

Review Article

The Economic and Anthropological Aspects of Migration: A Bibliometric Analysis Using VOS Viewer

Sahana Kuttuva

Greenwood High International School, Bengaluru, India.

Corresponding Author : kuttuvasahana@gmail.com

Received: 09 August 2025

Revised: 18 September 2025

Accepted: 03 October 2025

Published: 22 October 2025

Abstract - A strong understanding of migration dynamics is essential for every nation, forming the basis for effective employment, social protection, climate adaptation, and development policies. The study investigates migration's economic and anthropological dimensions as a global phenomenon to evaluate systemic drivers, such as wages, labor markets, and climate shocks, as well as social dimensions such as household strategies, migrant networks, and cultural norms. A dataset of 1,831 publications from 2000 to 2025 was analyzed using bibliometric and visual mapping techniques. Preliminary analysis of author and country collaborations showed that the United States, United Kingdom, and Germany dominate model-based and comparative studies, while India, Bangladesh, and Turkey contribute case studies on rural poverty, remittances, and climate-induced migration. The most cited author was Beine (753 citations), whose work links skilled migration to education incentives and governance transfer, and the most cited paper was Storper (781 citations, 2009) on agglomeration economies. Keyword trends peaked between 2016 and 2018, showing a widespread shift from single-country economic studies to multi-causal, cross-border approaches. Findings show rising concern over inequality, displacement, and integration challenges, paired with solutions emphasizing remittance channels, diaspora engagement, and social protection. The study suggests practical, social, and research implications for stakeholders.

Keywords - Migration, Development Economics, Anthropology, Bibliometric Analysis, VOS viewer.

1. Introduction

Migration research traditionally includes economic approaches, which analyze wages, incentives, and labor markets, and anthropological approaches, which refer to studies on lived experiences, social networks, household strategies, and cultural norms that influence people's movement. Recognizing this dual perspective is essential for designing policies that respond to both the structural and social dimensions of mobility. As of 2020, over 281 million people live outside of their country of origin, and this makes up 3.6% of the global population [1]. In addition, the value of global remittances reached USD 831 billion in 2022, showing that migration has a significant role in shaping households and global economic stability [2]. These figures indicate that it is necessary to study migration, particularly the multiple factors that drive it and how it has evolved over time. In accordance with this sentiment, governments and international organizations have increased support for migration studies to inform policy deliberations on issues ranging from skilled labor shortages to refugee integration in recent decades. However, research remains unevenly distributed, with a small group of highly collaborative countries driving comparative and large-scale analyses on labor markets and climate mobility, while developing, high-migration settings contribute

detailed but narrow case studies on household vulnerability, remittances, and adaptation strategies. Scholars are addressing this imbalance by linking structural and social insights, often combining administrative data with field surveys and using longitudinal approaches to track migrant adaptation over time. Thus, the growing body of research on global migration is improving but remains fragmented. This fragmentation poses a significant problem to policymakers, limiting their ability to create migration policies specific to regions and in relation to economic, environmental, and social factors.

1.1. Importance of the Study

This study holds significant relevance for policymakers and researchers seeking to understand migration's dual economic and anthropological dimensions. 1,831 publications have been analyzed to examine the patterns and findings of research in this area over time and across different regions. While the various causes and effects of migration have been studied previously, there are few theories regarding how these interact. Early research posited that migration was primarily driven by economic factors, such as wage disparities and labor availability[3], [4]. These theories provided a framework for understanding migration driven by economic opportunity, but neglected the social and cultural factors that influence



decision-making. Additional anthropological insights were added to the scope of later theories. Ideas such as cumulative causation and network theory conceptualize migration as a socially integrated phenomenon, where out-migration impacts future mobility choices through family and community connections [5], [6]. This perspective remains relevant for scholars interested in how migration perpetuates itself and for governments intending to form policies that account for transnational linkages rather than treating migrants as isolated individuals. Recent findings additionally incorporate structural and environmental factors, interpreting migration not just as a reaction to economic pressures but also as a means of accommodating political instability and climate change [7], [8], [9]. However, despite these advances, migration research lacks a holistic approach, and economic and anthropological perspectives are often studied in isolation, with limited cross-regional synthesis. This constitutes the central research problem, as it constrains the development of comprehensive theories and integrated policy responses. The contribution of this study is twofold. First, it maps the evolution of migration research by tracing theoretical and regional trends across 1,831 publications. This reinforces that migration research has progressed in a fragmented manner. Second, it highlights critical blind spots in migration research, such as those in return migration and the long-term effects of social networks[10], [11], showing that these areas require further scholarly and policy attention to form more integrated theories. This allows the study to offer readers an understanding of migration as a phenomenon shaped by institutional factors and capable of transforming communities, economies, and cultural norms [12], [13]. An understanding of this complexity is essential for policymakers, employers, and communities seeking to respond effectively to the diverse challenges and opportunities generated by migration.

2. Methodology

Information on the topic “Economic and anthropological aspects of migration” was searched for in the Scopus database. Scopus was chosen because it has strong coverage of migration studies and is compatible with bibliometric software such as VOS Viewer. Other databases were not included in the scope of the study due to feasibility constraints, though future work may benefit from including these for broader coverage. The articles had been searched for using the query (TITLE-ABS-KEY (MIGRATION AND (“ECON*” OR “ANTHROPOLOG*”) AND EFFECTS)) from 2000 to 2025, applying filters for the subject areas of social sciences (SOC), economics (ECON), arts (ARTS), and business (BUSI). Additional filters applied were for the document type article, the source type journal, and the inclusion of the English language. A total of 1,831 documents appeared following this query, and zero duplicates were found after screening for duplicates using Mendeley. The dataset obtained was then exported to the VOS Viewer software for visualization and bibliometric analysis.

Table 1. Keywords Employed in the Literature Search and the Number of Results from the Scopus Database

Keywords	Scopus
MIGRATION AND (“ECON*” OR “ANTHROPOLOG*”) AND EFFECTS	1831
Duplicates	0
Total (net of duplicates)	1831

Source: Vos-Viewer

3. Results and Discussion

3.1. Co-Authorship and Authors

On the basis of co-authorship and authors, the maximum number of authors collaborating on a paper and the minimum number of documents by an author were both limited to 5, and the minimum number of citations per author was limited to 150. The results revealed that there were 5 authors who published work on this topic that met the criteria out of a total of 3763 authors. The three most cited authors out of the 5 included Michel Beine (753 citations), Hillel Rapoport (752 citations), and Douglas S. Massey (678 citations).

Beine’s research on the economic and anthropological aspects of migration focused on the drivers and consequences of human mobility. From an economic perspective, he has explored how emigration of skilled labor can cause brain drain while also incentivizing education investment [14], how diasporas reduce the economic and legal costs of migration, influencing the level and composition of migrant flows [15], and how short-run economic fluctuations and changes in employment prospects affect migration beyond long-term differences in wage prospects [16]. His work also explores how, although climatic shocks show little direct effect on international migration, they drive increased internal urban migration [17]. From an anthropological standpoint, his work found that skilled migrants can transfer governance norms and market-friendly institutional practices to their home countries[18], diasporas facilitate cultural integration as well as transnational trade [15], and climate shocks can both displace and trap populations depending on context and resources [9].

The second most cited author was Rapoport. One of his most significant contributions is collaborating with Beine on the topic of brain drain. Rapoport’s work beyond these collaborations examines the implications of migration for inequality and for the economies of host regions. This includes studies on intraregional migration leading to wage equalization across countries [12] as well as remittances as both income and a catalyst of decreased inequality in migrant sending regions [19]. Overall, his work demonstrates the importance of migrant networks in cultural transmission and economic mobility, as well as in establishing community structures and integration processes [20].

Massey was the third most cited author, with significant work on migration’s interrelated economic and social

implications. His contributions relevant to economics describe how social networks decrease migration costs and risks, generating cumulative causation which leads to increased migration over time [5]. Massey also describes how increasing border enforcement changes the labor market and regional patterns of migration. Specifically, his studies show that as border enforcement increases, there is less return migration, and the rate of permanent settlement increases [21]. His work in migration from an anthropological lens finds that cultural

and environmental contexts are influential in migration decisions. His study of rural Nepal demonstrates how environmental decline drives short-distance and seasonal mobility rather than international migration, emphasizing migration as an adaptive household strategy [22]. He also illustrates how migration becomes embedded in community norms and expectations, reproducing itself across generations and reshaping social structures.



Fig. 1 Co-authorship and authors visualization

Table 2. Co-authorship and authors

Author	Documents	Citations
Beine, Michel	7	753
Rapoport, Hillel	5	752
Massey, Douglas S.	9	678
Peri, Giovanni	5	414
Lu, Yao	7	395

Source: Vos-Viewer

3.2. Co-authorship and Countries

On the basis of co-authorship with the unit of analysis being countries, the maximum number of countries collaborating and the minimum number of documents of a country were both limited to 5, and the minimum number of citations per country was limited to 50. The results revealed that 52 countries met the thresholds out of 140 total. Of these 52 countries, the top 5 developed and developing nations with the most citations were taken, with the developed countries

being the United States, United Kingdom, Germany, China, and France, and the developing countries being Bangladesh, India, Turkey, Mexico, and South Africa.

Based on the analysis, the United States stands out with the highest number of documents (411) and citations (15755), while Mexico (264 citations) and South Africa (252 citations) had the least representation. The United States clusters with Bangladesh and China, reflecting collaborations that focus on economic modeling, remittances, and household-level dynamics. U.S. research emphasizes migration as a response to economic opportunity, with expected income shown to be a decisive factor shaping interstate mobility [4]. This economic model is complemented by transnational perspectives through studies on remittances and development in collaboration with Bangladeshi scholars [23] and intergenerational transfers in the Chinese context in collaboration with Chinese researchers [13]. Collaborations between China and Bangladesh highlight climate-induced migration, where

drought drives both household adaptation and new pressures on host communities[24]. Collectively, this cluster integrates economic and sociological perspectives by situating migration within contexts of remittances, inequality, and climate stress.

The UK clusters with South Africa, France, and Germany, reflecting both historical and contemporary migration issues. UK collaborations with South Africa emphasize how residential mobility and socioeconomic change affect adolescent health and inequality [25]. Meanwhile, in collaborations with France, the focus shifts to labor dynamics, including human capital spillovers and “brain drain” effects, while collaborations with Germany reassess migration as a driver of conflict using case studies [8]. Further, collaboration between France, South Africa, and Germany predicts long-term demographic patterns through studies of prehistoric mobility and gendered practices [26]. Collectively, this cluster illustrates Europe-Africa collaborations that bridge public health, labor markets, and demographic change in relation to migration.

By contrast, India, Mexico, and Turkey did not cluster with any other nations, indicating more isolated contributions. In India, the rural-urban dynamics of migration are central to contributions in migration research. Evidence from studies

conducted before and after reform periods indicated that accelerated growth during the period reduced both rural and urban poverty. This mitigated against the negative inequality and population shift effects associated with migration [27]. Other studies suggest that migration functions as a means of bettering livelihood, decreasing economic vulnerability for rural communities, but also resulting in uneven intra-household effects and urban maladaptation [28]. Meanwhile, Mexican research focuses on the social and economic effects of out-migration. Spousal emigration increases emotional distress among nonmigrant mothers despite stable household resources [29], while rural labor shortages from migration spur agricultural mechanization, raising smallholder productivity [30]. In Turkey, findings underscore both internal and international migration pressures. Rural-urban flows of unskilled workers slow development in provinces [31], while the arrival of Syrian refugees has raised unemployment among residents [32].

Overall, the co-authorship patterns suggest that developed countries act as hubs of theoretical innovation and global collaboration, while developing countries contribute essential empirical insights on migration’s household and domestic-level effects.

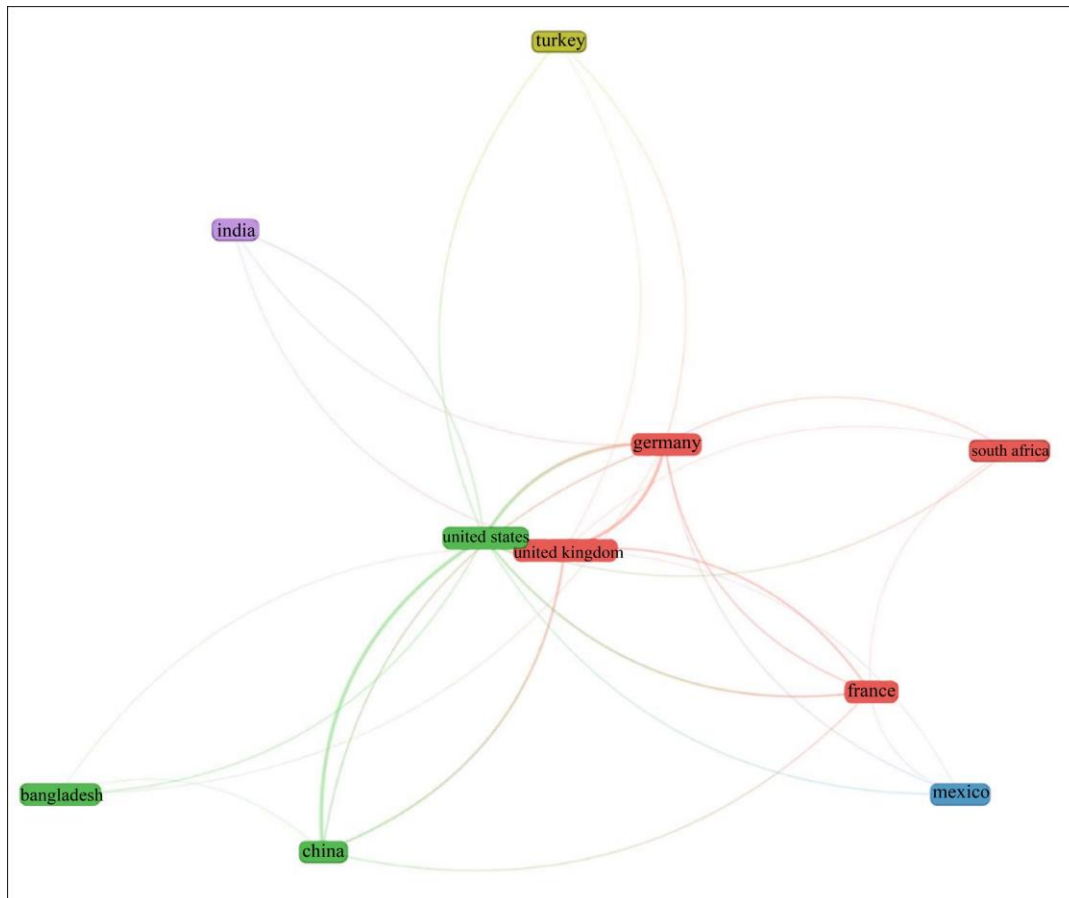


Fig. 2 Co-authorship and countries visualization

Table 3. Co-authorship and countries

Country	Documents	Citations	Total Link Strength
United States	411	15755	238
United Kingdom	287	11074	214
Germany	239	5136	200
China	179	3867	112
France	76	3719	76
Bangladesh	13	532	11
India	24	516	14
Turkey	33	264	14
Mexico	21	264	10
South Africa	32	252	18

Source: Vos-Viewer

3.3. Co-occurrence and Keywords

On the basis of co-occurrence with the unit of analysis being all keywords with a minimum of 90 occurrences, 12 keywords met the thresholds of 7081 keywords. Screening for duplicates and irrelevant terms, 10 keywords were selected. The keyword with the highest number of occurrences was “Migration” (552 occurrences), followed by “International migration” (163 occurrences) and “China” (150 occurrences). The timeline during which the most frequently occurring keywords were trending was from 2016 to 2018. Since the dataset was collected from 2000 to 2025, a significant portion of research on the economic and anthropological aspects of migration occurred during this period. In 2016, the keywords that were trending were “United States”, “labor migration”,

and “employment”. This suggests that the research conducted when the topic of migration was coming to the forefront was focused on country-specific case studies (particularly the U.S.) and the economic dimensions of labor mobility. In 2017, “human” and “international migration” began trending. This marked a broadening of the scope of research on migration, shifting the focus to the social aspects of migration and cross-border migration patterns. Thus, the focus moved beyond single-country and labor market-focused perspectives. In 2018, “migration”, “immigration”, and “internal migration” were trending. These terms are generalized and conceptual, indicating that large-scale comparative work across different types of migration gained traction only after earlier research focused on specific case studies and economic analyses.

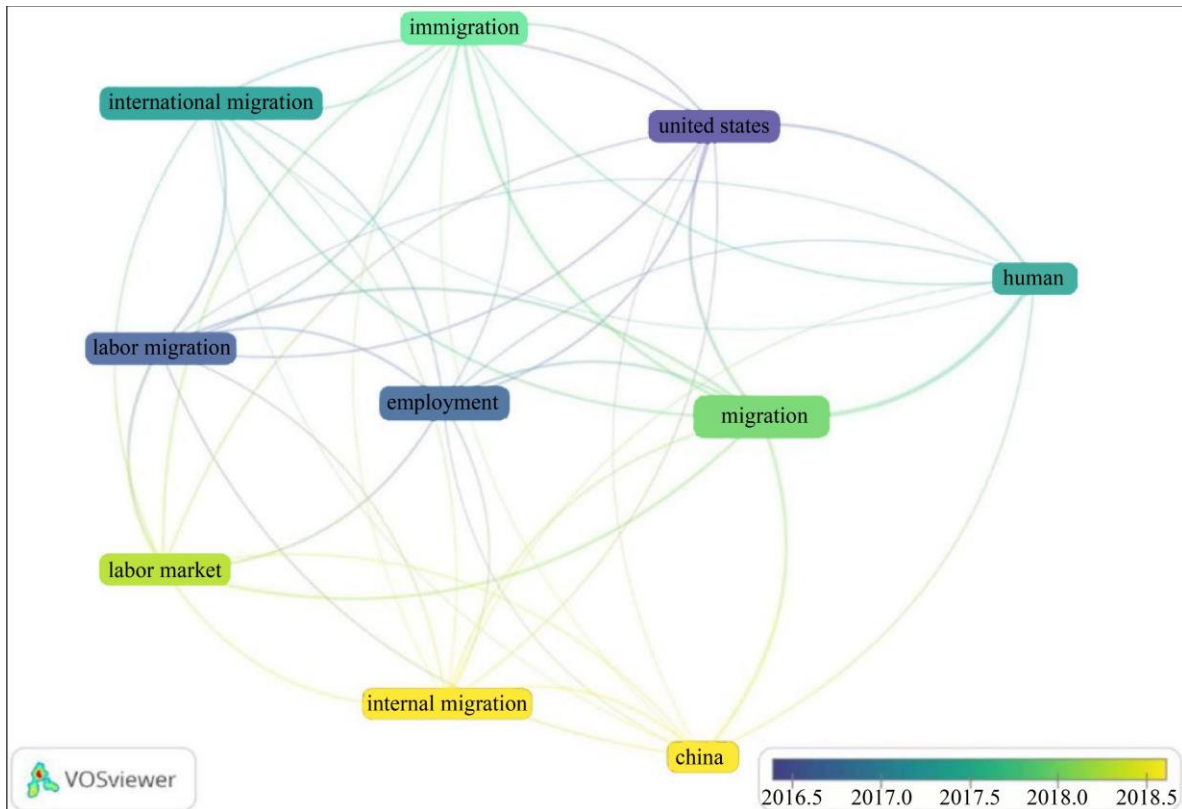


Fig. 3 Co-occurrence and keywords

Table 4. Co-occurrence and keywords

S. No.	Keyword	Occurrences	Total Link Strength
1	Migration	552	466
2	International migration	163	116
3	China	150	117
4	Labor migration	146	177
5	Human	128	351
6	Immigration	122	150
7	Labor market	111	145
8	United States	102	215
9	Employment	97	146
10	Internal Migration	90	86

Source: Vos-Viewer

3.4. Citation and Documents

On the basis of citations with the unit of analysis as documents with a minimum of 285 citations, 10 documents met the thresholds out of the total 1831 documents. The most cited paper was Storper (2009) with 781 citations, followed by Silverstein (2006) with 574 citations and Beine (2008) with 549 citations. Storper (2009) was titled “Rethinking human capital, creativity, and urban growth” and found that migration patterns are primarily shaped by the economic geography of production and jobs (known as agglomeration economies) rather than the amenities available in the region [33]. Silverstein’s (2006) study titled “Intergenerational Transfers and Living Arrangements of Older People in Rural China: Consequences for Psychological Well-Being” found that internal labor migration reduces intergenerational support, underscoring the social costs of migration, especially in societies where traditional norms emphasize adult children caring for their aging parents. From an anthropological perspective, this has led to the adaptation of family strategies to account for the absence of younger workers [13]. Beine (2008) was titled “Brain drain and human capital formation in developing countries: winners and losers” and showed how skilled emigration can have both positive and negative effects on origin countries, with the net effect depending on the human capital available and emigration rates [14].

Table 5. Citation and documents

Document	Citations
Storper (2009)	781
Silverstein (2006)	574
Beine (2008)	549
Kennan (2011)	387
Dekker (2014)	385
Phillips (2011)	363
Galor (2016)	326
Mancini (2018)	323
Miyan (2015)	287
Selby (2017)	286
Görg (2005)	281

Source: Vos-Viewer

Since these 11 articles represent the most highly cited literature, the findings relevant to economic and anthropological aspects of migration will be assessed. A common theme in the literature from an economic perspective is that migration is a rational response to economic incentives, but in reality, migration flows are influenced by institutional and policy contexts such as immigration controls and labor market structures [4], [34], [35]. More nuanced economic drivers characteristic of these highly cited articles include global wage differentials [4], agglomeration economies [33], resource booms [34], or opportunities for workers to better utilize their skills [35].

The anthropological literature on migration is based on the premise that migration is not just about the movement of people, but also about the movement of cultural norms and knowledge. For example, cultural factors like time preferences can be conveyed by migrants [36], while knowledge spillovers may be influenced by other factors such as industry alignment or level of education [35].

Another area of interest in anthropological literature is the social reconfiguration induced by migration. This is observed in changing elderly care systems in China [13] and in developmental disparities due to skilled emigration in developing countries [14].

The migration literature on climate-linked migration suggests that while environmental factors might often be significant drivers of migration, such as in the case of Bangladesh [7], there are often other societal driving factors contributing to migration. The case of Syria provides a clear example of how political and economic circumstances may also influence changes in migrant flows [8]. Essentially, these studies are concerned with the different factors that collectively explain migration, including environmental factors, cultural practices, economic incentives, and institutional factors.

3.5. Bibliographic Coupling and Documents

On the basis of bibliographic coupling, with a minimum of 50, the top 10 cited papers were taken, revealing two distinct categories in the literature on migration.

The red cluster, consisting of Hoffman (2020), Cattaneo (2016), Beine (2017), Beine (2021), and Nawrotzki (2015), focuses on climate and environmental stressors as drivers of migration, mediated by both economic and social constraints. Several studies highlight how climatic shocks affect migration differently across income levels, with higher temperatures increasing emigration in middle-income countries but reducing it in poorer countries due to liquidity constraints [37]. Other work distinguishes between short-run disasters and long-run climate variability, which shows that natural disasters increase urban migration while more gradual variations like climate change exert weaker direct effects [17], [37]. Meta-analyses reinforce this heterogeneity, finding that migration outcomes linked to environmental change depend on country characteristics, income levels, and methodological choices [9], [38]. One central anthropological aspect is that social networks play a crucial role in mediating and, in some situations, suppressing the impact of climate shocks on migration decisions, suggesting that methods to adapt to climate change other than migration exist [39]. In essence, this cluster views migration as a mechanism to adapt to change that is restricted by economic and social structures. The green cluster contrastingly emphasizes migration as a key factor driving development, productivity, and

structural change. Another aspect underscored in the green cluster is that migration and remittances can compensate for imperfect credit markets at the household level, allowing for asset accumulation in rural families [10]. At a systemic level, migration outcomes are shaped not only by the attractiveness of one destination but also by the relative opportunities available across alternative destinations, meaning bilateral flows must be understood in the context of competing choices [40]. Furthermore, migration is found to have economic effects apart from those on labor markets through knowledge flows and capital transfers, and it was also found that high-skilled migrants have a significant impact on innovation and research output [41], [42]. In addition, return immigration promotes entrepreneurship and the commercialization of agriculture in countries of origin [11]. Overall, this cluster shows how migration can facilitate economic transformation while also accommodating anthropological aspects such as household decision-making and reintegration within broader development-oriented models. Collectively, the two clusters reveal distinct yet complementary orientations, with one conceptualizing migration as a response to environmental constraints and the other viewing it as a catalyst for economic growth and knowledge spillovers.

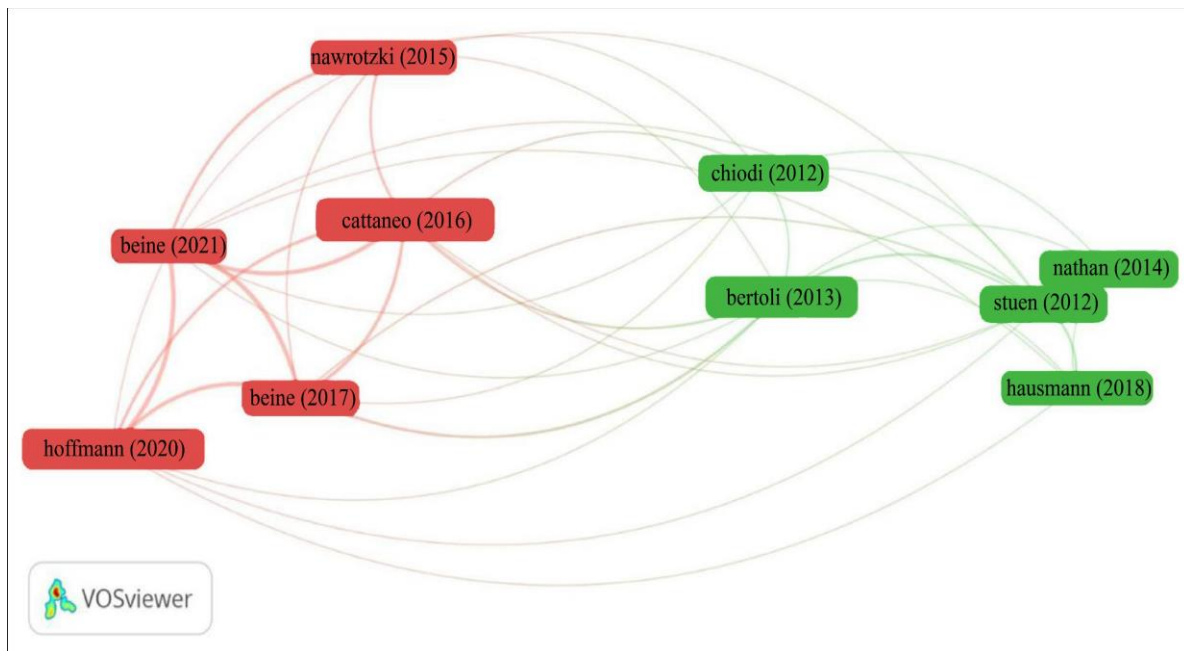


Fig. 4 Bibliographic coupling and documents

3.6. Co-Citation and Authors

On the basis of co-citation and authors, with the minimum number of citations set to 215, the top 9 authors were taken. The three clusters have authors addressing both the economic and anthropological aspects of migration.

The blue cluster contains H. Rapoport and F. Docquier. From an economic perspective, these works examine the consequences of brain drain on incentives for growth and

education [14], [20]. They also consider how diasporas may reduce the financial burdens of migration and promote labor mobility. Furthermore, they examine how remittances increase development financing in countries of origin [20]. From an anthropological perspective, their studies assess the sociocultural dimensions of skilled migration, including ethnic discrimination, gendered patterns of mobility, and uneven access to global labor markets [19], [43], [44]. Overall, this cluster connects the economic implications of skilled

migration to social inequalities based on discrimination, gender, and inequalities in access to international labor markets.

The red cluster consists of G. Peri, C. Dustmann, G.J. Borjas, and D. Card. Their economic works tend to focus on the effects of migration on labor market outcomes, particularly in wages and employment [3], [45], and further, the potential benefits of immigration on productivity and innovation [46], [47]. Their work on migration from an anthropological perspective draws on themes of migrants' integration within host societies stemming from processes such as occupational sorting or educational attainment [48], [49]. The distributional effects of migration discussed in their work highlight differences in the impact of migration depending on skill group or region [50]. Overall, this cluster discusses how migration impacts labor markets and exacerbates disparities across skill groups, regions, and social groups. The green cluster contains O. Stark, J.E. Taylor, and D.S. Massey. One major economic theme in this cluster is the new economics of

labor migration (NELM), which views migration as a strategy for household risk diversification rather than solely a means to maximize wages [51]. Another central theme is remittances, both as financial transfers and drivers of local development, shaping household investments, community-level income distribution, and returns to education [52]. From an anthropological perspective, Massey's work underscores the role of social networks and cumulative causation, showing how migration perpetuates itself through interpersonal ties and community norms [5], [6]. Another theme here is that the effects of migration are framed not only as economic adaptations but also as the creation of transnational social spaces that sustain cultural integration and support migrant agency within broader institutional contexts. A distinctive feature of the third cluster is that its influential works are not part of the bibliometric dataset with the timeframe of 2000-2025 but are frequently co-cited in recent publications, suggesting their importance in shaping research on migration, remittances, and translational networks.

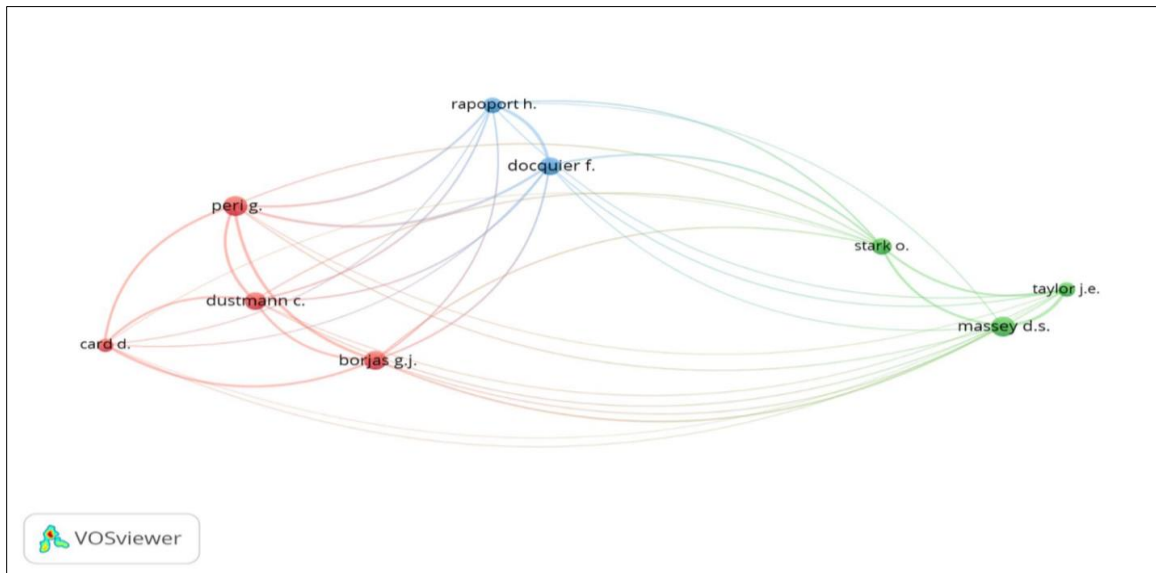


Fig. 5 Co-citation and authors

4. Trends Across Time and Regions

Across the 2000-2025 dataset, research on the economic and anthropological aspects of migration shows five broad chronological waves.

Although outside the 2000-2025 search window, several highly co-cited papers published before 2000 laid the conceptual groundwork for later studies by framing migration as both an economic and a social process, emphasizing cumulative causation [5], the role of social networks in sustaining flows [6], and household risk diversification through the “new economics of labor migration” [51], [52]. These works became the backbone of later analyses on remittances, transnational spaces, and migration as a household strategy.

From 2000 to 2005, research shifted to empirical investigations of skilled migration, poverty, and inequality. Researchers explored skilled emigration's effect on growth incentives [44], the impact of rural-urban shifts on poverty and inequality [27], immigration's wage effects in receiving countries [3], and how worker mobility produces productivity spillovers [35]. Together, these papers created a foundation for linking migration, inequality, and labor market outcomes.

The significance of diasporas, gender, and cross-border mobility was emphasized in migration studies from 2006 to 2010. This reflected a shift towards examining the social mechanisms behind migration rather than simply documenting overall migration flows. These studies emphasized the impact of diasporas on migration [15] as well

as the consequences of migration, such as brain drain, and how skilled emigration perpetuates inequality [14]. Also, during this time, the migration patterns of skilled workers were often analyzed through a gendered lens [20], [43]. At the same time, other research focused on topics including regional convergence [31], how migrant networks shape inequality [19], the social costs of intergenerational separation [13], and agglomeration economies that drive migration [33].

From 2011 to 2015, migration research expanded in scope to study the implications of both institutional changes and the impacts of environmental stress, while continuing to advance the work on household-level effects. Researchers have also increasingly begun to investigate how political, economic, and environmental factors interact rather than examine the effects of these factors separately. There was new research studying how skilled migrants transfer governance norms and remittances to their home countries, which also has implications for political and economic development [10], [20]. In terms of impacts on education and wage inequality, exploration of the impacts of immigration on host countries continued, with further studies documenting the long-term effects of migration on inequality [48], [50]. Another shift in migration research during this period was to incorporate environmental vulnerability and income expectations into the reasoning behind migration in developing nations specifically [4], [7]. The multi-causal and social nature of migration was further emphasized by research on social networks, household division, and occupational sorting [29], [39], [42], [47], [49].

From 2016 to 2020, studies on climate-linked migration became more significant. One of the findings was that this type of migration influences individual migrant outcomes differently, depending on their income level. This highlighted that environmental and economic shocks induce emigration in some contexts, while constraining it in other contexts [17], [37], [38]. This finding showed a shift from establishing climate-migration links generally to understanding when and for whom environmental shocks induce movement. Another trend during this time period emphasized long-term structural and cultural aspects of migration, connecting wage inequality with intra-regional immigration [12] and prehistoric mobility with present-day demographic patterns [26]. Furthermore, novel empirical work from this time period explored post-migration integration and the consequences of migration for the community, including the mechanization of agriculture due to labor loss in rural areas and conflict-related displacement [8], [30], [34].

Studies between 2021 and 2025 have combined ideas to reveal that migrants adapt to changing conditions and inflict change in the places and systems they move within. Analyses of remittances and growth in Africa [23], climate change and migration [9], and drought-induced migration in Pakistan [24] have shown an increasing interest in investigating different causes and regions of migration. The most recent research in

the form of case studies reinforces this trend, showing how environmental shocks in Bangladesh and Sub-Saharan Africa force vulnerable populations to migrate as an adaptive strategy while also leading to shifts in local economies [53], [54]. Another pattern in migration research from this time period is increased research on its link to structural changes. For example, studies on remittances and agricultural productivity have found that labor migration drives both transformation at a household level and broader patterns of rural development [55], [56].

Across the whole period, from a regional perspective, developed countries such as the United States, United Kingdom, Germany, China, and France functioned as collaboration hubs, producing much of the comparative and large-scale research on migration and labor market outcomes [3], [4], [46], [49]. Emerging contributors such as Bangladesh and Turkey became increasingly visible in climate-migration and refugee labor-market studies, reflecting the rise of data collection and availability as well as local expertise in high migration settings [24], [32]. Less involved but contextually relevant countries like Mexico, South Africa, and India tended to produce stand-alone studies focusing on household vulnerability and rural outflows rather than cross-national modelling [28], [29], [30]. This pattern reinforces that theoretical and methodological innovation remains concentrated in a few research centers, while empirical knowledge is dispersed across various settings. Encouraging partnerships between high-output hubs and underrepresented regions could generate more comprehensive data and diversify perspectives, closing the gap between global models and local realities, as shown by previous research [20].

5. Implications for Researchers

This study shows that early migration research combined wide-ranging economic, social and environmental factors [5], [6], [51], whereas more recent work concentrates on specific mechanisms such as climate stress [17], [37], [38], skilled migration spillovers [18], [41], [42] and household decision-making by focusing on case studies [19], [28], [39]. This trend creates opportunities for further meta-studies that connect these specialized trends and test how they interact [9], [38]. Future research would benefit from new cross-regional and longitudinal data to examine how social networks shape environmental migration and how return migration influences local development, as current evidence from key regions is fragmented across small case studies and cannot show whether these effects hold across different contexts or persist over time.

6. Social Support Implications

The evidence reviewed shows that migrants often face weak support systems, income insecurity, and separation from family networks [13], [29]. Governments can respond by strengthening legal protections and social benefits, such as

affordable housing in destination areas [32]. They can also work to improve rural safety nets to reduce forced migration [7], [28]. Migrant networks and diaspora groups could complement these measures by providing information and mentorship to ease integration and encourage productive contributions in host regions [15]. Partnerships between public agencies and NGOs could potentially help to coordinate the logistics of these social support efforts, closing gaps. Together, these actions would help ensure that migration functions as a genuine avenue for opportunity rather than a source of vulnerability.

7. Practical Implications

These findings carry clear implications for stakeholders in migration processes. For governments, well-designed migration and social protection policies can expand the labor force, attract skills, and reduce informal migration pressures [3], [4]. However, they also require significant administrative capacity to implement and may trigger public resistance if not paired with adequate public communication strategies. Employers benefit from access to diverse skills and lower attrition rates when migrants are hired, but they must invest in training and ensure legal compliance to avoid claims of exploitation [46], [49]. Migrants gain improved income and human-capital accumulation [14], [41], but they often face family separation, job and residence insecurity, and cultural barriers without adequate support [13], [29]. Sending communities may receive remittances and return migrants who stimulate entrepreneurship, but also risk labor shortages and rising inequality if out-migration is selective [11], [51]. Recognizing these trade-offs can help design interventions that balance benefits across all stakeholders.

8. Conclusion

This study shows how research on the economic and anthropological aspects of migration has evolved with regard

to geographical distribution and conceptual focus. The bibliometric analysis finds that a small group of highly influential authors, primarily Beine, Rapoport, and Massey, have been instrumental in advancing this area of study, linking migration to educational opportunities, remittances, governance transfer, and social networks. In terms of countries, developed nations such as the United States, the United Kingdom, and Germany account for a large portion of model-based and comparative studies. Developing countries such as India, Bangladesh, and Turkey play an essential role in providing empirical findings through their case studies of poverty, remittances, and climate migration.

The patterns in keywords and citation analyses show a chronological shift in migration studies from single-country and wage-focused narratives to cross-border and multi-causal approaches that integrate inequality, displacement, and integration challenges. Furthermore, from the analysis, two complementary clusters of literature were found: one that is framed around migration as a response to environmental and social constraints and another that views migration as a driver of economic transformation, innovation, and knowledge transfer. Although theoretical innovation remains concentrated in a few hubs, research on empirical evidence from underrepresented regions is growing. Future research should build multi-country, longitudinal datasets to study how social networks mediate environment-linked migration and how return migration affects local development over time. Other areas for future work should prioritize comparative work linking high-skilled migration to innovation, as well as further research on the interaction between economic shocks and social factors in shaping migration decisions. Overall, fostering stronger collaborations and integrated evidence-based approaches is essential to both advance academic knowledge and ensure that migration research guides equitable and effective policy responses in a period of rising global mobility.

References

- [1] International Organization for Migration, World Migration Report 2024, United Nations Research Institute for Social Development, 2024. [Online]. Available: <https://publications.iom.int/books/world-migration-report-2024>
- [2] Dilip Ratha, Remittances Slower in 2023, Expected to Grow Faster in 2024. [Google Scholar]
- [3] George J. Borjas, "The Labor Demand Curve is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market," *The Quarterly Journal of Economics*, vol. 118, no. 4, pp. 1335–1374, 2003. [CrossRef] [Google Scholar] [Publisher Link]
- [4] John Kennan, and James R. Walker, "The Effect of Expected Income on Individual Migration Decisions," *Econometrica*, vol. 79, no. 1, pp. 211–251, 2011. [CrossRef] [Google Scholar] [Publisher Link]
- [5] Douglas S. Massey, "The Social and Economic Origins of Immigration," *The Annals of the American Academy of Political and Social Science*, vol. 510, no. 1, pp. 60–72, 1990. [CrossRef] [Google Scholar] [Publisher Link]
- [6] Audrey Singer, and Douglas S. Massey, "The Social Process of Undocumented Border Crossing among Mexican Migrants," *International Migration Review*, vol. 32, no. 3, pp. 561–592, 1998. [CrossRef] [Google Scholar] [Publisher Link]
- [7] M. Alimullah Miyan, "Droughts in Asian Least Developed Countries: Vulnerability and Sustainability," *Weather and Climate Extremes*, vol. 7, pp. 8–23, 2015. [CrossRef] [Google Scholar] [Publisher Link]
- [8] Jan Selby et al., "Climate Change and The Syrian Civil War Revisited," *Political Geography*, vol. 60, pp. 232–244, 2017. [CrossRef] [Google Scholar] [Publisher Link]
- [9] Michel Beine, and Lionel Jeusette, "A Meta-analysis of the Literature on Climate Change and Migration," *Journal of Demographic Economics*, vol. 87, no. 3, pp. 293–344, 2021. [CrossRef] [Google Scholar] [Publisher Link]

- [10] Vera Chiodi, Esteban Jaimovich, and Gabriel Montes-Rojas, "Migration, Remittances and Capital Accumulation: Evidence from Rural Mexico," *Journal of Development Studies*, vol. 48, no. 8, pp. 1139–1155, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [11] Ricardo Hausmann, and Ljubica Nedelkoska, "Welcome Home in a Crisis: Effects of Return Migration on the Non-Migrants' Wages and Employment," *European Economic Review*, vol. 101, pp. 101–132, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [12] Esther Mirjam Girsberger, Romuald Méango, and Hillel Rapoport, "Regional Migration and Wage Inequality in the West African Economic and Monetary Union," *Journal of Comparative Economics*, vol. 48, no. 2, pp. 385–404, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [13] Merrill Silverstein, Zhen Cong, and Shuzhuo Li, "Intergenerational Transfers and Living Arrangements of Older People in Rural China: Consequences for Psychological Well-Being," *The Journal of Gerontology Series B*, vol. 61, no. 5, pp. S256–S266, 2006. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [14] Michel Beine, Frederic Docquier, and Hillel Rapoport, "Brain Drain and Human Capital Formation in Developing Countries: Winners and Losers," *The Economic Journal*, vol. 118, no. 528, pp. 631–652, 2008. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [15] Michel Beine, Frederic Docquier, and Caglar Özden, "Diaspora Effects in International Migration: Key Questions and Methodological Issues," *Swiss Journal of Economics and Statistics*, vol. 146, pp. 639–659, 2010. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [16] Michel Beine, Pauline Bourgeon, and Jean-Charles Bricongne, "Aggregate Fluctuations and International Migration," *The Scandinavian Journal of Economics*, vol. 121, no. 1, pp. 117–152, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [17] Michel Beine, and Christopher Parsons, "Climatic Factors as Determinants of International Migration," *The Scandinavian Journal of Economics*, vol. 117, no. 2, pp. 723–767, 2014. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [18] Michael Beine, and Khalid Sekkat, "Skilled Migration and The Transfer of Institutional Norms," *IZA Journal of Migration*, vol. 2, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [19] David McKenzie, and Hillel Rapoport, "Network Effects and The Dynamics of Migration and Inequality: Theory and Evidence from Mexico," *Journal of Development Economics*, vol. 84, no. 1, pp. 1–24, 2007. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [20] Frederic Docquier, and Hillel Rapoport, "Skilled Migration: The Perspective of Developing Countries," *SSRN Electronic Journal*, 2004. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [21] Douglas S. Massey, and Fernando Riosmena, "Undocumented Migration from Latin America in an Era of Rising U.S. Enforcement," *The Annals of the American Academy of Political and Social Science*, vol. 630, no. 1, pp. 294–321, 2010. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [22] Douglas S. Massey, William G. Axinn, and Dirgha J. Ghimire, "Environmental Change and Out-migration: Evidence from Nepal," *Population and Environment*, vol. 32, pp. 109–136, 2010. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [23] Md. Zobayer Bin Amir, and Md. Khaled Bin Amir, "Impact of Remittances on Economic Growth in Africa: An Econometric Analysis," *International Journal of Economics and Financial Issues*, vol. 14, no. 1, pp. 64–72, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [24] Amir Hamza, Guoqing Shi, and Babul Hossain, "Migration as an Adaptation Measure to Achieve Resilient Lifestyle in the Face of Climate-Induced Drought: Insight from the Thar Desert in Pakistan," *Water (Basel)*, vol. 16, no. 18, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [25] Carren Ginsburg et al., "Residential Mobility, Socioeconomic Context and Body Mass Index in a Cohort of Urban South African adolescents," *Health Place*, vol. 19, pp. 99–107, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [26] Gwenaelle Goude et al., "New Insights on Neolithic Food and Mobility Patterns in Mediterranean Coastal Populations," *American Journal of Biological Anthropology*, vol. 173, no. 2, pp. 218–235, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [27] N.R. Bhanumurthy, and Arup Mitra, "Economic Growth, Poverty, and Inequality in Indian States in the Pre-reform and Reform Periods," *Asian Development Review*, vol. 21, no. 2, pp. 79–99, 2004. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [28] Chandni Singh, and Ritwika Basu, "Moving In and Out of Vulnerability: Interrogating Migration as an Adaptation Strategy Along a Rural–urban Continuum in India," *The Geographical Journal*, vol. 186, no. 1, pp. 87–102, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [29] Jenna Nobles, Luis Rubalcava, and Graciela Teruel, "After Spouses Depart: Emotional Wellbeing among Nonmigrant Mexican Mothers," *Social Science & Medicine*, vol. 132, pp. 236–244, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [30] Gokul P. Paudel et al., "Scale-appropriate Mechanization Impacts on Productivity among Smallholders: Evidence from Rice Systems in the Mid-hills of Nepal," *Land use policy*, vol. 85, pp. 104–113, 2019. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [31] Murat G. Kırdar, and D. Şirin Saracoğlu, "Migration and Regional Convergence: An Empirical Investigation for Turkey," *Papers in Regional Science*, vol. 87, no. 4, pp. 545–567, 2008. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [32] Oguz Esen, and Ayla Oğuş Binatlı, "The Impact of Syrian Refugees on the Turkish Economy: Regional Labour Market Effects," *Social Sciences*, vol. 6, no. 4, 2017. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]

- [33] Michael Storper, and Allen J. Scott, "Rethinking Human Capital, Creativity and Urban Growth," *Journal of Economic Geography*, vol. 9, no. 2, pp. 147–167, 2009. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [34] Lucia Mancini, and Serenella Sala, "Social Impact Assessment in the Mining Sector: Review and Comparison of Indicators Frameworks," *Resources Policy*, vol. 57, pp. 98–111, 2018. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [35] Holger Görg, and Eric Strobl, "Spillovers from Foreign Firms through Worker Mobility: An Empirical Investigation*," *The Scandinavian Journal of Economics*, vol. 107, no. 4, pp. 693–709, 2005. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [36] Oded Galor, and Ömer Özak, "The Agricultural Origins of Time Preference," *American Economic Review*, vol. 106, no. 10, pp. 3064–3103, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [37] Cristina Cattaneo, and Giovanni Peri, "The Migration Response to Increasing Temperatures," *Journal of Development Economics*, vol. 122, pp. 127–146, 2016. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [38] Roman Hoffmann et al., "A Meta-analysis of Country-level Studies on Environmental Change and Migration," *Nature Climate Change*, vol. 10, pp. 904–912, 2020. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [39] Raphael J. Nawrotzki et al., "Amplification or Suppression: Social Networks and The Climate Change—Migration Association in Rural Mexico," *Global Environmental Change*, vol. 35, pp. 463–474, 2015. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [40] Simon Bertoli, and Jesus Fernández-Huertas Moraga, "Multilateral Resistance to Migration," *Journal of Development Economics*, vol. 102, pp. 79–100, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [41] Max Nathan, "The Wider Economic Impacts of High-skilled Migrants: A Survey of the Literature for Receiving Countries," *IZA Journal of Migration*, vol. 3, 2014. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [42] Eric T. Stuen, Ahmed Mushfiq Mobarak, and Keith E. Maskus, "Skilled Immigration and Innovation: Evidence from Enrolment Fluctuations in us Doctoral Programmes," *The Economic Journal*, vol. 122, no. 565, pp. 1143–1176, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [43] Frederic Docquier, B. Lindsay Lowell, and Abdeslam Marfouk, "A Gendered Assessment of Highly Skilled Emigration," *Population and Development Review*, vol. 35, no. 2, pp. 297–321, 2009. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [44] Michel A.R. Beine, Frederic Docquier, and Hillel Rapoport, "Brain Drain and LDCs' Growth: Winners and Losers," *SSRN Electronic Journal*, 2003. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [45] David Card, "The Impact of the Mariel Boatlift on the Miami Labor Market," *ILR Review*, vol. 43, no. 2, pp. 245–257, 1990. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [46] Gianmarco I.P. Ottaviano, and Giovanni Peri, "Rethinking the Effect of Immigration on Wages," *Journal of the Economic Association*, vol. 10, no. 1, pp. 152–197, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [47] Francesc Ortega, and Giovanni Peri, "The Role of Income and Immigration Policies in Attracting International Migrants," *SSRN Electronic Journal*, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [48] Christian Dustmann, Tommaso Frattini, and Gianandrea Lanzara, "Educational Achievement of Second Generation Immigrants: An International Comparison," *Economic Policy*, vol. 27, no. 69, pp. 143–185, 2012. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [49] Giovanni Peri, and Chad Sparber, "Highly Educated Immigrants and Native Occupational Choice," *Industrial Relations: A Journal of Economy and Society*, vol. 50, no. 3, pp. 385–411, 2011. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [50] Christian Dustmann, Tommaso Frattini, and Ian P. Preston, "The Effect of Immigration along the Distribution of Wages," *The Review of Economic Studies*, vol. 80, no. 1, pp. 145–173, 2013. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [51] Oded Stark, and J. Edward Taylor, "Migration Incentives, Migration Types: The Role of Relative Deprivation," *The Economic Journal*, vol. 101, no. 408, pp. 1163–1178, 1991. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [52] Robert E.B. Lucas, and Oded Stark, "Motivations to Remit: Evidence from Botswana," *Journal of Political Economy*, vol. 93, no. 5, 1985. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [53] Jan Freihardt, "Environmental Shocks and Migration Among a Climate-vulnerable Population in Bangladesh," *Population and Environment*, vol. 47, 2025. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [54] Salvatore Di Falco et al., "Leaving Home: Cumulative Climate Shocks and Migration in Sub-Saharan Africa," *Environmental and Resource Economics*, vol. 87, pp. 321–345, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [55] Xiameng Pan, and Chang Sun, "Internal Migration, Remittances and Economic Development," *Journal of International Economics*, vol. 147, 2024. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]
- [56] Gokul P. Paudel, Trung Thanh Nguyen, and Ulrike Grote, "Trade-offs Between Labour Migration and Agricultural Productivity: Evidence from Smallholder Wheat Systems in Nepal," *Journal of International Development*, vol. 37, no. 1, pp. 202–229, 2025. [[CrossRef](#)] [[Google Scholar](#)] [[Publisher Link](#)]