

The Dynamics of Wages and the Assimilation of Foreign-Born Immigrant and Cross-Border Workers

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The labour market in Luxembourg is characterized by a large fraction of both immigrant workers and foreign cross-border workers residing in neighbouring countries. This composition of employment, unique in Europe, has interesting consequences for outcomes on the labour market. This paper focuses on one of these outcomes in particular, the wage differentials between nationals, immigrants and cross-border workers.

This paper aims at taking advantage of a rich data source, namely a large-scale extraction of administrative records from the social security database to examine the earnings dynamics differences and assimilation processes over a period of 21 years. This data source allows us to observe wage trajectories of all workers in Luxembourg, starting with their first job in the country. Most importantly, it allows us to contrast wage trajectories of the three groups of workers (nationals, immigrants and cross-border workers), measuring the speed of wage convergence (assimilation and catching-up) for different worker types.

Technically, we propose to use an approach to the measurement of earnings assimilation from longitudinal data, which contrasts with common practice in the measurement of immigrant earnings assimilation. The common practice typically consists in fitting Mincerian wage regressions on a set of explanatory variables including years since migration. The regression coefficient on the latter is then interpreted as the key measure of earnings assimilation. This approach hides much of the underlying dynamics of assimilation (including the effect of aggregate labour market dynamics and of changes in the “quality” and composition of cohorts of immigrants). We will use detailed variance components models of earnings dynamics à la Lillard and Willis (1978), Hause (1980), MaCurdy (1982) or Baker (1997) and recent developments thereof (see, e.g., Haider, 2001, Moffitt and Gottschalk, 2002, Baker and Solon, 2003, Cappellari, 2004, Kalwij and Alessie, 2007, Sologon, 2010), typically used to decompose trends in wage inequality into permanent and transitory components, but we are not aware of applications in the context of the measurement of immigrants wage assimilation, a context in which their rich dynamics is however promising. We propose to build on a more elaborate approach based on a detailed specification of individual wage dynamics into a persistent and a transitory component. Refined time-series specification of the wage path will be useful in the assimilation measurement to separate out transitory from permanent effects, control for aggregate labour market shocks and, importantly, measure the variance of immigrants’ trajectories around an average path. Our objective is to exploit such models to capture assimilation dynamics by identifying differences in the persistent component of earnings dynamics –in particular the random growth parameters– for native workers, for immigrants and for cross-border workers, controlling for cohort effects and time of entry in the labour market.

Identification of these models will require exploiting in full the temporal and population coverage of the data.

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