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## Migration and work: the cohesive role of vocational training policies

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# MIGRATION AND WORK: THE COHESIVE ROLE OF VOCATIONAL TRAINING POLICIES

Elena RAGAZZI, Lisa SELLA<sup>1</sup>

## ABSTRACT

Migration and work are truly connected notions, both because one major cause of migration is the search of better working conditions, and because work is a fundamental vehicle of social cohesion, especially for the migrants. Hence, the European social model strongly connects social cohesion and employment policies, fostering sustainable growth and integration by offering increasing job opportunities, particularly concerning the weak categories. Therefore, work is a pillar of active citizenship and a fundamental step in individuals' self-construction and the development of social abilities. In such context, vocational training represents a twofold integration channel, combining both education and work paths. Hence, the European Commission (2010) fosters a cohesive growth through vocational education and training (VET) policies, promoting a modern VET system and increasing its quality and efficiency.

In Italy, the role of VET is particularly important for first- and second-generation immigrants, who are more likely to attend VET courses than different education paths. However, Italy is the only European country where VET is perceived like a segregation path, rather than like a port of entry to active citizenship and true integration. In fact, Cedefop (2011) notices that high linguistic barriers and rigid teaching methods characterize the Italian vocational education, while it stresses the high flexibility of Italian vocational training, including an higher adaptability to immigrants' needs.

The present work discusses the hypothesis of "subordinate integration" of immigrants into the Italian VET system. In particular, it examines the effectiveness of Piedmont VT policies in fostering employability of weak subjects. The results of a CATI survey on a representative sample of Piedmont VT students suggest no specific discrimination to the detriment of immigrants, whose individual background and work assimilation is similar to that of Italian VT students. Moreover, the net impact evaluation suggests a positive impact of training courses on strangers, which is generally higher for communitarian immigrants. Hence, immigrants' participation to VT courses in Italy seems to denote a sort of normalization strategy of their specific differences, rather than a subordinate integration scheme.

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## 1 Introduction<sup>2</sup>

In the present era of globalisation, almost all countries in the world are involved in migration as countries of origin, destination, or transit. European countries happen to fall, following the cases, mainly in the last two categories and have to face the changes in society and economy deriving from the new composition of resident population. Integration is the adaptation process that allows this phenomenon to be a positive experience for the migrant person and a value for the region he has chosen to live in, temporarily or definitively. Of the several millions of people living outside their countries of birth, the ILO estimates that almost 90% are migrant workers and their families. Therefore, the labour market is the major arena where integration has to be pursued, both in a human rights perspective and in a socio-economical one. Moreover, as strongly underlined by the European Commission, social inclusion can more effectively substantially and quickly be obtained through work and this is why Social Inclusion (SI) is one of the key policy fields for the 2007-2013 ESF Operational Programmes (OPs). In particular, integration can be reached firstly by entry or re-entry into employment for disadvantaged people, and then by promoting the acceptance of diversity in the workplace and the combating of discrimination in accessing and progressing in the labour market (McGregor *et al.*, 2012).

Migrations often occur in response to imbalances between the demand and supply for qualified workers, and should in this case be easily integrated into the labour market, but this may also be problematic, in particular when the demand is unresponsive to changes in the supply and when phenomena of job-education mismatch (over or under education) appear (Pecoraro, 2011). In this perspective, training policies act in multiple directions, starting of course by their natural mission of filling the gaps in skills between what is requested by the market and the human capital of (foreign) workers, but also other social aims as abating existing barriers (language, unwritten social rules) and overcoming individual disadvantage.

This paper analyses the effect that the participation to vocational training can have on the integration level of foreign workers and in overcoming their eventual initial disadvantage. The work is based on a survey occurred in the years 2011 and 2012 in Regione Piemonte (a

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<sup>2</sup> Data used in this paper and the results deriving from them draw from the activity of the evaluation service “Valutazione del POR FSE della Regione Piemonte ob. 2 “competitività regionale e occupazione” per il periodo 2007-2013”, realised by the RTI Isri-Ceris. We gratefully acknowledge Regione Piemonte, which remains the sole owner of data and of the reports, for letting us use these results for scope of research and advances in methodology.

region in the North-west part of Italy) aimed at measuring with a representative sample the effects of training policies funded by the ESF for unemployed disadvantaged workers. This was a rather innovative experience inverting the dependence on monitoring, financial and output data lamented by the Commission, and gives us access to data surveyed directly with final recipients.

## **2 Evaluating VT policies**

Impact evaluation plays a major role in determining the effectiveness of public policies, being the programme net effect a crucial element in policy decision-making (CGD, 2006). In particular, fair policy evaluation by proper counterfactual methodology implies a deep knowledge of the process causal chain, as well as rigorous quantitative analysis getting rid of selection bias and other sampling distortions. Hence, a good impact evaluation should be based both on qualitative and quantitative inquiries (White, 2008, 2009).

In the present case, evaluation is particularly useful for programs for social inclusion and, in particular, for vocational training policies. The latter, mostly financed through the ESF resources, play a crucial role in fighting against unemployment and social exclusion. European public administrations must start thinking in terms of impact assessment and ex-ante evaluation, in order to build policies boosting the territorial development and cohesion, while simultaneously redeeming the quality of the public action.

Literature reports many experiences about quasi-experimental designs computing performance indicators and impact estimates for workforce programs (Hollenbeck and Huang, 2003, 2006; Hollenbeck *et al.*, 2005). One main issue concerns the adoption of either gross or net impact indicators. In fact, gross impact indicators provide understandable outcome measures but no benchmark. Hence, it is impossible isolating the true program impact from other effects. On the contrary, net differentials estimate program outcomes net of a counterfactual situation, but their validity depends on the quality of the comparison group. Then, the counterfactual approach is to be preferred every time a good comparison group can be identified (White, 2010).

Since experimental data are hardly ever available (at least in Europe), many studies use non-experimental and quasi-experimental settings (Card *et al.*, 2010). But literature does not suggest univocal impacts for VET policies: most of them provide slightly positive effects in the short run (Sianesi, 2008) and consistent positive effects in the medium and long run, while

Kluge (2010) reports many examples of zero impact programs. Moreover, negative impacts are observed whenever a program addresses either socially disadvantaged targets or declining economic sectors or regions (Friedlander *et al.*, 1997; Heckman and Smith, 1999). The literature on Italian training programmes shares the same drawbacks: the few contributions point out opposite impacts (Battistin and Rettore, 2002; Bellio and Gori, 2003; Berliri *et al.*, 2002).

In this context, the paper presents a net impact assessment of VT courses on adult immigrants in Italy, Regione Piemonte, discussing the methodological framework and introducing a quasi-experimental strategy to evaluate VT follow-up. To this extent, the counterfactual sampling strategy is explained. The paper proposes an accurate description of gross and net impact evaluation. Gross impact measurement assesses employment outcomes in the mid-term, representing just a crude measure of training effects, while net impact evaluation investigates integration differentials between the main and counterfactual groups by means of a composite indicator of integration into the labour market, as well as multivariate probit analysis addressing the effects of individual characteristics on the employment probability. In conclusion, the authors investigate the net impact of VT policies on Italian and foreigner VT students, assessing the effectiveness of such policies in filling the employment gap experienced by disadvantaged groups.

All VT courses in the sample ended in 2011, providing a consistent learning plan and final exam. The representative sample survey is performed by CATI methodology on individuals extracted from monitoring and administrative data, following the main national and EU guidelines (ISFOL, 2003). The goal is an evaluation of placement outcomes of VT students by analysing their professional position about one year later the completion of the course (Oct. 2012). In particular, personal characteristics possibly influencing the employment levels are taken into account.

The most innovative aspect of the work is the net impact evaluation, which is usually neglected in practical applications due to many theoretical and methodological issues concerning the *ex post* identification of a proper comparison group. This goal clearly guided the whole design, since it allows a clear understanding of the main programme effects and helps avoiding the so-called dead-weight loss, i.e. the resource loss experienced whenever subsidizing targets which would be anyway satisfied (Sestito, 2002; Martini *et al.*, 2009).

### 3 Methodological framework

The analysis is performed on a representative sample of VT students completing their course in 2011. Regione Piemonte financed the policy by means of ESF resources within the “Unemployed – Labour Market” directive (MdL)<sup>3</sup>. In order to evaluate the net effects, all selected courses issue some certificate (either professional qualification or specialization) and they are mostly address to unemployed people. For the sake of generality, no specific highly disadvantaged group is addressed (e.g. detainees or disabled persons).

In quasi-experimental net impact evaluation, the identification of a proper target (i.e. the treated population) is particularly awkward, since an highly homogeneous control group is needed, which has to be selected *ex-post*. Moreover, in both samples an adequate numerousness is needed in order to guarantee statistical significance.

#### 3.1 The target population

The target population collects all students, who attended the courses and got the final certificate. In order to evaluate the net impact, the analysis is restricted to those individuals who were not employed at registration, hence focusing on policies aimed at recovering the employment gap of weak targets, rather than on policies devoted to human capital accumulation. This choice allows a more appropriate evaluation of Italian VT policies, whose historical mission concerns the recovering of the disadvantaged.

Since the target population has been extracted from monitoring and administrative databases, a careful pre-processing is needed to avoid records either duplicate or missing some fundamental piece of information<sup>4</sup>. Such preliminary operations quantified 9,605 target records, which represent the basis for the sampling design. This number includes experimental VET activity in compulsory education, which is out of the purpose of this paper. Notwithstanding the observed peculiarities in VT policy programming, preliminary work advised against a stratified sampling design by territory and action (Benati *et al.*, 2013). Hence, the stratification was defined by the certification type (compulsory education,

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<sup>3</sup> In particular, the courses pertained the four actions: FOR - III.G.06.04 (qualification for unemployed foreigners); BAS - IV.I.12.01 (basic knowledge qualification for low-school-attendance adults); SPE - IV.I.12.02 (specialization and brief refresher courses); PDS - II.E.12.01 (post-qualification, post-diploma, post-degree specialization courses).

<sup>4</sup> Duplicates have been reduced to single records prioritising successful and longer treatments, while incomplete records have been matched to administrative SILP data.

qualification, specialization) and the active participation to labour market policies (LMP), due to a special research interest in the transition mechanisms from training into the labour market<sup>5</sup>.

*Table 1 – Target population by certification type and active participation to labour market policies. Absolute and % values.*

	Certification				
<i>LMP</i>	<b>OI</b>	<b>BAS</b>	<b>SPE</b>	<b>TOT by LMP</b>	<b>% by LMP</b>
<b>No</b>	2711	1952	2482	<b>7145</b>	74.4
<b>Yes</b>	1078	617	765	<b>2460</b>	25.6
<b>TOT by certification</b>	<b>3789</b>	<b>2569</b>	<b>3247</b>	<b>9605</b>	
<b>% by certification</b>	39.5	26.7	33.8		

### 3.2 The sampling design

The optimal sampling strategy is not unique, rather it depends on the evaluation objectives. In the present case, several tasks had to be satisfied. Precisely,

1. Reliably estimating VT students' follow-up, for accountability purposes;
2. Focusing on the main aspects of local VT policies, for evaluation and programming purposes;
3. Focusing on individuals' characteristics and outcomes, for target evaluation and programming;
4. Estimating net impacts, in order to improve policy effectiveness;
5. Investigating labour market transitions.

However, some tasks are clearly in contrast with each other, e.g. point 1 claims for a huge main sample, while point 4 needs a large control sample. Finally, it was designed a stratified sampling by certification type and active participation to other LMP after VT enrolment, overall obtaining 6 strata. Concerning individual characteristics possibly influencing employment outcomes (gender, citizenship, age), a proportional allocation design was adopted. Practically, the same population ratios have been reproduced in both the main and comparison samples, hence controlling for composition effects.

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<sup>5</sup> Obviously, administrative data can pinpoint labour market services solely offered by institutional subjects (employment agencies, town and Province services), neglecting all informal activity (training and temp agencies, private employment agencies, labour union, religious and voluntary associations).

Effectively, the optimal sample size is calculated in 1,532 individuals by the standard formula for finite populations<sup>6</sup> (Cochran, 1977). The sample represents the 16.0% population and shows a satisfactory level of precision, particularly with respect to similar evaluation exercises (Lalla *et al.*, 2004; Centra *et al.*, 2007; IRPET, 2011).

Secondly, individuals are split by through the Cochran formula across the 6 strata obtained. Such design allows the researcher to focalize on the peculiarities of the training actions, accounting for other labour market policies. In order to obtain representative subsamples, the smaller subpopulations are oversized, thus reducing the sampling error associated to the critical strata<sup>7</sup>. Once the subsample size is defined, individuals are randomly extracted, following the proportional allocation design.

The overall response rate is 52,4%, showing a consistent "*hard-core*" (Cochran, 1977) of individuals systematically refusing to be interviewed, which could affect the estimates. Moreover, the 9,0% non-respondents are displaced by other individuals from the same stratum (Levy *et al.*, 2008), maintaining the designed representativeness, but possibly enhancing the non-sampling error.

### 3.3 The counterfactual sample

In the present work, the net impact evaluation is realized by properly identifying a comparison sample as much homogeneous to the main sample as possible. In fact, in the counterfactual analysis the main and comparison groups should theoretically differ solely with respect to the treatment, in this case the attendance to VT courses. Hence, the counterfactual impact evaluation should answer the question "what if the (training) policy would not have been supplied?". But this is far from being a simple task (White, 2010). Mostly, it is an arduous whenever the comparison group has not been designed *ex-ante*, as in experimental design (e.g. randomized control trial experiments), but it has to be identified *ex-post*, as in the present case (Ciravegna *et al.*, 1995). Moreover, in the present case the size of the control group is necessarily limited by other evaluation objectives (see sec. 3.2).

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<sup>6</sup> The formula is  $n_e = \frac{\frac{z_{1-\alpha/2}^2 P(1-P)}{e^2}}{1 + \frac{1}{N} \left( \frac{z_{1-\alpha/2}^2 P(1-P)}{e^2} - 1 \right)}$ , where  $e$  is the absolute error in estimating the unknown proportion  $P$  of the target population  $N$ ;  $z_{1-\alpha/2}$  is the abscissa when the normal distribution function equals  $(1-\alpha/2)$ ;  $\alpha$  is the desired significance level. The chosen values are  $e = 2.31$ ,  $P = 0.5$ ,  $\alpha = 0.1$ .

<sup>7</sup> The absolute error for the whole sample is 2.3%, while each stratum lies underneath 7%.



A careful analysis of the evaluation contest suggested to extract the control sample from the no-shows (Bell *et al.*, 1995), i.e. from the students who did not complete the course (treatment) and that were not employed at enrolment. Such individuals are highly homogeneous with the main group.

Some alternative strategies were aborted for many unfeasibility constraints. In particular, the pass-list strategy would be quite desirable, since it attenuates the selection bias by comparing the placement outcomes between the last-admitted and first-excluded individuals. However, pass-lists are not available for VT policies. Finally, an approach based on employment agency lists was neglected, since the counterfactual sample would be too heterogeneous with respect to the main group. In fact, these lists collect a particular group of unemployed individuals, who presumably differ from the main group for several unobservable characteristics (e.g. motivation, proactive attitude, individual abilities, background), which substantially influence their placement (selection bias).

*Table 2 – Control sample, absolute and % values with respect to the control population.*

	Certification						
	BAS		SPE		TOT by LMP		
LMP	A.V.	% pop.	A.V.	% pop.	A.V.	% pop.	Error by LMP
No	160	30.6	224	30.3	384	30.4	4.2
Yes	46	36.8	61	33.9	107	35.1	7.6
TOT by certification	206	31.8	285	31.0	491	31.3	3.7
Error by certification	5.6		4.8		3.7		

Table 2 describes the counterfactual sample. The restrained absolute error reveals the quite good quality of the sample, whose design resembles that of the main sample, hence maintaining the highest homogeneity on the observables.

#### **4 Gross impact evaluation**

The gross impact of VT policies is evaluated on the working conditions of trained students in the medium term, i.e. about 12 months later the end of the course (October 2012). In fact, the labour market transitions of individuals, who were not employed at enrolment, measure the gross impact of training, with no care of the counterfactual situation.

#### 4.1 A macro approach: Gross placement indicators

Placement outcomes are evaluated by three nested indicators, each representing a specific situation within the labour market. **Errore. L'origine riferimento non è stata trovata.** defines the indicators. The employment rate is the fraction of trained students who are employed (including redundancy funds), hence experiencing a “strong” position within the labour market. The insertion rate includes the wider subset of trained students who cover a weaker position, e.g. *stage* and on-the-job training. Finally, the success rate incorporates individuals who are still within the educational system.

Figure 1 – Placement indicators: Definition.

$$\begin{aligned}\text{Employment rate} &= \frac{\text{Trained \& Employed (incl. redundancy funds)}}{\text{Total trained}} \\ \text{Insertion rate} &= \frac{\text{Trained with working activity (employed + training/stage)}}{\text{Total trained}} \\ \text{Success rate} &= \frac{\text{Trained with working activity + Students}}{\text{Total trained}}\end{aligned}$$

Investigating placement indicators by citizenship (Table 3), it emerges that EU foreigners perform the best, recording an high employment rate with respect to Italian and non-EU citizens. In fact, more than one over two EU trained students are employed one year later, in both qualification and specialization courses, with respect to 46.6% Italian and 41.1% non-EU people. In the case of Italian citizens, this gap is filled whenever considering on-the-job training (*stage*) and re-entries into the educational system, with a global success rate of about 51.0%. On the contrary, non-EU citizens retrieve their disadvantage just a little bit. Their difficulty is particularly evident in specialization courses, which do employ about one over three non-EU students, notwithstanding their average educational qualification at enrolment is the same as Italian and better than EU students’. Symmetrically, unemployment affects 55.3% non-EU trained students, 48.2% Italian and 45.6% EU students, while the inactives’ quota is about 1% everywhere.

Table 3 – Placement indicators on October 2012 by citizenship, % values.

Certification /citizenship	Employment rate			Insertion rate			Success rate		
	EU	ITA	NO EU	EU	ITA	NO EU	EU	ITA	NO EU
<b>BAS</b>	52.1	50.7	42.4	52.1	50.7	42.4	52.1	50.7	43.7
<b>SPE</b>	55.0	44.1	35.9	55.0	45.8	35.9	55.0	51.1	41.0
<b>TOT by certification</b>	<b>52.9</b>	<b>46.6</b>	<b>41.1</b>	<b>52.9</b>	<b>47.7</b>	<b>41.1</b>	<b>52.9</b>	<b>51.0</b>	<b>43.1</b>
<b>TOT trained</b>	<b>45.9</b>			<b>46.7</b>			<b>49.5</b>		

Hence, these results signal a good inclusion level into the labour market for EU immigrants (even better than that for Italian students), and a much worse position for non-EU individuals. However, the above indicators simply consider the students' rough professional position and no qualitative aspects of labour market inclusion is addressed. In fact, this is a multidimensional object, for a migrant is fully integrated into the labour market whenever he is employed with a stable/secured job that gives good income and is adequate to his education level. Hence, a bulk of indicators has to be considered in order to assess migrants' integration. This task can be addressed by individual scores of integration, which adopt a micro-approach to investigate differential aspects of integration by sub-populations.

#### 4.2 A micro approach: Individual scores of labour market integration

The available dataset allows to investigate three out of four aspects of labour market integration, i.e. the employment position, its security, and the income level<sup>8</sup>. On the contrary, over-qualification is addressed comparing the VT course to the educational qualification at enrolment.

Individual scores are calculated for every statistical unit by selecting  $k$  integration variables according to the shared definition of labour market integration; by processing the frequencies of the sample distribution of the selected variables. At this point the statistical unit is assigned  $k$  scores according to its modality of the variables; the score is calculated with an algorithm that considers the position of the individual in the global ranking based on this variable; finally, an average of the integration score at each statistical unit is calculated. The average score is ranged  $[-1;1]$  (Cesareo and Blangiardo 2009).

<sup>8</sup> The employment position shows five modalities: inactive, unemployed, student, on-the-job training, employed. Job security has three modalities, depending on the contract duration: low for one year or less, medium for open-ended contract lasting more than one year, high for fixed term contracts. The income level is defined by four classes:  $\leq 500$  euros; 501-1,000 euros; 1,001-1,500 euros; more than 1,500 euros.

Table 4 substantially confirms the previous results, showing an higher integration into the labour market for EU immigrants, while no significant difference is retrieved between Italian and non-EU citizens. But this result is stronger than the previous one, for it involves a multidimensional definition of labour market integration.

*Table 4 – Average integration score by citizenship in the main sample.*

Citizenship	Obs	Mean	Std. Dev.	Min	Max
EU	68	-.2354688	.5082405	-.9899	.5981
ITA	730	-.377578	.5348513	-.9899	.7836334
NO EU	197	-.3709255	.4654026	-.9899	.6604667

By the way, integration scores on the main sample are affected by the deadweight effect, as well as the previous macro evaluations. To get rid of such weakness, average integration scores must be compared between the main and the counterfactual samples.

## 5 Net impact evaluation

Because of the high homogeneity between the main and counterfactual samples (see sec. 3.3), a comparison in their average integration scores represents the first step for the net impact evaluation.

### 5.1 Differentials in average integration scores

Table 5 shows integration scores in the control sample. Clearly, the tendency is different than in Table 4: labour market integration is higher in all sub-populations, pointing out that the VT drop-outs are systematically stronger than the trained students. In fact, most of them left the course because they autonomously found a job. However, in this case Italian people perform significantly better than non-EU migrants, while there is no significant difference with respect to EU migrants.

*Table 5 – Average integration score by citizenship in the control sample.*

Citizenship	Obs	Mean	Std. Dev.	Min	Max
EU	22	-.1762606	.353726	-.9858	.4443333
ITA	339	-.1065112	.3639292	-.9858	.8277
NO EU	130	-.2016394	.3072406	-.51555	.6016334

Hence, VT seems to play a significant role in improving the relative labour market integration of both EU and non-EU migrants. In fact, on the one side EU drop-out migrants share the same integration level of Italian drop-outs, while EU trained students are significantly better integrated than Italian students. On the other side, non-EU drop-outs show worse labour market integration than Italian drop-outs, while there is no significant difference between non-EU and Italian trained people.

## 5.2 The multivariate analysis

The net impact of training policies has been assessed through a multivariate probit model. This approach allows estimating in percentage terms the net impact of training policies on the probability of being employed about one year later, taking at the same time into account the effect that individual characteristics have on this probability. This technique has the advantage of avoiding, in the net impact estimation, the composition effects that affect the simple comparison between the treatment groups and counterfactual groups in the different actions (net employment differentials).

The regression model presented in table 6 shows a positive and significant effect on the employment probability of age, instruction level, participation to VET. In particular, the age coefficients show a nonlinear impact on employability: on equal terms its more likely that adults find a job with respect to young people, but this advantage decreases becoming older.

The positive impact of previous education endorse the higher attractiveness on the labour market of individuals with a strong knowledge capital. This result is not in contrast with another result of our analysis, i.e. that training is more effective for lower qualifications. In fact, education gives an advantage independently from participating to a course. On the other hand, the net impact of training is positive in general, but it decreases with the years of education at enrolment, as shown by the negative coefficient of the interaction variable between education and training ( $d\_train \# c.years\_instr$ ). This explains, at least in part, why training courses for individuals with low qualification appear to be less effective than

specialization courses. Training acts in the Piedmont system so as to recover the disadvantage of individuals with an insufficient education path.

Among the non-treated, students who have withdrawn by the course because they found a job (d\_ritwork) are advantaged probably because it is important to have a proactive attitude on the labour market. With one year lag these individuals are still stronger with respect to the students that have enforced their human capital. This variable can also be interpreted as a proxy of unobservable individual characteristics, related to the psychological and social sphere, that help in finding and holding down a job.

*Table 6 –Probit model on the treated and counterfactual groups (MdL).*

Probit regression				Number of obs	=	1485
				LR chi2(13)	=	203.52
				Prob > chi2	=	0.0000
Log likelihood = -922.12413				Pseudo R2	=	0.0994
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d_employed		Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
-----						
d_woman		-.3804957	.1292208	-2.94	0.003	-.6337638 -.1272277
age_2011		.0824104	.0271067	3.04	0.002	.0292822 .1355386
c.age_2011#c.age_2011		-.0012355	.0003957	-3.12	0.002	-.0020111 -.0004599
years_instr		.073507	.021076	3.49	0.000	.0321988 .1148152
d_noeu		-.2485756	.1442358	-1.72	0.085	-.5312726 .0341215
dur_unempl_pre		-.0256373	.0040009	-6.41	0.000	-.0334789 -.0177956
d_ritwork		.8578586	.1263093	6.79	0.000	.610297 1.10542
d_train		2.137236	.3607612	5.92	0.000	1.430157 2.844315
d_train#c.years_instr						
1		-.0583784	.0257085	-2.27	0.023	-.1087661 -.0079906
d_woman #d_train						
1 1		.3950302	.1545512	-2.56	0.011	-.697945 -.0921154
d_noeu#d_train						
1 1		.2049701	.1787874	-1.15	0.252	-.555387 .1454468
d_oss#d_train						
1 1		.7257386	.1197619	-6.06	0.000	-.9604676 -.4910096
1 0		.2831399	.2727489	1.04	0.299	-.2514381 .8177179
_cons		-2.235519	.4701049	-4.76	0.000	-3.156907 -1.31413

As far as variables negatively influencing employability, we observe a gender negative effect for women (d\_woman=-0.38), although trained women recover this disadvantage (d\_woman#d\_train=0.40). Also long term unemployment (dur\_unempl\_pre) has a significant negative impact on the probability to find a job. On equal terms a longer unemployment spell before the inscription to the course lowers the probability to find a job after the qualification. This highlights two phenomena. Firstly, the share of long term unemployed in training courses is a proxy of the diffusion of highly disadvantaged individuals among the VT courses

here assessed. In our sample 14.2% individuals have been unemployed for more than two years before the enrolment, and another 25.2% for periods between 12 and 24 months. This long term unemployment is in many cases the manifestation and the effect of latent individual characteristics - linked to attitudes, cultural and human capital – that hamper labour insertion. Secondly, exclusion from the labour market itself generates a disadvantage in terms of employability that persists after training. Staying away from informal networks that oil and thin demand-supply matching mechanisms, the rapid obsolescence of skills and knowledge, and the even quicker degradation of the set of contacts useful to find a new job, and the psychological and social mechanisms of loss of trust, of self-esteem, of social acknowledgement, these are all phenomena which tend to become chronic and then can no longer be overcome by the individual.

Variables describing the context of life (qualification of parents or material endowments of the family such as pc, internet, driving license, private transport means, dimension and property of the house) do not prove significant<sup>9</sup>. Results seem to indicate that material and context difficulties do not really hamper employability, and certainly less than the aspects linked to the motivation and relation sphere of the individual do. This is a very important insight concerning the integration of migrants. The digital and material divide is not so relevant, and also not so wide (indicators of endowment for non EU trainees are not much smaller than those for the Italians, and those for EU foreigners are even higher<sup>10</sup>), above all in the case of the policies here evaluated, whose target is disadvantaged people, and so the action for integration must be concentrated on training for social abilities and on the reduction of cultural barriers.

Other variables that were not significant were infra regional differences and type of actions. We conclude from the first result that the regional scale seems the better scale for extensive surveys like this one because, at least in the Italian context, there is not a sensible differentiation in the policies granted at a sub-regional level. Dummies related to the type of policies were not significant as well. The differences in employment performance (gross impact but also employment differentials) are due to the greater concentration in more successful actions, of those disadvantaged individuals for which training policies in Piedmont prove so effective. In models where these individual differences are accounted for, the different performances disappear.

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<sup>9</sup> The coefficients do not differ significantly by zero neither one by one, nor as a group, via F test.

<sup>10</sup> Complete results can be found in Ragazzi *et al* 2013.

### 5.1 *The impact on migrants*

Let's now have a closer look to the results concerning migrants. Although descriptive statistics show insertion rates of non EU students comparable to those of EU citizens, the multivariate analysis of impact shows that there is still a strong disadvantage. The coefficient of the nationality dummy (*d\_noeu*) which is negative and significant, tells that the probability to find a job for a foreigner with no training is much lower than the one on EU nationals. Although migrants' motivation to work and willingness to take jobs characterised by difficult conditions (such as personal care, night work or hard environmental conditions) is generally appreciated a lot by the market, this leaves them weaker on equal terms. But, the data show also another effect, in the opposite direction, i.e. the one of training. The initial disadvantage is nearly completely compensated in the case of trainees.

This result cannot be appreciated very well simply observing the coefficients, while the two contrasting effects can be precisely estimated using the Average Marginal Effects (AME). This method calculates the probability to find a job twice for each individual in the sample (including the non-treated) based on his individual characteristics: one under the hypothesis he has followed a training course, and another as if he had not attended. The difference between the two values is the marginal effect, the AME is the average of all individual effects. This is a more precise method with respect to the standard one in which a theoretical average individual is created and then his marginal effect is calculated. In general, without distinction of target group, the AME method shows a net impact of +14,5 percentage points, meaning that treated individuals have a probability to find a job (with a time lag of one year) which is nearly 15 points higher than if they had not been treated<sup>11</sup>.

The AME method shows clearly that training policies recover the initial disadvantage in terms of employability. In Table 7 the different levels of employability of Non EU nationals in case of training and without training can be observed. It can be clearly seen that while trained foreigners have no significant disadvantage, non-trained foreigners lose 10 points in terms of employability.

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<sup>11</sup> It must be observed that this results holds because an appropriate control group has been created. A tests on the existence of selection bias has been conducted, estimating a two equation model in which the first concerns the probability to accomplish the whole training path and the second the probability to find a job (Heckman, 1976). This test excludes the existence of a significant selection bias.



*Table 7 – Average marginal effects per citizenship*

Average marginal effects  
 Model VCE : OIM  
 Expression : Pr(d\_employed), predict()  
 dy/dx w.r.t. : 1.d\_noeu

		Delta-method				[95% Conf. Interval]	
		dy/dx	Std. Err.	z	P> z		
1.d_noeu							
	_at						
d_train = 0		-.1035955	.0432356	-2.40	0.017	-.1883357	-.0188553
d_train = 1		-.0021698	.0377776	-0.06	0.954	-.0762125	.071873

Note: dy/dx for factor levels is the discrete change from the base level.

This happens thanks to a special attention of the assessed policies for weak target groups, which make them more effective in the recovery of disadvantage. In Table 8 it can be seen that, on average, attending a training course increases employability of 13 points in case of EU nationals, but this effect raises to nearly 20 points in case of foreign students.

*Table 8 – Test on VT net impact differentials by citizenship.*

Contrasts of predictive margins  
 Model VCE : OIM

		Delta-method				[95% Conf. Interval]	
		Contrast	Std. Err.	chi2	P>chi2		
Formati vs Non Formati							
	Comunitari	.1313919	.0364931	12.96	0.0003	.0598667	.2029171
	Extracomunitari	.1957979	.0504531	15.06	0.0001	.0969117	.2946841

## 6 Conclusions

This paper presents an analysis on the effect of training policies on a particular target of disadvantaged people, the migrants, compared with national trainees. We draw data from a survey performed in Regione Piemonte (in the north west of Italy) based on a representative sample of treated, and on a control group selected by the no-shows of the courses.

The performance of VT policies has been analysed with a multiple approach:

- a macro approach based on placement indicators
- a micro approach based on integration score
- a net impact evaluation realised with a multinomial probit regression.

All the paths converge in the same direction: migrants appear to be disadvantaged with respect to EU nationals, but this gap is filled when one considers individuals having completed their training up to a qualification or specialisation.

We can conclude that data fully confirm the role of training policies in the Piemonte region to contrast and recover the disadvantage of target groups which appear weak on the labour market. In the case of migrants this goal is pursued offering special courses for them, leading to a qualification as the other actions for low qualification adults, but integrating the courses with special modules of Italian language and active citizenship. These act properly on those social barriers that hamper full integration. Moreover these courses have special organization features (time schedule, modular organization) which allow attendants to combine study and part-time work, and consequently self-sustainment. The results is that these courses are highly requested and show very good finalization rates (ratio of qualified on enrolled). It must nevertheless be observed that participation of foreign students is high in all type of actions (21.7% on average), and particularly in the actions leading to qualification, even if not reserved to non-EU citizens.

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