

A Bibliometric Analysis of the Pay Gap Between Genders

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Abstract

The objective of this paper is to analyse the enduring gender wage gap, a prevalent economic issue that persists despite significant advancements in women's education and workforce participation. Through a comprehensive bibliometric analysis of scholarly literature on the gender wage gap from 2010 to 2024, we aim to delineate key themes and trends in the academic discourse surrounding this phenomenon. Utilizing Scopus databases, this study employs keyword co-occurrence mapping to visualize interrelationships in bibliographic data, thereby allowing for a nuanced assessment of research themes, authorship patterns, and publication trends.

The findings reveal a transformative evolution in the academic investigation of the gender wage gap, highlighting multifactorial analyses that encompass policy considerations, discriminatory practices, and the impacts of economic and technological evolution. Despite the growing body of research, significant gaps remain, particularly regarding intersectionality and the broader societal implications of wage disparities.

This research presents an innovative bibliometric approach that contributes to a deeper understanding of the complexities and fluctuating discussions surrounding the gender wage gap. It underscores the necessity for continued inquiry into this issue, advocating for interdisciplinary methodologies and holistic policy responses to address not only wage inequities but also the structural and social determinants that perpetuate these disparities. Ultimately, the study aims to inform both scholarly research and policy initiatives, promoting the development of inclusive and equitable workplace environments and societal structures.

Keywords: gender, wage gap, human resources management, equity, workplace

JEL classification: J01, J16, J17, J18, J31

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1. Introduction

In the last decade, the gender wage gap has remained a stubborn and much-debated facet of global economic discourse. Despite significant strides in educational attainment and workplace participation, women, on average, continue to earn approximately 82 cents for every dollar men earn (Egbetayo, 2020), a statistic that has shown limited improvement over the years.

The historical legacy of economic disparity between the sexes has been well documented, with roots in legal, cultural, and social norms that have traditionally undervalued women's work. Today, the nuances of this wage disparity have evolved, yet the overall picture remains dishearteningly consistent.

This persistent wage gap underscores the notion that gender inequalities transcend the boundaries of the household, deeply embedding themselves within the framework of modern economies. The problem of unequal compensation for equal work not only undermines basic principles of fairness and justice but also has broader implications for economic productivity and family well-being.

Despite a considerable amount of research conducted on the subject (Gharehgozli and Atal, 2020; Caliendo and Wittbrodt, 2021; Hegewisch and Mefferd, 2021) significant areas still need to be explored. Their lack of a comprehensive understanding of how the academic conversation around 'gender differences' and 'wage' has evolved and which areas have been the focus. This study seeks to illuminate these areas by providing a bibliometric analysis of the existing body of scholarly work.

The urgency of addressing the wage gap becomes ever more pertinent as the world grapples with unprecedented challenges, including economic downturns, a global pandemic, and the push for sustainable growth. In light of this context, comprehending the landscape of academic research on wage disparities will serve not only as a reflection of contemporary priorities but also as a directional beacon for policymakers, corporations, and activists advocating for workplace equity.

This paper aims to map the scholarly territory of the gender wage gap research through extensive bibliometric analysis. By doing so, it intends to identify predominant themes, assess the quantity and quality of research outputs, and discern patterns in authorship and publication over time. The study will delve into the Scopus database, and employ rigorous inclusion criteria to ensure a comprehensive review.

In the following sections, this paper unfolds through a structured approach, beginning with the methodology, which will detail the bibliometric techniques employed. Subsequent chapters will discuss the findings of the analysis, the discussion of these findings in light of existing literature, and finally, the implications, limitations, and recommendations based on the study's outcomes.

With this foundation laid, we proceed to comprehensively explore the landscape of gender differences in wages through the lens of bibliometric analysis.

2. Literature review

Blau and Kahn (2017) demonstrate that occupational and industry differences, rather than conventional human capital variables like education and experience, now play a more significant role in explaining the persistent gender wage gap. The reduction in the gender wage gap has been slower at the top end of the wage distribution than at the middle or bottom, indicating that the gap is larger among higher earners.

In another study, Majchrowska and Strawinski (2018), explored the effects of a significant minimum wage increase in Poland on the gender wage gap from 2006 to 2010, particularly among young workers in the private sector, excluding agriculture. Using a novel combination of the DiNardo et al. (1996) reweighting approach and Oaxaca–Blinder decomposition, the research found that the increase notably reduced the wage gap for young, low-experience, and poorly qualified workers, with minimal effects on middle-aged workers and educational groups. The findings align with previous studies, suggesting minimum wage policy as a tool to reduce pay differentials between genders in economies with high occupational segregation and wage inequality. The study acknowledges limitations, including macroeconomic factors and the impact of the global financial crisis, which seemed negligible in affecting employment trends in Poland during the period studied.

Another study by Redmond and McGuinness (2020), proves that the gender wage gap in Europe varies significantly from country to country. While it has decreased, much remains unaccounted for, with the degree of convergence in wage-related characteristics uneven across the continent. Some Eastern European countries exhibit an entirely unexplained wage gap, whereas other nations show that gender differences in characteristics do explain a substantial part of the gap. Among these characteristics, gender differences in job preferences are notable, accounting for 10% of the wage gap and having a particularly significant impact at the higher end of the wage distribution.

Gharehgozli and Atal (2020) examine the gender wage inequality in the United States from 1986 to 2016 by focusing on decile-level wage distribution. It reveals that the wage gap between men and women has only modestly decreased over the period under study; women's earnings rose from 53% to 67% of men's earnings. It also uncovers a relationship between a higher gender unemployment gap and a smaller wage gap. Furthermore, the research indicates an increase in wage inequality within genders, especially affecting women more severely, suggesting that the wage gains are not evenly distributed. The study critiques traditional explanations for the wage gap, such as part-time employment and skill deficits, and suggests they fall short of accounting for the observed disparities. This points towards a lingering implicit gender discrimination as a more significant underlying factor of the wage gap.

Another research developed by Caliendo and Wittbrodt (2021), examines the impact of Germany's 2015 minimum wage introduction on the gender wage gap, utilizing data from over one million employees in 60,000 firms. The findings reveal a significant reduction in the gender wage gap in regions heavily affected by the minimum wage. Specifically, the wage gap at the 10th percentile of wage distribution decreased by 32% between 2014 and 2018 compared to less affected regions, with noticeable but diminishing effects on the wage distribution. At the 25th percentile, the gap reduction was still significant, while at the mean wage level, the impact was smaller and less consistent. Overall, the study concludes that the minimum wage is an effective policy tool for reducing the gender wage gap, especially for the lowest earners, indicating targeted effectiveness at the lower end of the wage distribution.

In 2020, women consistently earned less than men across nearly all occupations, regardless of the sector's gender dominance, according to a study developed by Hegewisch and Mefferd (2021). Women in the lowest-paid roles, such as Maids and Housekeepers, predominantly make up the workforce yet still face a significant wage gap. This disparity is exacerbated for women of color, with Latinas and Black women earning considerably less than their male counterparts and even less when compared to White non-Hispanic men. The analysis highlights that women's median weekly earnings are insufficient for a family of three to live above the poverty line in several major occupations. The study also points out the persistent issue of occupational segregation, where women and men are concentrated in

different jobs that traditionally pay women less. Additionally, the report underlines the compounding effect of race and ethnicity on the gender wage gap, showing that women of color face the most significant disadvantages. Addressing women's low earnings and closing the gender wage gap requires non-discriminatory hiring and pay practices, improved career support, and better work-family support, along with vital public policies like raising the minimum wage to support women, particularly those of color, in overcoming these disparities.

3. Research methodology and results

To conduct the current research study, the literature on gender differences and the wage gap was comprehensively examined using Scopus databases, known for their high-quality content. The search terms "gender" and "wage gap" were utilized to select scientifically relevant papers featuring these keywords. Our review focused on English-language articles and review papers, considering various aspects such as the year of publication, publication language, academic journal, titles, authors, affiliations, document types, keywords, domain, and citation counts. Another key element was that we only selected literature published between 2010 and 2024, as we considered the last 15 years to be essential in the development of the matter. Data from Scopus were exported in CSV format for further analysis. The VOSviewer program was also employed to generate a co-occurrence map for this research study. There were 1744 articles, exported as .csv on the 26th of February 2024, on the selected criteria, from the Scopus database and imported in VOSviewer (version 1.6.18) (van Eck and Waltman, 2011) to create a map that visually represents relationships within bibliographic data, employ the technique of keyword co-occurrence analysis. This method creates a keyword map, and further insight can be gained through overlay and density visualization techniques, which have been effectively utilized in analogous studies. (GORA, 2019; Bunea, Corboş and Popescu, 2022; Triculescu, 2022)

This paper aims to identify the other concepts on which gender differences were observed on the wage gap subject, and what connections are created between these concepts, using bibliometric analysis. Another reason for conducting this research is to identify the gap in research and to create an opportunity for further research.

The first step in this research was the analysis of publications per year. From the 1744 articles analysed, the year with the most published articles was 2023, with 223 articles published, followed by 2022 with 203 articles.

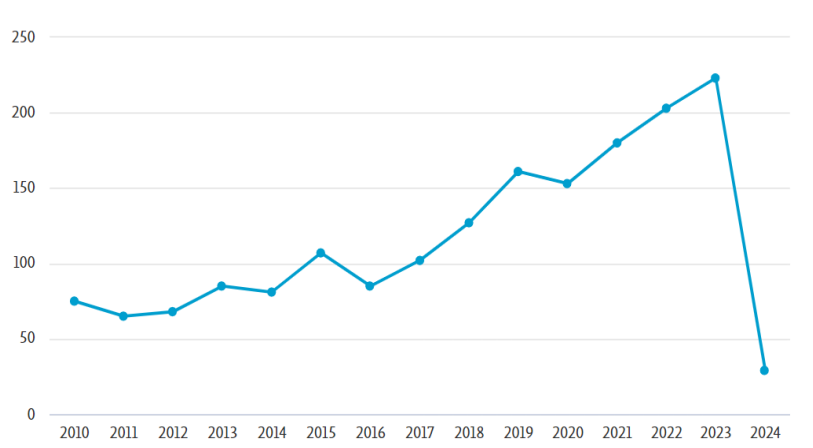


Figure 1. Count of articles per publishing year

From the above table can be observed that the year with the least articles published was 2011, followed by 2012 and 2010.

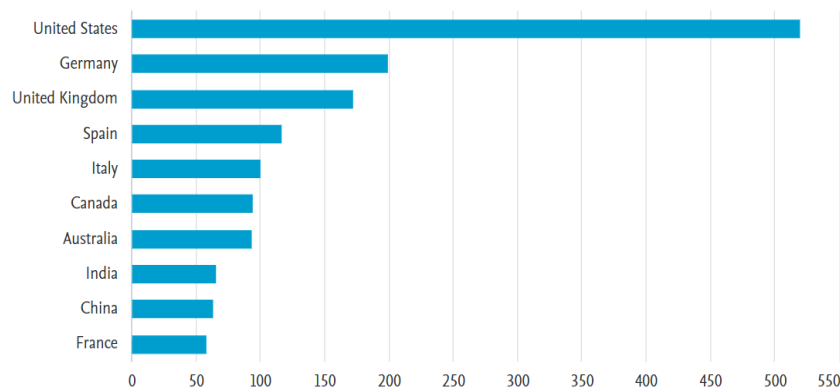


Figure 2. The distribution of articles by country

To further investigate the papers, an analysis of the number of articles published per country was conducted. From this analysis, the USA was the country with the most articles, 519 papers, followed by Germany, 199 papers, and the UK, 172 articles.

The VOSviewer clustering method, as detailed by Waltman, Van Eck, and Noyons (2011) along with additional scholars in subsequent research (Dima et al., 2022; MARINAŞ et al., 2022; Triculescu, 2022), was employed to produce a keyword map and organize the keywords into clusters. This approach collates information from available nodes, considering the connections and overall strength among them. Figure 3 displays a visual representation of 383 keywords, which were selected based on the criteria of appearing at least 5 times out of 4236 identified keywords related to the topics of 'gender' and 'wage gap'.

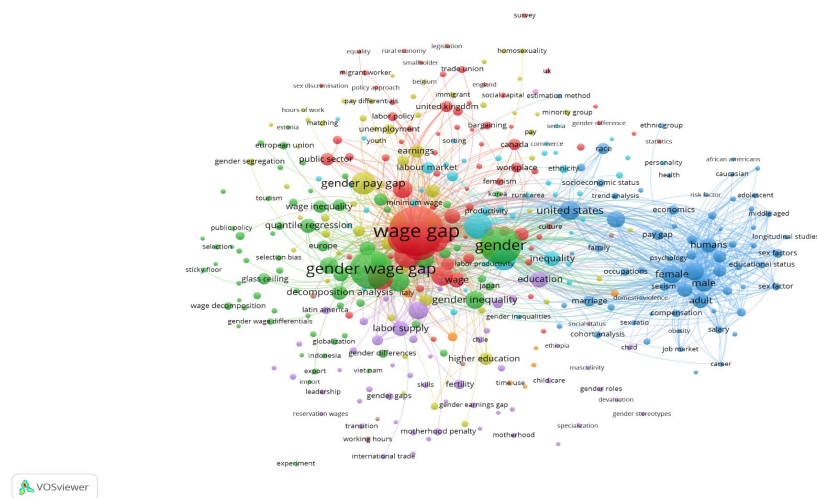


Figure 3. Keyword map

differentials”, “sex discrimination”, and “earnings inequalities”. After 2019, the use of “gender inequality”, “pay gap” and “gender equity”, found in the published articles established new links with wage gap gender differences and contributed to expanding the scope of this field.

Collating all this data may pave the way for an innovative perspective on the subject of gender disparities in wage gaps. The intrigue surrounding this topic intensifies with its extensive exploration, particularly in the context of the ongoing development of salary transparency legislation.

4. Conclusions

The bibliometric analysis conducted in this study of gender wage gap research spanning from 2010 to 2024 elucidates the evolutionary trajectory of scholarly discourse in this field. The examination of 1744 articles from the Scopus database reveals a shift in research themes and keywords over time, reflecting the dynamic nature of gender wage gap discussions. Key findings point to an increased focus on multifaceted dimensions of the wage gap, including policy approaches, discrimination mechanisms, and the impact of economic and technological changes. Despite the burgeoning volume of literature, research gaps persist, notably in areas concerning the intersectionality of wage disparities and the long-term effects on economic productivity and societal well-being. This study underscores the critical need for ongoing research to address the nuanced complexities of the gender wage gap, aiming to foster a more inclusive and equitable workplace environment. The bibliometric analysis not only highlights the progress made but also charts a path forward for future research, emphasizing the importance of diverse methodological approaches and interdisciplinary collaboration to fully understand and address the persistent challenges of gender wage inequality.

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