

## **Why do firms have long-term effects on careers? The role of technological change**

### **Aim**

This PhD project investigates why and how firms have long-term effects on workers' careers. It focuses on identifying the mechanisms through which organizational contexts shape wages, mobility, and access to formal authority (i.e. formal positions of power) over time. The project places particular emphasis on technological change and firm status as key drivers of persistent career inequality.

### **Theoretical background**

While prior research has established that firms play a central role in labor market inequality, much less is known about *why* they matter over the long run. FIRMS addresses this gap by theorizing firms as social structures that differ in their capacity to build skills, signal worker quality, and shape opportunities for advancement. This PhD project focuses on two key mechanisms. First, firms differ in how quickly they adopt new technologies (Babina et al., 2024), which may provide workers with valuable skills but also increase career risks when work changes rapidly. Generative AI and other novel technologies are on the rise, but there are large differences across firms in the extent to which they are used. How are workers' careers affected by entering the labor market in a firm that is an early adopter of technological advancements? Second, firms vary in status, and employment in high-status organizations may act as a powerful signal in external labor markets, shaping future opportunities long after workers leave. The project develops a life course perspective on how these mechanisms generate inequality over working lives (Bol et al., 2019).

### **Research design**

The project links longitudinal employer–employee register data to firm-level indicators of technological adoption and organizational status. The empirical focus is primarily on the Netherlands and the USA, with opportunities for other countries (e.g., Germany, Norway) where feasible. The PhD candidate will apply advanced quantitative methods to identify firm effects, including growth curve models, designs that exploit job mobility between firms, and quasi-experimental approaches. By comparing workers who move between firms with different technological profiles or status positions, the project isolates how and why firms shape long-term career outcomes. The project offers extensive opportunities for methodological training and international collaboration, but a solid background in quantitative data analysis or econometric methods is required.

### **Context**

This PhD position is part of the ERC-funded *project FIRMS – Firms and Careers: How the Workplace Structures Career Inequality*. FIRMS investigates how workplaces shape careers. By combining a life course perspective with large-scale linked employer–employee data, the project studies how firms create and reinforce inequality across gender and ethnicity, and through which mechanisms these inequalities persist. In this project, you will work in a team together with 2 other PhDs and a postdoc, as well as other senior scholars who are yet to be determined.

### **Literature**

- Babina, T., Fedyk, A., He, A., & Hodson, J. (2024). Artificial intelligence, firm growth, and product innovation. *Journal of Financial Economics*, 151, 103745.
- Bol, T., De Vaan, M., & Van de Rijt, A. (2018). The Matthew effect in science funding. *Proceedings of the National Academy of Sciences*, 115(19), 4887–4890.

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