

Overqualification and Future Labor Market Outcomes: Evidence from Recent Graduates in Portugal

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- Motivation
- Previous Literature
- Methodology and Data
- Empirical Results

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- Analyse the career dynamics of overqualified workers in terms of future employment and wages prospects
- Sample of newly graduates in Portugal
- In particular:
 - To analyse the determinants of the transitions out of overqualification

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 - To analyse the determinants of the transitions out of overqualification
 - To analyse the future wage growth of recently graduates by match status in first job, taking into account workers individual observed and unobserved permanent heterogeneity and firm observed and unobserved permanent heterogeneity

According to Early Studies

- Overqualification is a transitory mismatch supporting the hypothesis of the career mobility theory (e.g. Sicherman, 1991);
- Overqualification serves as a “stepping-stone” to better future jobs;
- Affects more particularly new entrants who lack work-experience.

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- The duration of overqualification is long lasting
- Recently emphasis have been placed on the dynamics of overqualification along workers' career:
 - Effects of being mismatch at the beginning of a career (e.g. Meroni et al., 2017)
 - Consequence on future career prospects for recent graduates (e.g. Clark et al., 2017)

- We identify and follow recent overqualified graduates at risk of making a transition to a suitable job to analyse whether overqualification is a transitory phenomenon or permanent phenomenon where newly graduates workers get trap.
- We compare the evolution of wages of overqualified workers against similar well-matched workers, taking into account **worker and firm unobserved heterogeneity**.

- Continuous time duration models, assuming that the duration of the first spell (time elapsed until the worker's transit to a state that matches the skills required by the job) is determined by a parametric **Proportional Hazard (PH)** model.
- Baseline model: **Weibull** proportional hazard model, to study the survival of the duration of the first spell of newly graduates who were overqualified at the begin of their careers.
- We control for individual's unobserved heterogeneity assuming an **Inverse Gaussian** distribution of the frailty.

- To compare the future wage growth of recently graduates who have entered the labor market overqualified with the wage growth of recently graduates who have entered the labor market employed in a well-matched job.
- We estimate a two high-dimensional fixed-effects wage equation to control for both firm permanent unobserved heterogeneity and worker unobserved heterogeneity.

- We use the Occupational Information Network database (O*NET, version 21.0)
- The O*NET database contains detailed measures of the importance of tasks in each occupation (recoded into ISCO-08 classification)
- We follow Acemoglu and Autor (2011) and group these tasks into five categories that go from more demanded, more complex jobs to less demanding jobs given the intensity of their use in a given occupation:
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 - (iv) routine manual task (RM);
 - (v) non-routine manual physical task (NR-M.P)

- Our measure of overqualification is based on the relative importance of tasks within each occupation at a 2 digit-level according to the O*NET classification
 - Overqualified workers are those who are employed in occupations that are more demanding in routine manual tasks, non routine manual physical tasks and routine cognitive tasks

- Our data come from Quadros de Pessoal (QP), a matched employer-employee dataset collected by the Portuguese Ministry of Labor, Solidarity, and Social Security
- We identify the transitions out of overqualification of 13,709 recent graduates who entered the labor market overqualified in 2006 or 2007
- Workers were tracked until 2012

- Overqualification is a permanent phenomenon for a great majority of workers:
 - Six years after entering the labor market, 63% of the workers that entered overqualified remain in that status
- When accounting for unobserved heterogeneity, we found that the hazard rate **out of** overqualification increases

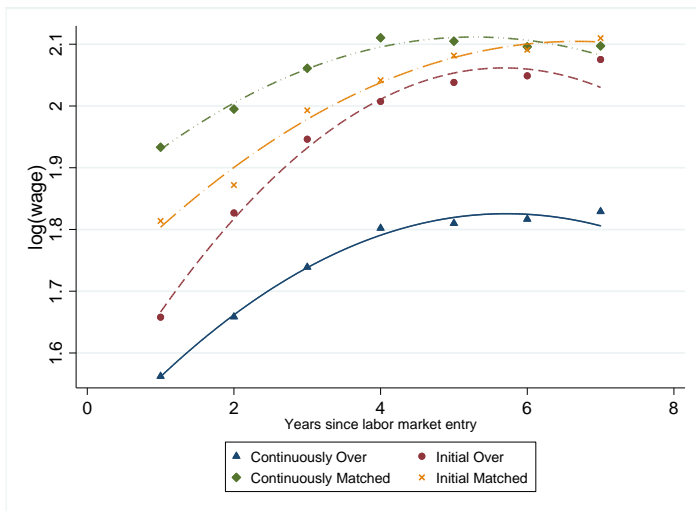
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- Regarding the field of study:
 - Those who hold a diploma in engineering and technology are more likely to move to a well-matched job than their similar counterparts in other fields of study

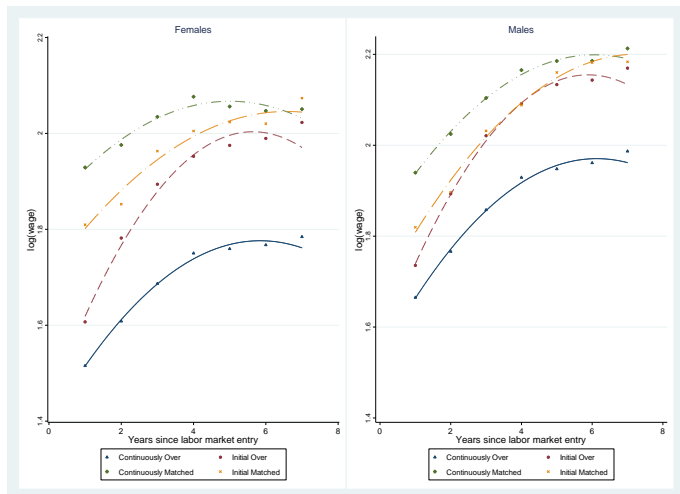
- At entry overqualified workers earn **lower wages** when compared with well-matched workers, but this gap tends **to diminish** for overqualified workers that were able to move to a well-matched job
- Overqualified workers that switched to a well-matched job experience a **wage growth that exceeds** the wage growth of their similar well-matched counterparts in 12 percentage points, once controlling for workers and firms observed and unobserved permanent heterogeneity
- Overqualified workers seem to correspond to individuals who lack other skills/competences

Figure: Evolution of hourly wages by match status at entry



Main Results

Figure: Evolution of hourly wages by match status at entry and subsequent transitions



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