Increasing Scholarly Productivity for Early-Career Tenure-Track Faculty: A Cohort Analysis (2011–2021)

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Acknowledgements: The authors have no relevant financial or non-financial interests to disclose. Academic Analytics Research Center is a 501(c)(3) non-profit organization.

Abstract

Introduction: The pressure to "publish or perish" is well-established, yet empirical longitudinal trends for productivity for doctoral candidates and early career researchers remains largely unexplored. Given the increases in the number of doctoral candidates, understanding the pressures of scholarly dissemination for this population could help shift the academic culture to support the sustainable development of early-career talent.

Methods: We analyzed the scholarly output of 90,831 doctoral graduates (i.e., cohorts based on degree year of 2011–2021) who successfully transitioned to tenure-track positions. Scholarly outputs (i.e.. journal articles, books, book chapters, conference proceedings) were tracked from graduation through three years post-graduation. We employed Kruskal-Wallis tests and longitudinal slope analyses to assess shifts in publication volume and to disentangle growth driven by individual intensity versus broad participation.

Results: Scholarly production by early career scholars rose significantly over the decade. The mean cumulative journal article counts for successful candidates increased 25.8%, from 7.72 to 9.72, while book and chapter production declined by 25.1% and 44.8%, respectively. Disciplinary mechanisms varied: in Health and Biological Sciences, growth was driven by intensity, with active researchers (i.e., those who publish) accelerating output. Conversely, in Education and the Humanities, growth was driven by participation, with a ~15% increase in the proportion of candidates publishing. Lastly, in fields such as Physical and Mathematical Science, we found a shift in mode of dissemination away from articles and towards conference proceedings.

Conclusion: These findings suggest that doctoral and early career research now demand significantly more scholarly production in articles and conference proceedings in many disciplines, while emphasis on the publication of books and book chapters has waned.

Timeline for Manuscript Completion:

Task	**Estimated Completion**	**Progress**
RQs and Analysis Plan Developed	1/13/26	JP- Complete
Initial Analyses	1/26/26	JP-Complete
Finalize Analyses	2/6/26	
Initial Paper Draft	2/20/26	
First Round of Internal Feedback	2/27/26	
Second Paper Draft	3/6/26	
Second Internal Feedback	3/13/26	
Full Draft of Paper	3/20/26	
Presentation of Findings		