Can Training Turn the Tide? Migrant-Native differentials in the uptake and effects of Active Labour Market Policies in Belgium.

Tair Kasztan Flechner, Karel Neels, Jonas Wood & Julie Maes
Centre for Population, Family and Health - University of Antwerp, Belgium

Abstract

Although migration became the main driver of population change in Belgium in recent decades, migrant´s (first and later generations) labour market integration exhibits persisting challenges. Public interventions introduce what is called Active Labour Market Policies which are assumed to facilitate the transition from unemployment into paid work, regardless of migration background. Given the strong emphasis on such programs, this study addresses differential uptake and effects of three types of training programs in Belgium (Workplace training, Occupation Specific, and General Orientation) by migration background (non-migrant background, second generation of European, second generation of non-Europeans).

We use unique longitudinal administrative data from two different government organizations in a total sample of 17,991 individuals between 18 and 65 years old who legally resided in Belgium on 1st January 2005 and their household members. Data is recorded quarterly between 1st January 2005 and 31st December 2016.

Consistent with previous research, preliminary results show that the uptake gets more segregated as closer the type of training is to real employment. At the same time, as closer is the training to actual employment the larger the impact. Moreover, if we analyse by migrant background, we find that the Workplace training (the one closer to employment), shows no statistical different effect by migrant background. However, Occupation Specific and on General Orientation trainings do present statistically significant differences in the effect of participating in training between non-migrant background population and non-European background population. There is no statistically significant differences between non-migrants and second generation of Europeans.

Introduction:

Although migration has become the main driver of population change in Belgium and other European countries in recent decades (Neels, Raeymaeckers, & Vujic, 2018), migrants´ (first and later generations) labour market integration shows persisting challenges (Corluy, Haemels, Marx, & Verbist, 2015; Corluy & Verbist, 2014; OECD, 2017). Moreover, Belgium is one of the European countries showing the largest gap in the employment rate between native and second generation of migrant background populations (Agafiţei & Ivan, 2016; Corluy et al., 2015), presenting cumulative patterns of disadvantage (A. F. Heath, Rothon, & Kilpi, 2008), with differences in the labour market outcomes that start from the beginning of the working trajectory, at the school to work transition (Baert & Cockx, 2013). Furthermore, while its neighbouring countries are closing the gap with the second generation of non-European migrants, in Belgium the gap remains (Corluy et al., 2015). In addition, in line with the segmented assimilation theory (Portes & Zhou, 1993), the gap between second generation of non-Europeans and natives is higher than between second generation of Europeans and natives in Belgium (Agafiţei & Ivan, 2016; Corluy et al., 2015; Fleischmann, Phalet, Neels, & Deboosere, 2011; Neels, 2000).

In order to correct labour market disequilibria and increase the general efficiency of the labour market, public interventions globally introduce what is called Active Labour Market Policies (ALMP) (Barnow & Smith, 2015; Eichhorst & Konle-Seidl, 2016). ALMP might be open to all unemployed population, or target to historical vulnerable population such as long term unemployed, youth population, or women; however, ALMP apart from integration or language courses are not targeted to migrant background population. Accordingly, questions arise about the effectiveness of ALMP, and more specifically about the effectiveness of the different types of policies and programmes for different target population. Therefore, a large and growing body of literature has investigated the effectiveness of ALMPs, suggesting that programs closely resembling regular employment, such as internships, exhibit the largest effects on labour market outcomes (Fredriksson & Johansson, 2008; Gerfin & Lechner, 2002; Kluve, 2010; Nekby, 2008; Robinson, 2000; Sianesi, 2008; Vikström, 2017). In addition, in a meta-analysis based on 207 studies, Card, Kluve, and Weber (2017) conclude that ALMP have larger effects in medium and long run (more than one year) than in short term (one year or less).

However, in contrast to the extensive literature on the general effectiveness of ALMPs, the growing - yet limited- number of empirical studies on differentials in uptake and effects by migration background remain inconclusive (Bilgili, 2015; S. Butschek & T. Walter, 2014; Nekby, 2008; Rinne, 2012). In a meta-analysis of 33 empirical studies specifically analysing immigrant outcomes, Sebastian Butschek and Thomas Walter (2014), highlight the effect of subsidized employment programmes as the type of ALMP with the larger effects. On the other hand, Bilgili (2015), who reviewed 50 studies on the effect of ALMP which were targeted to migrant background population, affirms that subsidized employment do not always increases employability of immigrants, and indicates that this type of programme are mostly effective on the first six months of unemployment or the first year after arrival. Nevertheless, he underlines that vocational training also shows positive effects for immigrants' integration, with more significant positive effects for Workplace training than for classroom training (Bilgili, 2015).

Moreover, to our knowledge, there are only three studies which assess for differential impact of labour training (not language or integration courses) on migrant and native population: Firlstly, Wolff and Jozwiak (2007), using propensity score matching techniques find that classroom training in East Germany had only effect for native Germans, while in West Germany the training had a positive effect for both migrant and native backgrounds population. On the other hand, Workplace training differentials between migrant and native background population could not be addressed in East

Germany due to lack of migrant background population uptaking this kind of training, while in West Germany there is only statistical difference for women showing higher effects for natives than for migrant background women (Wolff & Jozwiak, 2007). Secondly, Bernhard and Kruppe (2012) studying the effectiveness of training programmes for means-tested unemployment benefit recipients in Germany, use propensity score matching techniques in a dynamic setting. They affirm that participants on training programmes in Germany present almost the same outcomes independently of their background (migration, elderly, long time unemployment, etc.) (Bernhard & Kruppe, 2012). Thirdly, Thomsen, Walter, and Aldashev (2013) study the effect of four different short term training programmes comparing the impact on natives and migrant background population who were welfare recipients in Germany 2006. Using Propensity Score Matching estimators in a dynamic setting they find that immigrants benefit more than German natives from aptitude tests and skill provision training; while native women benefit form job search training, which presents a negative effect for migrants. Nevertheless, none of these studies account for the differences within the migrant background population, which are accounted by the segmented assimilation theory (Portes & Zhou, 1993) or the ethnic penalties (A. Heath & Cheung, 2006). Furthermore, none of these researches analyses the differences between native and second generation of migrants, which is a particular population, as it refers to people who has born and raised in the host country, and might even have host country nationality; although, as has been already shown there is still a gap in labour market outcomes for the second generation (Agafiţei & Ivan, 2016; Crul, Schneider, & Lelie, 2012).

Therefore, we are planning to contribute to the literature that studies how the ALMP might narrow or even close the gap between migrant and native background population analysing the Belgian context which is not only one of the countries with the largest gap (Agafiţei & Ivan, 2016), but also not yet much analysed. From the more than 200 studies included in Card et al. (2017) Belgium contributes only 8 estimates, whereas countries like Germany present 253 estimates or Denmark 115. In addition, neither Sebastian Butschek and Thomas Walter (2014), nor Bilgili (2015) include any research about the effect of ALMP in Belgium, which, as already mentioned, is one of the countries with the largest gap between native background and second generation of migrants in Europe (Agafiţei & Ivan, 2016).

In order to contribute to the understanding on migrant background population integration into the labour market, in this research, we analyse the differential uptakes and outcomes of three different short term training programmes: Workplace training, Occupation Specific training, and General Orientation training, covering in this way from the most specific to the most basic skills acquisition types of training. Likewise, among the migrant background population, we analyse the differences between non-migrant background, European background and non-European background. More specifically, using dynamic propensity score matching (Sianesi, 2004) and event history analysis, this study aims to : i) document the migrant-native differentials in the participation in three different kinds of training programmes in Belgium; ii) assess the impact of ALMP uptake on the hazard to enter stable employment (one year); and iii) analyse the differential effects of the different training programmes by migration background.

Theoretical Framework

The migrant-native employment gap

From the labour supply and demand perspective, we can understand some mechanisms that explain the gap between natives and migrant background population. Firstly, from the supply side, the most commonly used explanations to address the gap is the difference between individual and household characteristics of workers and job seekers (Bilgili, Huddleston, & Joki, 2015) that has been also called the 'deficit thesis' (Veenman and Martens, and Veenman, 1996 in Neels and Stoop, 2000). For instance, Belzil and Poinas (2010) find that in France the ethnic origin explains less than 6% of the difference between native and foreign origin to access to permanent employment when controlling for observable characteristics. Along the same line of thought Lüdemann and Schwerdt (2013) argue that a large part of the wage gap between second generation of immigrants and native populations in Germany is caused by differences in school track participation, which is explained by socioeconomic disadvantage. Hence, according to Human Capital perspective (G. Becker, 1964; Mincer, 1974), classroom and Workplace training programmes would increase the participants skills and therefore productivity, which would improve the employment prospects and wages (Aldashev, Thomsen, & Walter, 2010; Kogan, 2016). In addition, training can increase the social capital of participants what would improve familiarity with local labour market conditions and institutions (Kogan, 2016).

Another type of mechanism to explain the employment gap are the discriminatory practices, also named as 'ethnic penalties' by A. Heath and Cheung (2006). These practices refer to the structural disadvantage for migrant background population, who cannot compete in equal terms in the labour market. This 'ethnic penalties' not only reduce the probability to find a job for people with migration background, but also it hinders the likelihood to perform a job in accordance to their actual skills, rebounding as well on the earnings (A. Heath & Cheung, 2006). Discrimination can come from two opposite theories, on the one hand a 'taste based' discriminatory explanation, formulated by G. S. Becker (2010), where some employers present displeasure to hire people from minority groups. On the second hand by a 'statistical discrimination' presented by Arrow (1973) which is a result of the imperfect information problem, therefore due to the lack of individual signalization employers use group specific information (or ideas) about productivity. Training dives into the lack of information problem, which is addressed by the 'signalling' model (Spence, 1974). Consequently, as it yields to certifications, which works as skills signals for participants, it facilitates a better match between jobseekers and available job positions (Kogan, 2016). In this line, Leckcivilize and Straub (2018) find that work experience and educational attainments mitigate discrimination for women with headscarf significantly in Germany; or Baert and Vujić (2016) argue that volunteer activities increase the labour market integration of immigrants in Belgium.

Thirdly, there are institutional factors which might facilitate or complicate the social integration of people with migrant background, as institutions influence the level and structure of employment as wage inequality, or unemployment for example (Andersen, 2012; Checchi & García-Peñalosa, 2008; Eichhorst & Konle-Seidl, 2016). Stronger labour market institutions lean towards higher unemployment rates, while lower wage inequality (Checchi & García-Peñalosa, 2008) as the dismissal cost is higher and the workers have more power to negotiate (Lazear, 1990). Therefore, it has been argued that flexible institutions might increase job opportunities for people with less credentials or higher 'statistical discrimination' (Bilgili et al., 2015; Máté, Sarıhasan, & Dajnoki, 2017). In this case, training might instrument internships or working place courses, introducing in this way flexibilities to

a rigid labour market, therefore opening new opportunities to prove abilities and skills for people with less, or more doubted, signals. Therefore, introducing targeted flexible training contracts, might increase employability for specific groups of populations (Andersen, 2012; Eichhorst & Konle-Seidl, 2016).

However, training might not work as expected. From the supply side, skills that are developed might not be adequate for the local labour market, and/or the population participating in programmes might be so homogeneous that the social capital does not increase and social networks still depending on ethnically homogeneous ties (Kogan, 2016). In addition, the skills improvement increases the wage expectancies, so the job search gets more selective hindering the job entrance (Aldashev et al., 2010). From the demand side, the signals might be negative if employers reckon that people with enough skills do not need to participate in ALMP (Kogan, 2016). Finally, if flexibility is not well targeted to give the opportunities to population with less signals, there might be flexibilisation for those who are already on the priority list to achieve employment, without offering the selected opportunities to the proposed population.

Differential effects

We now addresses to illustrate how the effects of such training might be different for non-migrant and migrant background population. Firstly, differences can arrive from the kind of training that each group of population uptakes. In addition, the two groups of the population might uptake similar training, although in different sectors of the economy, gaining different experience and signals, which could result in subsequent dissimilar job opportunities (Burkert & Seibert, 2007; H'madoun & Nonneman, 2012). Secondly, even participating in the same training, migrant background and non-migrant background population might differ in other characteristics such as work experience or educational level, which might arrive in different outcomes from the training (Aldashev et al., 2010; H'madoun & Nonneman, 2012).

Another explanation of the differential outcomes can be explained due to discriminatory practices. Several experiments illustrate the existence of a name-based discrimination, where native names and surnames have better labour opportunities than migrant names (Bertrand & Mullainathan, 2004; Jacquemet & Yannelis, 2012). Additionally, research has evidenced religion-based discrimination, where Muslim affiliated people present lower call back rates than Christians in Christian countries (Baert, 2018). Furthermore, it has been affirmed that there is 'appearance'-based discrimination, where people with western beauty standards have better job opportunities than others (Baert, 2018; Leckcivilize & Straub, 2018). Moreover, the self-fulfilling prophecies might end in a 'Chill factor', that is migrant background population feel unwelcome in certain firms or sectors, therefore, they directly do not apply for the job (Heath & Martin, 2013; Connor and Koenig, 2015) which might be also affecting the employment rate. Unfortunately, employers' discrimination is not easily detected by the study of ALMP effects, and is usually detected as a residual difference controlling by all observable variables.

Data and Methods

Data

We use unique data from the Migration Integration Activation Panel (MIA Panel) infrastructure that integrates longitudinal administrative microdata from the Employment Offices and the Crossroads Bank for Social Security, with the latter bringing together the data of all social security institutions in the country. The sample design was derived from the "Generations and Gender Survey (GGS): Towards a better understanding of relationships and processes in the life course" (Vikat et al., 2007).

The original sample tracks 42,362 individuals aged 18 to 65 years who legally resided in Belgium on the 1st of January 2005 (the sample was disproportionately stratified by age and migration background to focus on 18-35 year olds and groups with a migration background). For each sampled individual, all household members are also included in the sample (amounting to a total sample size of N=267,402 individuals). Annual top-up samples have been included to preserve the cross-sectional representativeness of the panel data. For this research, we used a subsample of 17,281 individuals who have experienced unemployment in the analysed period, have had any type of contact with the Flemish employment office during any unemployment spell, and have born in Belgium (we compare second generation migrant groups with natives with no migration background).

The longitudinal data provide quarterly information on labour market outcomes between 1 January 2005 and 31st of December 2016. Each individual is tracked from his or her inclusion in the sample until the age of 65, death, emigration, or the end of the observation period. Therefore, we have 43,369 unemployment spells and 451,451 person-quarters.

This rich linkage in the registration data in addition to the socio-demographic, human capital, labour market trajectories, or participation in ALMPs characteristics, also accounts for self-declared characteristics such as aspirations for prospective job, or the number of applications submitted for example (detailed in Annexe 1).

Methodology:

We study which are the effects of participating at three different types of training (Workplace, Occupation Specific or General Orientation) on stable employment (one year) by ethnic background (No migrant background, European background, or Non-European background) over time. Consequently, we use Hazard models in order to assess the transition from unemployment to stable employment for the second generation of migrants in Belgium compared to those with no migrant background. We apply event history analysis, which enables us to address the differences for each ethnic group according to the training participation over time.

In order to assess for causality and reduce endogeniety problems such as self-selection, thanks to the richness of the available dataset (in Annexe 1) we were able to suitably use a Dynamic Propensity Score Matching technique following Sianesi (2004). The Propensity Score Matching pairs treatment and control groups according to their pre-treatment observables by the calculation of the estimated probability of each individual to participate in a particular training (Dehejia & Wahba, 2002; Sianesi, 2004). The Dynamic technique (Sianesi, 2004), transforms the dynamic treatment participation problem, as unemployed people might participate in treatment at different points of time since unemployment spell, into a static problem (Vikström, 2017). Therefore, a Dynamic Propensity Score

Matching considers for the control group all those who are still unemployed for the same amount of time as treated, but did not participate in training yet. Therefore, for each training we have calculated the treated and control group in four quarters. In addition, to ensure that we are comparing treated and control population from the same ethnic group (second generation of Belgians, Europeans or non-Europeans migrant background), we estimated for each programme and each quarter the matching only among those with the same origin group. Accordingly, for each training, we estimated 12 times the propensity score matching techniques as there are three estimations for each quarter.

For each Propensity Score we used the Kernel Gaussian matching, therefore, for each treated individual the counterfactual is constructed using the information from all the other cases, assigning a differential weight for each of them according to the distance at the Propensity Score to the treated individual (Garrido et al., 2014; Huber, Lechner, & Wunsch, 2013; Morgan & Harding, 2006). We restricted the matching for those who are at the common support range -the space where treated and controls overlap at the Propensity Score- that is in their probability to be treated (Morgan & Harding, 2006). Therefore, all the treated and control individuals who are out of the range are not included in the analysis. Additionally, as a robustness check we will also estimate a Nearest Neighbour Matching with a caliper distance of 0.001 with replacement at a common support space for each Propensity Score.

Therefore, once we have the treated and control groups we use discrete time hazard models on a person-quarter time for each training (Workplace training, Occupation Specific training, and General Orientation training). We use the complementary log log function to assess the differences in transition patterns according to the migrant background and the decision on participation in the different training courses. We track individuals since they become unemployed until they get a stable employment (transition/event occurrence), or censoring (which may due to the end of the observation period, achieving the age of 65, or the loss of the observation). For each type of training, we present two models to study the transition from unemployment to stable employment (one year). The first one estimates i) exposure: number of quarters since entering training (both linear and squared); ii) effects of participation in training for the treated group in comparison with the control group (which has been constructed on the dynamic propensity score matching); iii) effects of treatment by period using an interaction between exposure and effect. The second model estimates i) exposure: number of quarters since entering training (both linear and squared); ii) effects of participation on training; iii) migration background (non-migrant background, European background, non-European background); iv) effects of treatment by time using an interaction between exposure and effect; v) effects by migration background at the first quarter of exposure using an interaction between effect and migrant background; vi) impact over time by migration background using an interaction between migration background, effects and exposure. Because of the interaction of effect (and migrant background) with exposure, we calculate the average marginal effects, in order to identify the impact at each quarter after starting treatment.

Results

In the next section, we present the preliminary findings for each type training separately. We first present the description of the uptake of each training programme by migration background over time, where we identify the differences and similarities between them the three groups of population. Second, we present the results of the average marginal effects for each type of training without assessing by migration background, in order to have an idea of the general impact of the training at

each quarter for the first 12 quarters. Finally, we include the migration background interaction in the model, and we calculate the average marginal effects, assessing for the impact at each quarter during the first 12 quarters for each group of the population (second generation of European migrants, second generation of non-European migrants, second generation of native Belgians).

Workplace:

Workplace training can last from one day to six months and this type of training is mainly based on the actual workplace (industry, office, farm, etc. according to the training). It has a strong practical curriculum and depends on the firms for its expansion, as the student learns at the workplace.

As can be observed from Figure 1a, the second generation of non-European migrants (non-European background population) are those who have a smaller uptake of Workplace training during the first three years since the start of unemployment. On the other hand, the second generation of European migrants (European background population) are those who have largest uptake of Workplace training during the whole observation period. Second generation of non-migrants (non-migrant background population) have a similar (but smaller) uptake than the European background population, however, after the second year of unemployment, they start to slow down their participation in this type of training, leading to a similar accumulated participation with the non-European background population.

The participation in Workplace training has different effects on the transition to stable employment according to the period of time after starting to participate at the ALMP (Table 1, Model 1). From the average marginal effects (figure 2a) we can observe that in the short term the participation presents negative significant 'lock-in effects'[1], which lasts for the two first quarters after training starts. In the medium term, there are positive significant average marginal effects, which have a pick at the fifth quarter, where those who participated in the training have 11 percentage points higher probability to enter stable employment than those who did not participate. Finally, at the long term, we find that the average marginal effects are reduced, and certainly, they lose significance since the seventh quarter.

When including migration background variable to the model (Table 1, Model2), using the Likelihood Ratio Tests, our preliminary results show that the simplest model fitted better our data, with a more efficient explanation for the differences in participation in Workplace training, not improving with the analysis by migrant background (Table 2). Moreover, there is no statistically significant difference between the migrant background of population on the effects of participating at Workplace training (Table 1, Model2). Consequently, we cannot affirm there is a different effect according to the migration background of the population who participate in Workplace training. Hence, we can suspect that the skills acquired and the signals offered for those who participated in the Workplace training are adequate for the labour market, as it has positive effects on the hazard to enter stable employment, from the 4th to the 7th quarter after starting the training, and that this type of training have no statistically significant difference according to migrant background.

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[1] As stated by Van Ours (2004), while people is participating in public programs they reduce job search or even discard some job offers in order to end the programme properly.

Occupation Specific

Occupation Specific is a classroom training which focuses on the acquisition of technical skills for a certain type of job. As can be observed from figure 1b, the uptake of this type of training has a more homogeneous participation at the beginning of the unemployment spell than at the end of the observation window. As time goes by, people from non-European background gets a lower participation than those with non-migrant background and those who are second generation of European migrants. This differential uptake for the second generation of non-Europeans starts at the third month after unemployment. Besides, European and non-migrant background population keeps similar uptake for Occupation Specific until two years and a half after the beginning of the unemployment spell, when European background population reduces its participation, getting to a similar total participation than non-Europeans while non-migrant background population continues increasing and amplifying the distance with the migrant background population.

Regarding on effects of participating in Occupation Specific training on the transition to stable employment, we observe again that there are different results according to the period of time that passes since starting on the training (Table 3, Model 1). Certainly, our preliminary results show that it takes four quarters to overcome the lock-in effects. Afterwards, from between the fifth quarter and the tenth quarter after starting training, the probability of transiting to stable employment for those who participated in Occupation Specific training is between 4 to 7 percentage points higher than the probability of transiting to those who did not participated at the same time with a 95% of confidence (figure 3a).

Our preliminary results show that the model which studies the effect of participating in Occupation Specific training by migrant background on the transition to stable employment, has a better fit than the original one (Table 4). Indeed, our preliminary results show that second generation of non-European population has a statistically significant less negative effect at the beginning of the observation window compared with the non-migrant background population. However, this better starting position is not maintained, as the impact is statistically significantly reduced over time, and indeed, the non-migrant background population gets to statistically significant positive average marginal effects while non-European background population does not get to positive statistically significant outcomes (Figure 3b).

General Orientation

General Orientation is a classroom training which is based on transferable skills (such as writing a curriculum vitae, participating on an interview, etc.) that prepares people to start a job in Belgium. Is important to highlight that General Orientation training is the only one which is compulsory once the caseworker invites you to participate in the training.

As can be observed from figure 1c, the uptake of General Orientation does not present differences by migrant background in the first three years after starting unemployment; however, later in time, Belgians start to have a smaller participation in this type of training than migrant background population (second generation of Europeans and non-Europeans).

This type of training presents a statistically significant negative effects, which lasts until the third quarter (figure 4a). Subsequently, this type of training does not show any more statistically significant effects on the transition to stable employment (one year).

In our preliminary results, when we include the specification by migrant background, the model is improved (Table 6), and we find that those with non-European background have statistically significant more benefit (or in this case less 'harm') from the General Orientation training than the second generation of non-migrant population at the moment of starting the treatment (Table 5, Model 2). However, for the three groups of migrant background average marginal effects show that the lock-in effects on the first three quarters are the only statistically significant effects, with no positive statistically significant effect on the transition to stable employment for any group of population (figures 4b).

Discussion and final remarks:

Consistent with previous research (Sebastian Butschek & Thomas Walter, 2014), the uptake gets more segregated as closer the type of training is to actual employment. This can be explained at least partially by the role of the caseworkers, as they identify and assign population to General Orientation training, while for the other types of training the caseworkers have a smaller incidence as these trainings are not compulsory. Accordingly, we can observe that non-European background population presents more limitations on their participation at Workplace and Occupation Specific trainings, those which are closer to actual employment.

From the preliminary results of our models we can observe that each type of training present different effects on the probability to transit to stable employment, increasing the impact as closer the training is to real employment. Hence we find the highest impact on Workplace training, while General Orientation shows no positive impact at all, with only lock-in effects. This can be explained from the Human Capital perspective (G. Becker, 1964; Mincer, 1974), as the closer the training to actual employment the skills acquired are more adequate, and precise. Furthermore, from the signalling theory (Spence, 1974) it also has an explanation, as the closer the training is to employment the more specific and accurate the signals are; in addition Workplace training not only increases the skills signals, but also the labour references, which are used to contrast information.

With regards to the preliminary effects by migration background, as can be observed at figures 2b, 3b and 4b, the positive impact is larger for non-migrant background population than for those with migrant backgrounds at the three training types. However, at Workplace training the difference is not statistically significant, and the model is not improved when including a variable that differentiates the migrant background of population. Consequently, we can suspect that this type of training is the one with higher impact for second generation of non-European population, as it has positive average marginal effects on the transition from unemployment to stable employment (one year), and we cannot affirm that the effect is different according to me migrant background of population. This goes in line with the previous idea that the closer the training is to employment the higher the impact, and the less the difference by migration background. Moreover, this supports the hypothesis of the presence of the statistical discrimination, as the proper signals can turn down the bias against a specific group of population. However, is important to remember that this type of training has a large divergence on the uptake according to the migration background of population.

On the other hand, on Occupation Specific and on General Orientation trainings we find statistically significant different impact by migrant background, as the effects are statistically significant different for those who have a non-migrant background and those who have a non-European background, while those with European background have no statistical significant difference with the non-migrant background population. From the supply side, we should expect the same effect for all those who

participated in the same training, however the difference could have come, if the participants would have uptake the same training, but in different activity sectors for example (Burkert & Seibert, 2007; H'madoun & Nonneman, 2012). The effect could also be dissimilar if there are different previous achievements[2]. From the demand side, it might be possible that the signals are not sufficiently good to overcome the statistical discrimination practices against migrant background population. Moreover, due to the results showed in Workplace training, where there is no statistically difference according to the migrant background of population we can suspect that this is an important reason to find the different impact on Occupation Specific and General Orientation. Furthermore, is important to highlight that we did not find any statistically difference in the impact of training on the probability to get a stable job between second generation of Europeans and population with non-migrant background, which is in line with Constant and Zimmermann (2011) and Ebner and Helbling (2015) who explain that the closer ethnically and culturally is the origin background to the host country, more similar is the labour market outcomes to native background population. This is also in line with the segmented assimilation theory (Portes & Zhou, 1993), and the ethnic penalties (A. Heath & Cheung, 2006) which explains that there are different assimilation pathways for the different identity groups.

Therefore, a main contribution of this study is the exhaustive analysis of the effects of each type of training for each three different migration background (second generation of non-migrants, second generation of European migrants, and second generation of non-European migrants). We have used an Event History Technique, as there are differences in the effects over time, starting with negative lock-in effects to present statistically significant positive effects on Workplace and Occupation Specific Training, which lose significance in the long run. A second main contribution is the inclusion of a Propensity Score Matching technique to address for causality and self-selection stratifying the matching by migration background in order to study specifically the effects of participation for each migrant background.

However, supplementary work is needed to fully understand which are the barriers to uptake of Workplace and Occupation Specific training. Besides, the study of the sources of differential effects on the transition to stable employment by migration background, should be analysed in further research.

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[2] As the Dynamic Propensity Score Matching was done by migrant background, the differences between migrant background are not controlled on the PSM.

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Annexe 1: Variables used at the Dynamic Propensity Score Matching

- Sex;
- Age;
- Calendar year;
- Household position;
- Labor market position;
- Number of kids;
- Kids under 3 years old;
- Partner characteristics;
- Social assistance;
- Structure of the household;
- Language skills in Dutch, French, German and English;
- Educational attainment;
- Field of study;
- Drivers license;
- Last wage;
- Last working hours / regime;
- Handicap (physical and/or mental limitation);
- Cumulative number of job applications;
- Work experience;
- Ever worked in subsidised programmes;
- Job before unemployment;
- Unemployment period;
- Unemployment benefit (level);
- Participation in other ALMP measures;
- Number of unemployment spells;
- Number of mandatory interviews;
- Number of manual referrals;
- Number of automatic referrals;
- Number of sanctions;
- Number of preferences entered;
- Desired profession;
- Desired sector;
- Desired regime (Full-time / part-time / weekend work /no preference).

Annexe 2: Tables with preliminary results

Table 1: Complementary Log Log model on the hazard to transit from unemployment to stable employment (one year) – Workplace training

	Model 1	Model 2
time	1.007	0.971
time^2	0.986	0.994
treatment	0.254***	0.3177084**
treatment*time	2.616***	2.195993*
treatment*time^2	0.892***	0.924
Migrant background		
European		0.594
non-European		0.726
Migrant background *time		
European		1.227
non-European		1.083
Migrant background *time^2		
European		0.969
non-European		0.983
Migrant background *treatment		
European		0.720
non-European		0.871
Migrant background *treatment*time		
European		1.337
non-European		1.089
Migrant background *treatment*time^2		
European		0.943
non-European		0.976
_cons	0.19***	0.2436726***
* denotes p < 0.10 ** denotes p < 0.05 *** denotes p < 0.01		

Table 2: Goodness of the models 1 and 2 for Workplace Training

	Observations	Log Likelihood of the model	Degrees of Freedom
Model 1	3,706	-1474.225	6
Model 2	3,706	-1467.669	18

Table 3: Complementary Log Log model on the hazard to transit from unemployment to stable employment (one year) – Occupation Specific training

	Model 1	Model 2
time	0.8611462***	0.7787664***
time^2	1.001563***	1.006464**
treatment	0.4229903***	0.2763304***
treatment*time	1.501771***	1.740061***
treatment*time^2	0.9728071***	0.9715292*
Migrant background		
European		0.5476438**
non-European		0.5633704***
Migrant background *time		
European		1.232236*
non-European		1.149337*
Migrant background *time^2		
European		0.987
non-European		0.993
Migrant background *treatment		
European		1.174
non-European		2.3554**
Migrant background *treatment*time		
European		1.089
non-European		0.6729571**
Migrant background *treatment*time^2		
European		0.9716731
non-European		1.021322
_cons	0.2250647***	0.3378207***
* denotes $p < 0.10$ ** denotes $p < 0.05$ *** denotes $p < 0.01$		

Table 4: Goodness of the models 1 and 2 for Occupation Specific Training

	Observations	Log Likelihood of the model	Degrees of Freedom
Model 1	7,772	-2968.089	6
Model 2	7,772	-2953.19	18

Table 5: Complementary Log Log model on the hazard to transit from unemployment to stable employment (one year) – General Orientation training

	Model 1	Model 2
time	0.943	0.858
time^2	0.996	0.988
treatment	0.5170985***	0.215354***
treatment*time	1.233282***	1.595085*
treatment*time^2	0.987165*	0.979
Migrant background		
European		0.661
non-European		0.3962834***
Migrant background *time		
European		1.050
non-European		1.139
Migrant background *time^2		
European		1.008
non-European		1.011
Migrant background *treatment		
European		2.172
non-European		2.984719**
Migrant background *treatment*time		
European		0.8564529
non-European		0.7212934
Migrant background *treatment*time^2		
European		0.9931536
non-European		1.01231
_cons	0.157231***	0.3032915***
* denotes p < 0.10 ** denotes p < 0.05 *** denotes p < 0.01		

Table 6: Goodness of the models 1 and 2 for Occupation Specific Training

	Observations	Log Likelihood of the model	Degrees of Freedom
Model 1	8,360	-2750.37	18
Model 2	8,360	-2770.31	6

Annexe 3: Figures of preliminary results

Figure 1 – Cumulative incidence of training for unemployed population according to ethnic background
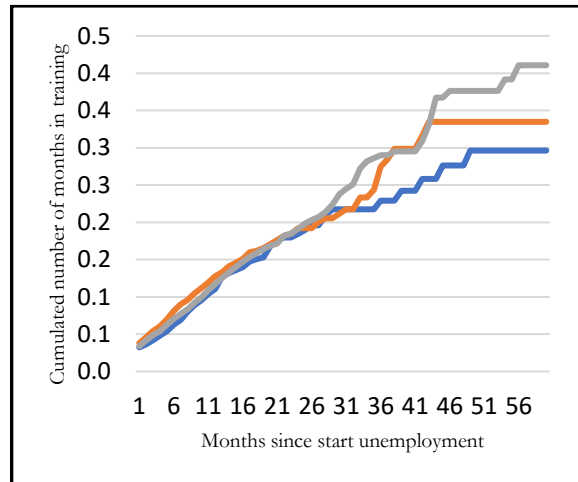
1a- Cumulative incidence - Workplace training

1b- Cumulative incidence - Occupation Specific training
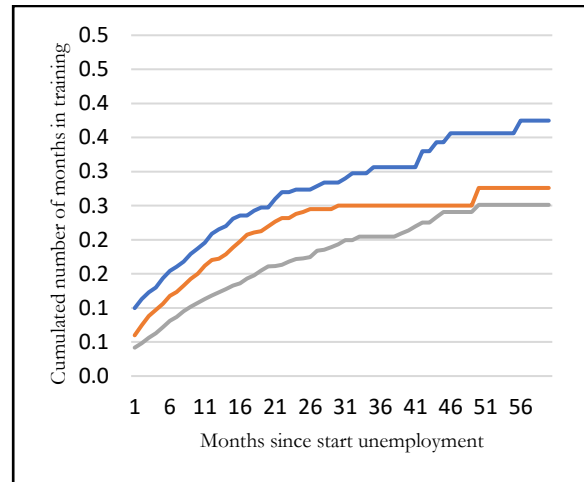
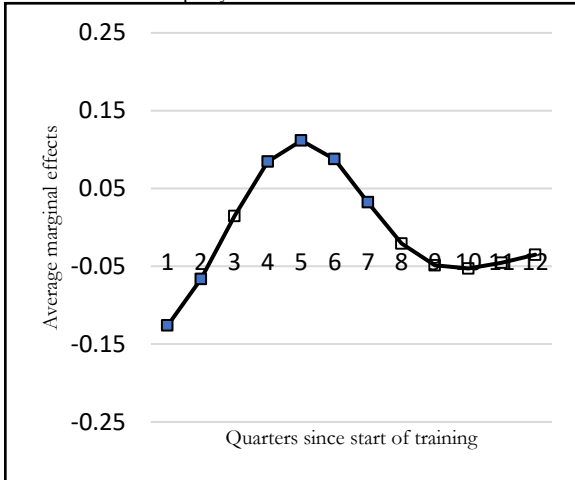1c- Cumulative incidence - General Orientation training

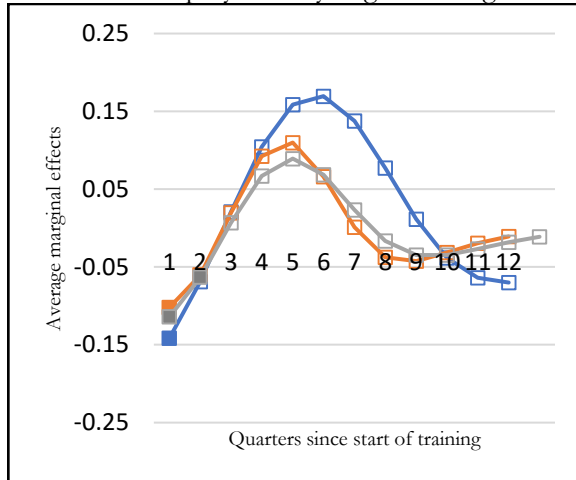Non-migrant background — European background — Non-European background

Source: MIA Panel 2005-2016

Figure 2 – Average Marginal Effects on the hazard to enter stable employment (one year) - Workplace training

2a- Average Marginal effects on the hazard to enter stable employment

2b- Average Marginal effects on the hazard to enter stable employment by migrant background
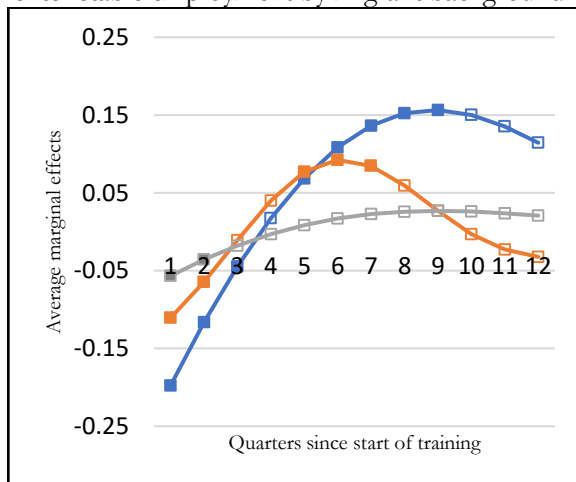

— Average all migrant background —Non-migrant background —European background —Non-European background
Solid fill: significant at 95% of confidence
Source: MIA Panel 2005-2016

Figure 3 – Average Marginal Effects on the hazard to enter stable employment (one year) – Occupation Specific training

3a- Average Marginal effects on the hazard to enter stable employment
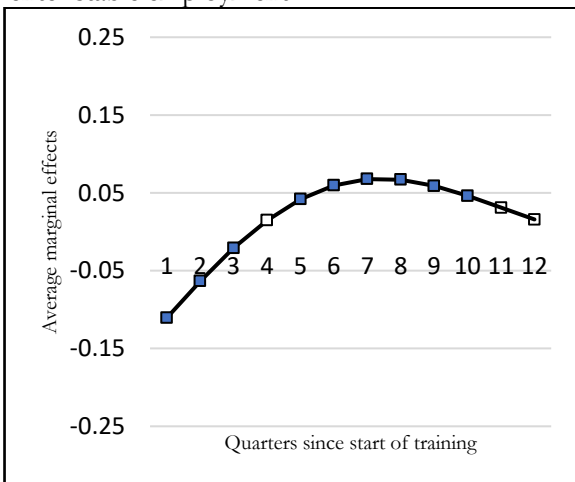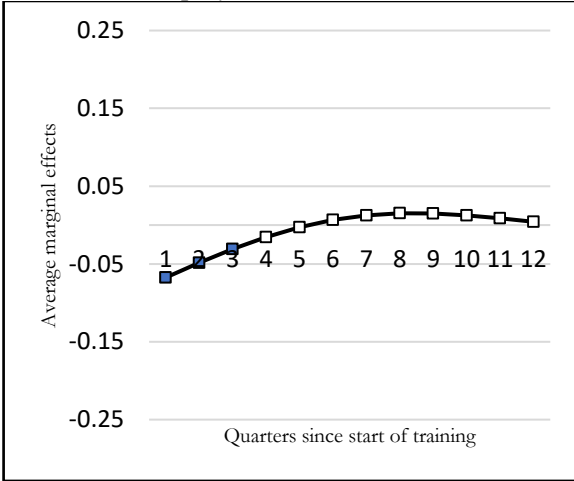
3b- Average Marginal effects on the hazard to enter stable employment by migrant background
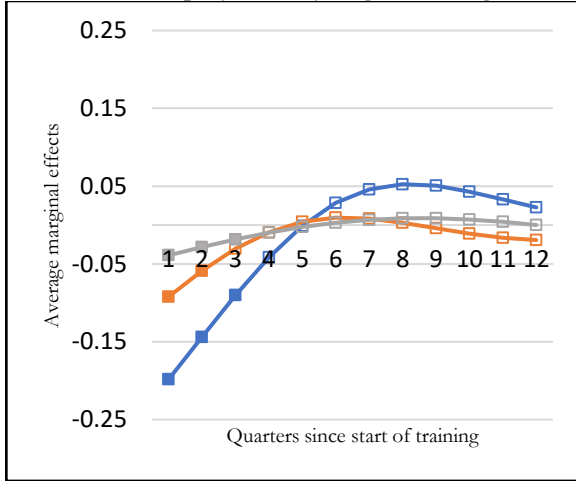

— Average all migrant background —Non-migrant background —European background —Non-European background
Solid fill: significant at 95% of confidence
Source: MIA Panel 2005-2016

Figure 4 – Average Marginal Effects on the hazard to enter stable employment (one year) – General Orientation training

4a- Average Marginal effects on the hazard to enter stable employment

4b- Average Marginal effects on the hazard to enter stable employment by migrant background

— Average all migrant background —Non-migrant background —European background —Non-European background

Solid fill: significant at 95% of confidence

Source: MIA Panel 2005-2016