Too Many Co-Authors?

BY RENEE HALTOM

No matter how you measure it, economists are collaborating more than they used to. Nearly all published economics research articles were solo authored in the 1940s. The share is now about a quarter, according to a recent analysis, while articles with three or more authors have reached about a third of the total. In the top journals, just one-fifth of papers are written alone. A recent byline in the *American Economic Review* featured no fewer than seven names.

The increasing ease of communication has played a central role. But that aside, what caused the burgeoning of co-authorships, and does it matter for the profession?

A likely factor is that papers have become multifaceted. Even macroeconomic papers feature "micro-foundations" in which people and firms are modeled to have complex, rational preferences that are then mapped to real-world data. The data have become exceptionally abundant and the analysis requires significant econometric and programming expertise. Often a subset of co-authors specialize in that part alone. Other co-authors may become involved in the project to acquire data or funding.

The profession's growing competitiveness may also be a catalyst. Publications and citations are primary measures of influence and productivity, yet the acceptance rate of the top five economics journals has plummeted from 15 percent to 6 percent since 1980. So if a researcher can co-author three papers submitted to three journals, the chances of gaining stature may be improved over working on a single-authored paper submitted to just one journal.

In principle, the profession could adjust rewards accordingly — say, giving a duo-authored paper half as much credit as a solo-authored paper on an economist's curriculum vitae. But in a recent survey of 47 economics department chairs, Stan Liebowitz at the University of Texas at Dallas found that a dual-authored paper got about 89 percent the value of a single-authored paper on average.

Is this a bad thing? Co-authoring should make a paper better, especially when one can choose co-authors based on gains from trade rather than proximity. Economist Daniel Hamermesh has documented that adding co-authors steadily increases citation counts for the top journals, though less than proportionally. In such conditions, Liebowitz argues, insufficient proration will lead to too many authors and less research produced. But co-authorship may also be an investment in future productivity if it transfers skills, nurtures a professional relationship, or confers stature to the less prominent members of the team.

One way co-authorship could be costly is if it hindered the ability of the market to infer the productivity of individual researchers. Unlike many hard sciences, the standard in economics is to list authors alphabetically, making it potentially hard to discern individual contributions or lead roles.

But those in charge of hiring and promotions often have ways of ascertaining productivity. "The number of co-authors is still small enough that those in the know can quickly parse out who did what," says Gilles Duranton, chair of the real estate department at the University of Pennsylvania's Wharton School. "If a junior person previously solo authored two great papers that published nicely and captured the attention of a senior person they later co-author with, that suggests greater credit. But if they write with famous person X on the exact research agenda of famous person X, the credit may not be as high."

Fuzzy market signals could be costlier in some cases than others. Research by Harvard University Ph.D. candidate Heather Sarsons found that male economists get more credit toward tenure for co-authored papers than female economists; women got equal credit only when they co-authored with other women. To the extent that women are systematically presumed to have contributed less than male counterparts, the co-authorship trend could prevent women from advancing. Sarsons' finding has become part of an ongoing discussion about women in economics.

In the critical early years of one's career, it may be worth authoring alone so there is no uncertainty about from whom the innovations stemmed. Solo authorship is most common in the years just following graduate school, when researchers most need to prove their academic credibility. At the same time, if one persistently writes alone despite the falling logistical costs to collaboration, it could signal an inability to work well with others.

In fact, the costs and benefits of co-authorship seem increasingly to depend on the stage of one's career. Because of large fixed costs in accessing and preparing data, the professional path for economists may increasingly entail some years spent akin to a lab person in hard sciences, Duranton notes. Similarly, the demands on senior people are increasing. "There are some prominent people who publish a lot, but their main job is sensing the issues and basically organizing people to work together. This is obviously fundamental, but their contribution beyond the initial phase may be pretty limited."

The economics profession is not alone: Co-authorship has increased across social sciences, especially in fields using experiments, large datasets, complex statistics, and division of labor among researchers. Some hard sciences have implemented standards for the minimum contribution that warrants a byline due to perceptions of co-authorship run amok. No sign yet that economics will follow suit. **EF**