High-Income Dominance in Education Economics: Exploring the Publishing Divide

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Version: July 2025

Abstract

We analyze over 3,500 education-related articles published between 2002 and 2022 in the top 22 economics journals, and document striking geographic disparities. First, 85.7 percent of publications are based on high-income countries, with the United States alone accounting for 58.4 percent. Second, there is a strong positive income-publication gradient: wealthier countries receive more research attention. Third, countries with lower student learning levels are significantly underrepresented, even after accounting for GDP, population, and regional factors. Fourth, studies based on high-income countries are more likely to make external validity claims. We explore whether this bias is offset by development economics journals and find that while low- and middle-income country (LMIC) studies are more common there, even within LMICs, richer countries are disproportionately represented. Our findings suggest that structural features of knowledge production—including researcher location and funding concentration—contribute to persistent visibility gaps, with implications for equity, external validity, and global evidence-informed policymaking.

Key Words: Academic Research, Publications, Education, Concentration in Science

JEL Codes: I2, A14, B20

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[*] All the usual disclaimers apply. We thank Akshay Ramana and Mya Rivard for excellent research assistance. We have no conflicts of interest to declare.

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Introduction

A central objective of applied microeconomics is to generate credible empirical evidence on the effects of policies, with the goal of informing government and policymaker decisions (Dhaliwal and Olken, 2018; Mayne et al., 2018). Translating such evidence into effective policy requires a careful integration of these insights with the institutional and contextual specificities of the local setting, as policy impacts are often highly context-dependent (Deaton and Cartwright, 2018; Behague et al., 2008; Leuz, 2018). There is, however, a distinct deficit of published economics research on low-and-middle-income countries (LMIC) leading to a shortage in credible evidence pertaining to these contexts. For example, Hirvonen (2020) demonstrates that less than two percent of papers published in the top health economics journals pertain to low-income countries. Similar disparities have been noted in other sub-fields of economics, and in the economics discipline as a whole (Das et al. 2013). It is in this broader context that we examine the spatial distribution of research in the field of Economics of Education. We focus on education since it is a key driver of economic growth, productivity, innovation, and social mobility (Lochner 2011; Abdullah and Manning 2015). Furthermore, in LMIC, education has been shown to lead to lower fertility (Osili & Long, 2008), delayed marriage (Keats, 2018), and improved health outcomes (Le & Nguyen, 2020). Given the disproportionately worse educational outcomes in LMIC (Angrist et al. 2021), research in (and findings of) the Economics of Education in these contexts is of crucial importance.

We analyze the papers published in the 22 highest-ranked journals relevant to Economics of Education. This set comprises the top twenty general-interest economics journals, as identified by the widely used REPEC rankings, along with the two leading field journals in education economics—*Economics of Education Review* and *Education Economics*. From this universe, we construct a novel database restricted to single-country studies with an explicit focus on education, as determined by their assigned JEL codes. Our analysis reveals that a substantial proportion of publications are based on data from the United States (58.4 percent), whereas substantially fewer articles pertain to countries in East Asia and the Pacific (6.8 percent), South Asia (2.8 percent), and Sub-Saharan Africa (2.4 percent). We document a strong positive association between a country's GDP and the volume of education-related publications, a relationship that persists when assessed on a per-capita basis. Moreover, conditional on national income, we find that countries

with lower average learning outcomes tend to be the subject of fewer published studies, indicating a potential misalignment between research activity and educational need.

Despite being the subject of more than half the papers, the U.S. cannot be considered an outlier. Although the volume of papers based on the U.S is large, its population and high income imply that its publications per capita are like those of other countries at comparable levels of wealth and population. This is supported by two findings: when analyzing the relationship between per-capita publications and per-capita GDP, the U.S. falls within the 90 percent confidence interval of the worldwide regression line and removing the U.S. from the regression model does not significantly affect the income regression coefficient.

We explore possible reasons for the geographic bias in education publications in Economics journals. First, we check if researchers publish in journals outside our analysis, specifically in development economics journals that focus on LMIC. We collect data on education-related papers in the top four development economics journals from 2002 to 2022, finding 631 such papers. In these journals, 86.2% of publications are based on LMICs, a significant increase compared to our main journal sample. Our analysis shows that while development economics journals disproportionately publish education research on LMICs, publication patterns within this group are systematically skewed toward relatively wealthier countries. Specifically, we find a statistically significant positive GDP-publication gradient among LMICs, indicating that richer LMICs receive more research attention than poorer ones—even within journals focused on development. This suggests that although development journals expand geographic coverage beyond high-income countries, they may still perpetuate visibility gaps for the poorest contexts.

Second, we examine whether the geographic location of authors may help explain the observed positive relationship between national income levels and publication frequency. The underlying hypothesis is that, given the concentration of leading researchers and institutions in high-income countries (HICs), these contexts are more likely to be overrepresented in the published research output. We find evidence that location of authors based on our main publication sample is highly skewed– 89.9 percent of them are based in HIC. This suggests that author location could potentially be a contributing factor.

Third, we analyze whether research funding and data availability might be driving our findings. We find that research resources at the country level (proxied by education expenditure) are positively associated with publications (after controlling for several other factors). This indicates a possibility that lack of resources for researchers in LMIC might partially explain the fewer publications on these contexts. We find a similar result for data availability – after controlling for several factors (including country GDP) there is a positive association between publications and data availability (proxied using a Statistical Performance Indicator created by the World Bank). Therefore, it seems likely that research environment (funding and data availability) might play a role in the positive country GDP-publications gradient.

This study makes several contributions. Although, we are the first (in our knowledge) to show disproportionately lower number of education-related publications based on LMICs in Economics journals, we document similar patterns in the Economics discipline. Our findings are consistent with findings for economics as a whole - Glötzl and Aigner (2019) report that economics as a discipline is highly concentrated along six dimensions: articles, journals, regions, institutions, authors, and paradigms. In fact, Angus et al (2021) find that "*California, Massachusetts and Illinois have more power than the four continents of Asia, South America, Africa and Australasia combined*". Additionally, Das et al (2013) demonstrate that the top five economics journals published significantly more articles on the United States than on China, India, and sub-Saharan Africa. Also, Hirvonen (2020) finds that top health economics journals focus disproportionately less on countries with poorer health outcomes. He finds that research conducted in the United States accounts for 37 percent of all empirical studies in the journals he examines (47 percent in our case), while articles focusing on low-income countries represent only 2 percent of all publications. Wagstaff and Culyer (2012) and Pitt et al (2016) document a similar pattern in their analysis of health economics research published between 1969 and 2014.

This study is also related to work in bibliometrics on concentration and insularity in economic research (Aistleitner et al., 2019; Glötzl and Aigner, 2019; Wallace et al., 2012). Aisleitner et al. (2019) examine how citation networks can create echo chambers, where certain ideas are amplified over others. Similarly, Glötzl and Aigner (2019) investigate geographic and institutional concentration of economics research, finding that a small number of countries and institutions

dominate the field. Wallace et al. (2012) further explores how such concentration impacts the diversity of research topics and perspectives. Park et al. (2023) show that papers are increasingly less likely to push science in new directions. These analyses highlight how a few highly influential institutions and authors lead to a concentration of knowledge production. We add to this strand of literature by documenting the same phenomenon within the field of economics of education, particularly focusing on the lack of representation of LMICs in published research.

Additionally, our work also adds to the broader literature on hierarchy and stratification in economics (Fourcade et al., 2015) and its impact on the discipline's conceptual, institutional, and demographic diversity (Corsi et al., 2019). Fourcade et al. (2015) delve into the hierarchical structure within the field of economics, which can lead to a form of intellectual stratification where certain ideas are privileged over others. This idea is further explored in Corsi et al. (2019), who highlight the underrepresentation of women and minority groups in top economic institutions and journals. They argue that this stratification limits the range of research topics within the discipline. Our study contributes to understanding how stratification in economics can lead to a lack of intellectual diversity.

The rest of this paper is divided into four parts: the data sources used in the analysis, the findings, an exploration of the possible reasons behind the patterns we document, and we conclude by summarizing our findings and discussing some of their implications.

Data

We utilize the *Econlit* database (accessed via EBSCOHost) to gather information on articles published in the target 22 journals[1] between 2002 and 2022. The *EconLit* database provides a range

[1] The journals in our sample are: American Economic Journal: Applied Economics, American Economic Journal: Macroeconomics, American Economic Review, American Economic Review: Insights, Annual Review of Economics, Econometrica, Economics of Education Review, Journal of Econometrics, Journal of Economic Growth, Journal of Economic Literature, Journal of Economic Perspectives, Journal of Finance, Journal of Financial Economics, Journal of International Economics, Journal of Labor Economics, Journal of Monetary Economics, Journal of Political Economy, Journal of Public Economics, Latin American Economic Review, Quarterly Journal of Economic Growth and Development Research, Quarterly Journal of Economics, Review of Economic Studies, Review of Economics & Statistics, and Review of Financial Studies..

of metadata fields for each journal article, from which we extract information on the author, author affiliation, journal name, journal issue, subject descriptors, and classification codes (JEL codes).

We categorize all articles into four broad groups: (i) studies based on data from a single country, (ii) studies utilizing multi-country data, (iii) theoretical papers, and (iv) other publications such as book reviews. Our analysis focuses exclusively on the first category—single-country empirical studies—comprising a total of 3,523 papers. While *EconLit* provides location information for a subset of papers, we manually supplemented this by coding the geographic focus of all studies to ensure completeness and consistency. To validate our coding, we compared our manually assigned locations with those provided by *EconLit* for the subset where such data were available. Discrepancies were observed in fewer than one percent of cases, and in these instances, we retained our own classification. For papers lacking location metadata in *EconLit*, multiple team members independently coded the geographic information, and all differences were reconciled by looking at the text of the paper. The resulting dataset includes, for each single-country study, the country on which the research is based and whether the country is explicitly mentioned in the title or abstract. For studies focused on the United States, we additionally recorded the specific state under analysis.

We utilize several other datasets to obtain information on other covariates used in the analysis. To measure learning outcomes across different countries, we rely on the Harmonized Learning Outcomes (HLO) database (Angrist et al. 2021). This database provides globally comparable information on test scores (in math, reading, and local language) for 164 countries between 2000 and 2017, covering 98 percent of the global population, with developing economies comprising two-thirds of the countries. The HLO database provides a measure that is comparable across countries and is created using information from various regional and country surveys that measure learning outcomes. We use the latest available test score information for each country in the sample. Additionally, we incorporate data from the World Bank pertaining to national GDP, population, and education expenditures (World Bank 2021).

In addition, we employ data from the *Freedom in the World Report* to account for the level of freedom in each country[2]. This report provides numerical ratings and descriptive texts for over 195 countries and 15 territories and evaluates various aspects of political and civil rights, such as the electoral process, political pluralism, freedom of expression, and the rule of law. The ratings are based on a combination of on-the-ground research, consultations with local contacts, and information from news articles, non-governmental organizations, governments, and other sources. We use this information to quantify the degree of freedom that people and the press have in the nations in our sample. The Pew Forum report contains information on whether a country has a Muslim majority population[3]. This information was derived by multiplying the United Nations' population estimate for each country with the most recent and reliable estimate of the percentage of Muslims in that country's population. The World Population Review provides information on the official language(s) used in a country[4]. We use information from this source to determine whether English is the official language of the country.

Results

In this section we present the main findings from our study in the form of five stylized facts, and the evidence in support of these facts.

Stylized fact 1: More than 80 percent of publications are based on high-income contexts, with a large US dominance. There has been limited progress in the past 20 years.

Our main analysis sample consists of 3500+ published empirical single-country studies based on 103 countries. The geographic distribution of publications is highly uneven; almost 86 percent are based on high-income countries, while 8.4 and 5 percent are based on upper-middle-income and lower-middle-income countries (Table 1). Less than one percent of the sample focuses on low-income nations, highlighting a significant gap in this respect (Table 1). The distribution of the countries under study also exhibits a geographic skew: over 65 percent of high-income countries have at least one publication in our sample, compared to 44 percent of low-income countries

[2] Link (accessed on January 15, 2023) = https://freedomhouse.org/report/freedom-world

[3] Link (accessed on February 1, 2023) = https://www.pewresearch.org/religion/2009/10/07/mapping-the-global-muslim-population19/

[4] They compile the data using a multitude of different resources. Link (accessed on January 28, 2023) = https://worldpopulationreview.com/country-rankings/english-speaking-countries

(explored further in appendix Table A1). Also, there are six years (out of twenty-one years in the sample) in which there are no publications using low-income country data in any of the journals we examine (Figure 1). In terms of regional spread, over 59.9 percent of the research was conducted on North America, and 21.8 percent was based on Europe and Central Asia (Table 1). Although Sub-Saharan Africa and South Asia together account for approximately 40 percent of the world's population, data from these regions were only used in a combined 5.2 percent of the sample studies. Moreover, data from the Middle East and North Africa were utilized in merely 30 articles (0.85 percent) throughout the study period, while East Asia and the Pacific represented only 6.8 percent of the publication sample, despite comprising nearly 30 percent of the global population.

Figure 2 provides a breakdown of the publications by country, with a focus on the top 30 countries with the most publications in our dataset (combined, these countries contribute over 94 percent of all publications in the study sample). Among these, the United States has the highest number of published studies, accounting for around 58.4 percent of all publications. Following the US, the United Kingdom has the second highest number of publications, with 4.6 percent, while Germany, China, Italy, and the Netherlands account for 3.4, 2.8, 2.0, and 1.8 percent of all publications respectively. Notably, the Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden) together account for 3.7 percent of the published research, which is more than all South Asian countries put together (2.8 percent). This is particularly noteworthy because the population of South Asia is 70 times greater than that of the Nordic nations combined. When combined, these indicate significant disparities in the geographic distribution of education economics research, especially in low-income nations.

Stylized fact 2: Three states in the U.S. account for more publications than four continents put together.

The data indicate that a disproportionately high number of publications (58.4 percent) are based on the US, which leads us to further investigate these publications. Towards this end we analyze the state-wise breakdown of US publications (see left panel in Figure 3) and document some interesting patterns. Despite having a population of less than 11 million, North Carolina had more publications than the entire Middle East and North Africa regions combined. Similarly, the states of Wisconsin and Tennessee have almost as many (or more) publications based on them as

compared to countries such as Pakistan, Thailand, Ireland and Bangladesh. There were fewer studies based on larger (population-wise) nations like Brazil, Mexico, and Argentina than on states like New York and Texas. Further, a state such as Massachusetts has more than three times the number of publications as compared to South Korea, despite having less than one-seventh of its population. The extent of American dominance in the economics of education publications over the past 20 years is clearly demonstrated by the fact that even US states have more papers based on them than large, populous countries worldwide.

Stylized fact 3: There is a strong and positive relationship between country GDP and publications.

We begin by plotting country-level GDP and publications in Figure 4 - the graph in the top panel shows the relationship in absolute terms, while the bottom plot demonstrates it in per-capita terms. As seen in the figures, the regression line going through these points has a large positive slope, demonstrating that richer countries tend to have more education research produced using their data. Another interesting point to note is that there are many countries in our dataset that do not have a single publication in the sample period (denoted by the red circles with a value of zero on the y-axis in the upper panel), and these primarily consist of low-income countries (around 76 percent of countries with no publications in our sample are LMIC)[5]. The top panel of Figure 4 shows that the U.S. is an outlier with respect to the relationship between log publications and log GDP, as it has far more publications than other countries with comparable incomes. However, when examining the relationship on a per-capita basis (bottom panel of Figure 4), the U.S. does not appear to be an outlier (we examine this further later in this section).

[5] The following are the countries with no publications in our sample (in alphabetical order): Albania, Algeria, Angola, Armenia, Aruba, Azerbaijan, Bahamas, Bahrain, Barbados, Belize, Bhutan, Brunei, Bulgaria, Burundi, Cape Verde, Cambodia, Central African Republic, Chad, Channel Islands, Comoros, Dem. Rep. Congo, Rep. Congo, Costa Rica, Cote d'Ivoire, Cuba, Curacao, Djibouti, Equatorial Guinea, Eritrea, Eswatini, Fiji, French Polynesia, Gabon, Grenada, Guam, Guinea, Guyana, Haiti, Iraq, Jamaica, Kiribati, North Korea, Kosovo, Kyrgyz Republic, Laos, Libya, Lithuania, Macao, Malaysia, Maldives, Malta, Mauritania, Micronesia, Moldova, Mongolia, Montenegro, Morocco, Myanmar, Namibia, New Caledonia, North Macedonia, Oman, Panama, Paraguay, Puerto Rico, Qatar, Samoa, Sao Tome and Principe, Saudi Arabia, Sierra Leone, Slovak Republic, Solomon Islands, Somalia, South Sudan, St Vincent, Sudan, Suriname, Syria, Tajikistan, Timor-Leste, Togo, Tonga, Turkmenistan, UAE, Uzbekistan, Vanuatu, Virgin Islands, and Yemen. They are omitted from the line of best fit.

To examine the relationship between a country's income level and its representation in the research literature, we conduct a regression analysis. Our dependent variable captures the intensive margin of research output, defined as the number of publications associated with each country. Given that a substantial number of countries in our sample have zero publications, we apply the inverse hyperbolic sine (IHS) transformation to the publication count. This transformation serves as a log-like function that accommodates zero values while preserving the interpretability of log-linear models, thereby enabling us to include the full set of countries in the analysis without omitting those with no recorded publications (Mullahy & Norton, 2024). Our main regression takes the form:

$$[1] \qquad \text{arcsinh}(num\_publications) = \beta_0 + \beta_1 \, log(GDP_c) + \beta_2 \, log(population_c) + X_c + \varepsilon_c$$

Here, GDP is averaged over the period 2002 to 2022 for each country (indexed using *c*). X_c represent the control variables used in the regression, which include regional dummies, a Freedom Index (described earlier), categorical variables for whether the country is a Muslim majority and whether English is the official language[6]. We report robust standard errors in all specifications. The results in Column 1 (Table 2) confirm the positive correlation between the number of publications and GDP – the income elasticity of publications is 0.72, and it remains highly significant (0.52) when region-fixed effects[7] and population are included as controls (in Column 2). The elasticity is below one, indicating that the relationship is relatively inelastic, and is statistically significant at the one percent level of confidence. The most parsimonious specification (column 1) has high explanatory power, accounting for 75 percent of the variation in the data (column 1) – this implies that variations in country GDP alone can explain more than three-fourths of the variation in publications. Adding region fixed effects increases the explained variation to 87.5 percent (column 2), which is substantial.

To check the robustness of our findings, we also estimate a Poisson specification, which is well-suited for count data given the discrete and non-negative nature of the dependent variable (Chen

[6] We also tested a specification with a squared-GDP term to test for non-linearity. This specification was not reported as the squared-GDP term was negligible.
[7] Region fixed effects include North America, Europe and Central Asia, Asia and the Pacific, Latin America and the Caribbean, Middle East and North Africa, South Asia, and Sub-Saharan Africa

& Roth, 2024). In addition, we estimate an Ordinary Least Squares (OLS) specification using the raw count of publications as the outcome variable. While the OLS model may be less appropriate for count outcomes from a statistical standpoint, it offers ease of interpretation and facilitates direct comparison of coefficient magnitudes across specifications. The OLS specification takes the following form:

$$[2] \qquad num\_publications = \beta_0 + \beta_1 \, log(GDP_c) + \beta_2 \, log(population_c) + X_c + \varepsilon_c$$

In column 4 through 6 (Table 2) we demonstrate that the results are robust to the use of a Poisson specification (which can be used when the outcome is count data, like in our case). Columns 7 to 9 of the same table present the results from a linear OLS specification with the count of publications as the outcome – this shows that a one percent increase in GDP increases publications by about 14 papers over the study period. This effect is statistically and economically significant, demonstrated by the following facts: (i) the effect size is almost five times the global median number of publications across countries (three), and (ii) all but 25 countries had fewer total publications than the size of this association.

The fact that the US is not an outlier when looking at the relationship between GDP and publications (on a per-capita basis) is further confirmed using two additional checks. First, a regression excluding the U.S. from the estimating equation predicts a 90 percent confidence interval (for Per-Capita GDP) that includes the U.S. Second, a statistical test comparing the coefficient vector in regressions with and without the U.S. shows that there are no statistically significant differences (p-value = 0.77). Therefore, the volume of research produced in the U.S. is disproportionately high due to factors such as its high-income status and large population, but it is not a massive outlier in the global research-wealth relationship when considering this relationship on a per-capita basis. A table of regression results using per-capita GDP and per-capita number of publications is available in the appendix (Table A2).

Further, we present additional results that examine the extensive margin—that is, whether or not a country is represented in the publication dataset at all. For this analysis, we estimate a linear probability model, where the dependent variable is an indicator for whether there is at least one

publication on a given country. In parallel, we also estimate an alternative version of our main regression specification (specification [1]) in which we replace both the publication count and GDP with their per capita equivalents. This transformation allows us to account more directly for differences in country size, in addition to separately controlling for population levels. Results from Table A1 in the Appendix show that a 10 percent increase in a country's GDP is associated with a 0.5 to 0.8 percentage point increase in the likelihood that the country is represented in the publication data. These findings are consistent with the descriptive pattern that over 65 percent of high-income countries have at least one publication in our sample, compared to only 44 percent of low-income countries.

Stylized fact 4: Publications are lower in nations with lower average levels of learning.

Figure 5 illustrates the relationship between a country's average learning level, as measured by HLO scores (described earlier), and the number of publications in that country in our sample. We also include regression results for this relationship in the appendix.[8] The regression results presented in Table A3, which weight observations by population, indicate a strong positive association between a country's average learning outcomes and the extent of research attention it receives in leading academic journals. Specifically, a one standard deviation increase in the Harmonized Learning Outcomes (HLO) score—equivalent to 85 points—is associated with an additional 24.7 publications focused on that country (column 1, Table A3). This relationship is both statistically and economically significant. To contextualize the magnitude of this coefficient, the estimated increase in publication count exceeds the total number of publications over the entire sample period for several large countries, including Bangladesh, Indonesia, Japan, and Pakistan.

These findings suggest that countries with lower learning levels—an outcome widely regarded as a central focus of education policy—are systematically underrepresented in the leading education economics literature. However, we emphasize that this analysis is descriptive and does not establish a causal relationship between learning outcomes and research attention. Rather, it highlights a salient and policy-relevant correlation that merits further investigation.

[8] This regression takes the following form: $\text{arcsinh}(num\_publications) = \beta_0 + \beta_1 HLO + \beta_2 log(population_c) + X_c + \varepsilon_c$

Stylized Fact 5: Publications that focus on high-income countries are more likely to imply external validity.

The notion of *external validity* captures the extent to which inferences drawn from a given study's sample apply to a broader population or other target populations. One of the ways that studies may try to imply external validity might be by not mentioning the study context in the title or the abstract, especially in cases when the paper is based on a single country/region. We find that a substantial majority of published articles (over 75 percent) do not indicate the country where the evidence was gathered from in the title, and about 48.4 percent fail to do so in the abstract (Figure 6, top panel). Notably, this trend is more prevalent in studies that utilize data from high-income countries, with 82 and 54 percent of these papers not containing a location in the title and abstract respectively. This is particularly the case for United States, where 90 percent of publications using US data do not mention the country (or state) name in the title and 69 percent do not mention the country or state in the abstract (Figure 6, bottom graph). In contrast, we do not observe a single study based on low-income or low-middle income countries that omit the country or context in either the title or abstract (Figure 6, bottom panel).

We speculate that omission of a specific location from the title or abstract may be a signal of external validity, implying that the findings are more generalizable and not limited to specific contexts (Evans, 2016). This practice of omitting the country name from the title and abstract has also been observed by Hirvonen (2020) in the context of the top two health economics journals, the Journal of Health Economics and Health Economics. They find that 70 percent of the papers published in these journals did not mention the country of evidence in the title, and the practice was more common among studies based on data from North America. In contrast, 90 percent of the studies from low-income countries contained the country name in their title or abstract in their sample (97 percent in the sample used in this paper). Therefore, it seems like papers based on HIC are more likely to imply external validity than comparable papers from LMIC in the context of education publications[9]. This belief is also borne out in the literature where both US and non-US

[9] However, one potential caveat of this observation is that readers may be able to infer the country context if only the name of the dataset (e.g., "Health and Retirement Study") or the program/policy (e.g., "Medicare") being studied is mentioned in the title or abstract. Hirvonen found that this was the case for approximately half of the papers using US data that did not mention the country in the title or abstract. However, this explanation is less likely to apply in the case of the economics of education, as there are fewer national-level policies, such as Medicaid, which are the focus of papers.

authors are more likely to report external validity threats for non-US based sample (Hensel & Tatarynowicz, 2024).

Possible explanations of the GDP-publication gradient

Now that we have demonstrated the geographic skew in publications, we explore some of the possible explanations behind this pattern. In this section we list various hypotheses and then analyze whether the data provides any evidence in support of them or not.

Are LMIC-based papers published disproportionately in development economics journals?

One plausible explanation is that researchers working on education in low- and middle-income countries (LMICs) may deliberately target development economics journals, given that such outlets are explicitly oriented toward publishing research on these contexts. As a result, LMIC-focused education studies may be systematically underrepresented in general-interest or education-specific journals outside the development economics subfield. Ideally, a more rigorous investigation of this hypothesis would involve two steps: (i) obtaining submission data across journals to assess the relative frequency with which LMIC-related education papers are submitted to development versus non-development journals (including information on submission sequences), and (ii) comparing acceptance rates of LMIC-focused submissions across these journal types to determine whether publication patterns reflect editorial selection rather than author targeting alone. However, due to the unavailability of comprehensive submission and acceptance data, we are unable to pursue this line of analysis within the scope of the present study.

While we are unable to observe submission or acceptance behavior directly, we undertake a complementary analysis to explore the publication patterns of LMIC-focused education research across journal types. Specifically, we construct a dataset comprising the universe of education-related articles published between 2002 and 2022 in the four highest-ranked field journals in development economics, according to RePEc rankings: *Journal of Development Economics*, *World Development*, *World Bank Economic Review*, and *Economic Development and Cultural Change*. This allows us to empirically examine whether LMIC-based studies are disproportionately concentrated in these development-oriented outlets. If researchers indeed target these journals for LMIC-focused work, we could expect to observe two patterns: (i) a higher share

of articles published in these journals would pertain to LMIC contexts, and (ii) a weaker—or even negative—relationship between GDP and publication counts (i.e., a flattened or inverted GDP-publications gradient). A negative gradient would suggest overrepresentation of lower-income countries in these journals, while a zero gradient would imply that publication patterns are largely independent of country income levels, consistent with location-agnostic editorial standards.

We identify a total of 631 education-related articles published in the development journals over the study period. Of these, 74.9 percent focus on middle-income countries, while only 11.3 percent pertain to low-income countries. Notably, the share of education publications based on LMIC contexts is substantially higher in these development journals—86.2 percent—compared to just 14.3 percent in the main sample of top education economics journals. This pattern suggests that, insofar as they are represented in the published literature, education studies based on LMIC settings are more likely to appear in development economics journals.

Building on this, we next investigate whether certain LMIC contexts—particularly those with relatively higher income levels—are systematically over- or underrepresented in education-related publications within development journals. To do so, we replicate the approach from our main analysis: we begin by plotting the relationship between log GDP and log publications, and we estimate regression models of inverse hyperbolic sine (IHS)–transformed publication counts on log GDP, as specified in regression equation (1). Figure 7 displays a strong positive raw association between a country's GDP and the number of education publications focused on that country. However, this visual correlation reveals a more nuanced pattern, which we explore in greater detail through regression analysis (reported in Table 3). The table is organized into two panels. In Panel A, we present results for the full sample of countries. Across columns 1–3, the estimated coefficients on log GDP are negative, though not statistically significant once controls are added. However, the negative relationship remains significant in the Poisson specifications in columns 4–6. These results hint at a negative GDP-publication gradient within the set of education articles published in development journals—indicating that, at the global level, lower- and middle-income countries are overrepresented in these outlets, consistent with our earlier descriptive findings.

In Panel B, we restrict the sample to only LMICs, which account for more than 86 percent of the publications in this dataset. When limiting the analysis in this way, we find a small positive coefficient on log GDP across most specifications, though again, this is only significant in the Poisson models. This suggests that within the LMIC subset, relatively wealthier countries tend to receive slightly more research attention than poorer ones. In contrast to the global pattern observed in Panel A, this within-group result points to the presence of a modest income gradient that favors higher-income LMICs—raising the possibility of a publication bias against the poorest countries, even within development economics journals ostensibly focused on these contexts.

These results suggest that even within development economics journals—which disproportionately publish education research on LMICs—there exists a systematic income gradient among LMICs themselves. Specifically, we find a statistically significant positive relationship between country income and the number of education-related publications: richer LMICs are more likely to be the subject of published research than poorer ones. This implies that, conditional on being in the LMIC group, countries with higher GDP receive more scholarly attention in development-oriented outlets. This within-group gradient is particularly notable given that these journals are ostensibly designed to highlight research from less-studied or lower-income contexts. Although LMIC-focused studies dominate the development journal sample overall, the concentration of publications among relatively wealthier LMICs suggests that the poorest countries remain underrepresented—even within journals dedicated to development. This pattern points to a more subtle form of publication bias: while the geographic focus shifts toward LMICs in development journals, visibility within this category is still skewed toward better-off nations. As before, it is important to interpret these findings considering the distribution of countries represented: 74.9 percent of LMIC-focused publications in the sample come from middle-income countries, while only 11.3 percent pertain to low-income countries. Nonetheless, the presence of a statistically significant positive gradient reinforces concerns about persistent inequities in global research attention—even in journals that aim to correct them.

Taken together, the evidence suggests that education papers focused on LMICs are disproportionately published in development journals rather than in top general-interest or field journals. This pattern presents several important challenges for the visibility, perception, and

influence of such research. First, it effectively creates a form of geographic segmentation within academic literature, reinforcing the notion that studies based on LMIC contexts are of peripheral or regional relevance, rather than being central to the field of education economics. This segregation limits the reach of LMIC-focused work, as top-tier journals are often the primary arenas for shaping theoretical debates, setting methodological standards, and informing global policy discussions. For instance, research published in development journals may not receive the same level of attention or citation as comparable work published in leading economics or education outlets (as evidenced by these journal's lower ranking and h-index as compared to top general interest journals), thereby curtailing its broader academic and policy impact. Second, this publication pattern may create disincentives for researchers—particularly those based at high-income institutions—to work on LMIC topics, given the perceived lower likelihood of placement in high-impact journals. This, in turn, exacerbates existing disparities in global research attention and may further marginalize the most under-studied contexts. Researchers based in LMICs face additional disadvantages if their work is systematically excluded from the most prestigious outlets, limiting their visibility, citation potential, and competitiveness in securing academic promotions or external funding. Since professional advancement often hinges on publication in top-ranked journals, this dynamic risks entrenching structural inequalities in global knowledge production. Third, and perhaps most critically, the siloing of LMIC research into development journals may weaken the policy influence of this body of work. Publications in top economics and education journals are more likely to inform the agendas of international organizations, multilateral donors, and national ministries of education. When LMIC research is less visible in these spaces, it risks being overlooked in the design of global education policies, despite the fact that these are the very contexts where evidence-based policymaking is most urgently needed. This disconnect can result in the proliferation of interventions that are poorly tailored to LMIC realities, thereby reducing their effectiveness on the ground.

Does author location influence the geographic patterns in publication?

Publication context could be reflective of the geographic location of the authorship, that is, the GDP-publication gradient could exist because authors publish on contexts that are proximal to them. Thus, we examine the variation in countries in which the authors are based to see if there is any evidence to substantiate this claim. To do this, we create a dataset containing the country in

which each author is based for the papers in *Education Economics* and *Economics of Education Review*. For authors with multiple affiliations, we determine their primary affiliation as the first one listed for each author – we consider this to be the best proxy of the location of the author at the time of publication (and possibly when they worked on the paper).

For single-author papers (and multi-author papers where all authors are from the same country), we assign a weight of 1 to that country. For multi-author papers with authors based in different countries, we follow the method proposed by Aisleitner et al. (2013). Specifically, each author is assigned an equal share of the paper—for instance, in a four-author paper, each receives a weight of 0.25. These weights are then aggregated to compute the number of weighted authorships per country. Figure 8 presents the resulting distribution of author affiliations by U.S. state, world region, and country.

Overwhelmingly, authors come from North America and Europe. In fact, there are more authorships based in the top four U.S. states individually (California, New York, D.C., and Massachusetts) as compared to large populous countries like China and India. Asia and the Pacific, which account for almost 60 percent of the world's population, accounts for less than 10 percent of authorships in the sample. The country of Japan has the same number of authorships as Wisconsin. Figure 9 shows that there are only three years in the sample when there are any authors from LICs, and that overwhelmingly, authors come from HICs. Figure 10 displays the association between the Log weighted number of authorships per country and Log GDP – there is a clear and statistically significant income gradient, with more authorships being associated with higher country income. Put together, this points towards a large degree of concentration of authorship in high-income countries, which is consistent with past research that documents a lack of diversity in authorship in economics in general (Das et al., 2013). Therefore, it is possible that this concentration of authorship in HICs could be driving the lack of contextual diversity that we observe in the education literature. We do acknowledge that this evidence is not conclusive, but rather indicative of this finding. Many authors may work in a different context than where they are from, and it is possible that we are not able to entirely capture the full diversity of author backgrounds in this data (authors residing in a particular location may have some ties with other

parts of the world). However, we believe it still speaks to the broader trend of institutional concentration given that we are still able to capture where authors are publishing from.

Does research funding and capacity drive the positive income-publications gradient?

Another hypothesis we explore is that research volume tracks countries' expenditures on education-related research and development (R&D) and/or monitoring/evaluation. Unfortunately, there are no reliable harmonized datasets available that provide information on these types of expenditures. Therefore, we use per-capita education expenditures as a proxy of education-related research expenditures, as the two are likely to be highly correlated (the assumption is that higher education expenditures might imply a larger overall education budget, which in turn would imply enhance resources for R&D). Figure 11 depicts the relationship between per-capita education expenditures and publications in our dataset. The graph in the top panel suggests that there is a strong positive association between (log) per-capita education expenditure and (log) publications. However, the US seems to be an outlier in this relationship – with many more publications than countries of similar per-capita education expenditure. However, when examining per-capita publications, then the US is more in line with other countries with comparable levels of per-capita education expenditures (bottom panel of Figure 11). The overall positive gradient in this relationship is also borne out in the regression analysis (Table 4)[10]. All specifications indicate a positive and statistically significant association between per-capita education expenditure and IHS publications (coefficient estimates vary between 0.50 and 0.57). This implies that even after controlling for several additional factors (including GDP), the resources available for education in a country is strongly associated number of publications on that context. This provides suggestive evidence that research-related resources may be driving the skewed nature of publications. While our analysis suggests that research capacity and resources may drive some of the observed income-publication relationship, the use of education expenditures as a proxy for research-related spending introduces potential limitations. It is possible that the link between education expenditures and actual research funding is not as direct as assumed, and differing national priorities in budget allocations could weaken this relationship.

[10] This regression takes the following form: $\text{arcsinh}(num\_publications) = \beta_0 + \beta_1 Edu\_expend\_percapita + \beta_2 log(population_c) + \beta_3 log(GDP) + X_c + \varepsilon_c$

We also assess whether differences in research capacity may help explain the observed positive relationship between national income and the number of publications. One proxy for research capacity is the presence of top-ranked institutions in education economics. According to the 2023 IDEAS/RePEc rankings, only five of the top 250 institutions are located in middle-income countries, and none are in low-income countries. Moreover, over half of these institutions (138 out of 250) are based in the United States. This uneven distribution suggests that limited research capacity in lower-income countries may constrain the production of high-quality research in education economics and may partly account for the publication disparities we document.

Is data availability a constraint in LMIC?

It is possible that high-income countries have more publicly available high-quality datasets, and (primary) data collection in these contexts is potentially less challenging, which may lead to more research based on these countries. This implies that the GDP gradient of publication that we document (in Table 2) might be capturing the effect of data quality/availability. To account for this possibility, we use information from the World Bank on data quality and availability across different countries – called the Statistical Performance Indicator (SPI). This index measures "*maturity and performance of national statistical systems in five key areas*" - data use, data services, data products, data sources, and data infrastructure that is the indexed out of a value of 100. The higher the value of this index the better data-related processes and systems in the country. We replicate the specifications used in Table 2 but add the SPI as an additional control - we use this index as a proxy of the overall "*data climate*" in a country. In these regressions (Table 5) we find that (i) there is a small positive relationship between this measure of data quality and the number of publications, accounting for GDP and population- a single point increase in statistical quality is associated with a 3 percent increase in publications, and (ii) in columns 1-3 of Table 5 we demonstrate that GDP-publication relationship is robust to inclusion of the data quality measure as a control. Together this implies that (i) since HICs have better data availability (demonstrated by the strong positive correlation coefficient of 0.35 between country GDP and SPI), the GDP-publications relationship could be driven by this factor, but (ii) it likely does not explain it entirely, since the income-publication gradient exists even after controlling for SPI. One potential caveat is that SPI doesn't completely capture the quality of specific datasets that are popularly used in academic research, like the Demographic and Health Surveys (DHS) for low- and middle-income

countries, or the Panel Study of Income Dynamics for the U.S., but rather just the overall data infrastructure in the country. Therefore, it is possible that even though the overall data infrastructure in a country is "weak", there might be some datasets available that might spur academic research. However, this is unlikely to be a huge concern in this context as it unclear whether the availability of specific datasets would change the documented GDP-publication gradient significantly - other studies have found that there is little evidence of the effect of the release of specific datasets on the quantum of academic research (Das et al., 2013).

Conclusion

This study examines the geographic distribution of Economics of Education research published between 2002 and 2022 in the top 22 journals in the field. We find that 85.7 percent of publications focus on high-income countries, with the U.S. alone accounting for 58.4 percent. In contrast, Sub-Saharan Africa, Asia, and the Pacific together make up only 9.2 percent. After accounting for governance, language, and data availability, we find a strong positive relationship between country GDP and publication count. While the U.S. has a high number of publications overall, its per-capita publication rate aligns with global trends. We also find that countries with lower average learning outcomes have fewer publications, even after controlling for income—echoing patterns found in other areas of economics, including health economics (Hirvonen 2020).

We examine possible drivers of the overrepresentation of studies based on high-income countries. We find suggestive evidence that author location plays a role—since most authors are based in HICs, research tends to focus on those settings, leaving LICs and LMICs underrepresented. A similar pattern holds for research capacity and funding, as well as for data availability. The latter is especially important in light of the causal turn in education economics and applied microeconomics more broadly. Causal inference often demands high-quality data for robustness checks and mechanism analysis. In LMICs, limited data availability may deter researchers from pursuing projects or reduce the chances of publication in top journals due to the difficulty of meeting these standards[11]. We would like to note that there is nothing that precludes studies about LMIC from being published in education field journals or general interest journals. In fact, the

[11] We cannot formally test this claim as we do not have information on all submissions to these journals.

journal *Economics of Education Review* states in its aims and scope state that: "*Our goal is to publish innovative, cutting-edge research on the economics of education that is of interest to academics, policy-makers, and the public*"; while *Education Economics* seeks "*content of international and interdisciplinary appeal…[and] applied work with clear policy implications*", suggesting that these journals are open to a wide range of topics and contexts, including related to low and middle-income countries.

We find that education papers focused on LMICs are more likely to appear in development economics journals than in top education or general-interest economics journals. Yet even within development journals, research is skewed toward relatively wealthier LMICs. As a result, the poorest countries remain underrepresented, limiting the availability and visibility of context-specific evidence to inform policymaking. This gap is particularly concerning given that effective policies require locally grounded evidence, and findings from high-income countries may not translate well to LMIC settings due to differences in demographics, learning patterns, and institutional structures (Anderson, 2010; Thomas et al., 2019; Levitt and List, 2007). While prior work emphasizes the need to publish LMIC-focused research in influential outlets to support policy impact (Demir, 2022; Leuz, 2018), our findings underscore ongoing gaps in representation that hinder equitable knowledge production.

On the other hand, if LMIC-based papers are published in lower journals, then there is the possibility that researchers who specialize in education in these contexts are deemed "*inferior*", since economic researchers often view journal rankings as a measure of research performance (Powdthavee et al., 2018). Also, publications in highly ranked journals are increasingly important due to their implications for the careers of researchers in this field (Conley et al., 2013; Hamermesh, 2018; Heckman and Moktan, 2020). Therefore, the geographic lopsidedness of publications that we document may have significant effects on the career trajectories of researchers in this domain (Corsi et al., 2019). Since it is possible that researchers from LMIC are more likely to conduct research on topics pertaining to these contexts, it may further exacerbate the increasing lack of diversity in the economics profession (Bayer & Rouse, 2016; Stansbury & Shultz, 2023). Additionally, there might be negative implications for citations and visibility of this work (Corsi et al; 2019). Together, all of this may create a self-fulfilling prophecy where economists may

prioritize research intended for top-tier journals instead of exploring under-researched contexts, like Asia and the Pacific (Attema et al., 2014; Kapeller, 2010; Serrano, 2018).

In light of these findings, researchers and editors should consider ways to reduce the geographic imbalance in Economics of Education research. One approach is to encourage collaborations between scholars in high-income countries and institutions in LICs and LMICs, helping ensure better representation of local contexts. Journals and funders can also contribute by prioritizing research from underrepresented regions and expanding special issues focused on education challenges in these settings. For example, *Economics of Education Review* has recently published a special issue on low-income contexts and has another underway on Asia and the Pacific—regions with many LMICs—possibly as a response to such imbalances. More broadly, the academic community should promote editorial and review policies that support greater topical and geographic diversity. Doing so can help ensure that education policies are informed by evidence from a wider range of contexts.

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TABLES

Table 1: Number of empirical articles published in top economics of education journals by country income level and region

All	Number of Articles	%
	3,523	100
By Income Level:		
HIC	3,018	85.67
UMC	297	8.43
LMC	175	4.97
LIC	33	0.94
By Region:		
East Asia & Pacific	241	6.84
Australia	*59*	*1.67*
China	*98*	*2.78*
Other Countries	*84*	*2.38*
Europe & Central Asia	769	21.83
United Kingdom	*163*	*4.63*
Germany	*119*	*3.38*
Other Countries	*487*	*13.8*
South Asia	99	2.81
India	*59*	*1.67*
Other Countries	*40*	*1.14*
Latin America & Caribbean	188	5.34
Mexico	*34*	*0.09*
Brazil	*42*	*1.19*
Other Countries	*112*	*3.18*
North America	2,112	59.95
United States	*2,059*	*58.44*
Canada	*53*	*1.50*
Sub-Saharan Africa	84	2.38
South Africa	*8*	*0.23*
Kenya	*19*	*0.54*
Other Countries	*57*	*1.62*
Middle East & North Africa	30	0.85
Israel	*19*	*0.54*
Other Countries	*11*	*0.31*

Note: Data pertain to articles published between 2002 and 2022 and are for articles published in top 22 journals for articles related to the economics of education (*Economics of Education Review*, *Education Economics,* and top 20 economics journals).

Table 2: Association between country GDP and publications in the top 22 journals for economics of education publications.

	(1) ArcSinH	(2) ArcSinH	(3) ArcSinH	(4) Poisson	(5) Poisson	(6) Poisson	(7) OLS	(8) OLS	(9) OLS
GDP (log)	0.72***	0.52***	0.40***	1.41***	0.97***	0.79***	14.76	12.98**	14.11**
	(0.17)	(0.15)	(0.15)	(0.02)	(0.03)	(0.05)	(15.94)	(5.28)	(6.08)
Observations	190	190	168	190	190	168	190	190	168
Control for Population?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control for Region Dummies?	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Other Controls	No	No	Yes	No	No	Yes	No	No	Yes
R-squared	0.75	0.88	0.88	0.86	0.92	0.93	0.23	0.90	0.90

Note: In the case of the Poisson regression the R-squared reported is the Psuedo-R2. Region dummies include categorical variables for each of the following regions: Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Controls include Freedom Index, Muslim Majority dummy, dummy for whether English is the official language. Robust standard errors are reported in parentheses.

Table 3: Association between country GDP and publications in the top-four development economics journals

Panel A: All Countries	(1) ArcSinH	(2) ArcSinH	(3) ArcSinH	(4) Poisson	(5) Poisson	(6) Poisson
GDP (log)	-0.14**	-0.06	-0.15	-0.11***	-0.15***	-0.21***
	(0.06)	(0.07)	(0.11)	(0.01)	(0.01)	(0.01)
Observations	190	190	168	190	190	168
Control for Population?	Yes	Yes	Yes	Yes	Yes	Yes
Region Dummies?	No	Yes	Yes	No	Yes	Yes
Other Controls	No	No	Yes	No	No	Yes
R-squared	0.80	0.87	0.88	0.82	0.86	0.85
Panel B: Low and Middle Income Countries	(1) ArcSinH	(2) ArcSinH	(3) ArcSinH	(4) Poisson	(5) Poisson	(6) Poisson
GDP (log)	-0.01	0.13	0.03	-0.04***	0.07***	0.03***
	(0.13)	(0.18)	(0.16)	(0.01)	(0.01)	(0.01)
Observations	129	129	119	129	129	119
Control for Population?	Yes	Yes	Yes	Yes	Yes	Yes
Region Dummies?	No	Yes	Yes	No	Yes	Yes
Other Controls	No	No	Yes	No	No	Yes
R-squared	0.73	0.87	0.88	0.80	0.84	0.84

Note: In the case of the Poisson regression the R-squared reported is the Psuedo-R2. Region dummies include categorical variables for each of the following regions: Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Controls include Freedom Index, Muslim Majority dummy, dummy for whether English is the official language. The journals included in this analysis are: Journal of Development Economics, World Development, World Bank Economic Review, and Economic Development and Cultural Change. Robust standard errors are reported in parentheses.

Table 4: Association between country education expenditure and publications in the top 22 journals for economics of education publications.

	(1) ArcSinH	(2) ArcSinH	(3) ArcSinH	(4) Poisson	(5) Poisson	(6) Poisson
Per-capita Education Expenditures (log)	0.57**	0.51**	0.51*	1.55***	0.54***	0.43***
	(0.23)	(0.22)	(0.29)	(0.07)	(0.09)	(0.09)
Observations	174	174	158	174	174	158
Control for Population and GDP?	Yes	Yes	Yes	Yes	Yes	Yes
Control for Region Dummies?	No	Yes	Yes	No	Yes	Yes
Other Controls	No	No	Yes	No	No	Yes
R-squared	0.87	0.90	0.90	0.89	0.93	0.94

Note: In the case of the Poisson regression the R-squared reported is the Psuedo-R2. Region dummies include categorical variables for each of the following regions: Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Controls include Freedom Index, Muslim Majority dummy, dummy for whether English is the official language. Robust standard errors are reported in parentheses.

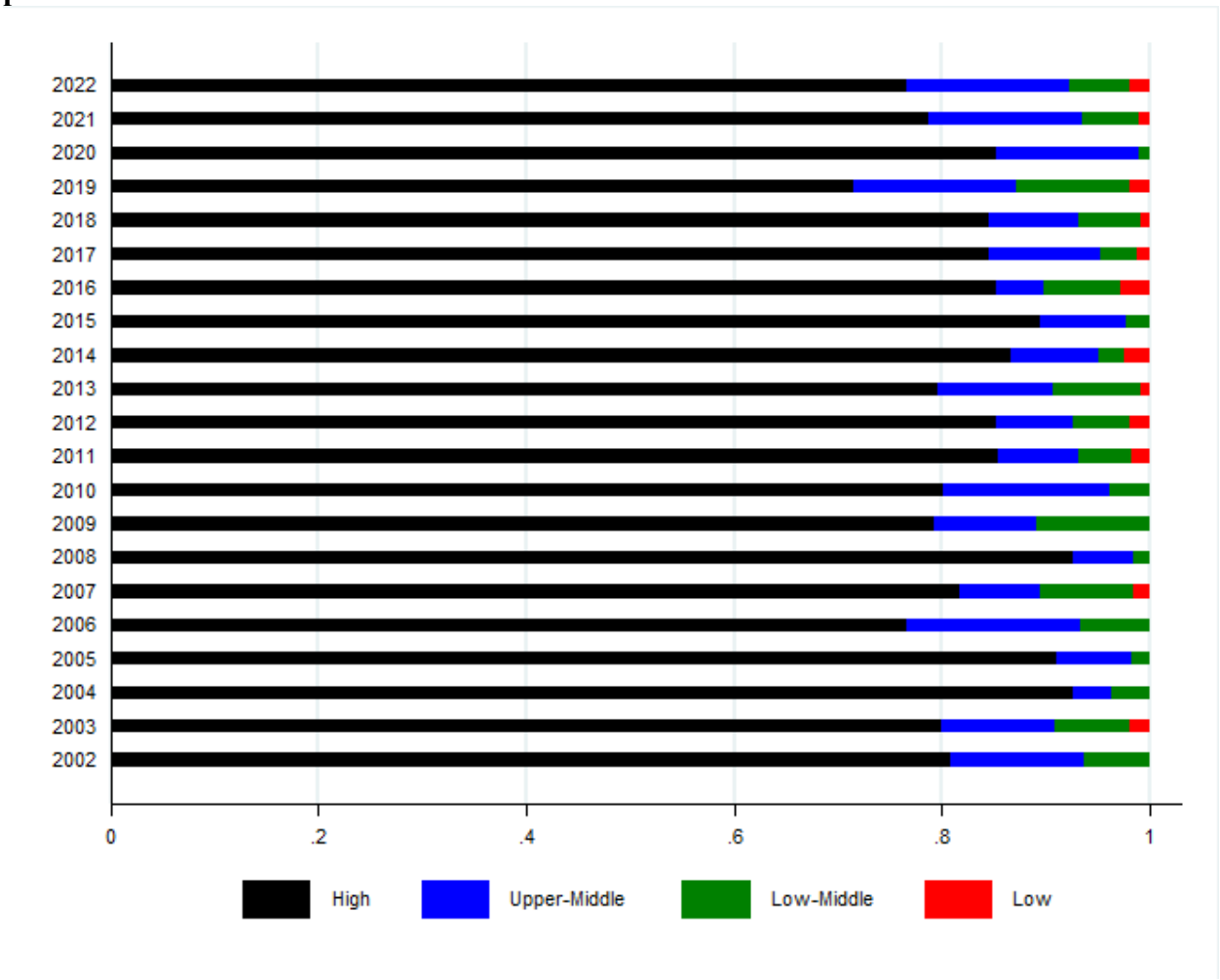
Table 5: Association between country GDP and publications in the top 22 journals for economics of education publications: controlling for data quality

	(1) ArcSinH	(2) ArcSinH	(3) ArcSinH	(4) Poisson	(5) Poisson	(6) Poisson
GDP (log)	0.57***	0.50***	0.40***	1.02***	0.99***	0.80***
	(0.13)	(0.15)	(0.15)	(0.03)	(0.04)	(0.05)
SPI Overall Score	0.03***	0.005	0.0004	0.05***	-0.003	-0.004
	(0.009)	(0.008)	(0.009)	(0.003)	(0.004)	(0.005)
Observations	176	176	163	176	176	163
Control for Population?	Yes	Yes	Yes	Yes	Yes	Yes
Control for Region Dummies?	No	Yes	Yes	No	Yes	Yes
Other Controls	No	No	Yes	No	No	Yes
R-squared	0.78	0.88	0.88	0.87	0.93	0.93

Note: In the case of the Poisson regression the R-squared reported is the Psuedo-R^2. Region dummies include categorical variables for each of the following regions: Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Controls include Freedom Index, Muslim Majority dummy, dummy for whether English is the official language. Robust standard errors are reported in parentheses.

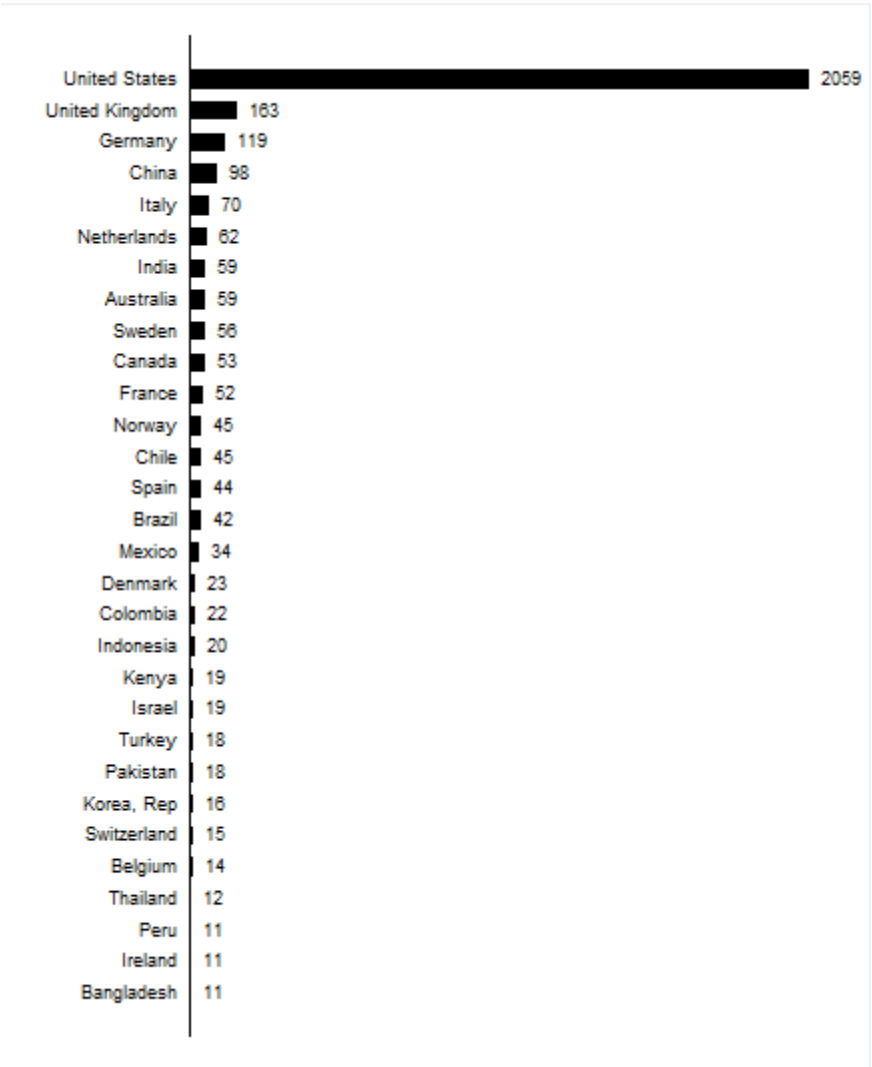
FIGURES

Figure 1: Proportion of publications each year (between 2002 and 2022) from different types of countries (classified on income level) in the top journals for education economics publications.



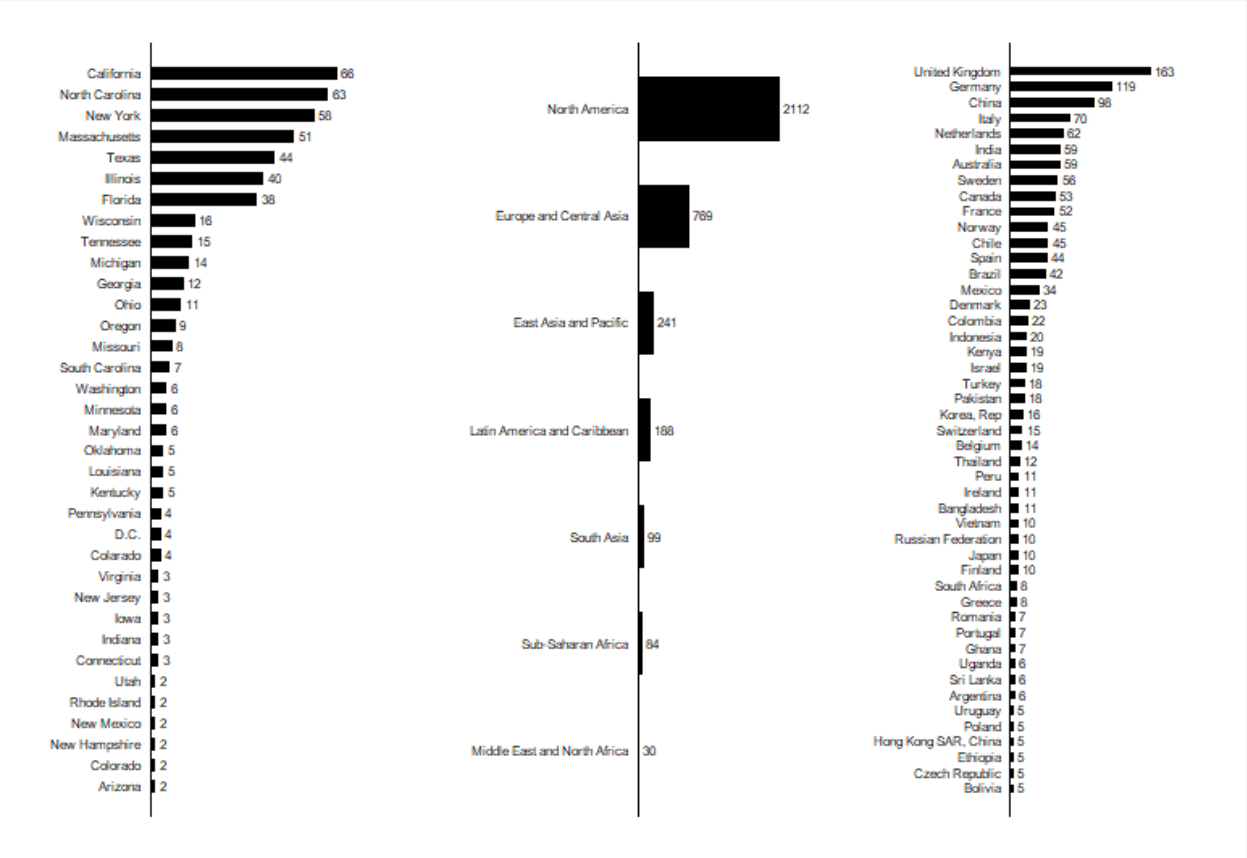
Note: Above figure compares proportion of publications in each income context from the top 22 journals for economics of education publications.

Figure 2: Percent of all publications from a country (Top-30 nations in terms of number of publications) in the top 22 journals for economics of education publications.



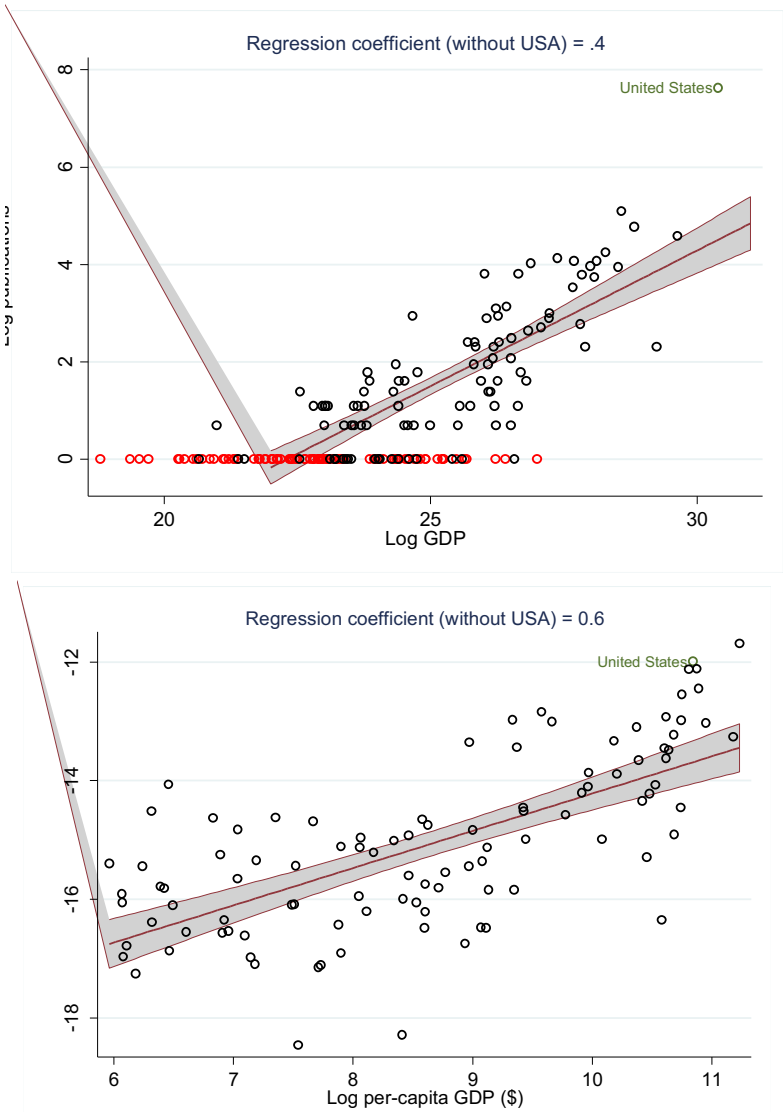
Note: This is based on the sample of 3,523 publications in the top 22 journals for economics of education publications. Here we present the number of articles based on each country.

Figure 3: Number of publications in US states compared to other regions/countries in the top 22 journals for economics of education publications.



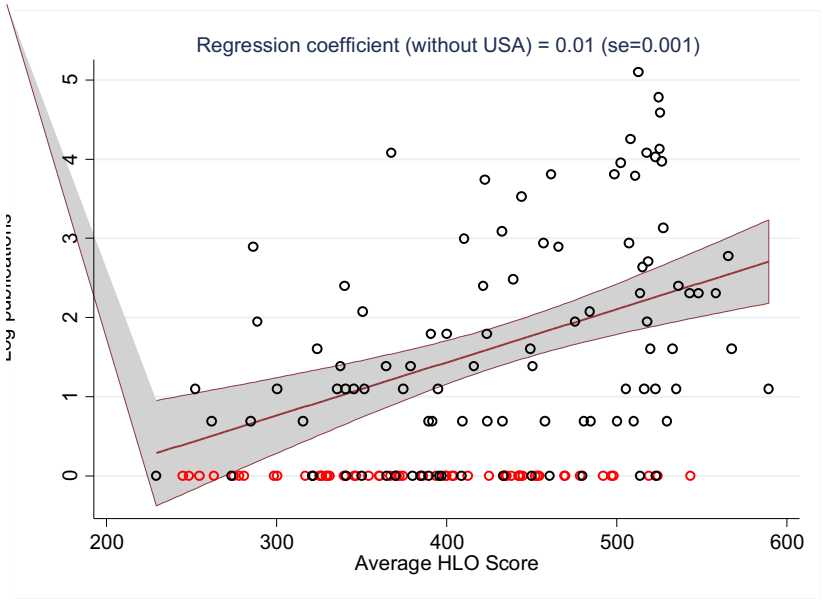
Note: Compares the number of publications for U.S. states (left), region (center), and country (right) in the top 22 journals for economics of education publications

Figure 4: Relationship between Log GDP and number publications in the top 22 journals for economics of education publications.



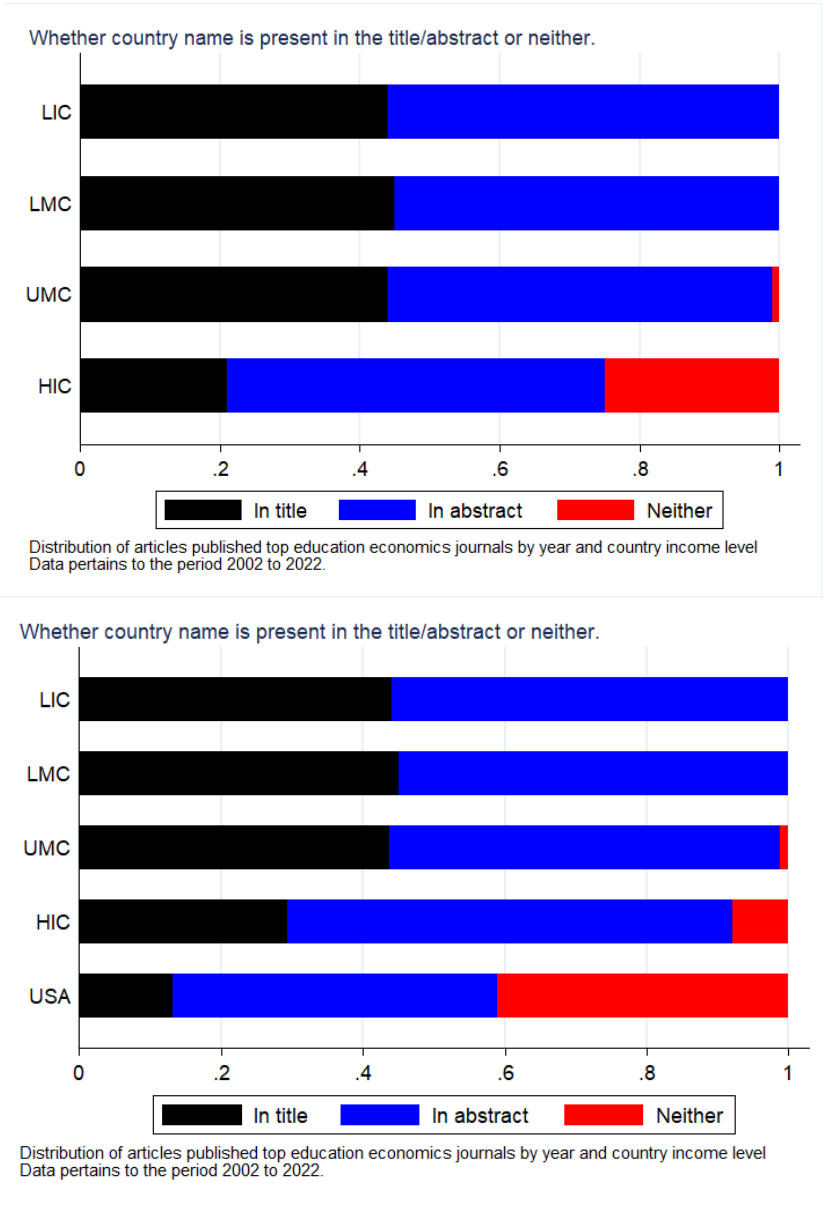
Note: Top graph displays the relationship between Log GDP and Log publications, excluding the United States and countries with no publications. It shows the U.S. to be an outlier. Bottom graph examines the relationship at a per-capita level and reveals that the U.S. is not an outlier. Adjusted for population in 2015. The red indicates countries with no publications, while black points represent those with at least 1 publication.

Figure 5: Relationship between Harmonized Learning Outcomes (HLO) score and number of publications in the top 22 journals for economics of education publications.



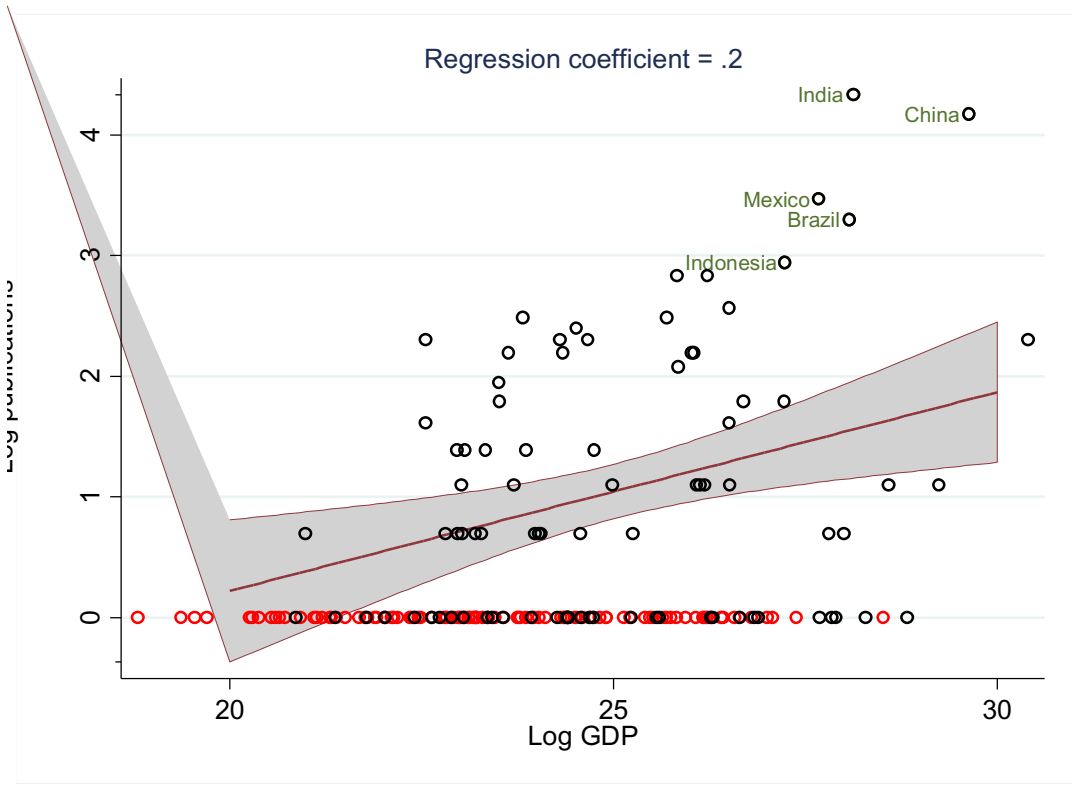
Note: Graph shows the relationship between HLO and number of publications. The red indicates countries with no publications, while black points represent those with at least 1 publication. The line of fit does not include the United States, as it is a significant outlier.

Figure 6: Percent of articles that indicate country of evidence in title or abstract, by country income level, and region.



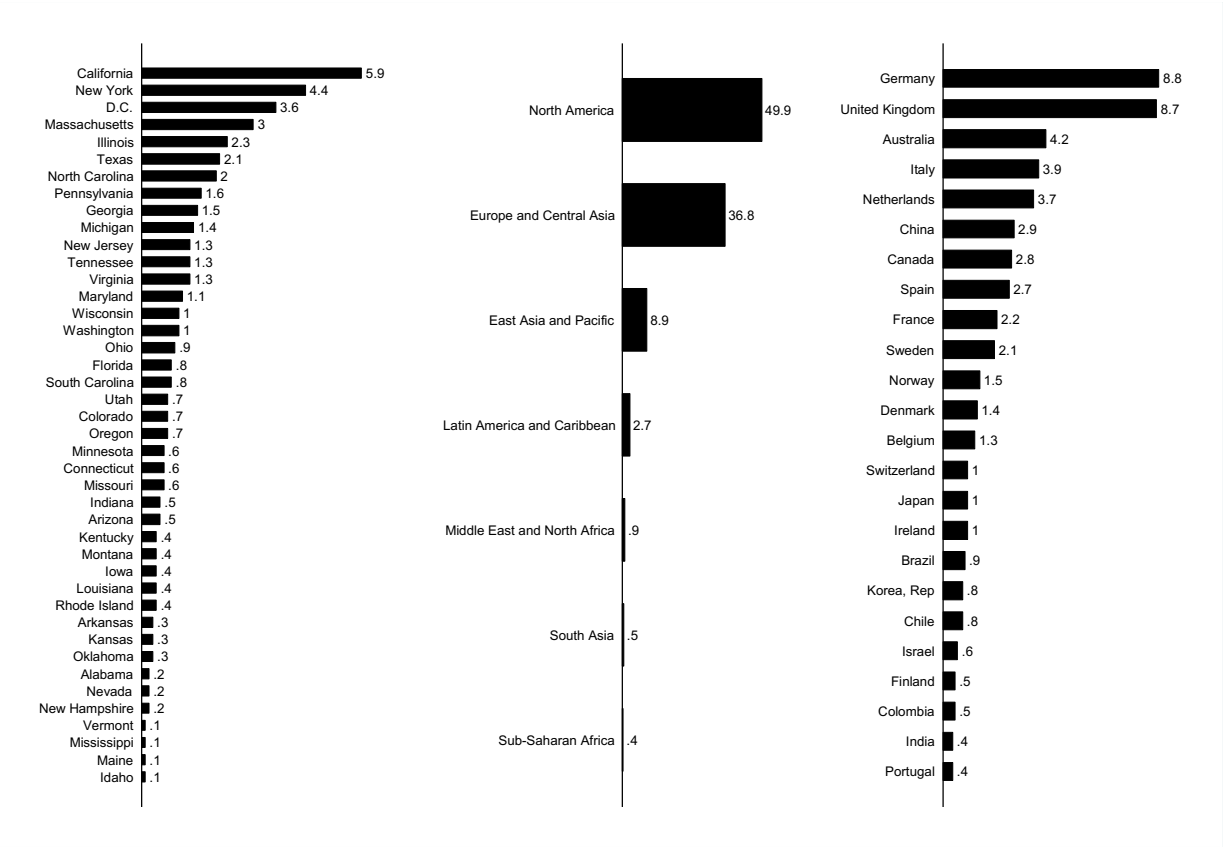
Note: We examine the proportion of papers in the top 22 journals for economics of education publications that include the country name in the title or abstract. The top panel include the United States within HIC, whereas the bottom panel separates the United States out into its own category.

Figure 7: Relationship between Log GDP and number publications in top-4 Development Economics Journals



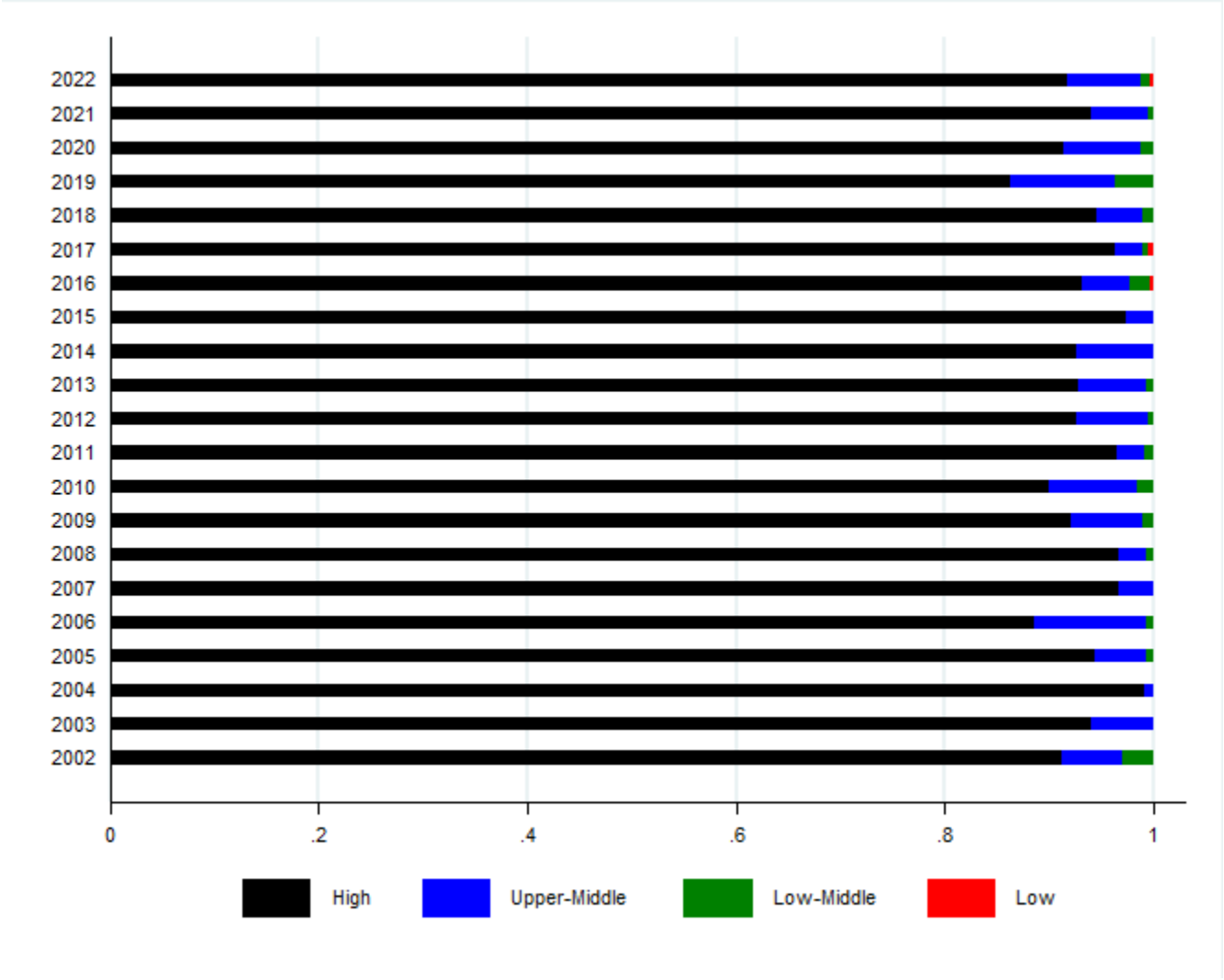
Note: Represents the income-publication gradient amongst education articles in the top 4 development economics field journals, adjusted for population. The red indicates countries with no publications, while black points represent those with at least 1 publication.

Figure 8: Percent of (weighted) authors in US states compared to other regions/countries



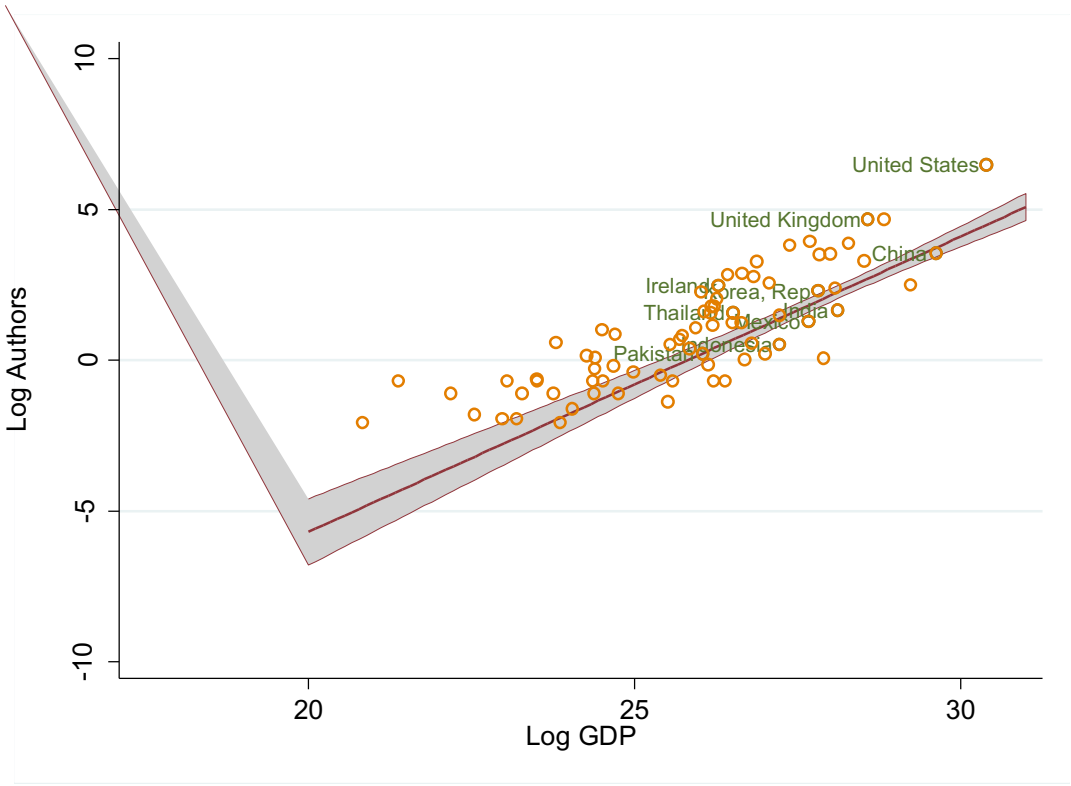
Note: Author weights were calculated using by adjusting the contribution by the number of authors, as in Aisleitner et al. (2013). Specifically, each weight is the inverse of the number of authors, so for example, if a paper has 2 authors, each author has a weight of 0.5.

Figure 9: Proportion of (weighted) authors from different types of countries (classified on income level) in the top 22 journals for economics of education publications.



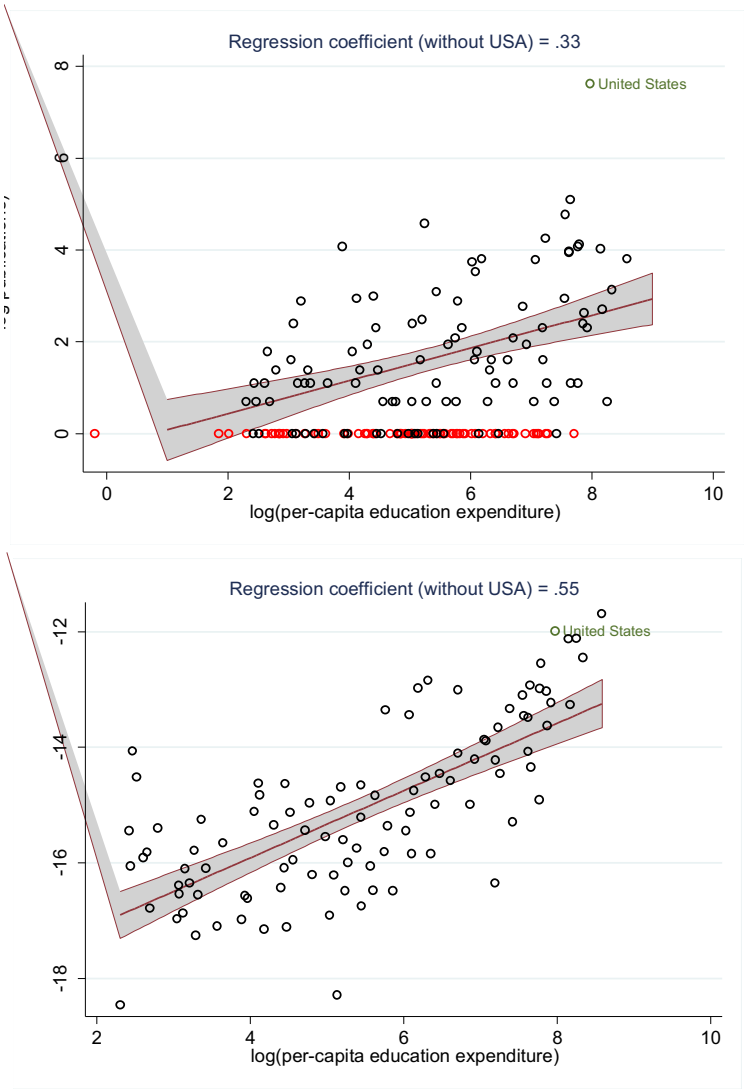
Note: Author weights were calculated using by adjusting the contribution by the number of authors, as in Aisleitner et al. (2013). Specifically, each weight is the inverse of the number of authors, so for example, if a paper has 2 authors, each author has a weight of 0.5.

Figure 10: Relationship between Log GDP and (weighted) Log authors in the top 22 journals for economics of education publications.



Note: Displays the association between the Log weighted number of authorships per country and Log GDP. Author weights were calculated using by adjusting the contribution by the number of authors, as in Aisleitner et al. (2013). Specifically, each weight is the inverse of the number of authors, so for example, if a paper has 2 authors, each author has a weight of 0.5.

Figure 11: Relationship between education expenditure per capita and number of publications in the top 22 journals for economics of education publications.



Note: Depicts the relationship between per-capita education expenditures and publications in the top 22 journals for economics of education publications. The graph in the top panel depicts a strong positive association between (log) per-capita education expenditure and (log) publications. The graph in the bottom panel depicts a positive association between (log) per-capita education expenditure and (log) per-capita publications.

Appendix

Table A1: Association between GDP and having any publications in the top 22 journals for economics of education publications

	(1) Any Publications	(2) Any Publications	(3) Any Publications
GDP (Log)	0.05***	0.08***	0.02
	(0.01)	(0.03)	(0.03)
Observations	190	190	168
Control for Population?	Yes	Yes	Yes
Control for Region Dummies?	No	Yes	Yes
Other Controls	No	No	Yes
R-squared	0.265	0.254	0.334

Note: Region dummies include categorical variables for each of the following regions: Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Controls include Freedom Index, Muslim Majority dummy, dummy for whether English is the official language. Robust standard errors are reported in parentheses.

Table A2: Association between country GDP and publications in the top 22 journals for economics of education publications (per-capita basis)

	(1) Log PC Publications	(2) Log PC Publications	(3) Log PC Publications
Per-capita GDP (log)	0.75*** (0.05)	0.55*** (0.07)	0.41*** (0.09)
Observations	184	184	164
Control for Population?	Yes	Yes	Yes
Control for Region Dummies?	No	Yes	Yes
Other Controls	No	No	Yes
R-squared	0.547	0.773	0.788

Note: In the case of the Poisson regression the R-squared reported is the Psuedo-R2. Region dummies include categorical variables for each of the following regions: Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Controls include Freedom Index, Muslim Majority dummy, dummy for whether English is the official language. Robust standard errors are reported in parentheses.

Table A3: Association between HLO and publications in the top 22 journals for economics of education publications

	(1) Publications OLS	(2) arcsinh Publications	(3) arcsinh Publications	(4) Publications Poisson	(5) Publications Poisson	(6) arcsinh Publications
HLO	0.29*	0.01***	0.01***	0.02***	0.01***	0.09***
	(0.15)	(0.001)	(0.001)	(0.01)	(0.001)	(0.02)
Observations	158	158	148	158	148	157
Includes U.S.?	Yes	Yes	Yes	Yes	Yes	No
Control for Population?	No	Yes	Yes	Yes	Yes	Yes
Control for Region Dummies?	No	No	Yes	No	Yes	No
Other Controls	No	No	Yes	No	Yes	No
R-squared	0.022	0.489	0.890	0.185	0.922	0.275

Note: Region dummies include categorical variables for each of the following regions: Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. Controls include Freedom Index, Muslim Majority dummy, dummy for whether English is the official language. Robust standard errors are reported in parentheses.