

How does ALMP effectiveness vary by the intersection of parenthood and migration background?

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Abstract

Previous studies on the effectiveness of active labour market policy (ALMP) have repeatedly found heterogeneity in employment outcomes by gender and migration background. Although parenthood has been identified as an important factor in employment trajectories, scholars have only recently begun considering it as a moderating factor in ALMP effectiveness, e.g. accounting for interaction effects of ALMP and childcare provision on employment at a macro level. To date, as a result of data limitations, no micro-level longitudinal empirical research has explored the role of parenthood in ALMP effectiveness, allowing for a detailed understanding of employment effects over time. This paper seeks to address that gap by examining how parenthood moderates the micro-level employment outcomes of ALMP training for jobseekers. Furthermore, building upon literature on migrant-native differentials in employment trajectories after parenthood, we hypothesize that this moderating role parenthood also differs between natives and second-generation migrants.

Using rich longitudinal microdata from Belgian social security registers as well as the Flemish public employment service, we combine dynamic propensity score matching and hazard modelling to explore variation in the effect of participation in untargeted ALMP training programmes on the probability of entering employment at the intersection of gender, parenthood status and migration background. Adopting a life course perspective, this paper is among the first to consider the role of this intersection in ALMP effectiveness. Our findings could inform policymakers about other mechanisms hampering employment, such as access to family policy, discrimination and lifestyle preferences. This is particularly relevant considering recent employment targets, underlining the importance of inclusive labour market participation.

Keywords: migration, active labour market policies, work-life reconciliation

1 Introduction

Over the last few decades, European governments have increasingly invested in so-called active labour market programmes (ALMPs) as a result of demographic ageing and the subsequent shrinking labour force. Declining overall unemployment rates, as well as the diversification of the group of unemployed jobseekers, have gone accompanied with a shift in their focus to more vulnerable groups with weaker labour market attachment (Bonoli, 2010). People with a migration background and lower education levels are overrepresented in this group, but also the combination of work and family seems to have an impact (FOD WASO & Unia, 2019). Although theoretical and empirical literature also has identified motherhood as a factor hampering female employment (Kil et al., 2018; Nollenberger & Rodríguez-Planas, 2015), scholarly research has only recently started considering the fact that outcomes of ALMPs can be influenced by parental care responsibilities (Nieuwenhuis, 2022). It has also already been shown by Bonoli and Liechti (2018) that the take-up of ALMPs have certain access biases. For example, the presence of children in a household negatively affects the women's uptake of ALMPs, especially for women with a migration background (Kasztan Flechner et al., 2022). However, while societal and public debate often mention these factors, the role of parenthood has hitherto not been considered in evaluations of ALMP *effectiveness*. While Nieuwenhuis (2022) has put forward the interplay of governments' efforts in work-family reconciliation (ECEC) and ALMP on a country level, until this day, parenthood status has not been considered as a moderating factor that could explain different employment outcomes on an individual level. This study therefore aims to answer the question as to *how ALMP training effectiveness differs by parenthood status, more specifically, having a child under the age of 12*.

Active labour market policies target supply-side as well as demand-side factors of the labour market (Bonoli, 2011; Meager, 2009), for example deficiencies in human capital (Becker, 2009) and social networks (Caliendo et al., 2011), which in turn influence employment outcomes. The increasing importance of ALMPs in labour market policy has gone accompanied with a body of research evaluating these programmes for the general population of jobseekers (Card et al., 2018; Filges et al., 2018; Kluge, 2010). A recurring finding is the fact that employment outcomes vary by participant subgroup (Card et al., 2018), for example by gender or migration background. These evaluations often disregard the fact that ALMP effectiveness unfolds in conjunction with other life domains, such as parenthood (Bernardi et al., 2019). We utilise theories drawing upon rational choice and preference theory on the one hand to explain individual decision making of the jobseeker in interaction with a caseworker and a potential partner, and socio-cultural theories on the other hand, to contextualise this individual decision making within a network of social norms (Becker, 1993; Blumberg, 1984; Hakim, 2002; West & Zimmerman, 1987). We argue that: i) time constraints aggravated after parenthood might lead women to spend less and men to spend more time in ALMPs; ii) due to the incentive structure, unemployed people who might not have the intention of entering the labour market participate; and iii) selective assignment by caseworkers to programmes that are less effective can lead to differentials in overall ALMP effectiveness. Furthermore, we hypothesize that the moderating role of parenthood differs by migration background, since the limited labour market prospects of second-generation migrants (Corluy et al., 2015), alongside with limited access to childcare (Van Lancker & Ghysels, 2012) might increase drop-outs. Finally, it has already been shown by Auer and Fossati (2020) that people with a migration background are often not assigned to the most effective programmes. In this respect, in terms of selective assignment, people with a migration background with young children might be at a double disadvantage.

Our contribution, thus, is twofold: firstly, we are among the first to consider parenthood as a moderating factor in ALMP effectiveness. By using linkages between different types of register data and by combining dynamic propensity score matching and hazard modelling, we estimate the effects of ALMP training participation on the hazard of transitioning to employment for men and women, with and without children under the age of 12. Secondly, we explore how this moderating effect varies depending on individuals' migration background, contributing to the limited existing literature on ALMP effectiveness for people with a migration background (Butschek & Walter, 2014; Kiviholma & Karhunen, 2022).

The Belgian (Flemish) context provides a relevant and well-suited case study for three reasons: firstly, in comparison with other countries, Belgium spends a relatively high part of their GDP on active labour market policies (0,87%) (OECD, 2024). This is especially the case in Flanders. Secondly, concerning work-family reconciliation, while the overall coverage of work-family policies is high, there are strong social differentials in uptake and distribution of benefits (Marynissen et al., 2021; Van Lancker & Ghysels, 2012). Finally, the employment gap between second-generation migrant and native women in Belgium is relatively large (FOD WASO & Unia, 2019). This makes it particularly relevant to focus on effectiveness of active labour market programmes for specific subgroups.

2 The Belgian context

Historically, Belgium has been an immigration country, with different waves of labour migration after the Second World War, actively recruiting workers from various Southern European countries as well as Turkey and North-African countries to meet growing labour demands during the economic boom in the fifties and sixties, to a large extent for mining and heavy industries (Van der Bracht et al., 2014). After the immigration stop implemented in 1974, immigration was mainly characterised by family reunification (Reniers, 1999). Due to these events, Belgium currently has a substantial second generation, now at childbearing or -rearing age.

The Belgian labour market is characterised by a high level of job and income protection, and, relatively high unemployment benefits in international comparison (McGowan et al., 2020). As a result, the labour market is stratified between outsiders and insiders. Employment rates are rather low in comparison to the European average (Eurostat, 2025a). The overall female labour market participation rate has been increasing over time, however, there remains a marked divide by migration background for women on the Belgian labour market: where 60.9% of the women between the ages of 15-39 without a migration background are employed, this is the case for 65.7% of European women and 52.4% of non-European women (Eurostat, 2025b). This has led policymakers to consider increasing their labour market participation as an important policy goal (FOD WASO & Unia, 2019).

Public employment services are organized on a regional level. For Flanders, these services, such as job search assistance, training programmes and competence assessment, are provided by the Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding [VDAB]. Meanwhile, the payment of unemployment benefits as well as sanctioning is a national competence and is handled by the National Employment Office. To receive unemployment benefits, jobseekers are required to register at the public employment office.

While social benefits are quite generous, they are not always accessible for all. For example, research by Marynissen et al. (2021) has found that the eligibility criteria of the parental leave scheme can

account for large differentials by education, age and migration background in uptake. Considering formal childcare, while coverage in Belgium is high overall, the supply does not meet the demand (EACEA, 2025), with a substantial amount of regional variation in childcare supply (Van Lancker & Vandebroek, 2019). Policymakers have also implemented different priority criteria, e.g. based on low-income status, employment status or household composition. These priority rules, in combination with a shortage of places in formal childcare generally make it harder for mothers with already precarious employment trajectories to access childcare. Consequently, strong social differentials in the uptake of formal childcare exist in Belgium (Biegel et al., 2021; Maes et al., 2023; Van Lancker & Ghysels, 2012). These inequalities in employment as well as uptake of work-family policy make Belgium an interesting case study for the role of household composition as a moderator in ALMP effectiveness.

3 Data and methods

2005-2016 MIA Panel

This paper uses rich and detailed data from the 2005-2016 Migration, Integration and Activation panel, which contains quarterly information from 2005 to 2016 on the work histories of people with an EU and non-EU migration background, as well as people without a migration background aged 18-65 living in Flanders on 1 January 2005, as well as their household composition along with other personal characteristics. It has been constructed by linking data from the Belgian Crossroads Bank for Social Security (CBSS) with data from the Flemish public employment service (VDAB) and the Flemish civic integration agency. We then selected all unemployment spells starting in the observation period of people registered at the public employment office. Since the MIA panel contains a disproportional overrepresentation of people with a migration background and people under the age of 25, we use inverse sampling weights to correct our sample.

Dynamic propensity score matching

For various reasons, participants of an ALMP can exhibit certain characteristics that might influence their labour market opportunities. In this way, self-selection into programmes can lead to bias in our estimates of ALMP effectiveness. Similarly, selective assignment by caseworkers can lead to the same bias. For this reason, we apply dynamic propensity score matching to control for these characteristics (Sianesi, 2008; Vikström, 2017). This is an econometric approach pairing every participant with a non-participating jobseeker with the same background, in each quarter. While we cannot make causal claims, by using a substantial number of observed characteristics, we can provide associations with minimal bias to evaluate programme impacts in real-world settings where randomisation is not feasible (Card et al., 2018). To determine our matching criteria, this paper makes use of qualitative research conducted by Elloukmani and Raeymaeckers (2020), which provides details on the factors influencing the decision of caseworkers to assign jobseekers to certain programmes. The variables used for matching include information on jobseekers' skills and qualifications, previous work histories, employment preferences, previous ALMP participation during the current and previous unemployment spells, as well as socio-demographic characteristics. Even though research has found that nonexperimental designs often yield similar results to randomized trials (Card et al., 2018), it cannot be guaranteed our estimates are not influenced by this type of selection bias. Wood et al. (2025), however, finds that ALMP participation effects are overestimated when using unmatched data, underlining the importance of implementing a matching procedure.

Discrete-time hazard models

To obtain the treatment effect, we estimate discrete-time hazard models following up on jobseekers quarterly until they either transition to employment, or are censored due to emigration, turning 65, or reaching the end of the observation window without making a transition. Matched individuals in the control group can also be censored by starting participation in an ALMP programme. Treatment is defined as participation in an ALMP programme in the current unemployment spell. First, we estimate the baseline hazard model (eq. 1), estimating the hazard of transitioning to employment as a function of time since entry into the programme (denoted by t , squared specification),

$$\text{Logit}(q) = \ln \left[\frac{q(t_j)}{1 - q(t_j)} \right] = \alpha_0 + \alpha_1 t + \alpha_2 t^2 \quad (1)$$

Our second model adds in covariates (gender (dummified), origin group (categorical, reference group: no migration background), parental status (dummified)) and the treatment variable (participation in an ALMP training programme). Following the well-documented pattern of return on training in the literature, we want to allow for a lock-in period, a peak in effectiveness and finally a period of diminishing effects, we use an interaction of ALMP participation with the baseline (Card et al., 2018; Filges et al., 2018). Finally, our full model incorporates the interactions between treatment and parental status, gender and origin group. The interaction between treatment and parental status, and additionally, origin group, can then be interpreted as the moderating effect of parenthood on ALMP effectiveness. We then obtain the average marginal effects of treatment in each quarter for each subgroup. Following the method outlined by Maes et al. (2019) and Wood et al. (2025), we then use the parameter estimates to calculate the cumulative incidence, which we can interpret as cumulative return of ALMP participation over time. Additionally, as a robustness check, we perform the same analysis with an outcome variable of an employment spell of 4 quarters. In this way, we can not only assess in how far ALMP participation leads to entering an employment spell, but also if it leads to a *stable* employment spell of at least one year (Klerman & Karoly, 1995).

4 References

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