### Working Paper Series



# SoDa LABS

Social [science] insights from alternative data

Est. 2018

# Geographic Diversity in Economic Publishing

Simon D Angus, Kadir Atalay, Jonathan Newton, David Ubilava

# SoDa Laboratories Working Paper Series No. 2020-03

REF

Simon D Angus, Kadir Atalay, Jonathan Newton, David Ubilava (2020), SoDa Laboratories Working Paper Series No. 2020-03, Monash Business School, available at http://soda-wps.s3-website-ap-southeast-2.amazonaws.com/RePEc/ajr/sodwps/2020-03.pdf

PUBLISHED ONLINE

28 September 2020

© The authors listed. All rights reserved. No part of this paper may be reproduced in any form, or stored in a retrieval system, without the prior written permission of the author.

## SoDa Laboratories

https://www.monash.edu/business/soda-labs/



ABN 12 377 614 012 CRICOS Provider Number: 00008C



Амва

## Geographic diversity in economic publishing \*

Simon D. Angus,<sup>†</sup> Kadir Atalay,<sup>‡</sup> Jonathan Newton<sup>§</sup> and David Ubilava<sup>¶</sup>

December 24, 2020

#### Abstract

Is the representation of editors at prestigious economics journals geographically diverse? Using data on the affiliations of academics working in an editorial capacity at such journals, we map the locations of editorial power within the economics profession. This allows us to rank institutions, countries and continents according to this measure of power. In addition, by considering the average distance of a journal's editorial affiliations from a geographic mean, we rank journals by geographic diversity. The magnitudes of the geographic differences we find are striking. Over half the journals we consider have over two thirds of their editorial power located in the USA. A large majority of journals have a tiny editorial contribution from academics located outside of North America and Europe. Any one of the states of California, Massachusetts and Illinois has more power than the four continents of Asia, South America, Africa and Australasia combined. Comparing to authorship data, we find that most editorial teams are both less geographically diverse and more USA-centric than the authors they publish.

Keywords: editorial power, geography, diversity, economics.

"...with great power there must also come – great responsibility!"

- Spiderman, Amazing Fantasy Vol.1 Issue 15.

#### 1. Introduction

Diversity in the economics profession has become a pressing topic. In light of evidence that the representation of various groups in the profession varies greatly (see, for example Bayer and Rouse,

<sup>\*</sup>Data available at: github.com/specialistgeneralist/geodiverse. We thank Chris Barrett, Todd Kuethe, and James Morley for their thoughtful comments on an earlier version of this paper; we thank Sascha Becker and Lionel Page for valuable discussion on a social platform (Twitter: @geo\_diverse).

<sup>&</sup>lt;sup>†</sup>Department of Economics, Monash University, Clayton, VIC 3800.; and SoDa Laboratories, Monash Business School, Monash University, Clayton, VIC 3800. e-mail: simon.angus@monash.edu; website: research. monash.edu/en/persons/simon-angus.

<sup>&</sup>lt;sup>‡</sup>School of Economics, University of Sydney, Sydney, NSW 2006. e-mail: kadir.atalay@sydney.edu.au; website: sydney.edu.au/arts/about/our-people/academic-staff/kadir-atalay.html.

<sup>&</sup>lt;sup>§</sup>Institute of Economic Research, Kyoto University, Sakyo-ku, Kyoto 606-8501. e-mail: newton@kier. kyoto-u.ac.jp; website: jonathannewton.net.

<sup>&</sup>lt;sup>¶</sup>School of Economics, University of Sydney, Sydney, NSW 2006. e-mail: david.ubilava@sydney.edu. au; website: davidubilava.com.

2016), the American Economic Association, arguably the most powerful institution in academic economics, has conducted programs and committees related to this observation.<sup>1</sup> In this note we consider a less-studied type of diversity, *geographic diversity*, by which we mean diversity in the locations where people, by choice or necessity, live and work. Specifically, we consider diversity in the institutional affiliations of people who serve in some editorial capacity at leading journals in the economics profession.<sup>2</sup>

Why should we care where economists live and work? We can think of two main reasons. Firstly, it is possible that the environment in which one lives affects one's thinking, so a lack of geographic diversity could lead to a suboptimal narrowing of perspectives. Secondly, it is possible that economists might exhibit bias in favour of those who inhabit the same ecosystem as themselves. In the words of Heckman and Moktan (2020),

"It is well documented that journals in economics tend to publish work by authors who are connected with the journal's editors (see Brogaard et al., 2014, Laband and Piette, 1994, and Colussi, 2018).[...] Network effects are empirically important."

For the purpose of exploring diversity in the editorial staff of leading journals, we have collected data on the affiliations of academics working in an editorial capacity at such journals. Using these data, we map the geographic location of editorial power within the economics profession. Ordinally, the results of this exercise are mostly unsurprising, but the magnitudes are striking. Over half the journals we consider have over two thirds of their editorial power located in the USA. A large majority of journals have a tiny editorial contribution from academics located outside of North America and Europe. Any one of the states of California, Massachusetts and Illinois has more power than the four continents of Asia, South America, Africa and Australasia combined.<sup>3</sup>

Further, the locations of a journal's editorial affiliations can be used to construct a geographic mean location for the journal. The average distance of the journal's editorial affiliations from this geographic mean can be considered as a measure of the geographic diversity of the journal's editorial team. This allows us to rank journals by geographic diversity. Some patterns emerge from this exercise. For example, newer journals tend to be more geographically diverse, with the notable exception of several journals founded between 2009 and 2019 that exhibit extremely low geographic diversity. Theory and econometrics journals are, on average, more geographically diverse than applied journals. However, applied journals are the most heterogeneous in terms of diversity, so that both the most and the least geographically diverse journals are applied journals.

<sup>&</sup>lt;sup>1</sup>See, for example the Committee on the Status of Minority Groups in the Economics Profession, https:// www.aeaweb.org/about-aea/committees/csmgep, or the panel discussion "How Can Economics Solve Its Race Problem?", https://www.aeaweb.org/conference/2020/preliminary/2264.

<sup>&</sup>lt;sup>2</sup>The issue is not unique to the economics profession, as suggested by recent similar studies in other disciplines (e.g., Goyanes and Demeter, 2020; Lohaus and Wemheuer-Vogelaar, 2020).

<sup>&</sup>lt;sup>3</sup>Espin et al. (2017) find similarly for journals in environmental biology, with 55% of editors based in the USA.

Comparing the locations of editorial affiliations to the locations of authors who publish in these journals, we find a positive correlation between the geographic diversity of a journal's editors and the geographic diversity of its authors. Typically, the geographic diversity of a journal's editors is lower than the geographic diversity of its authors. This relates to the fact that the share of authors from outside of the USA is typically higher than the share of editors from outside of the USA. In particular, academics based in East Asia contribute significantly to authorship in prestigious journals but hold a tiny share of editorial positions.

#### 2. Data and Methodology

Data were collected on the affiliations of academics working in an editorial capacity at economics journals that were given the highest rating of  $A^*$  on the Australian Business Deans 2019 journal quality list.<sup>4,5</sup> This includes 49 journals and 2402 journal-person-affiliation triplets. Where present, affiliations listed on journal websites were used. Where journal websites did not list affiliations, this information was sourced from academic webpages. Location data were collected for institutional affiliations using the Google Maps website. Data were collected between 28th July 2020 and 3rd August 2020.

For each location, the number of journal-person-affiliation triplets was summed to give the total editorial power at that location. This was repeated, restricting the data to Top 5 journals only.<sup>6</sup> Location data were further aggregated by country and by continent. The above data were used to map editorial power in economics and to rank institutions in terms of their editorial power. These rankings were produced for various geographic locations (World, North America, Europe, the Rest of the World) for overall editorial power as well as power restricted to Top 5 journals.

Location data was used to calculate a *geographic centroid* for each journal's editorial team, effectively the average location of those involved with the journal in an editorial capacity. This centroid is calculated through three dimensional vector addition of the locations of all journal-person-affiliation triplets associated with the journal. This can be thought of as attaching a weight to a globe at the location of each journal-person-affiliation triplet. If the globe is then allowed to rotate under gravity, then the centroid will become the lowest point.

The average great circle distance from a journal's geographical centroid to the journal-person-

<sup>&</sup>lt;sup>4</sup>The ABDC journal quality list is available at https://abdc.edu.au/research/ abdc-journal-list/. We include journals coded 1401: Economic Theory, 1402: Applied Economics, 1403: Econometrics, 1499: Other Economics, although there are no A\* rated journals in the final category.

<sup>&</sup>lt;sup>5</sup>Included in these journals are the top 20 journals from the rankings of Palacios-Huerta and Volij (2004) and Demange (2014), excluding the Journal of Financial Economics which is coded as a finance journal by the ABDC. Also included are the journals created or taken over by the AEA and the Econometric Society since 2009.

<sup>&</sup>lt;sup>6</sup>Conventionally, "Top 5" journals in economics are the American Economic Review, Econometrica, Journal of Political Economy, Review of Economic Studies, Quarterly Journal of Economics.

affiliation triplets associated with that journal was then calculated. This average distance is the *standard distance* (Bachi, 1962) for a journal, which can be measured in degrees (as we are on a globe) or in kilometers. Standard distance is similar to standard deviation in that it is a measure of statistical dispersion. As such, the standard distance of a journal can be interpreted as a measure of its geographic diversity, with more geographically diverse journals being associated with higher standard distances. These statistics were then used to rank journals in terms of the geographic diversity in their editorial teams.<sup>7,8</sup>

As a comparator, we further collected data from Scopus and Google Maps on the geographic location of authors publishing in the journals in 2019 and 2020 (see Appendix for details). Data were collected on 28th Oct 2020. The resulting 21,262 journal-author-affiliation-location quadruples were used to calculate the geographic centroid of the authorship of each of the journals and authorial power at gridded locations across the globe, with the exception of AER:Insights for which Scopus data could not be found.

#### 3. Results

The global distribution of editorial power is shown in Figure 1. It is immediately clear that a majority of power resides in the USA. In fact, 63% of editorial power is in the USA. This rises to 65% if we restrict attention to Top 5 journals. North America as a whole accounts for 66% of power, Europe 27% and the rest of the world 7%. Figure 1 shows that there are four major centres of power in the USA, centred on Northern California, Southern California, the central-northern part of the country and the north-east coast. As noted in the introduction, any one of the three states of California, Massachusetts and Illinois has more power than the four continents of Asia, South America, Africa and Australasia combined.

The only other hub of comparable power to the four major US hubs is London. Note that even relatively minor centres of power in the USA such as North Carolina or East Texas would be considered powerhouses in any other part of the world. For example, Duke University in North Carolina has more power than Japan and China combined. The most powerful institution in the world outside of North America and Europe, Monash University, is only as powerful as the 32nd most powerful institution in North America, but would rank 8th if it were located in Europe. The

<sup>&</sup>lt;sup>7</sup>It is possible to calculate a version of standard distance that is mathematically more similar to standard deviation. To do this, rather than finding the average great circle distance from the centroid, one would find a root of the sum of squared great circle distances from the centroid. As this would overweight large distances considerably relative to small distances, we choose to pursue the linear approach.

<sup>&</sup>lt;sup>8</sup>An alternative measure for diversity would be the reciprocal of Simpson's Index (Simpson, 1949), known in economics as Herfindahl's Index (Herfindahl, 1950). This alternative approach requires data to be sorted into categories (e.g. countries), following which differences within a category are ignored. As such, it is a measure of category diversity rather than geographic diversity, although categories may be based on geography.

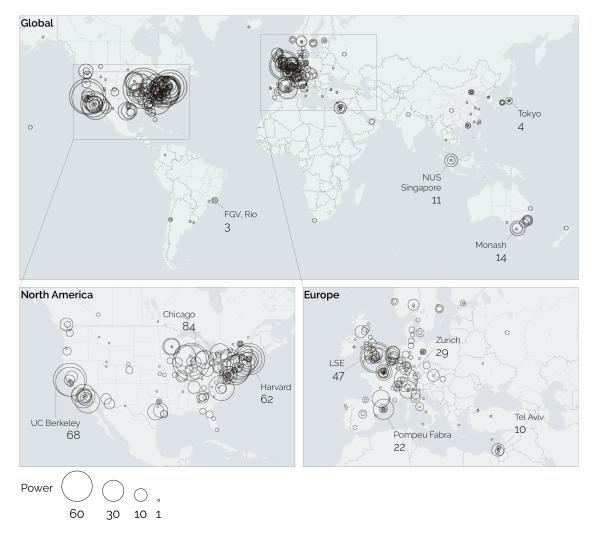


Figure 1: **The global distribution of editorial power.** Each circle is centred on an institution having at least one editorial affiliation. The size of the circle scales with the sum of editorial power at the institution. Selected institutions are labeled. See Table 1 for top 10 institutions by region.

top institutions in various categories are displayed in Table 1.

Comparing the global distribution of editorial power (Figure 1) to the global distribution of authorship (Figure 2), we see broad similarities. Locations with many authors who publish in prestigious journals tend to be the locations of editorial power at such journals. However, relative to editorial power, authorship is shifted to the East. The density plot in Figure 3 clearly illustrates that, relative to authorship, Europe and the Far East are underrepresented in an editorial capacity. Notably, there is a large cluster of authors in East Asia. Academics located in East Asia contribute considerably to authorship but have almost negligible editorial power.

In Figure 4 we plot the geographic centroid of editors of each journal. Most journals have centroids close to the great circle flight path from London to Chicago, with the biggest concentration



Figure 2: The global distribution of authorship in prestigious economics journals. Each circle aggregates locations rounding to 1 degree (approximately 111km). The size of the circle scales with the number of data. Note the similarity to Figure 1, with the notable exception that there is a cluster of authors in East Asia but no corresponding cluster of editors.

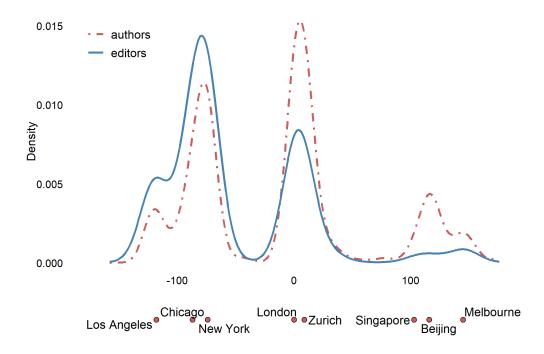


Figure 3: **Density of editors and authors by longitude.** The plot illustrates the West to East location of editors and authors in prestigious economics journals. Cities are marked at the appropriate longitude for reference. Relative to authorship, Europe and the Far East are clearly underrepresented in an editorial capacity.

Global Top 5 Global Europe		Europe	Rest of the World
Chicago (84)	Harvard (21)	LSE (47)	Monash (14)
Berkeley (68)	Chicago (19)	UCL (38)	NUS (11)
Harvard (62)	Berkeley (16)	Zurich (29)	Tel Aviv (10)
Northwestern (61)	LSE (16)	Pompeu Fabra (22)	Melbourne (8)
Stanford (54)	Stanford (15)	Bocconi (17)	UNSW (8)
UPenn (54)	Princeton (13)	Toulouse (17)	UTS (6)
Princeton (50)	Northwestern (11)	Paris School of Ec (15)	ANU (6)
LSE (47)	MIT (11)	Oxford (13)	SMU (5)
MIT (44)	UCL (11)	Essex (12)	Hebrew U (5)
NYU (43)	UCLA (10)	Erasmus (11)	Tokyo (4)
		VU Amsterdam (11)	Sydney (4)

Table 1: **Top 10 most powerful institutions by category.** The ten most powerful institutions globally, as well as in Europe and the rest of the world excluding North America and Europe. The global ranking is also given for the restriction to Top 5 journals. Power, given in parentheses, is measured by the number of times an institutional affiliation is represented in an editorial capacity at a high ranking economics journal.<sup>9</sup>

observed as we cross North America. No journal has its centroid in the Southern Hemisphere. Only one journal, Energy Economics, has its centroid in the Eastern Hemisphere. Observe that journals whose centroids are quite close to one another can exhibit very different geographic diversity as measured by standard distance.

Comparing the centroids of editors to the centroids of authors who publish in these journals (Figure 5), we see that author centroids lie north-east of editor centroids for a large majority of journals. This illustrates that these journals have more authors in Europe and Asia than they have editors in Europe and Asia. The journal with the largest shift to the north-east is the Journal of Financial Econometrics (29.47 degrees distance, see Table 3). The journal with the smallest shift is the Journal of Political Economy, which has an author centroid very close to its editor centroid (4.50 degrees). There is one notable exception to the pattern of author centroids being north-east of editor centroids. This exception is the Review of Economic Studies, which has a large share of its editorial team based in Europe but whose authors are predominantly based in the USA.

In Table 2 we give the ranking of journals by geographic diversity of editors as measured by standard distance. It can be observed that there is quite a lot of heterogeneity between journals in this respect, ranging from the Journal of Monetary Economics with a standard distance of 986km to Energy Economics with a standard distance of 5,679km. To put these in perspective, consider

<sup>&</sup>lt;sup>9</sup>The Top 10 for North America is identical to the Global ranking except that LSE is absent and Duke (42) takes the 10th spot. Outside of the USA, the most powerful institutions in North America are Toronto (24) and UBC (13). The Top 99 institutions globally are given in Table 4 of the Appendix.



Figure 4: **Geographic mean locations of journal editors.** Each point is the geographic centroid of the editorial affiliations of one of the 49 journals considered in this study. A selection of points are labeled with the standard distance, measured in kilometers, for the respective journals. See Table 2 for a ranking of journals by geographic diversity as measured by standard distance.

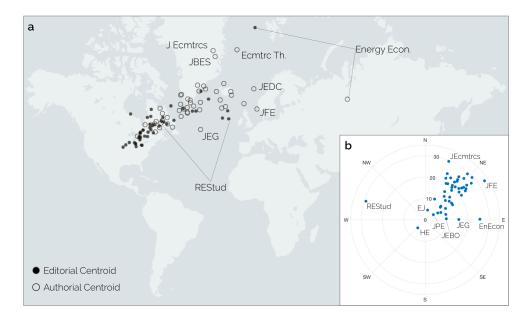


Figure 5: **Difference between mean locations of journal editors and authors.** (a) Each closed circle is the geographic centroid of the editorial affiliations of a journal, whilst each open circle is the geographic centroid of the authorial affiliations of a journal. (b) Initial direction (i.e. the azimuth) and distance in degrees when traveling along the shortest path from the editorial to the authorial centroid of each journal.

that the distance from New York City to Chicago is 1,149km.

In Figure 6 we plot geographic diversity of editors against the age of journals. From this, we see that newer journals tend to be more geographically diverse, with the notable exception of several journals founded between 2009 and 2019 that exhibit extremely low geographic diversity. These journals include all of the American Economic Journals, AER:Insights and Quantitative Economics. These journals have little representation from outside the USA. In fact, AER:Insights has none. A further observation is that theory journals are, on average, more diverse than econometrics journals, which in turn are more diverse than applied journals, which are more diverse than Top 5 journals.

Note that just because a journal is high in the ranking of Table 2, this does not mean that it is diverse in any absolute sense. Restricting attention to the most diverse of our journal types, theory journals, we see that Games and Economic Behavior is the most diverse. Power at this journal is split between North America (41), Europe (26), Asia (12) and Australasia (2). This seems quite diverse until we realize that almost all of the power in Asia is located in a single Mediterranean country, Israel (11). At the other end of the spectrum, the least diverse theory journal, the Journal of Economic Theory, is split between North America (35), Europe (14), Asia (1) and Australasia (1). Considering the set of 27 journals ranked below the Journal of Economic Theory, these journals have almost three times as much power located at the University of California, Berkeley (56) as they do in Asia, Africa, South America and Australasia combined (19).<sup>10</sup>

Again comparing editor data to author data, in Table 3 we give the ranking of journals by geographic diversity of authors as measured by standard distance. There is a positive correlation between the geographic diversity of a journal's editors and the geographic diversity of its authors (Figure 7). Furthermore, for a large majority of journals, the authorship is more geographically diverse than the editorship as measured by standard distance. Again, there is considerable heterogeneity between journals, ranging from the Quarterly Journal of Economics with a standard distance of 2500km to Energy Economics with a standard distance of 5863km.

#### 4. Conclusion

This note should not be read as a polemic. It is rather a simple snapshot of where power is located within academic publishing in economics. It takes no position on why the distribution of editorial power is as it is. Neither does it take a position on what would be a desirable distribution of editorial power. The authors have not discussed how journals could or should decide who should be involved in their editorial process. Naturally, the reader is free to consider the data presented

<sup>&</sup>lt;sup>10</sup>This is not something particular to Berkeley. The numbers for Harvard (46), Chicago (57), Northwestern (39), MIT (34), or Duke (21) serve equally well to make the point.

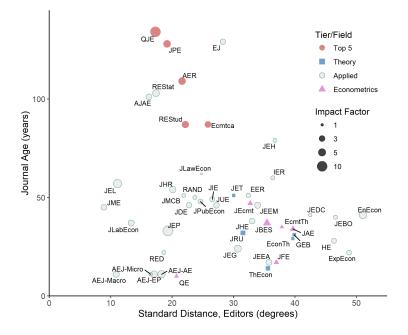


Figure 6: Geographic diversity by journal age and type. For each journal, the standard distance of the journal, measured in degrees, is plotted against the number of years since the journal was founded. See Table 2 for data.

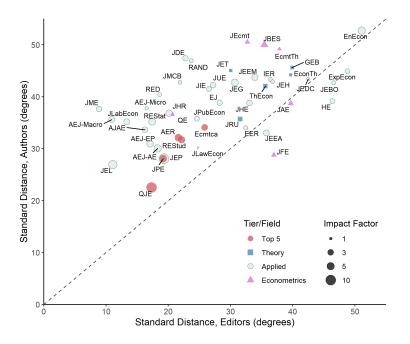


Figure 7: **Geographic diversity of authors and editors.** For each journal, the standard distance of the journal's authors, measured in degrees, is plotted against the standard distance of the journal's editors. Data for editors are given in Table 2. Data for authors are given in Table 3. The Pearson correlation coefficient is 0.57.

and draw their own conclusions.

#### References

- Bachi, R. (1962). Standard distance measures and related methods for spatial analysis. *Papers of the Regional Science Association*, 10(1):83–132.
- Bayer, A. and Rouse, C. E. (2016). Diversity in the economics profession: A new attack on an old problem. *Journal of Economic Perspectives*, 30(4):221–42.
- Brogaard, J., Engelberg, J., and Parsons, C. A. (2014). Networks and productivity: Causal evidence from editor rotations. *Journal of Financial Economics*, 111(1):251–270.
- Colussi, T. (2018). Social ties in academia: A friend is a treasure. *Review of Economics and Statistics*, 100(1):45–50.
- Demange, G. (2014). A ranking method based on handicaps. *Theoretical Economics*, 9(3):915–942.
- Espin, J., Palmas, S., Carrasco-Rueda, F., Riemer, K., Allen, P. E., Berkebile, N., Hecht, K. A., Kastner-Wilcox, K., Núñez-Regueiro, M. M., Prince, C., et al. (2017). A persistent lack of international representation on editorial boards in environmental biology. *PLoS Biology*, 15(12):e2002760.
- Goyanes, M. and Demeter, M. (2020). How the geographic diversity of editorial boards affects what is published in jcr-ranked communication journals. *Journalism & Mass Communication Quarterly*, 97(4):1123–1148.
- Heckman, J. J. and Moktan, S. (2020). Publishing and promotion in economics: the tyranny of the top five. *Journal of Economic Literature*, 58(2):419–70.
- Herfindahl, O. C. (1950). Concentration in the us steel industry. Unpublished PhD. Dissertation, Columbia University.
- Laband, D. N. and Piette, M. J. (1994). Favoritism versus search for good papers: Empirical evidence regarding the behavior of journal editors. *Journal of Political Economy*, 102(1):194–203.
- Lohaus, M. and Wemheuer-Vogelaar, W. (2020). Who publishes where? exploring the geographic diversity of global ir journals. *International Studies Review*, in press.
- Palacios-Huerta, I. and Volij, O. (2004). The measurement of intellectual influence. *Econometrica*, 72(3):963–977.
- Simpson, E. H. (1949). Measurement of diversity. *Nature*, 163(4148):688–688.

Journal	Standard dist. (deg)	Standard dist. (km)	Founding Year	Туре	
Energy Economics	51.07	5679	1979	Applied	
Experimental Economics	48.81	5427	1998	Applied	
Journal of Economic Behavior and Organization	46.6	5182	1980	Applied	
Health Economics	46.38	5157	1992	Applied	
Journal of Economic Dynamics and Control	42.5	4726	1979	Applied	
Games and Economic Behavior	39.9	4437	1989	Theory	
Economic Theory	39.67	4411	1991	Theory	
Journal of Applied Econometrics	39.67	4411	1986	Econometric	
Econometric Theory	37.86	4210	1985	Econometric	
Journal of Financial Econometrics	36.97	4111	2003	Econometric	
Journal of Economic History	36.76	4088	1941	Applied	
International Economic Review	36.39	4046	1960	Applied	
Journal of the European Economic Association	35.76	3976	2003	Applied	
Theoretical Economics	35.62	3961	2003	Theory	
Journal of Business and Economic Statistics	35.44	3901	1983	Econometric	
	33.44 33.94	3941	1983		
Journal of Environmental Econ and Management Journal of Health Economics		3672	1974	Applied	
Journal of Health Economics Journal of Econometrics	33.02			Applied Econometric	
	32.70	3636 3607	1973		
European Economic Review	32.44		1969	Applied	
Journal of Risk and Uncertainty	31.54	3507	1988	Theory	
Journal of Economic Growth	30.71	3415	1996	Applied	
Journal of Economic Theory	30.04	3340	1969	Theory	
Economic Journal	28.28	3145	1891	Applied	
Journal of Urban Economics	27.20	3025	1974	Applied	
Journal of International Economics	26.55	2952	1971	Applied	
Econometrica	25.86	2876	1933	Top 5	
Journal of Law and Economics	24.79	2757	1958	Applied	
Journal of Public Economics	24.60	2735	1972	Applied	
RAND Journal of Economics	23.69	2634	1970	Applied	
Journal of Development Economics	22.76	2531	1974	Applied	
Review of Economic Studies	22.15	2463	1933	Top 5	
Journal of Money, Credit and Banking	21.88	2433	1969	Applied	
American Economic Review	21.62	2404	1911	Top 5	
Quantitative Economics	20.71	2303	2010	Econometric	
Journal of Human Resources	20.11	2236	1966	Applied	
Journal of Economic Perspectives	19.31	2147	1987	Applied	
Journal of Political Economy	19.18	2133	1892	Top 5	
Review of Economic Dynamics	18.64	2073	1998	Applied	
AEJ: Applied Economics	18.28	2033	2009	Applied	
Review of Economics and Statistics	17.38	1933	1917	Applied	
Quarterly Journal of Economics	17.32	1926	1886	Top 5	
AEJ: Economic Policy	17.08	1899	2009	Applied	
AEJ: Microeconomics	16.52	1837	2009	Applied	
American Journal of Agricultural Economics	16.24	1806	1919	Applied	
AER: Insights	15.67	1742	2019	Applied	
Journal of Labor Economics	13.32	1481	1983	Applied	
Journal of Economic Literature	11.10	1234	1963	Applied	
AEJ: Macroeconomics	10.90	1212	2009	Applied	
Journal of Monetary Economics	8.87	986	1975	Applied	

Table 2: Journals ranked by geographic diversity of editors. Journals ranked by standard distance of those involved in an editorial capacity at the journal (see Section 2), which can be measured in degrees (as we are on a globe) or in kilometers. Standard distance can be interpreted as a measure of the geographic diversity of a journal, with more geographically diverse journals being associated with higher distances. Founding Year and Type, except for Top 5 journals, is as per the ABDC journal ratings.

Journal	Standard dist. (deg)	Standard dist. (km)	Dist. auth. to ed. centroid (deg)	Туре
Energy Economics	52.73	5863	25.65	Applied
Journal of Econometrics	50.54	5620	29.47	Econometrics
Journal of Business and Economic Statistics	50.03	5563	23.98	Econometrics
Econometric Theory	49.19	5470	21.78	Econometrics
Journal of Development Economics	47.38	5268	22.95	Applied
RAND Journal of Economics	46.94	5219	19.96	Applied
Games and Economic Behavior	45.61	5072	14.11	Theory
Journal of Economic Theory	45.03	5007	22.39	Theory
Experimental Economics	44.91	4994	23.12	Applied
Economic Theory	44.19	4914	29.57	Theory
Journal of Environmental Economics and Management	43.69	4858	20.88	Applied
Journal of Economic Dynamics and Control	43.39	4825	27.54	Applied
International Economic Review	43.37	4823	25.29	Applied
Journal of Economic History	42.86	4766	23.56	Applied
Journal of Money, Credit and Banking	42.78	4757	20.52	Applied
Journal of Economic Growth	42.72	4750	15.78	Applied
Journal of Economic Behavior and Organization	42.70	4748	9.87	Applied
Journal of Urban Economics	42.26	4699	24.13	Applied
Theoretical Economics	42.05	4676	13.11	Theory
Journal of International Economics	41.48	4612	19.58	Applied
Review of Economic Dynamics	40.38	4490	23.38	Applied
Health Economics	40.38 39.14	4352	5.09	Applied
The Economic Journal	38.84	4319	4.71	Applied
Journal of Health Economics	38.81	4315	20.51	Applied
	38.71	4313	20.31	Econometrics
Journal of Applied Econometrics AEJ: Microeconomics	37.76	4304	29.22	Applied
Journal of Monetary Economics	37.65	4199	25.59	Applied
Journal of Human Resources	36.85			
	36.56	4098	19.58 18.44	Applied Econometrics
Quantitative Economics		4065		
Journal of Public Economics	35.77	3977	22.69	Applied
Journal of Risk and Uncertainty	35.71	3971	14.66	Theory
AEJ: Macroeconomics	35.59	3957	26.47	Applied
Review of Economics and Statistics	35.18	3912	21.51	Applied
Journal of Labor Economics	35.17	3911	16.06	Applied
Econometrica	34.07	3788	14.20	Top 5
European Economic Review	33.99	3780	6.70	Applied
American Journal of Agricultural Economics	33.62	3738	10.64	Applied
Journal of the European Economic Association	33.05	3675	10.02	Applied
American Economic Review	32.10	3569	9.17	Top 5
Review of Economic Studies	31.70	3525	29.13	Top 5
AEJ: Economic Policy	30.91	3437	15.61	Applied
Journal of Law and Economics	30.19	3357	9.73	Applied
AEJ: Applied Economics	30.03	3339	10.94	Applied
Journal of Financial Econometrics	28.78	3200	33.19	Econometrics
Journal of Political Economy	28.09	3123	4.50	Top 5
Journal of Economic Perspectives	28.07	3121	14.59	Applied
Journal of Economic Literature	26.94	2996	20.51	Applied
Quarterly Journal of Economics	22.48	2500	8.07	Top 5

Table 3: **Journals ranked by geographic diversity of authors.** Journals ranked by standard distance of authors (see Section 2), which can be measured in degrees (as we are on a globe) or in kilometers. Distance between author and editor centroids is also given. Type, except for Top 5 journals, is as per the ABDC journal ratings.

### Appendix: Methods for author data collection

Here we provide a brief overview of additional methods undertaken to obtain authorial affiliation locations. Full details with code are available at the code repository online.

#### Authors, affiliations and locations

The objective of this exercise was to obtain a comprehensive dataset of published scientific works in our set of journals from 2019 to the present (Scopus query run 28th Oct 2020) and associate each author's one or more affiliations with a location (i.e. latitude, longitude).

Data was assembled in five discrete steps as follows:

- 1. **Step 1: Scopus API query of journal publications.** Each journal name was used to query the Scopus Content Search API and obtain a full listing of publications in that journal since 2019 to the present.
- 2. **Step 2: Parse journal outputs.** Outputs from Step 1 were read and parsed into a single database of journal-author-affiliation data.
- 3. Step 3: Scopus API query of unique affiliations IDs. Scopus afids (affiliation IDs) and the Scopus Affiliation API were used to enrich the affiliation information from Step 1 (e.g. obtain street, city, state, country).
- 4. Step 4: Google API query of enriched affiliation information. The enriched location information for each afid was passed to a Google API geocode query to obtain a latitude and longitude for the location of the affiliation.
- 5. Step 5: Join locations to journal-author-affiliation. The latitudes and longitudes from Step 4 were added to the journal-author-affiliation database, using afid as the join key. The final output is a journal-author-affiliation-location database.

A few important points are noted regarding the methodology (refer to code repository README files and code for detailed information):

- AER:Insights (and variants on this name) was not responsive to the Scopus query and so was dropped from the analysis.
- Stage 1 generated 22,282 unique journal-author-affiliation records. Note: only publications of type 'Article', 'Chapter', or 'Review' were included in the study (e.g. not 'Editorial' or 'Financial update').

- 417 afids were missing in Stage 1. Of these, 129 were recovered by using information from authors' other publications in the dataset. If more than one other publication for the author existed, the most frequent affiliation was used. This resulted in 21,994 records with an afid.
- 2860 affiliation IDs were successfully identified with a location, resulting in a final dataset of 21,162 journal-author-affiliation-location quadruples (95% recovery).
- Google's API provides an indication of the quality of the geocoded result provided to a query. In the vast majority of the cases, the match was ROOFTOP (the most accurate). In some cases it was GEOMETRIC\_CENTRE, which is the centroid of the city, county, state, or country (worst case) of the query when a more precise match cannot be made. To examine the impact of such imprecision, two final datasets were produced, one with all records, and one in which entries with GEOMETRIC\_CENTER tagged locations are omitted. The Pearson correlation coefficient between journal standard distance of authors calculated with all records and journal standard of distance of authors calculated with the restricted dataset was 0.96. In addition the Pearson correlation coefficient between standard distance of editors and standard distance of authors was 0.57 using all records and 0.55 using the restricted dataset. Given the small magnitude of these differences, we chose to present results using the full dataset.

#### Author Power, Standard Distance, Centroids

Using the journal-author-affiliation-location database, standard distance and geographic mean location of journals were computed in the same way as for our editorial dataset.

Considering the large number of authorial affiliations, in order to analyze the global distribution of authorship, aggregation of locations was required. For this, a 1 degree coarse-graining of locations was applied. That is, latitudes and longitudes were rounded to the nearest degree. 1 degree of latitude corresponds to a distance of approximately 111km anywhere on the globe, and 1 degree of longitude corresponds to approximately 111km at the equator, and 0km at the poles. Using these coarse-grained locations, journal publications could be summed for each location.

# **Supplementary Materials**

## Contents:

Figure 8. Top 10 most powerful countries.
Figure 9. Top 10 most powerful countries excluding the USA.
Figure 10. Top 10 most powerful institutions.
Table 4. Top 99 most powerful institutions.
Table 5. Comparison to finance and physics journals.
Figure 11. Diversity by regional identifier in journal title.

For full data go to:

github.com/specialistgeneralist/geodiverse

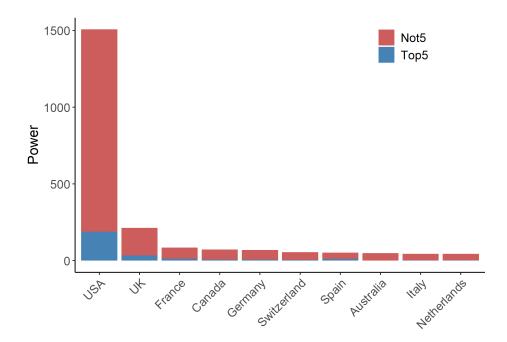


Figure 8: **Top 10 most powerful countries.** The ten most powerful countries globally, including these countries' power at Top 5 journals (Top5) and other journals (Not5). Power within a country is measured by the number of times an institutional affiliation located in that country is represented in an editorial capacity at a high ranking economics journal.

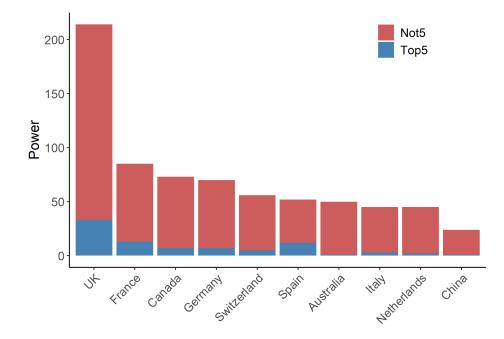


Figure 9: **Top 10 most powerful countries excluding the USA.** The ten most powerful countries excluding the USA, including these countries' power at Top 5 journals (Top5) and other journals (Not5). Power within a country is measured by the number of times an institutional affiliation located in that country is represented in an editorial capacity at a high ranking economics journal.

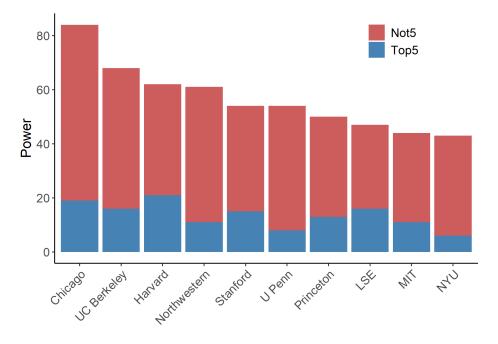


Figure 10: **Top 10 most powerful institutions.** The ten most powerful institutions globally, as seen in Table 1, including these institutions' power at Top 5 journals (Top5) and other journals (Not5). Power is measured by the number of times an institutional affiliation is represented in an editorial capacity at a high ranking economics journal.

Institution	Power	Institution	Power
Chicago	84	Fed. Res. Board of Governors	11
UC Berkeley	68	NUS	11
Harvard	62	Rochester	11
Northwestern	61	UC Davis	11
Stanford	54	VU Amsterdam	11
UPenn	54	Sciences Po	10
Princeton	50	North Carolina	10
LSE	47	Cambridge	10
MIT	44	Tel Aviv	10
NYU	43	Warwick	10
Duke	42	London Business School	9
Yale	40	Mannheim	9
UCL	38	Arizona	9
UC San Diego	38	Amsterdam	9
UCLA	37	Arizona State	9
Columbia	37	Carnegie Mellon	9
Wisconsin, Madison	30	Fed. Res. Bank of San Francisco	9
Zurich	29	Georgetown	9
Boston University	27	Glasgow	9
Cornell	25	Indiana	9
Brown	24	Notre Dame	9
Toronto	24	Vienna	9
Michigan	23	Oslo	8
Pompeu Fabra	23	Tilburg	8
Maryland	22	Melbourne	8
Fed. Res. Bank of Minneapolis	21	Chapman	8
UT Austin	19	Iowa	8
USC	19	Rutgers	8
Minnesota	13	UNSW	8
Toulouse	17	Bonn	7
Bocconi	17	CREST	7
Dartmouth College	17	Bern	7
UC Irvine	17	Fed. Res. Bank of Chicago	7
Pennsylvania State	16	Fed. Res. Bank of New York	7
Boston College	16	Fed. Res. Bank of St Louis	7
Caltech			7
Paris School of Economics	15 15	Virginia HEC Paris	6
Texas A&M	15	ANU	6
	13 14		
UC Santa Barbara		Bologna	6
Johns Hopkins	14	EUI Fad Das Dank of Atlanta	6
Monash	14	Fed. Res. Bank of Atlanta	6
UBC	13	Geneva	6
Oxford Mishing State	13	Illinois, Urbana Champaign	6
Michigan State	13	Oregon	6
Essex	12	Pittsburgh	6
Ohio State	12	Purdue	6
Vanderbilt	12	Syracuse, NY	6
Washington University in St. Louis	11	Universite Libre de Bruxelles	6
Emory	11	UTS	6
Erasmus University	11		

Table 4: **Top 99 most powerful institutions.** The ninety-nine most powerful institutions globally. Power is measured by the number of times an institutional affiliation is represented in an editorial capacity at a high ranking economics journal.

Journal	Standard dist. (deg)	Standard dist. (km)	Founding Year	Туре
Communications in Mathematical Physics	34.28	3812	1965	Physics
Journal of High Energy Physics	33.92	3772	1997	Physics
Econometrica	25.86	2876	1933	Top 5
Review of Economic Studies	22.15	2463	1933	Top 5
American Economic Review	21.62	2404	1911	Top 5
Journal of Political Economy	19.18	2133	1892	Top 5
Quarterly Journal of Economics	17.32	1926	1886	Top 5
Journal of Finance	15.08	1677	1946	Finance
Journal of Financial Economics	14.65	1629	1974	Finance
Review of Financial Studies	13.53	1504	1988	Finance

Table 5: **Cross-field geographic diversity of editors.** Journals ranked by standard distance of those involved in an editorial capacity at the journal (see Section 2), which can be measured in degrees (as we are on a globe) or in kilometers. Standard distance can be interpreted as a measure of the geographic diversity of a journal, with more geographically diverse journals being associated with higher distances. Included are the conventional Top 5 economics journals, the conventional Top 3 finance journals and two prestigious physics journals. Note, with reference to Table 2, that there exist prestigious economics journals outside of the Top 5 that are both more and less geographically diverse than any of the journals included in this table.

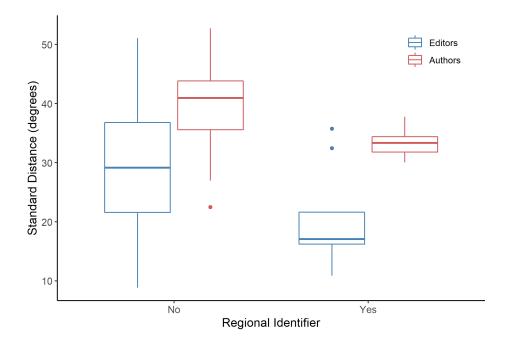


Figure 11: **Geographic diversity by regional identifiers in journal titles.** Standard distance of journal editors and authors (median, 25th and 75th quartiles, range, outliers) categorized by whether or not the journal name includes a regional identifier ("American" or "European"). Note that the two particularly diverse outliers in the editorial data with regional identifiers are the two "European" journals. The particularly non-diverse outlier in the authorial data without regional identifiers is the Quarterly Journal of Economics.