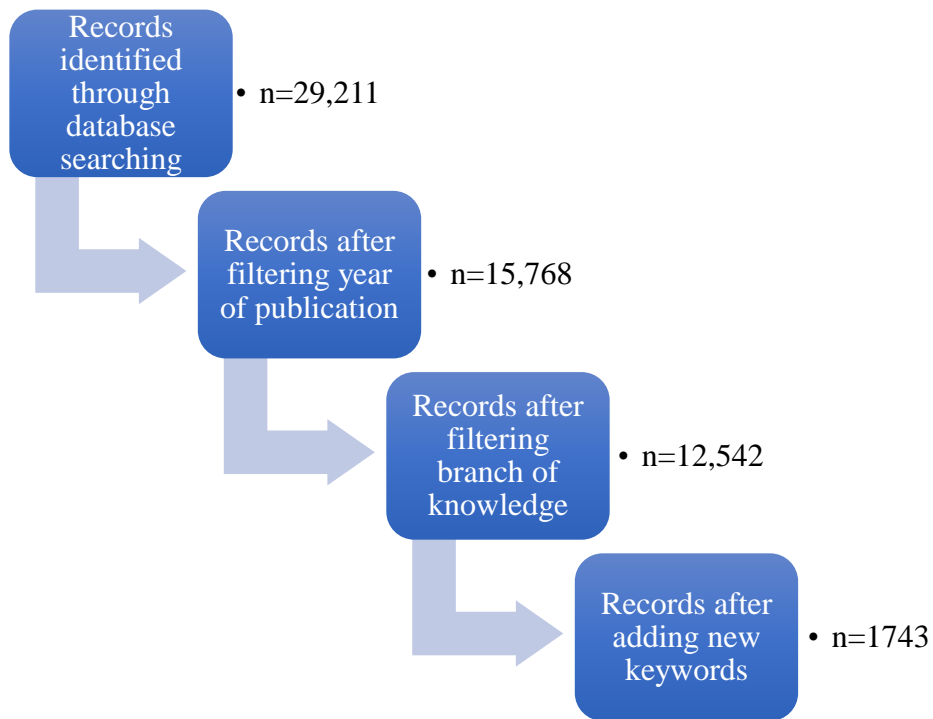
According to (Sharpe and Zyblock, 1997) there was a strong and statistically significant connection between the Gini coefficient and unemployment. Approximately one-third of the rise in market disparity during 1975-1994 was caused by greater unemployment. Furthermore, because of the rise in male wage and hour worked disparity, the increase in unemployment is attributed to a higher rise in male than female income disparity. Large income gaps have damaging health and social consequences, widening the disparity in many countries. Reducing inequality will improve the health and well-being of the people (Pickett and Wilkinson, 2015).

Piketty (2003) analysed wage, income and wealth disparities in France during the 20<sup>th</sup> century by using data from income tax returns (1915-98), wage tax returns (1902-94), and inheritance tax returns (1919-98). The study aimed to estimate the trends of income disparity in France. It was found that the fall in income disparity during the first half of the 20<sup>th</sup> century was mostly unintentional. Burniaux *et al.* (2006) found that reduced unemployment had been correlated with increasing wage disparity for workers over this time. Addressing the underlying cause of income and employment disparities requires a comprehensive strategy considering the interaction between education, race, gender, and other socioeconomic factors (Anand et al., 2016).

Das (2018) found that Permanent employment had a more uneven wage distribution than temporary employment, and the prevalence of inequality varied depending on the kind of job and the worker's education level. Several studies show a positive relationship between income and employment disparity. Further research is still necessary to fully understand the underlying causal mechanisms and the degree to which this relationship differs in various institutional and economic circumstances.

### III. METHODOLOGY

A bibliometric analysis of the literature was selected and done using the biblioshiny R-package, a powerful tool to illustrate the key concepts, themes and research areas concerning income and employment disparities. The data for bibliometric analysis is sourced from the Scopus database, a comprehensive and authoritative repository of academic research. Scopus provides a comprehensive view of the global research output in science, technology, medicine, social sciences, and arts and humanities with 22800 titles from more than 5000 international publications. The data collection was from 2015-2024, focusing on the last decade to ensure a broad and up-to-date coverage of the literature on income inequality. In Diagram 1 scheme of sampling stages is explained. Initially, 29,211 documents were identified in the Scopus database by using the keywords “income inequality”, “income distribution”, “economic inequality” or “earning inequality”. Since we have been interested in publications for the last 10 years, it was chosen to restrict the number of publications from 2015 to 2024. Publications in the Scopus repository for this keyword have been made since 1911. This limitation produced 15,768 documents. After that, the sample was limited to articles in “social sciences,” “Economics, econometrics and finance” and “business, management and accounting” which resulted in a total no. of publications of 12,542. The constraint was further implemented because the article aims to find publications exploring associations between income and employment disparities. As a result, the keywords “employment inequality,” “labour market inequality,” OR “wage gap” have been added. Thus, after imposing all limitations there are 1,743 publications in the sample.



**Diagram 1.** Scheme of stages of obtaining the sample

#### IV. RESULTS AND DISCUSSIONS

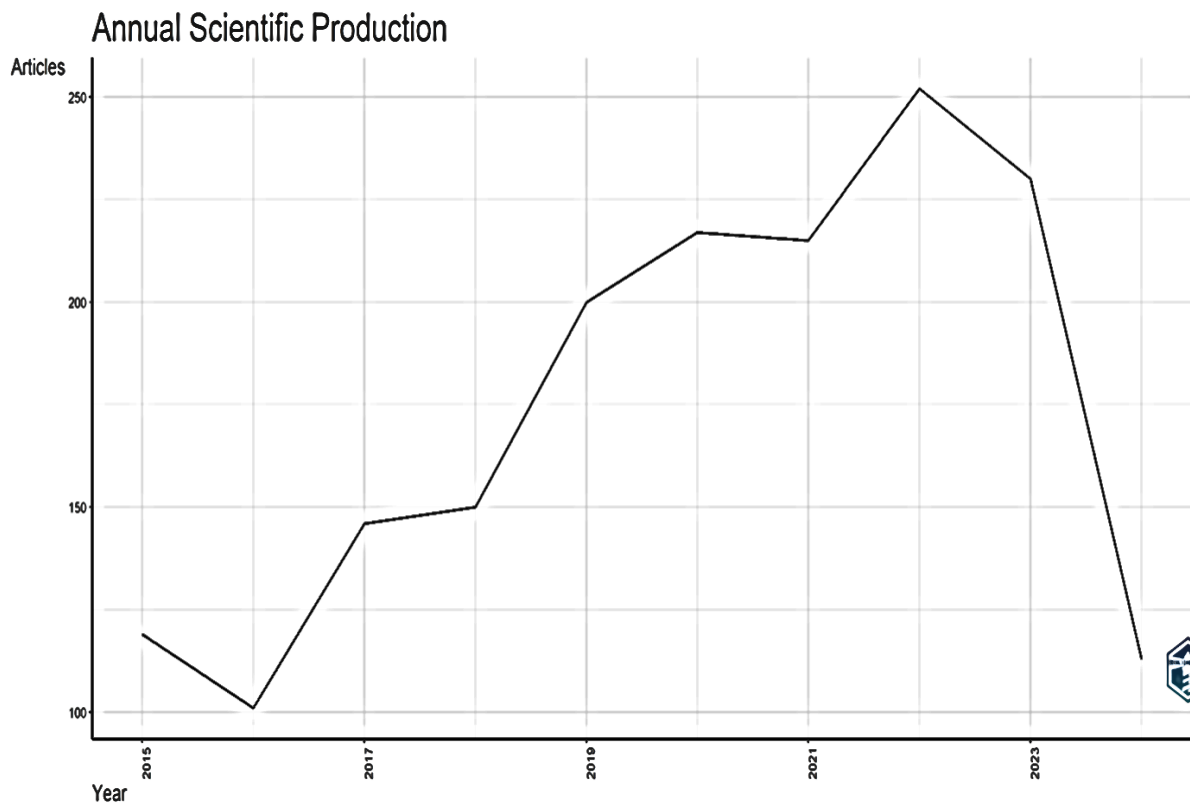
The analysis of bibliometric data from 2015-2024 represents significant trends and contributions in the field of income and employment disparities. The main information the given in **Table 1**.

MAIN INFORMATION ABOUT DATA	
Description	Results
Timespan	2015:2024
Sources (Journals, Books, etc)	670
Documents	1743
Annual Growth Rate %	-0.57
Document Average Age	4.04
Average citations per doc	10.39
References	80031
Keywords Plus (ID)	2139
Author's Keywords (DE)	4046
Authors	3808
Authors of single-authored docs	429
Single-authored docs	446
Co-Authors per Doc	2.43
International co-authorships %	26.22

**Table 1.** Main information about the data

Articles are analysed by annual scientific production, the most appropriate sources, the most relevant organisations, co-occurrence networks, thematic mapping and evolution, and other criteria to evaluate trends in the body of knowledge on income and employment inequalities.

**Figure 2** shows the annual output of research on income and employment disparities. The data displays the yearly growth of publications. The annual publications growth rate analysis shows fluctuations with notable periods of both increase and decline. The initial and final years show a net decline in the no. of publications, reflecting an overall negative growth rate of (-0.57%). The sharp decline from 2023-2024, where no. of publications dropped from 230 to 113, is attributed to striking. In 2022, 252 papers were published, representing the highest publication activity.



**Diagram 2.** Annual scientific production

In **Diagram 3** three field plots (keywords-author-countries) display the relationship between publication attributes. It shows countries and authors most active in the field of income and employment inequalities research. The USA, UK, China, and India contributed the majority of the articles. The relationship between income inequality and employment is most studied USA, CHINA, UK. The wage gap and poverty are highly studied in USA, UK, and Germany. Both developing and developed countries are included in the topic study. Diagram 3 also displays the author with most research papers on income and employment disparities.

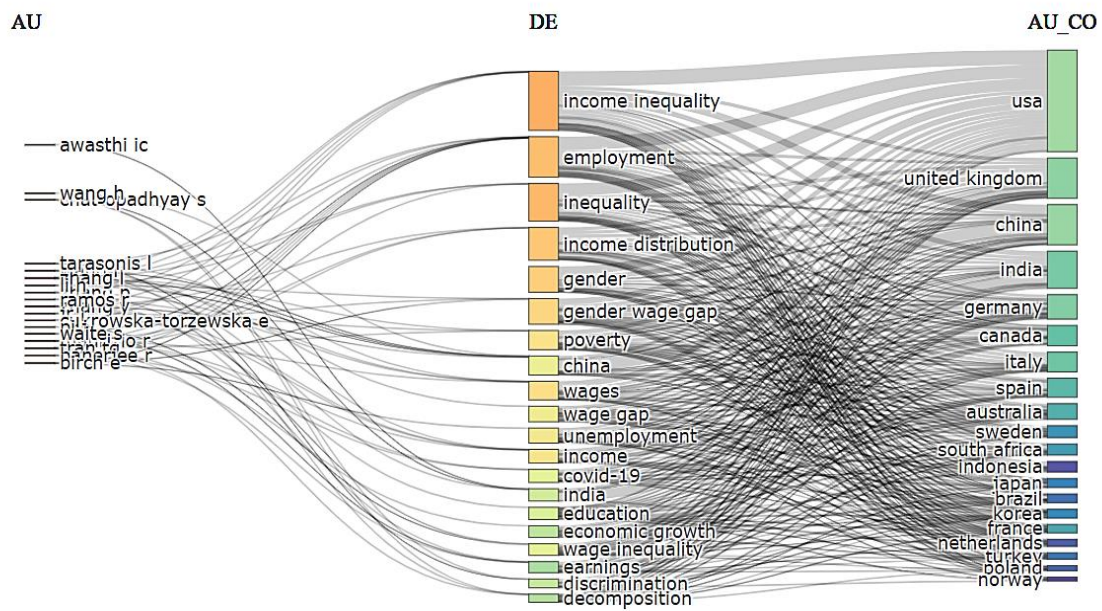


Diagram 3. Three fields plot

Diagram 4 shows the published relevant sources from 2015-2024. The most important journals that have published the highest no. of publications in the field of study are the India Journal of Labour Economics, Social Indicators Research, Applied Economics, World Development and others. The 15 journals shown in Diagram 4 published approximately 20% of all articles.

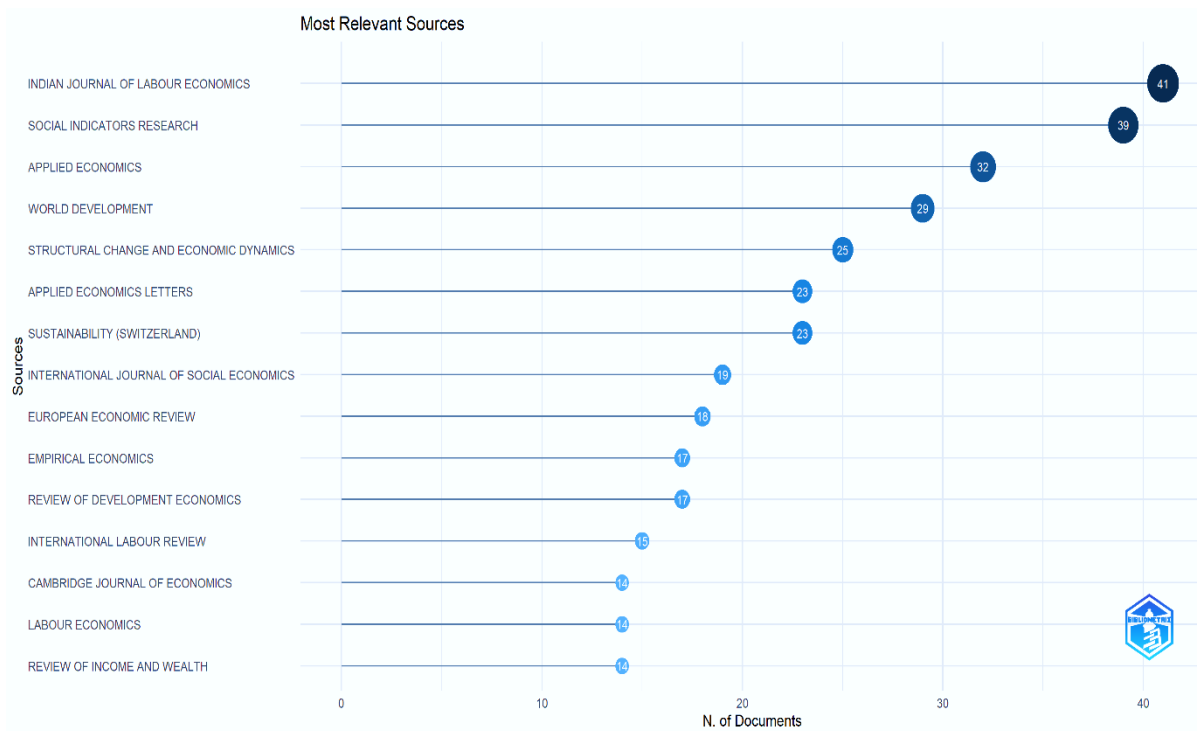


Diagram 4. Most relevant source

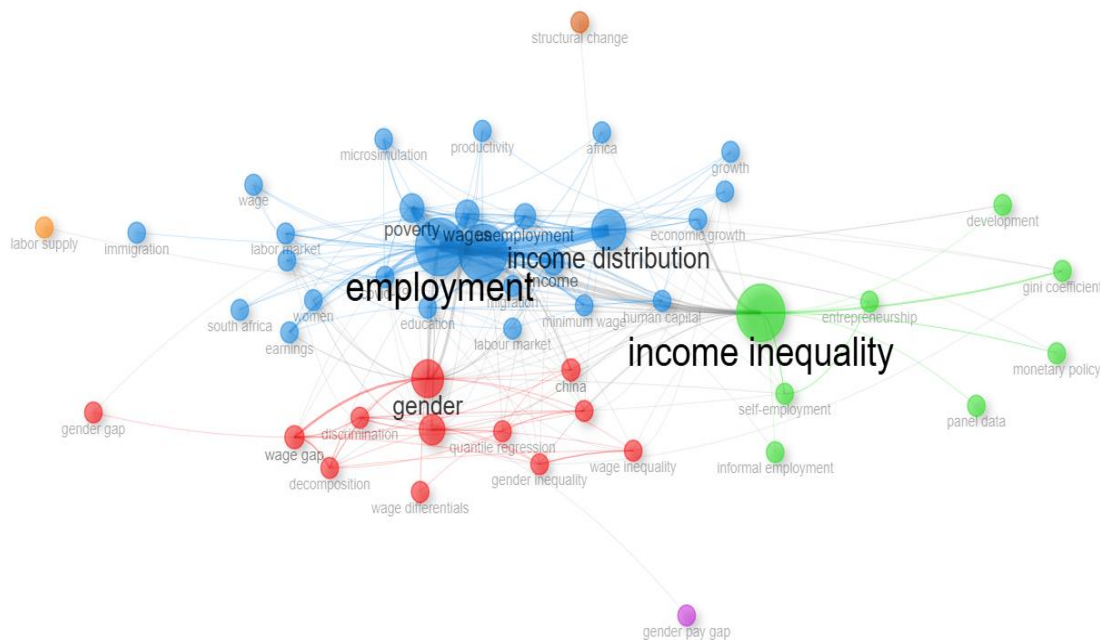


Diagram 5. Co-occurrence network

The co-occurrence network is displayed in **Diagram 5**. It consists of the main clusters. Factors such as income distribution, poverty and education interconnected employment and income inequality cluster together, which indicates that employment factors play a major role in influencing income disparity. Employment and gender clusters are interconnected through terms like wage and labour market, indicating that gender inequality is an essential part of larger employment opportunities and income







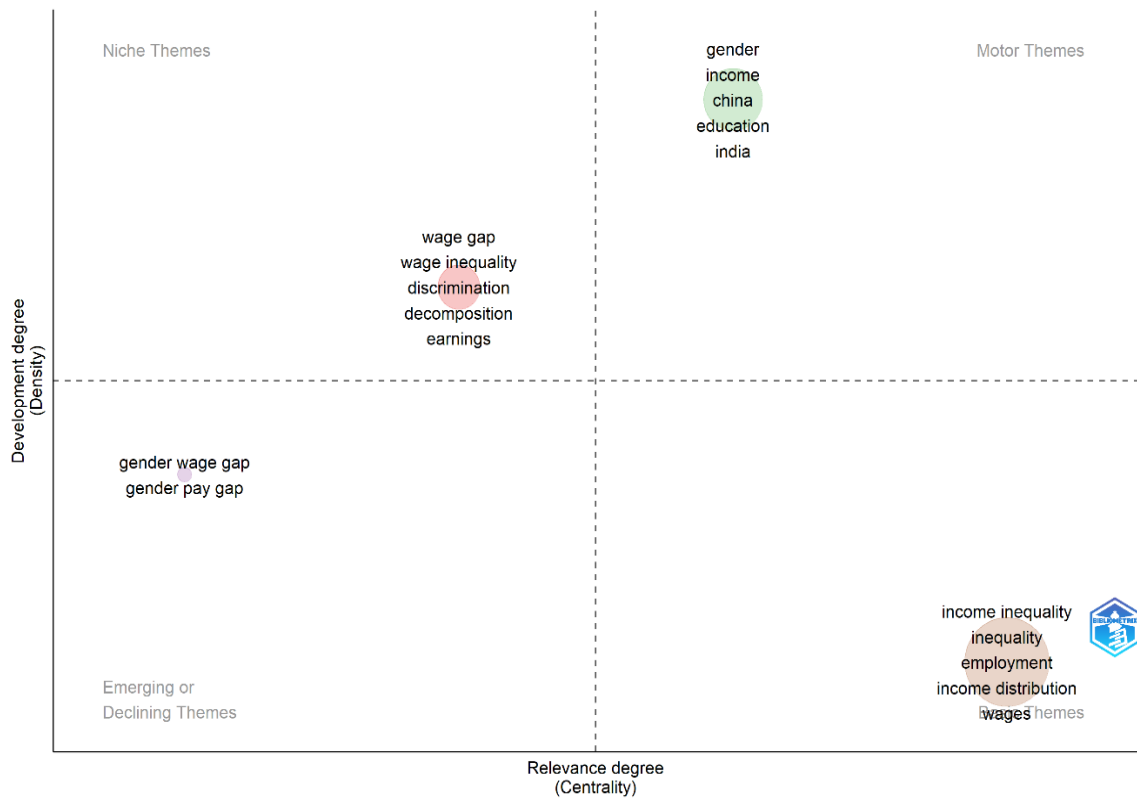


Diagram 7. Thematic map

### Country Scientific Production

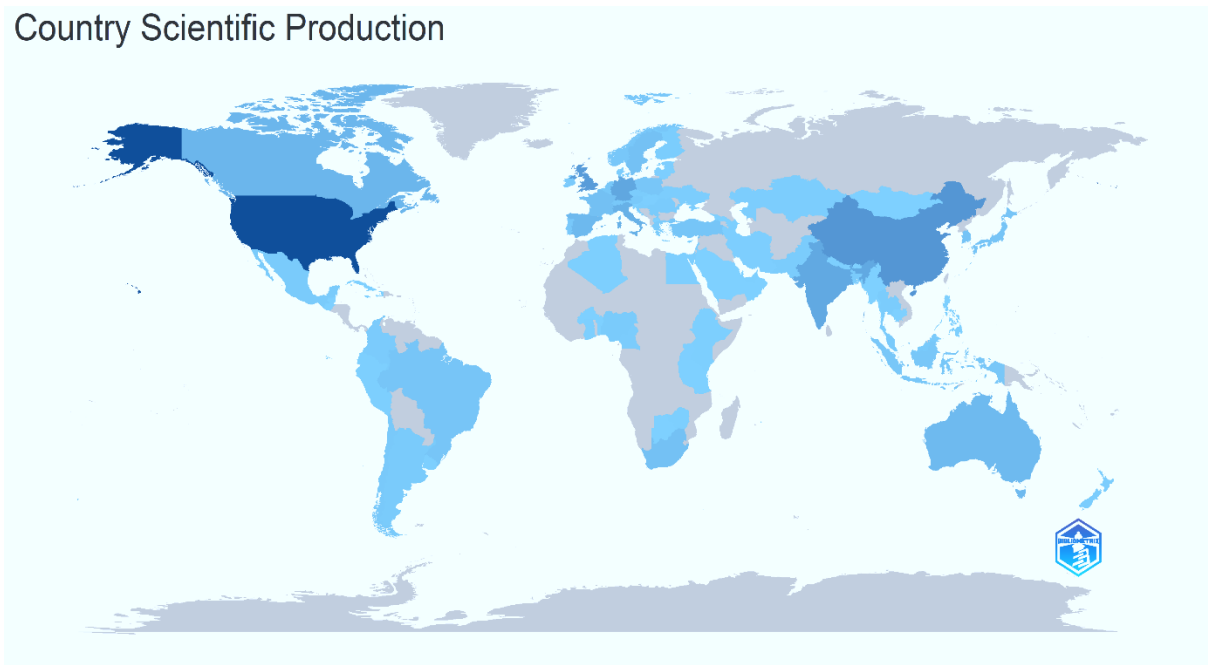


Diagram 8. Country scientific production

The distribution of global scientific production is shown in **Figure 8**. Monitoring patterns in countries' scientific production can reveal information about how the world research landscape is evolving. In the diagram, the U.S., China, Germany, and the UK

are the most prominent contributors, indicated by the darkest shades. These nations have the highest volume of scientific publications. Many countries in Africa, Southeast Asia, and Eastern Europe have lower levels of scientific journals.

Source	h_index	g_index	m_index	TC	NP	PY_start
WORLD DEVELOPMENT	13	23	1.300	564	29	2015
SOCIAL INDICATORS RESEARCH	11	18	1.100	376	39	2015
AMERICAN SOCIOLOGICAL REVIEW	10	13	1.111	467	13	2016
SUSTAINABILITY (SWITZERLAND)	9	13	1.125	194	23	2017
APPLIED ECONOMICS	8	12	0.800	184	32	2015
CAMBRIDGE JOURNAL OF ECONOMICS	8	11	0.800	135	14	2015
STRUCTURAL CHANGE AND ECONOMIC DYNAMICS	8	13	0.889	202	25	2016
ECOLOGICAL ECONOMICS	7	8	0.700	354	8	2015
ECONOMIC MODELLING	7	11	0.875	137	11	2017
EMPIRICAL ECONOMICS	7	11	0.700	145	17	2015

Diagram 9. Source's local impact

The source's local impact highlights the different impacts and productivity of various scientific journals. Understanding the dynamics of scientific publication and citation patterns and choosing the right journals for their work, these types of insights are essential. Journals like "WORLD DEVELOPMENT" and "SOCIAL INDICATORS RESEARCH" have relatively high h-index and g-index values, indicating a significant impact and a larger number of highly cited articles. The total citations (TC) and the number of publications (NP) metrics reveal the productivity and impact of a journal. "SUSTAINABILITY (SWITZERLAND)" has a relatively high m-index. Institutions and researchers could use this analysis to understand essential journals for publishing their work, targeting those with higher indices to enhance their visibility and impact.

The bibliometric analysis demonstrates a growing and varied field of research on income and employment inequalities. The results highlight the necessity of using interdisciplinary approaches and expanding the focus to involve more areas to understand the complex and worldwide nature of these issues.

## V. CONCLUSION

The bibliometric analysis of income and employment disparities research has provided an extensive overview of the field's growth, key themes, author impact and prominent journals from 2015 to 2024. The objective of the study was to find important research areas, concepts, and the issues of income disparity and how it relates to employment inequality, as well as research problems for further investigation this goal was accomplished through conducting a bibliometric study on a sample of 1743 papers that were published in the Scopus repository over the previous ten years.

The study determined fluctuating growth over the past 10 years, with notable periods of both expansion and decline, culminating in an overall negative growth rate. This pattern recommends potential challenges in sustaining long-term academic interest and productivity in this area. Important journals and authors have been recognised for their crucial roles, with WORLD DEVELOPMENT and SOCIAL INDICATOR RESEARCH being particularly for their substantial contributions, high citation counts and significant contributions. Emerging research themes include the interplay of income and employment inequalities with race, gender, and education, and the influence of technological progress and globalization.

The correlation between income and employment inequalities has been researched in the U.S., China, Germany, and the UK. The main variables affecting income and employment disparities were gender inequality, unemployment, education, economic growth, poverty, human capital, labour market, wage gap, migration, taxation, corruption etc.

By highlighting key trends and significant contributors, this bibliometric study provides a framework for future research orientations and policy initiatives aimed at addressing the complex issues of income and employment disparities.

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