Explaining Differences in Job-retention between Alien and Non-alien Workers after an In-Company Training

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ABSTRACT

This study focuses on the job-retention of unemployed workers, after they attended a subsidized in company training program in Flanders. The goal of such an active labour market policy is to offer an escape from unemployment traps by presenting workers with an opportunity to upgrade their skills and learn new competencies in a private company. Using a new large-scale dataset of the Flemish Labour Exchange, we look for differences in the probability of employment between aliens and non-aliens during the 36 months following their on-the-job training. We further investigate whether differences persist after controlling for several socio-economic characteristics and labour market related variables. Estimating a modified probit model we find that, on average, being an alien lowers the probability of employment after training by approximately 15%. This effect reduces to 10% when controlling for other variables. The effect of education on a trainee's employment chances differs for aliens and non-aliens. Aliens have a markedly lower return on investment in education. This suggests that on-the-job training does not suffice to close the gap in returns to formal schooling between aliens and non-aliens. Good language skills and a longer in-company training period also increase employment probability, but more so for aliens. Other control variables do not significantly improve the explanatory power of the model.

The main conclusion is that even after a tailored on-the-job training, aliens still lag behind non-aliens in terms of employment success.

1 INTRODUCTION

The integration of aliens in the Belgian labour market is a contentious policy issue. It is often the subject of non-informed but heated debate between those blaming employers for discrimination, and those who refer to differences in productivity to explain the employment gap between natives and foreigners. This article aims to contribute to the analysis of observed differences in labour market performance between aliens and non-aliens. Using a dataset of the Flemish Labour Exchange (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding or VDAB), we explore and aim to explain differences in labour market success between aliens and non-aliens after an in-company training of unemployed workers. It is well known that immigrants and their descendents have substantially lower employment opportunities than natives. In Flanders, the most disadvantaged groups are Moroccans and Turks, other non-Europeans and Europeans from 'new accession' countries (HRW, 2007; Misplon et al, 2005; Okkerse et al, 2004; Van Den Cruyce, 2004). This article contributes to the empirical literature explaining these observed differences, using a Flemish dataset of unemployed persons participating in vocational in-company training.

Literature on immigrants' labour market performance suggests that imperfect international transferability of acquired human capital is one of the major obstacles to economic integration (Barrett et al, 2008; Friedberg, 2000; Stewart et al, 1984). Despite positive self-selection of immigrant workers in terms of motivation and innate abilities (Chiswick, 1978), this partial transferability limits the range and quality of jobs immigrants can apply for leaving them with lower earnings and an overall worse socio-economic status than comparable non-aliens. Another well known phenomenon is the "migration paradox" (Portes et al, 2001; Suarez-Orozco et al, 2001). Regression towards the mean in terms of ability and motivation is a partial explanation for the general observation that first generation migrants often outperform their descendents (Blackaby, 2002). Furthermore, because native born ethnic minorities tend to reside

in the poorest inner city urban areas with high levels of ethnic concentration, substandard school facilities and lack of opportunities to expand language skills, they often have lower schooling and poorer employment prospects than their native peers. Statistical labor market discrimination often locks these groups in suboptimal equilibria, when employers act on negative group characteristics when hiring, and immigrants and their descendents invest less in formal schooling as they expect lower returns to education (Van Den Cruyce, 2004).

Active labour market policies (ALMP) may offer an escape from such unemployment traps by offering alien workers a subsidized training to upgrade their skills and learn new competencies. An example of such ALMP is the Flemish in-company vocational training program (IVT) offered by the Flemish Labour Exchange (VDAB). Initially, this program started in 1994 to reintegrate the long-term unemployed and increase the general labour participation rate, to maintain the tax base in view of future strain on expenditures on pensions and health care. During the last decade or so the focus of the IVT program shifted somewhat towards integrating high-risk groups, particularly newcomers and descendents of immigrants. A wide range of ALMP programs were the subject of evaluation studies (Budriá et al, 2008; Jespersen, 2008; Burkert et al, 2007; Kluve, 2006; Richardson, 2001). The verdict on the cost effectiveness of ALMPs is mixed. Results strongly depend on the specifics of the training scheme and the contextual factors. This article also contributes to this strand of literature as it sheds light on the effectiveness of the IVT program organized through the VDAB Labour Exchange.

In the next section we lay out the IVT program. Section II describes the data. The method of analysis is explained in section III. Descriptive statistics are presented in section IV, followed by empirical findings in section V. Conclusions, caveats and suggestions for future research are discussed in section VI.

2 THE INDIVIDUAL VOCATIONAL TRAINING PROGRAM

Labour market policy in Belgium is partly a competence of the Belgian federal government and partly a competence of the Flemish, Walloon or Brussels regional authorities. Labour legislation and social security (unemployment compensation, pensions, health care) are federal responsibilities whilst labour exchange – including training – is under the control of the regions. The Flemish government is competent for ALMP programs in the region of Flanders (Vlaanderen, 2004). For the implementation of these programs the Flemish government uses a specific relatively autonomous agency called the "Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding" (VDAB), i.e. the Flemish Labour Exchange. The VDAB is a public agency administered by a joint management committee made up of unions and employers' associations (Geers, 1995). Its objective is to facilitate the (re)integration of high-risk groups in the labour market, by engaging mostly in active policies like job search assistance, labour market training,

wage subsidies to the private sector, career guidance, etcetera (VDAB, 2008). The Individual Vocational Training (IVT) program was introduced at the initiative of the Belgian federal government in 1994, to be implemented by all regional labour exchanges.

Figure 1 shows that the Flemish IVT program was not very successful initially but took off by the end of the nineties. The number of unemployed workers in the program increased from around 3 000 in the mid nineties to more than 16 000 in recent years.

Figure 1.: Evolution of the Individual Vocational Training (1994 - 2006)
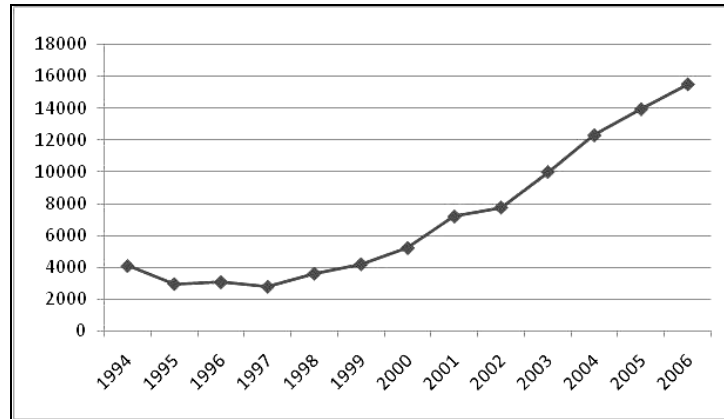
Source: (Studiedienst van de Vlaamse regering 2008)

Following Kluve's categorization of Active Labour Market Policies (ALMP), the IVT combines both labour market training and private sector incentives (Kluve, 2006). The program aims to allow firms to train job seekers for vacancies for which they cannot find qualified personnel, and for which the VDAB has no training programs on offer. Initially, the program was geared towards the long-term unemployed, but in the last decade or so VDAB has focused on increasing the reintegration of other risk groups especially members of ethnic minorities, women, disabled persons and older job seekers.

Firms have a strong incentive to use the IVT program because it allows them to train much-needed workers at a low cost. During the training period, employers only pay a so called productivity bonus to the trainee, who retains his or her unemployment benefit or other replacement income. This bonus is a gradually increasing payment on top of the unemployment compensation (or replacement income) bringing the trainee's wage at the end of the training period up to the level of the standard net wage corresponding to the job trained for. More important though is that the employer (and employee) is exonerated from paying social security contributions, which in Belgium is almost double the net wage rate. In addition, it is possible to

combine an IVT with other employment incentive policies[1] or training provided by the VDAB itself.

In principle, every unemployed worker can apply for an IVT. In practice, most IVTs are at the initiative of firms. Unfilled vacancies and claims by firms applying for an IVT-trainee are first carefully investigated. In a next stage, the job requirements are defined by the company and verified by the VDAB administrator. The aptitudes of possible trainees are also identified by a VDAB consultant and the trainee. Tailoring an individual training program to match trainee aptitudes to job requirements of trainees and companies is a key feature of the IVT program. The IVT takes about 4 to 26 weeks. Extensions are possible as well as combinations with additional training in one of the VDAB training centres. Length of training depends on the skills required for the job. For example, for non-natives the VDAB provides supplementary language training and training in work attitudes[2].

During the training period, the employer is bound to appoint one of his employees as a coach. This person guides the trainee through the entire training process and acts as his or her personal mentor. The progress of trainees is also monitored by a personal VDAB consultant. Trainee, employer and mentor must contact this VDAB consultant in case of problems such as an industrial accident, long suspension of the IVT because of illness, technical unemployment, personal difficulties, etcetera. Breach of contract by the employer or the trainee is penalized, except when the trainee finds employment elsewhere. Finally, after the IVT, the employer is contractually obliged to employ the trainee during a period at least as long as the training period.

Given that this program implies close monitoring, it is costly in terms of administration. As will be shown further from the data it is quite effective[3] in terms of employment after training. However, a full evaluation of its effectiveness is not attempted here as this would require additional information such as data on job retention of comparable persons without an IVT.

3 DATA AND VARIABLES

The data used are administrative data collected by the VDAB. The database includes all trainees who started a training in 2003 (n=9978). For these individuals, the following personal characteristics are available: gender, age (in 11 intervals), educational level (in 4 categories),

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[1] An example of this is the partial or full exoneration of employee contributions for two to three years that employees can benefit from when hiring someone for the first time, like the trainee after finishing the IVT.

[2] The language schooling is very intensive, task-based and commercially oriented. The IVT-participant learns exactly what he needs to know to perform well in the respective company.

[3] This is without taking into account possible crowding-out effects.

language skills[4] (a self-reported or by a VDAB-consultant assigned score with a maximum of 20), nationality, country of birth, duration of the previous unemployment spell, length of the training period, industry to which the company belongs (NACE 4 digit code).

The VDAB also identifies each person in the database as "allochtoon" or "alien" and "autochtoon" or "non-alien". All persons with a non-EU[5] nationality are considered aliens. However, all persons with Moroccan or Turkish names of EU nationality are considered as aliens as well, with the purpose of at least including the largest groups of Belgian (or EU) nationals of foreign descent.

The VDAB data also include follow-up data on labour market performance. The post-training careers of the 2003 trainees are monitored by checking whether they are in work or not at the end of each month after the IVT, using the DIMONA[6] administrative data. This follow-up covers a 60 month period but administrative follow up is less rigorous after 36 months hence a lot of missing observations start appearing after 36 months (3 years). Therefore, we only include the follow-up data for the 36 month period in the analysis. If former trainees are found in employment in the DIMONA database, this does not necessarily mean that they were still working for the same employer that offered them the training. We can only conclude that the concerned individual was employed at that moment in time.

Based on these data, we converted some of the raw data in variables useful for multivariate analysis. Gender was converted into a dummy variable (females=1). Age, using class centres, is converted into a semi-continuous variable (age in years). Based on the education categories three dummies are constructed, i.e. lower secondary, upper secondary and higher education making less than lower secondary education the reference case. Finally, a dummy variable was constructed using the industry classification to identify companies in the tertiary sector. The monthly data on employment are converted into a dummy variable (1 if employed and 0 if not employed).

4 METHODOLOGY

To analyze the job-retention of alien and non-alien workers after an IVT, we estimate a "modified probit model" allowing the use of least squares estimations. We first develop an aggregate measure of labour market success for each IVT-trainee. This is the ratio of the

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[4] This is a summary measure of four scores on reading, writing, speaking and comprehension, each with a maximum of five.

[5] Here only the EU-17 are considered as European countries in order to also assess the employment success of Eastern European workers.

[6] Since January the 1st 2003, all employers are required by law to declare all employees to the Social Security Service (RSZ) electronically through DIMONA (Déclaration IMmédiate-ONmiddellijke Aangifte). The latter is thus a data bank that contains accurate and up-to-date information on all wage earners at any given time (Bourdeaud'hui 2008).

number of times a trainee was found at work in the 36 months following the training, and the number of observations during this period (36), i.e.

$$P_i = \frac{\sum_{t=1}^{36} w_{ti}}{36} \qquad with \qquad w_{ti} = \begin{cases} 0 & \textit{if trainee is unemployed at time } t \\ 1 & \textit{if trainee is employed at time } t \end{cases}$$

.

This ratio is a proxy for the fraction of time or the probability that a trainee is working over a three-year period after the IVT. An individual found at work in all 36 months has a probability of in work of 1; an individual found unemployed in all 36 months has a probability of in work of 0. The hypothesis to be tested is that this probability depends on a number of personal characteristics related to human capital such as gender, age (a proxy for experience), level of education, previous unemployment spell (a proxy for depreciation of skills), language skills and other variables like the length of training and the industry of employment. Of special concern is the difference between aliens and non-aliens.

Probit and logit models are the classical approaches to estimate a model with a probability dependent variable. The assumed regression model is y*=bX+u with y* unobserved (a latent variable). In the standard model, what is observed is a dummy variable y=1 if y* is positive and y=0 otherwise. In our case, the dependent variable is not a dummy variable but a semi-continuous variable (0/36, 1/36, 2/36,…36/36) bound in the interval (0,1). Standard logit and probit estimation procedures require real dummy (0,1) variables. "Dumbing down" our semi-continuous variable to a dummy variable – for example 36/36 = 1 and all other values = 0 – would imply a forced loss of information. A minor transformation of the data allows us to estimate a probit model using OLS. That is, assuming the cumulative distribution of the error term is standard normal, it can be shown that the z scores corresponding to the individual employment probabilities are linear in the independent variables (Maddala, 2001), or that

$$Z_i = F^{-1}(P_i) = \sum_{k=0}^{K} \beta_k X_{ki} + \mu_i$$

where X is the vector of independent variables and μ is the error term. For values of P_i larger than zero and smaller than one, the z-score can be computed directly. However, for the extreme observations – never at work or $P_i = 0$ and always at work or $P_i = 1$ – this value is indeterminate. Substituting these extreme values with values close to the extremes circumvents this problem and offers the advantage of using simple least squares computation of the parameters whilst maintaining full information on the dependent variable. We replaced the extreme lower end value 0 with a very low probability of 0.01, and the extreme upper end value

1 with a high probability of 0.99. Sensitivity analysis shows that changing these values to e.g. 0.05 respectively 0.95 does not change the results fundamentally[7].

After estimation we convert the z-scores back into the underlying probabilities for interpretation purposes, using the formula for the cumulative standard normal distribution

$$P_i = F(Z_i) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{z} \exp- \left(\frac{u^2}{2} \right) du$$

where u is a random variable with mean 0 and standard deviation 1. This way we can easily determine the marginal effect of any independent variable on the employment probability through the partial derivative

$$\frac{\partial P}{\partial X_k} = \beta_k * f(Z).$$

Given that the estimated coefficients translate into different changes in probability depending on the z-score, we use the mean probability to calculate the marginal effects.

The average probability for the total sample is $\overline{P} = 0.78$, hence $f(Z) = 0.29$. We multiply the latter with all regression coefficients to obtain a close approximation of the actual effect of each independent variable on the employment probability.

5   DESCRIPTIVE STATISTICS

Table 1 lists all the variables and summary statistics. From these data it follows that, despite the deliberate inclusion of high-risk groups in the IVT program, their share is still relatively low compared to their share in unemployment (HRW, 2007). Women for example make up only 30% of the IVT-participants and aliens represent approximately 11% of the trainees. Of the non-alien individuals who participated in an on-the-job training, there were 68% males and 32% females. Amongst the alien trainees there were 81% males and 19% females. Thus, with regards to gender both aliens and non-aliens have a higher fraction of male IVT-participants, although the difference is larger for aliens.

From table 1 it follows that a little less than half the trainees succeed in securing employment during the full 36 months after their training. The average probability of employment during a three-year period after an IVT is approximately 0.78. However, when the sample is split between aliens and non-aliens, the results differ. Only 33% of the aliens are continuously employed during the considered time lapse compared to 46% of non-aliens. Similarly, the average employment probability is about 0.80 for non-aliens and 0.68 for aliens. This shows the salient difference in job-retention between aliens and non-aliens after an IVT.

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[7] Results are available on request.

The average age of the trainees is below thirty. The average age of non-alien trainees is somewhat less than that of alien trainees; the reverse holds for the population at large.

Table 1: Descriptive statistics

	All (n=9 978)		Non-aliens (n=8 820)		Aliens (n=1 158)	
	Mean	SD	Mean	SD	Mean	SD
Variables						
Employment prob. P_i	0.784	0.298	0.798	0.290	0.676	0.339
$\tilde{P}_i = 1$ [a]	0.444	0.497	0.459	0.498	0.328	0.470
Gender	0.302	0.459	0.317	0.465	0.191	0.393
Age	27.343	8.343	27.058	8.406	29.506	7.508
Lower Secondary education	0.184	0.387	0.196	0.397	0.087	0.282
Upper Secondary education	0.460	0.498	0.467	0.499	0.411	0.492
Higher education	0.126	0.332	0.128	0.334	0.112	0.316
Language skills	15.950	4.481	16.758	3.400	9.799	6.497
Unemployment spell [b]	7.694	12.940	7.527	12.923	8.970	13.001
Duration IVT [b]	4.057	2.088	4.101	2.083	3.717	2.094
Sector	0.511	0.500	0.514	0.500	0.489	0.500

Notes: [a] dummy $\tilde{P}_i$ equals 0 when $P_i < 1$ and 1 when $P_i = 1$. [b] in months.

Table 1 also shows that, on average, aliens are less educated than non-aliens. This suggests that the employment differentials after an IVT may be partly due to differences in educational attainment among the various groups. In particular, it seems that nearly 50% of aliens had not finished secondary school before starting the IVT-training, compared to about 40% of their non-alien counterparts. As for language skills it was to be expected that aliens would score less than non-aliens. On average the former display a score of 9.8 out of a maximum of 20. Non-aliens obviously score higher, namely 16.8, although their results are not

perfect either. This might be due to the non-Belgian Europeans who are considered non-alien in this analysis, but also to the limited job-specific vocabulary of native born trainees.

Table 1 further shows that on average aliens experienced the longest unemployment duration, namely 9 months. This is more than the average unemployment spell of non-aliens who were out of the labour market for about 7.5 months. The VDAB also kept track of the duration of the IVT-training for every individual in the dataset. On average, an individual job seeker had an IVT-training of approximately four months. Average training periods are shorter for aliens (3.7 months) than for non-aliens (4.1 months). About 51% of non-aliens followed a training in the service (and commercial) sector, compared to 49% of aliens. Jobs in the agricultural or industrial sector are mostly temporary or seasonal, and do not require advanced language skills which makes them especially suitable for foreign workers who plan to return to their home country.

6   EMPIRICAL RESULTS

The main objective of this paper is to explain the differences in job retention between aliens and non-aliens after an individual in-company training. Table 2 presents the estimation results of four models. Models I and II are results for the entire sample (n=9978), whilst models III and IV estimate separate equations for aliens (n=1158) and non-aliens (n=8820). The dependent variable in all cases is the z-score corresponding to the probability of employment. The estimates of the effects of the independent variables on the employment probability are reported between brackets.

Model I is a deliberately underspecified equation, containing only the alien dummy variable. With no other controls than being an alien, the effect on the z-score is about -0.5, which translates into a reduction of the average employment probability for aliens by approximately 15%. The differences in employment success are substantial and statistically highly significant (1% level), as could be expected from the descriptive statistics.

Table 2: OLS Regression coefficients

Z-score (P$_i$)	(I)	(II)	(III) non-aliens	(IV) aliens
Constant	1.286***	-0.081(-0.024)	-0.116	0.0326***
	(0.377)		(0.034)	(0.095)
Alien	-0.516***	-0.336***		
	(-0.151)	(-0.098)		
Gender (female=1)		-0.055***	-0.070***	0.082
		(-0.016)	(-0.021)	(0.024)
Age		0.022***	0.026***	-0.029
		(0.006)	(0.008)	(-0.008)
Age²		-0.34 e-3***	-0.40 e-3***	0.46 e-3
		(-0.10 e-3)	(-0.12 e-3)	(0.14 e-3)
Lower Secondary Education		0.148***	0.188***	-0.054
		(0.044)	(0.0855)	(-0.016)
Upper Secondary Education		0.443***	0.502***	0.157
		(0.130)	(0.147)	(0.046)
Higher Education		0.548***	0.611***	0.249
		(0.161)	(0.179)	(0.073)
Language skills		0.013***(0.004)	0.010***(0.003)	0.018***
				(0.005)
Unemployment spell		-0.003***	-0.003***	-0.004
		(-0.84 e-3)	(-0.001)	(-0.001)
Duration IVT		0.148***	0.143***	0.178***
		(0.043)	(0.042)	(0.052)
Sector (tertiary=1)		-0.052***	-0.055***	-0.084
		(-0.015)	(-0.016)	(-0.025)
R^2 (%)	1.66	11.53	10.58	8.51
Adj. R^2 (%)	1.65	11.442	10.47	7.71
N	9 978	9 978	8 820	1 158

Notes: *** significant at 1% level.

Model II includes additional control variables namely gender, age, age squared, education, language skills, unemployment duration, length of training and industry of training. In this model the reference trainee is a non-alien man with less than secondary education, trained in the primary or secondary sector. The estimate of the alien coefficient (-0.3) is slightly lower and statistically not different from the estimate of Model I (-0.5).

This means that being an alien – even after controlling for other factors – reduces the employment probability by nearly 10%. This result is statistically significant and consistent with the findings of for example Burkert and Zeibert (2007), who conclude using German data that even after controlling for unemployment rates, occupational and skill mismatch, migrants are still less successful in their transition to the labour market after vocational training than natives. In the same model being a woman reduces the average employment probability after an on-the-job training by 1.6%. Age has a significant positive but decreasing effect. In contrast, education does have a substantial influence on job market success. Educated individuals face far better employment prospects after an IVT than non-educated persons, seen as having a lower secondary, upper secondary and higher education increases the employment probability by 4.4%, 13% and 16% respectively. This finding is consistent with results of similar analysis but based on different data such as Budría (2008). Being out of the labour market for a certain time negatively influences employment prospects after training, which is consistent with loss of human capital during unemployment, although the effect is small.

Extending training by a month increases employment probability by 4.3%. Again this is consistent with human capital theory that investment in education enhances productivity and employment success. Finally, when controlling for the influence of the type of industry, we find that those who finished training in the agricultural or industrial sector face better employment prospects. Being trained in a commercial or services firm lowers the average employment probability by 1.5%.

The introduction of additional control variables – such as gender, age, education, language skills, unemployment, duration of training and industry – in Model II reduces the effect of being alien on the probability of employment by about one third, namely from 15% in Model I to 10% in Model II. Even after control for differences in human capital, training and industry characteristics, a large unexplained differential between aliens and non-aliens remains.

Models III and IV test an additional hypothesis namely that the effects of the explanatory variables between groups differ[8]. One empirical regularity that has emerged from studies on the returns to education for immigrants, is that the effect on earnings of an extra year of schooling is lower for the foreign born than for the native born (Barrett, 2008); Blackaby, 2002; Chiswick,

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[8] A simple Chow-test shows that the effects of the independent variables are significantly different for the two subgroups.

1978, 2008) We find similar results in models III and IV when estimating the above equation for the split sample. More specifically, for every level of educational attainment aliens experience less of a positive impact on employment probability than non-aliens, and the gap with respect to non-aliens is larger for higher levels of education. A non-alien with lower secondary, upper secondary and higher education increases his employment chances by 8.6%, 14.7% and 17.9% respectively. On the other hand, the chances for aliens with lower secondary education decrease with 1.6% compared to the reference group, but increase with 4.6% and 7.3% for those with upper secondary and higher education respectively. It should be noted that in the alien sample the effect of education is non-significant. A finding that also confirms what was suggested by the descriptive statistics is the contrasting effect of gender for aliens and non-aliens. Whilst being a native woman lowers the employment probability by 2.1% compared to a native man, being an alien woman improves employment chances by 2.4% with respect to an alien man. We do find highly significant effects on employment probability for language and length of training in both the alien and non-alien sample. The effects were slightly larger for aliens (0.05% and 5.2% respectively) than for non-aliens (0.03% and 4.2% respectively). Age is non-significant for aliens but has a significant positive and decreasing effect for non-aliens. An on-the-job training in a commercial or services firm offers less employment prospects to both alien and non-alien trainees.

7 DISCUSSION

The analysis of the previous section revealed a substantial gap between aliens and non-aliens in terms of employment after an IVT. This result is partly explained by the fact that aliens are not only less educated than non-aliens, but they also experience a lower pay off to their human capital investment. It is important to differentiate between aliens who are immigrants and aliens who were born and raised in Belgium (mostly second and third generation Moroccans and Turks). For the first group, the limits to international skill transferability are a major factor of influence. The VDAB did solve this issue by assigning a code to the immigrants' qualifications indicating its equivalence to a Flemish schooling level, but whether this has any practical relevance remains highly questionable. For one thing, the perception of equivalence held by the VDAB might significantly differ from that of employers (Barrett, 2008). If the immigrant trainee is for example not very proficient in the host country's language, this clearly puts a strain on his ability to function well in the firm, even though from an objective point of view he is qualified enough to do the job (Dustmann, 2003; Chiswick, 1991). The VDAB does provide basic language training for immigrants, but for some employers this might not be sufficient.

As for the group of aliens who were born and raised in Belgium, the situation is slightly different. To start with, the latter group does not encounter the problem of imperfect transferability of skills since they have received their schooling in Belgium. Many policy makers in Flanders point to the poor language skills of these descendants of immigrants, but the VDAB concludes in one of its studies that most of them have sufficient language proficiency to do well in the labour market. What does on the other hand hamper these individuals in their labour market success is the branch of study they opt for (Misplon, 2005). Schnepf (2007) also concluded that in Continental Europe it is not the language that holds immigrants and their children back. She points to the family and socioeconomic background in influencing children's educational choices and thus labour market performance later on. Because countries like Belgium, France and Germany did not have a restrictive immigration policy, they attracted mostly low skilled immigrants or "guest workers". As a consequence, the composition of the immigrant population differs a lot with respect to that of the natives, leading to a tremendous socioeconomic gap. The effects of this disadvantageous composition persist for several generations. Furthermore, according to Phalet (2003) and Misplon (2005), in Flanders immigrants (especially Moroccans and Turks) tend to reside in Metropolitan areas like Antwerp, Gent, Genk and Mechelen, in neighbourhoods where the ethnic concentration is high and schools have poor average pupil performance[9]. All these elements explain in some way why the average schooling of immigrants and their children is lower, and why the effect of education on employment after an IVT differs with respect to natives. This suggests that Burkert (2007) is probably right to conclude that if training is complementary to formal schooling instead of a substitution to it, training programs may worsen the labour market position of already disadvantaged individuals.

The results of the regression analysis for the split sample also revealed that alien women face better employment prospects after training than alien men, although the effect is non-significant. A possible explanation for this is set out by Arai et al (2008). The authors examined employers' response to job applicants with Arabic names. They found that the applicants first received significantly less call-backs compared to applicants with Swedish names, regardless of gender. However, when the quality of their CVs was enhanced by adding two years of relevant work experience, the call-back gap remained unaltered for male applicants but disappeared for women. Insights from psychology suggest that employers' stronger negative attitude towards men with Arabic names might be the consequence of the predominantly male stereotype associated with this group. In contrast, the stereotypes about women with Arabic names generally originate from traditional gender stereotypes that place them in domestic and

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[9] Studies have shown that contact with higher achieving peers has a positive influence on students' educational achievement (Hanushek (2003), Zimmer (2000)).

nurturing roles. Thus, when these women present employers with strong labour market qualifications, they may be perceived as deviating from this stereotype.

Extending the duration of the IVT has a highly significant and positive effect in the large sample, but also for the split samples. The dummy indicating the sector in which the job seeker was trained had a highly significant effect in the large sample. Unfortunately our categorization of the sectors was too broad to actually test hypotheses about the influence of this factor. Barrett et al (2008) use the nace-code to distinguish between sectors and occupations. They find that there are stark differences between the sectoral and occupational distributions of immigrants and natives, and that this has an effect on their earnings. Although such an in-depth analysis falls beyond the scope of this paper, it is a possibility for future research. Other studies have for example shown that immigrants and ethnic minorities are not only overrepresented in jobs that are highly sensitive to structural and cyclical change, but that they are also more prone to unemployment during economic slowdown and restructuring in general (Burkert et al, 2007; Dustmann et al, 2005). Kogan (2004) even states that immigrants are not only more inclined to accept low-status employment, but that employers find it easier to employ immigrant workers in sectors of the economy that are characterized by low wages, seasonal or intermittent work or unpleasant or dangerous working conditions. In short, sectors abandoned by natives. Taking these influences into account might better explain the gap in job retention between aliens and non-aliens after individual on-the-job training.

Another empirical conclusion that could be drawn from previous studies on immigrants' labor market outcomes, is that the ethnic origin of aliens matters a lot in explaining the disadvantage compared to non-aliens (OECD, 2008; Adsera et al, 2007; Burkert et al, 2007; Blackaby et al, 2002). It has been shown on numerous occasions that for Flanders, when a distinction is made between Europeans, Turks and Moroccans and other non-Europeans, large differences are revealed in terms of (un)employment (HRW, 2007; Misplon, 2005; Okkerse et al, 2004). A recent study published by the OECD (2008) also revealed that the labour market outcomes are not only poor for established migrants, but also for their children. Second generation immigrants seem to fare the worst in Belgium, compared to other European countries. It would be interesting to see whether even after an in-company training, there are still marked differences in job retention between Turkish and Moroccan immigrants and their native-born and raised counterparts.

A final issue that could not be addressed in this paper but that should be investigated is discrimination. Even after controlling for several important factors like education, gender, unemployment duration, etcetera, the gap between non-aliens and aliens – áfter in-company training – remains quite large. It could well be that the Individual Vocational Training is not enough for an alien to signal to an employer his abilities and motivation. If employers believe

that ethnic or cultural origin greatly determine abilities and productivity, non-alien trainees could be regarded as better workers than alien trainees despite having the same qualifications (Phelps, 1972; Borjas et al, 1978). We cannot give a definite answer about the possibility of discrimination without controlling for the above mentioned variables, but it is definitely an alternative explanation worthy of exploration. However, it is a known problem that in trying to detect discrimination you can never include all relevant variables to be absolutely sure that unequal treatment is at play.

8 CONCLUSION

The results in this paper confirm previous findings in the literature about aliens' disadvantage in the labour market. Even after a comparable in-company training program and after controlling for measurable differences in human capital, training and industry characteristics, aliens are at a disadvantage in job retention that remains unexplained. The analysis shows that human capital factors such as the level of education, language proficiency and limited earlier unemployment episodes are of high importance for labour market success. Also, the analysis confirms that in company training strengthens productivity and human capital formation as longer in company training period tend to increase labour market success.

An important finding from the regression models is that non alien and alien workers have different returns on investment to schooling. Non alien workers have a clear return on investment in schooling, contrary to alien workers for whom the transferability of human capital investment through schooling remains problematic. Language proficiency matters more than the level of schooling. Another remarkable finding is that on average job retention of alien women is higher than that of alien men, contrary to the non alien group where the reverse holds. This study shows that even after controlling for many personal and job characteristics a large fraction of the employment gap between aliens and non-aliens remains unexplained. Other variables for which we had no information, such as occupational distribution, ethnic factors and discrimination could very well contribute to this further explanation.

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