

Social Networks as Change Agents for Equal Career Opportunities of Dutch PhDs?

Aim

Identify network-mechanisms that impact occupational inequality by gender and ethnicity among Dutch PhDs.

Theoretical background

Influential roles within organizations are often overwhelmingly populated by men or ethnic-racial majorities. In academia as well, women and minorities have been underpopulating professorships. Combining these two patterns, this project will focus on inequality in the careers of Dutch doctoral recipients both *inside* and *outside* academia. The availability of big and detailed data on the careers of all graduated PhD-recipients in the Netherlands enables rigorous tests of both classical and novel hypotheses on inequality in occupational success by gender and ethnicity. Uniquely, we will not only consider the roles of **employee/individual characteristics** (e.g., gender, ethnicity, performance) and **employer/organizational characteristics** (e.g., women in leadership roles, departmental focus), but will also pay special attention to the **social networks of employee and employer** (e.g., the degree of gender/ethnic segregation). For instance, PhD-students are socialized by and embedded in advising, co-author, departmental, and topical networks. Departments, too, are tied to other departments by collaboration (who writes with whom?) and/or competition ties (who hires whom?). The central question is to what extent the social networks in which PhD candidates and their organizations are embedded – and the characteristics thereof – help to mitigate or exacerbate social gradients in occupational success. A unique feature is that the project considers whether these network processes during the PhD reproduce occupational inequalities outside of the academy too. Hypotheses will be derived from human/social capital theory, the literatures on job satisfaction, leadership and mentoring, organizational sociology, and network theory. A toy-example of a hypothesis this project may test is: Successful co-authors breed occupational success (in- and outside academia), but particularly so when these co-authors and PhD-students share key identities like gender, ethnicity, or research interests.

Research design

The project uses web-scraping tools to capture a near-ecology of graduating PhD-students and their future careers. Hence, a distinctive feature of this project is that it cross-links several big data corpora to arrive at a near-censuses of this entire domain. It does so for PhD-recipients in the Netherlands (~100K) and their subsequent careers (in- and outside of academia), networks (mentors, co-authors, departments) and associated successes (earnings, publications, and so forth). These data are to be merged with register data from Statistics Netherlands and/or university-level data, ultimately leading to a mixed-source yet detailed and longitudinal database. In part data are already available but the PhD-candidate is expected to play an essential role in creating a dataset with both the breadth and depth to answer the project questions. Finally, the ambition is to establish an open, team science setup. The PhD-candidate may utilize the networks of the team nationally (Utrecht University, University of Groningen [sociology, data science]) and internationally (Stanford University [sociology, computer science]).

Literature

- Hofstra, B., and Kulkarni, V.V, Munoz-Najar Galvez, S., He, B., Jurafsky, D., McFarland., D.A. (2020). The Diversity-Innovation Paradox in Science. *Proceedings of the National Academy of Sciences*, 117(17): 9284-9291.
- Leahey, E. (2007). Not By Productivity Alone: How Visibility and Specialization Contribute to Academic Earnings. *American Sociological Review*, 72(4): 533-561.

Project initiators

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Location

Nijmegen