

## Key factors influencing the precarity of ECR careers

The stakeholders' meeting, in order to take the initiative to change the precarity situation of early-career researchers, on the basis of the overview made in OECD Science, Technology and Industry Policy Papers (May 2021 No. 113), identified several key factors related to the changing context of academic research. These factors can be divided into changes in the research environment, changes in the supply and demand for doctoral candidates, and broader changes in academic careers and working conditions. The following are the main factors influencing the precarity of early-career researchers, especially postdoctoral researchers: The precarity of early career researchers is influenced by several key factors related to the evolving context of academic research. These factors can be categorized into changes in the research environment, shifts in the supply and demand for doctorate holders, and the broader changes in academic careers and working conditions. Below are the main factors that influence the precarity of early career researchers, particularly postdoctoral researchers:

### 1. Changes in the Conduct of Research

- **Funding Shifts:** There has been a move from core funding for research institutions to more competitive and project-based funding. This results in funding variability and increased pressure on researchers to demonstrate high performance through metrics like citations and the ability to secure research funds.
- **Global Competition:** The rise of an international labor market for researchers means that early career researchers are competing not just locally, but globally. While mobility is encouraged in some contexts, nationalism and anti-immigrant sentiments in certain countries can limit opportunities and hinder the flow of talent.
- **Non-standard Employment:** The growth of non-standard, temporary employment (e.g., fixed-term contracts, part-time work) without a clear pathway to permanent positions is a defining characteristic of research precarity. Researchers in these roles often face job insecurity, poor working conditions, and a lack of career progression.

### 2. Changes in the Supply and Demand for Doctorate Holders

- **Overproduction of Doctorates:** The massification of higher education and the expansion of doctoral education have led to an oversupply of doctorate holders. In many countries, the number of individuals seeking academic careers surpasses the availability of permanent positions, contributing to competition and limited opportunities.
- **Longer Career Paths:** The aging of the workforce and longer working lives mean that many older doctorate holders continue working beyond retirement age, making it harder

for younger researchers to secure permanent positions, thus prolonging the precarity of early career researchers.

- **Diverse Career Options:** While many doctoral holders find alternative employment outside academia, this transition can be challenging, leading to identity loss and difficulty adapting to non-research roles.

### 3. Shifts in Research Careers and Academic Institutions

- **Decoupling of Teaching and Research:** In many academic systems, the traditional model of the tenured academic combining teaching and research has been replaced by more specialized roles. Research positions are often temporary, with fewer opportunities for career progression, especially outside elite research institutions.
- **Institutional Stratification:** The rise of institutional stratification, where some universities receive the bulk of research funding, has created a competitive environment where only a small number of researchers achieve permanent positions or tenure. This increases competition and makes career advancement difficult for many.
- **Rise of Entrepreneurial Institutions:** Some academic institutions have adopted a more market-driven approach, requiring researchers to secure their own funding and manage projects. This increases the workload and stress on early career researchers, as they often bear the responsibility of obtaining funding and managing research without job security.

### 4. Worsening of Working Conditions

- **Extended Postdoctoral Period:** The postdoctoral phase, intended as a short-term apprenticeship, has become longer and more arduous due to the tightening bottleneck between non-permanent and permanent positions. This leads to prolonged job insecurity and limited career advancement.
- **Job Insecurity and Stress:** Early career researchers face significant stress due to job insecurity, long working hours, lack of recognition, and dependence on senior researchers. These factors contribute to a deterioration of mental and physical well-being.
- **Lack of Visibility and Academic Freedom:** Many early career researchers face challenges in gaining visibility within the academic community, which is crucial for career advancement. Moreover, the pressures of funding acquisition and project management can constrain academic freedom, reducing researchers' ability to pursue long-term, curiosity-driven research.

### 5. Cultural Expectations and Historical Legacies

- **Traditional Career Paths:** There remains a cultural expectation of a linear academic career, where researchers move through defined stages (e.g., doctoral student to assistant professor to full professor). However, this model is increasingly misaligned with the current reality, where many doctorate holders are unable to secure permanent academic positions and are forced to find alternative careers.

In conclusion, the precarity of early career researchers is shaped by a combination of financial constraints, increased competition, changing institutional structures, and evolving expectations within academic research. These factors create an environment where researchers face significant challenges in securing permanent positions, achieving career progression, and maintaining job satisfaction.