

[Is it worth coming back? Wage returns of higher education graduates' mobility patterns]

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Purpose of this study:

[This paper assesses the role of labour mobility in shaping early-career wages of higher education graduates in Portugal. Building on recent discussions about the heterogeneity of returns to higher education in massified systems, we aim to examine how different types of graduate mobility—conceptualised following the typologies established by Faggian et al. (2006), Di Cintio and Grassi (2013), and Kazakis and Faggian (2017) — may influence wage outcomes. The study uses EUROGRADUATE data regarding those who graduated in 2016/2017 and 2020/2021 (Rodrigues et al., 2024).]

Theoretical background:

[Labour mobility is an important feature that can improve job matching quality and generate wage premiums. Faggian et al. (2006) established that mobility may allow graduates to access broader labour markets and better find a job that better suits their skills. However, an important mobility decision occurs prior to access to higher education, where some students might be movers due to a lack of supply in their regions for their field of interest, or move towards more prestigious higher education institutions, in anticipation of their future labour market opportunities.

Since these mobility patterns are complex, Di Cintio & Grassi (2013) refined the typology from Faggian et al., (2006), and distinguished graduates between stayers (Did not move either to study or work); early movers (moved to study, worked in the same region as HE); late movers (did not move to study, moved to work); back movers (moved to study and returned home to work); and movers (moved to study, and moved to work, but not for the home region).

These authors show that, in Italy, late movers enjoy a greater wage premium, whereas back movers face a wage penalty relative to stayers. Using the same typology, Kazakis & Faggian (2017) further demonstrated that, for US graduates, self-selection associated with mobility may mediate the effects of wages, given that, controlling for the characteristics of movers and non-movers, late movers face a significant penalty compared to stayers.

These results show that mobility patterns capture meaningful differences in wage outcomes worth exploring in Portugal. This conceptualisation suits the Portuguese context, where geographic asymmetries between interior regions and coastal metropolitan centres are substantial, and while HE is adequately distributed in the territory, there are significant reputational perceptions between different HEIs in the system.]

Research design, methodology:

We use microdata from the Portuguese version of the EUROGRADUATE survey, covering graduates from 2016/2017 and 2020/2021. The dataset provides detailed information on study location, current job location, demographic characteristics, academic background, occupations, and sector. And is considered representative of the Portuguese HE system, evaluated with respect to sex, field of study, level of study, and distribution across HE sectors (Rodrigues et al. 2024).

The empirical analysis estimates wage equations separately for each cohort. Although both cohorts derive from the same survey framework, they correspond to graduates entering the labour market under different macroeconomic conditions. The 2016/2017 cohort transitioned into employment during a recovery phase, whereas the 2020/2021 cohort entered the labour market during the COVID-19 shock. In addition, cohorts may differ in composition (e.g., field of study or degree structure). The econometric specification follows a Mincer-type OLS model, with the logarithm of hourly wages as the dependent variable. Controls include individual characteristics, academic background, and job characteristics. Mobility is defined at the NUTS III (2021) level and operationalised through mutually exclusive typologies inspired by Kazakis and Faggian (2017): non-migrants, university stayers, late movers, return migrants, and repeat movers. This approach captures distinct trajectories between home, study, and work regions.

To account for regional wage premia and local labour market heterogeneity, the models include job-region fixed effects. Robustness checks are conducted at the NUTS II level. Graduates employed abroad are excluded, and the analytical sample includes only employed and self-employed individuals with valid wage information. The final estimation sample comprises 4,757 graduates from 2016/2017 and 5,206 from 2020/2021.

The estimates are interpreted as conditional associations rather than causal effects, given potential self-selection into mobility trajectories.]

Findings:

[As empirical estimation is ongoing, this abstract reports preliminary evidence informed by both early results and the existing literature. Consistent with Di Cintio and Grassi (2013), we initially expected a wage penalty for return migrants relative to non-migrants. However, preliminary estimates suggest that this penalty diminishes once more controls are introduced. Late migrants do not exhibit a statistically significant wage premium in the preferred specifications. In contrast, university stayers and repeat migrants display a consistent and statistically significant wage premium compared to non-migrants.

Importantly, these patterns emerge even after controlling for HEI fixed effects and job-region fixed effects, indicating that the estimated differences are not solely driven by institutional reputation or regional wage premia. This suggests that mobility trajectories may capture additional mechanisms. Further analysis and robustness are needed.]

Research limitations, implications:

[Since the empirical estimation is ongoing, the conclusions remain provisional. The mobility typologies require accurate identification of home, study, and work regions, which are present in the dataset, but may not account for graduates pursuing further education or those with complex mobility histories. Moreover, mobility decisions may reflect unobserved characteristics — motivation, ambition, or risk tolerance — making causal interpretation challenging, even when controlling for selection.]

Practical/social implications:

[Understanding which types of mobility are associated with better labour outcomes can inform higher education policy, regional development strategies, and student guidance services. If expected patterns are confirmed, policies encouraging or facilitating mobility — particularly mobility after graduation — may support more equitable transitions into the labour market, especially for graduates from less dynamic regions. However, the issue of regional development and regional investment in HE arises, as returning to the home regions implies wage penalties.]

Originality/value of paper:

[This study applies mobility typologies from the international literature to Portuguese administrative geography using EUROGRADUATE microdata. Besides the advantage of using a more nuanced conceptualisation of mobility trajectories, the EUROGRADUATE dataset provides a rich set of explanatory variables that may also shed light on what is important for understanding wage patterns in graduates' early-careers.]

Keywords: [Graduate mobility trajectories; wage premiums; early-career outcomes; Portugal]

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