

NBER WORKING PAPER SERIES

THE DEMOGRAPHIC AND RESEARCH STYLES OF ECONOMICS WRITING

Daniel S. Hamermesh

Working Paper 33731

<http://www.nber.org/papers/w33731>

NATIONAL BUREAU OF ECONOMIC RESEARCH

1050 Massachusetts Avenue

Cambridge, MA 02138

May 2025

I thank Guido Menzio for a helpful suggestion, Jeff Biddle, Jennifer Hunt, and Ted Joyce for comments, and Shelly Lundberg for comments and some of the data used. The views expressed herein are those of the author and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2025 by Daniel S. Hamermesh. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

The Demographic and Research Styles of Economics Writing
Daniel S. Hamermesh
NBER Working Paper No. 33731
May 2025
JEL No. A14

ABSTRACT

This study examines publications in three leading general economics journals from the 1960s through the 2020s, considering levels and trends in the demographics of authors, methodologies of the studies, and patterns of co-authorship. The average age of authors has increased nearly steadily; there has been a sharp increase in the fraction of female authors; the number of authors per paper has risen steadily; and there has been a pronounced shift to articles using newly generated data. All but the first of these trends have been most pronounced in the most recent decade. The study also examines the relationships among these trends.

Daniel S. Hamermesh
University of Texas at Austin
Department of Economics
and IZA
and also NBER
hamermes@eco.utexas.edu

There have been sharp and, in some cases, surprising changes in the demographic structure and research styles—patterns of co-authorship and methodologies—in economic research over the past decade. Hamermesh (2013) examined these issues in three leading U.S.-based general economics journals (*American Economic Review*, *Journal of Political Economy*, and *Quarterly Journal of Economics*) from 1963-2011. The purpose was reportage—simply to present what the demographics and research styles were and how they had changed over six decades.

Here I extend the reportage to a seventh decade, documenting the ways in which these outcomes have continued and, in some cases, departed from past trends. I offer analyses of five different aspects of the changing demographics and styles, seeking to discover what is behind the changes that have occurred. For comparison purposes I reproduce the information from several of the tables from Hamermesh (2013). As with the original article, the update—and its analyses—are based on examinations of the texts of the articles and web-searches to determine the demographic characteristics of authors.¹

I. The Demographics of Leading Research Articles

The new information in the first column of Table 1 presents the female percentage of authors of the 248 articles published in these journals in 2024 (weighting observations by the inverse of the number of authors of each paper). The progression that occurred from the 1960s and 1970s, when only a minute fraction of authors were women, to the early 21st century has, if anything accelerated. Today women are approaching one-fourth of authors of leading economic research articles. The picture differs little if we compare without accounting for co-authorship by weighting: In that calculation women are only 21.6 percent of authors, implying that they are less likely than men to be authors of articles with greater numbers of co-authors.

¹ Information on authors' gender and age for 2011 and 2024 was obtained from Web-based CVs, linkedin.com, Wikipedia, and direct email to authors. The first and final methods were used to gather data for 2003, while the earlier data were all obtained via direct email. Whether the history of patterns in these journals typifies economic publishing generally cannot be known without examining publications in many more of the over 1000 economics journals worldwide. But these are among the most widely read and cited outlets in the field, and publications in them to some extent foreshadow what will appear in other journals.

The remainder of Table 1 describes the age structure of authorship, dividing authors (using the same weighting scheme) into four age categories: 35 years and under, 36-50, 51-60, and 61 and over.² It also presents the mean age of authors of these articles. The changes from 2011 to 2024 continued those that started in the 1980s, but the rate of change has not accelerated. Indeed, most noticeable from 2011 to 2024 was a continuing sharp and statistically significant drop in the representation of the youngest group (and a nearly equal sharp rise among those 36-50). This decline was not due to increases in the age of receipt of Ph.D.: The average time from bachelor's to doctorate did rise by about 0.5 years per decade from 1993-2024, but that increase accounts for less than one-third of the drop in the percentage of authors in the youngest group. While few older (51+) authors penned articles in the 20th century, today this group accounts for over 20 percent of authorships. Even the oldest (61+) group today accounts for more authors than the entire 51+ group did in any year in the 20th century. Not surprisingly given these changes, the average age of authorship has increased steadily since 1973.

On the surface the increased representation of women in economic research is remarkable; but should one be encouraged by it? In a gender-blind world the percentage of female authors would reflect the percentages of women in the Ph.D. cohorts who are authoring articles in these journals. To examine whether that is the case, I obtained data from Lundberg and Stearns (2019), covering Ph.D. cohorts from 1993-2017, and from CSWEP (1986, Table 1; 1990, Table 1), covering some Ph.D. cohorts from 1976 onward. Assuming these leading authors received their doctorates at age 29, the average among authors in 1993-2024, we can use this information and the age structure of authorship shown in Table 1 to estimate the expected female representation among authors in each of 1993, 2003, 2011, and 2024. (The absence of information on the gender distribution of new Ph.D. economists before 1976 obviates these comparisons for 1963-83.)

These calculations yield expected female authorship rates of 15.0 percent in 1993, 20.8 percent in 2003, 24.1 percent in 2011, and 29.3 percent in 2024. These percentages lie above the actual rates shown

² The youngest author in this population (of a sole-authored article in 1963) was 24 years old at the time of publication; the oldest author (of a four-authored paper in 2024) was 81.

in Table 1 by 5.7, 10.5, 11.5, and 6.8 percentage points respectively. While female representation among authors in the journals has grown tremendously, it still lags the percentage of women among new Ph.D. economists, a lag that differs little from what it was in 1993. This absence of any major change in the representation of women among authors in these leading journals compared to what might have been expected mirrors a similar absence of changes in women’s progress toward tenured professorial positions (Ginther and Kahn, 2021).³

II. Research Styles

Figure 1 presents patterns of co-authorship over the past seven decades. Underlying the rise in the average number of authors per paper implicit in the final two column of Table 1 is the steady shift toward ever-greater numbers of authors of these articles. There were no four-authored papers as recently as 1983; today they account for 17 percent of articles. There were no papers with more than four authors in 2003; today nearly 12 percent of articles have five or more authors (with five articles written by six authors each and one by seven authors). Obversely, sole-authored papers are now quite scarce; and even two-authored papers today only account for slightly more than one-fourth of all articles (compared to a majority as recently as 2003). The rightward shift in the distribution of co-authorships has if anything accelerated in the past decade.

It is worth extending Hamermesh’s (2013) examination of the age pattern of co-authorships because of the changes in the age structure of authors shown in Table 1 and, more important, the growth in the number of co-authors documented in Figure 1. Unsurprisingly the coefficients of variation of age **across** all authors differ little among articles with two, three, four, or five plus authors, being 0.231, 0.224, 0.218, and 0.226 respectively. The coefficients of variation of ages **within** dual co-authorships average only 0.116, confirming results covering 1993-2011, when a large majority of co-authorships were only dual. But with

³ Basing the calculations on the percentages of female faculty members in U.S. economics departments in the “Chairman’s Group,” a set of the most visible departments in the profession, rather than on female representation among new Ph.D. economists, wipes out about 3/4 of the shortfall in 2024, but much less in earlier years.

three authors the average coefficient of variation of ages within co-authorships averages 0.163; with four authors it is 0.173; and with five or more it rises to 0.190.

This increase does not arise from many-authored articles having a few young people who might have begun as research assistants in the project but became co-authors: The minimum ages of authors on articles with 4, 5, 6, or 7 authors are 36, 33, 35, and 35 respectively. Rather, they show that the increase in the number of authors has led to more age-diverse teams. Perhaps this is because when teams are small and the authors are more likely to be working directly with each other, co-authors gravitate more to their age contemporaries, exactly as seen in most marriages (i.e., in the U.S. in the 2010s, 70 percent of spouses were within 5 years of age).⁴ Co-authors of substantially different ages are more likely to be observed in large teams engaging in a variety of tasks.

Figure 2 divides the articles in each decade into five types differing by method: 1) Pure theory/econometric theory; 2) theory with simulations, including calibration in macroeconomics; 3) empirical with borrowed (off-the-shelf) data; 4) empirical with data created by the authors from internet sites and/or from the authors' surveys; and 5) experiments, both lab and field.⁵ The continuing decline in purely theoretical articles that occurred from 1963-2011 has stopped, but the rapid decline in studies based on off-the-shelf data has continued. The big changes are the continuing rise in empirical work based on original non-laboratory data and the rapid and even accelerating increase in experimental work. Today these two methods, which both involve collecting original data, account for over half of all published papers, compared to less than four percent four decades ago.⁶

The two biggest changes in economics publishing over the past 50 years are documented in Figures 1 and 2: The steady rise in the number of authors per paper, and the very sharp switch to using original data

⁴ Author's calculations from the American Community Survey, 2013-17.

⁵ With similar methodologies in use today across many sub-specialties, this division may be more useful than the widely and usually self-reported *JEL* coding. (See Cherrier, 2017, for a discussion of the development of the *JEL* categorization.)

⁶ Biddle (1999) discusses data-based methods used in the first half of the 20th century.

in empirical research. Are they related—is the rise in the number of authors necessitated by the refocusing of methodology? An OLS regression of the number authors on indicators of style based on all articles in the sample 1963-2024 yielded estimates of 0.418 (s.e. = 0.127), 0.160 (s.e. = 0.076), 0.832 (s.e. = 0.088), and 1.494 (s.e. = 0.129) on indicators for Types 2-5 respectively (with Type 1 the excluded category), and an adjusted $R^2 = 0.166$ ($N = 997$). Clearly, the newer methodologies are associated with more co-authors on the study.

If the distribution of articles by type had been unchanged, the number of authors per paper would have risen from 1.16 in 1963 to 1.66 in 2024. Comparing this to the actual number of authors in 2024, 2.90, however, shows that changing styles can account for only 29 percent of the increase in the number of authors associated with a published paper. If we base the comparison to 1983 (2003), changing styles still account for only 39 (37) percent of the 1.38 (0.91) increase in the number of authors. Similar conclusions result using the appropriate Poisson estimates. The majority of the rise in co-authorship has not been due to the changing methodology of economic research.

The period 1969-2024 saw a near-tripling of the length of articles published in the three journals, with a 20 percent increase in length between 2011 and 2024. (Hadavand *et al.*, 2024, based on Kosnik's, 2022, and calculations from the sample used here.) That increase seems, however, to have halted after 2018, as there was no change in a simple average of the lengths of articles in these three journals between 2018 and 2024. Perhaps the rise in the number of authors reflects the increased length of articles and the presumably increased effort required to generate that greater length. In 2024 the six (of 248) papers with more than five authors averaged 11 pages longer than articles with “only” five or fewer authors. Among those with fewer than six authors, however, there was no difference in article length by number of co-authors. In short, the absence of any correlation of length and number of authors except for an extreme two percent of recent papers suggests that the rise in the rate of co-authorship has not resulted from a standard of ever-lengthier articles.

The recent decade especially saw a simultaneous rise in author's ages and a shift to research types that involved obtaining new data. These changes are not related: The mean age of authors of articles of

Types 1 and 2 In 2024 was 45.31 (s.e. = 0.86); that of Type 3 articles was 43.99 (s.e. = 0.93), while that of the burgeoning categories Types 4 and 5 was 41.94 (s.e. = 0.46), significantly below the average ages in the other three categories. The average age of authors did increase, and those writing articles using the newest research methodologies tended to be younger than others engaged in more traditional methods; but the average age among authors rose over time in articles classified in each of the five methodologies.⁷

Are these leading journals similar in style, and has their similarity increased? Examining the distribution of styles (the five research types) across the three pairs of journals, Kolmogorov-Smirnov statistics show no significant difference in style between the *AER* and *JPE* in 2024, but significant differences between the *QJE* and each of the other two journals. The journals do differ somewhat in style, with the *QJE* being extremely heavy today in Type 4 articles (empirical with original data), with 65 percent in this category compared to 32 percent of articles in the other two journals. There has been no convergence of style: Comparing to styles in 2011, the *AER* is now more similar to the *JPE*; but the *QJE* is less similar to either the *AER* or the *JPE* than it was then. (The same result holds if the comparison is to articles published in 2003.) While there are sharp overall trends in research style, to some extent the editors appear to continue to exhibit different views about how economists should approach economic problems.

III. A Quiet Revolution

Since the first decade of the 21st century there have been major changes in the demographics and styles of research published in leading economics journals. There has been a remarkable growth in female representation (although it still falls short of the growing presence of women among all Ph.D. economists); a steady and even accelerating growth in the number of authors listed on each article and in their ages; and a stark and continuing shift of empirical work to research based on original data. Some of these changes are surprising; others could have been expected from previous trends. They suggest that any attempt to predict what these numbers might look like in one or two decades would be highly speculative. They provide a plethora of opportunities for further inquiry into their causes.

⁷ The conclusion is unaltered if we calculate mean ages by deleting the youngest author on any article with 4+ authors.

References

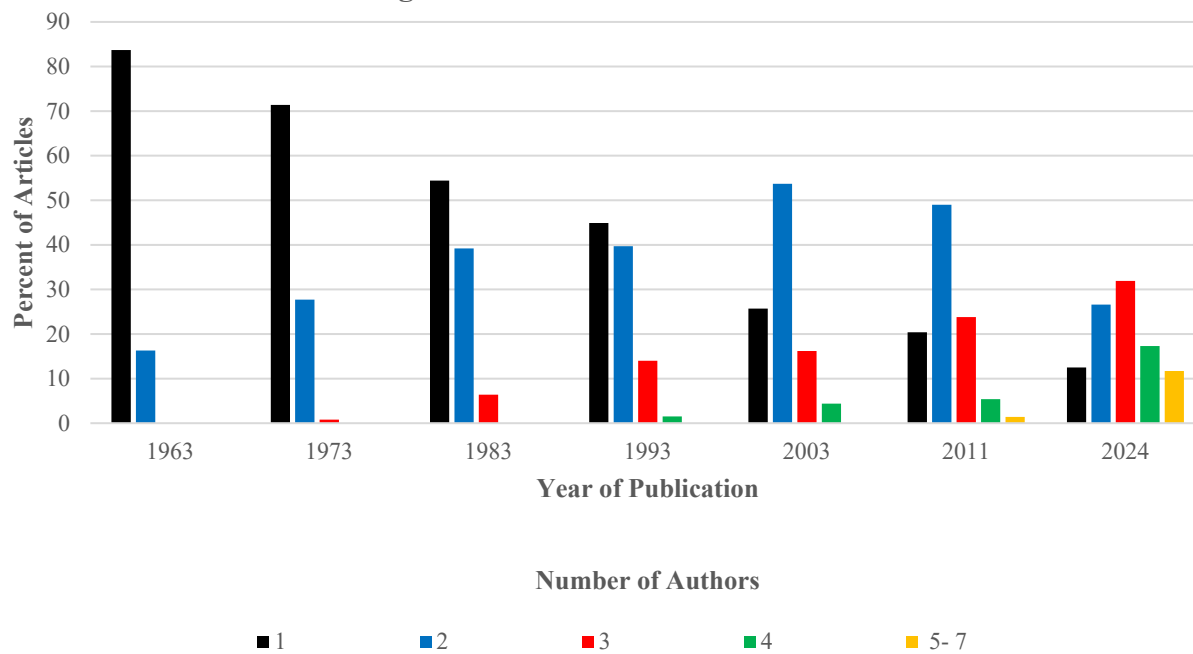
- Jeff Biddle, “Statistical Economics,” *History of Political Economy*, 31 (Winter 1999): 607-51.
- Béatrice Cherrier, “Classifying Economics: A History of the *JEL* Codes,” *Journal of Economic Literature*, 55 (June 2017): 545-79.
- Committee on the Status of Women in the Economics Profession (CSWEP), “Report,” American Economic Association, *Papers and Proceedings*, 76 (May 1986); 80 (May 1990).
- Donna Ginther and Shulamit Kahn, “Women in Academic Economics: Have We Made Progress?” American Economic Association, *Papers and Proceedings*, 111 (May 2021): 138-42.
- Aboozar Hadavand, Daniel Hamermesh, and Wesley Wilson, “Publishing Economics: How Slow? Why Slow? Is Slow Productive? How to Fix Slow?” *Journal of Economic Literature*, 62 (March 2024): 269-93.
- Daniel Hamermesh, “Six Decades of Top Economics Publishing: Who and How?” *Journal of Economic Literature*, 51 (March 2013): 162-72.
- Lea-Rachel Kosnik, “Who Are the More Dismal Economists? Gender and Language in Academic Economics Research.” American Economic Association, *Papers and Proceedings*, 112 (May 2022): 592–96.
- Shelly Lundberg and Jenna Stearns, “Women in Economics: Stalled Progress,” *Journal of Economic Perspectives*, 33 (Winter 2019): 3-22.

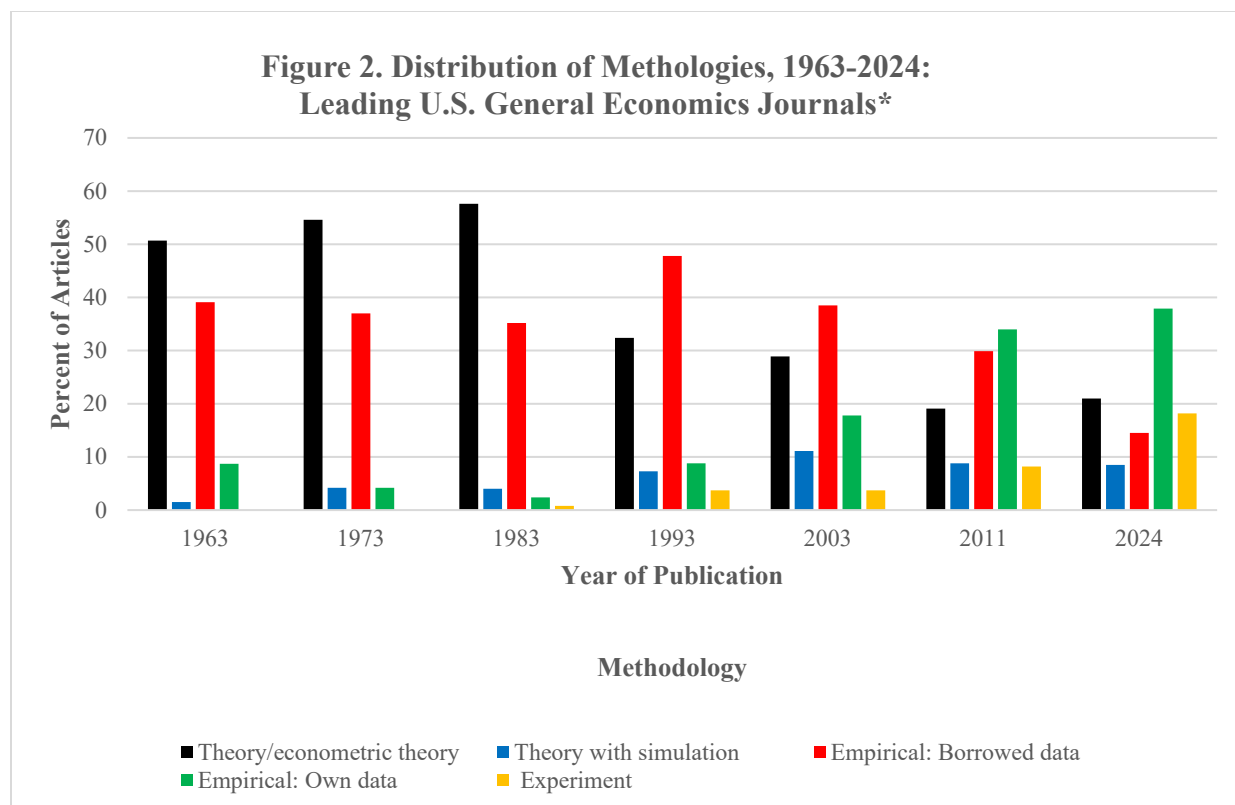
Table 1. Characteristics of Authors and Articles, by Year of Publication*

Year	Percent female	Age (percent distribution)				Mean age	N authors	N Articles
		<=35	36-50	51-60	61+			
1963	4.7	50.5	45.3	2.4	1.8	37.3	100	86
1973	3.4	61.5	32.6	5.9	0	35.6	154	119
1983	6.8	48.5	47.2	3.5	0.8	36.7	190	125
1993	9.3	49.8	43.1	5.6	1.5	37.7	234	136
2003	10.3	36.8	50.4	10.7	2.1	40.3	269	135
2011	12.6	33.0	48.1	13.0	5.9	41.5	322	147
2024	22.5	23.2	56.2	13.3	7.3	43.1	719	248

*The statistics are based on the *American Economic Review*, *Journal of Political Economy*, and *Quarterly Journal of Economics*. The population excludes Presidential and Nobel addresses, comments, replies, rejoinders, and notes. They are weighted by the inverse of the number of authors of the article. The ages of one author in each of 1963 and 2024 were unavailable.

**Figure 1. Distribution of Number of Authors, 1963-2024:
Leading U.S. General Economics Journals**





*A type could not be assigned to seventeen of the articles published in 1963.