



LABORatorio R. Revelli
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METHOD**

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Abstract

The issue of high skilled migration is of increasing importance in the policy debates in a diverse set of countries, however, very little is known about the effects and the magnitude of high skill migration also because data on this topic are very scarce.

The debate about the effect of immigration in Italy has been exclusively focused on the unskilled immigrants and their effect on the labour market, almost nothing is known about the skilled foreign workers. The phenomenon is not so important as in other countries (i.e. U.S., UK and Germany), however, the share of foreign workers among white collars and managers is constantly increasing in the last years; moreover, it is often declared by employers a shortage of skilled *manual* workers that can only be satisfied by foreign workers.

As the Eurostat Labour Force Survey, one of the few datasets available to study this issue, cannot be used because foreign workers are underrepresented for southern European countries like Italy, we propose here an alternative method based on the salary paid to the worker. We use the distribution of individual wages, after controlling for observable individual and firm characteristics, to measure skill that is defined as unobservable "ability" for which the worker receives a wage premium over the main wage paid to workers with similar observable characteristics.

Descriptive statistics on the characteristics of skilled immigrants confirm the shared knowledge that there is a demand for highly specialised manual workers which is satisfied by experienced male workers coming from non European countries.

Moreover a simple test is carried out to investigate which are the motivations of mobility inside Europe, and the effect of European integration policy and international trade.

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1. Introduction

The issue of high skilled migration is of increasing importance in the policy debates in a diverse set of countries. The proliferation of skills around the world, the increase in world trade, the growth of R&D have all contributed to the emergence of high-skilled migration as a major issue and it is argued that, as one of the consequences of globalisation, national labor markets for highly skilled specialists and managers will become increasingly integrated.

On the other hand one of the solution to the problem of the skill gap, is to attract foreign workers in those sectors where national skills are scarce. Most OECD countries have in fact modified their legislation in order to promote and increase inflows of experts from abroad if they perceive a national shortage in some sectors.

Notwithstanding the increasing interest in these issues, very little is know about the effects and the magnitude of high skill migration.

On a theoretical level much of the literature on this topic has focused on the brain drains from developing to developed countries (Gould 1988). Only recently attention has been paid to "brain exchanges" between countries, expecially developed ones (Salt 1992, Koser and Salt 1997). However the understanding of the effect and the consequences of high skill migration is much less than for international migration because less research and data are available.

On the empirical level there are very few accessible data on the scale and characteristics of migration among the highly skilled workers. One of the most important problem relates to the definition of "high skill", which is even more difficult to asses in this contest. Even if we accept to identify skill with the education level, the recognition of qualifications of migrants poses new problems expecially when referring to workers coming for non-EU countries¹. Information on the education

¹ Over the last years, EC directives have been designated to the recognition of diplomas and comparability of vocational qualifications. At the moment two specific directive on this field are at work. The first, issued in 1988 (Council Directive 89/48/EEC of 21 December 1988) on a general system for the recognition of higher-education diplomas awarded on completion of professional education and training of at least three years' duration. The second (Council Directive 92/51/EEC of 18 June 1992) on a second general system for the recognition of professional education and training to supplement Directive 89/48/EEC. The objective of this last directive is to extend the system of mutual recognition introduced by Council Directive 89/48/EEC to those professions for which the required level of training is not as high.

content of immigrants coming from developing countries are often unreliable. In fact, if the level of education is based up certificate assessment, there is always an underrepresentation because rarely foreign certificate are easily recognised, while if it is based upon certification made by the immigrant himself, there is often an overrepresentation because different education degree do not have the same education content.

In the US, where the debate about high skill migration, has a longer history than in Europe, the problem of the recognition of qualification is overcome by considering high skilled foreign workers those holding a H-1B visa². Unfortunately, the US experience cannot be extended to Europe because only few countries have visa that discriminate between high and low skill migration.

To have an idea of the magnitude of high skill migration in Europe, the only possibility is to discriminate between education or occupation, keeping in mind the problems related to the recognition of foreign certificates indicated above.

One of the few dataset available is the Eurostat Labour Force Survey. In this survey, the labour force is classified into three groups: nationals, non nationals from EU countries, and non national from non-EU countries. Unfortunately, in this survey, foreign workers are underrepresented for southern European countries, where immigration is a recent phenomenon and probably the sample of foreign workers is biased because recent inflows of immigrants are not reached by the survey. On the other hand, for the countries with reliable data, this dataset provides some useful information on the incidence of foreigners among highly skilled workers.

Table 1 shows the composition by nationality of workers with high level of education for some countries. Among workers with higher education the share of foreigners is almost never over 5 percent. The highest percentage of foreign high educated workers is found in Austria (about 9%) and in Belgium (6%). Discriminating foreign workers by origin, results that only in Germany and the United Kingdom the share of highly educated workers from non EU countries sensibly exceeds that from EU countries.

² This is the most common highly skilled work visa. It is issued for three years, with a single three-year renewal allowed.

Table 1
Distribution of workers with high level of education by origin in 2000

	National	Non EU	Other EU
AT	91,3	4,2	4,5
BE	94,1	1,6	4,3
DE	95,3	2,9	1,9
FR	96,6	1,9	1,6
NL	96,6	1,3	2,1
SE	95,3	2,2	2,5
UK	95,8	2,5	1,7

High level education = completed higher education, or completed training of higher level.

Italy, Spain, Greece and Portugal are omitted for not representative data, while Denmark, Finland, Luxembourg are omitted for small sample.

Source: Eurostat LFS

Looking at occupation (Table 2) we have almost the same picture, as occupation is closely associated with the level of education. In general, in the countries analysed, the incidence of foreign workers among skilled occupation is very low. In the highest skilled occupation (technicians, professionals and legislators and managers) this incidence reaches 5% only in Austria, Belgium and Germany, and it is about 3% in the other countries. In Belgium skilled immigrants come almost exclusively from Europe, while for the other countries there is not a significant difference between foreigners coming from European and non European countries.

Table 2
Share of foreign workers in the high skilled occupations in 2000

	AT	BE	DE	FR	NL	SE	UK
Total foreigners	5,20	6,19	4,82	2,93	2,37	3,42	3,15
Coming from NON-EU countries							
High-Skilled occupations:	2,61	1,31	2,65	1,52	0,84	1,17	1,71
- legislators, senior officials and managers	1,48	1,88	3,85	2,80	1,43	1,16	1,69
- professionals	3,00	1,21	2,32	1,65	1,04	2,36	1,58
- technicians and associate professionals	2,97	0,94	2,52	0,90	0,99	1,43	1,39
Coming from other EU countries							
High-Skilled occupations:	2,59	4,88	2,18	1,41	1,53	2,25	1,44
- legislators, senior officials and managers	3,07	7,97	4,16	1,89	0,20	1,19	1,93
- professionals	3,27	3,31	2,22	1,91	0,87	1,77	1,73
- technicians and associate professionals	1,86	4,61	1,61	0,89	0,62	1,24	1,20

Italy, Spain, Greece and Portugal are omitted for not representative data, while Denmark, Finland, Luxembourg are omitted for small sample.

Source: Eurostat LFS

2. What we already know about Italian migration

During the 80s Italy was no longer exporter of labour but became importer. The stock of foreign residents increased from 300,000 in 1980 to 1.3 million in 2000 and reached more than 2% of the population. This increase was almost exclusively made up of immigrants from non-European Union countries, such as Morocco, Tunisia, the Philippines and more recently from the former Yugoslavia and Albania.

The debate about the effect of immigration in Italy has been exclusively focused on the unskilled immigrants and their effect on the labour market. On the one hand natives feared the competition of immigrants in the labour markets, but on the other hand there was an excess demand for labour not matched by natives.

Existing studies on the effect of immigration on the Italian labour market have shown that:

- The effect of inflows of immigrants on *wages* is positive for native manual workers; the effect is larger in small firms and in the North; the effect of cumulated inflow of immigrants is positive but non-linear (it increases at a decreasing rate) (Gavosto, Venturini, Villosio, 1999).
- In the northern part of Italy, where most immigrants are located, the share of immigrants has no effect or a complementary effect on the probability of finding a job: a negative effect is detected only in 1993 for *people looking for a first job* (the young). A complementary effect also prevails on the probability for natives to lose their job, while there is a negative effect only in the manufacturing sector in Northern Italy for 1996, probably due also to the spread of temporary contracts in that area during that year. (Venturini, Villosio, 2002)
- The increase of illegal units of labour produces a reduction in the use of legal labour, limited to the agricultural sector (Venturini, 1999)

Almost nothing is known about the skilled foreign workers in Italy. The phenomenon is not so important in Italy as in other countries like the U.S., the UK and Germany for instance, where the inflows of high-skilled immigrants, especially in the information technology sector, is consistent. However there are at least two reasons why the issue

of foreign skilled workers can be of interest in the Italian contest. First, as shown in Table 3, the share of foreign workers among white collars and managers is constantly increasing in the last years; moreover, what seems more important in the Italian contest, it is often declared by employers a shortage of skilled *manual* workers that can be satisfied only by foreign workers.

Given this picture, definition and measurement of skilled foreign workers is not straightforward. As described in the par. 1 data from Eurostat Labour Force Survey, which is one of the few dataset available to study this issue and that permits to discriminate immigration by education or occupation, cannot be used because data on immigration in Italy are not reliable. Moreover the system of work permits issued to immigrants in Italy do not discriminate between low and high skill immigration like in other countries.

3. How to measure skilled foreign workers

Here we propose an alternative method to define and measure skilled workers, which contains all these suggestions. The method proposed is based to the salary paid to the worker. We use the distribution of wages, after controlling for observable individual and firm characteristics, to measure skill defined as unobservable "ability" for which the worker receives a wage premium over the main wage paid to workers with similar observable characteristics. The underlying idea is that the extra-pay the worker with certain characteristics is able to gain respect to a worker with the same characteristics can be interpreted as a premium for his/her unobservable ability or "skill". So we defined "skilled workers" those workers with particularly high wage premium, opposed to the "low-skill workers" who are those workers with relatively low wage premium.

The shortcoming of this procedure is that, given this definition of skill, if we are not able to fully control for differences among workers, we end up with measuring as skill other unobservable characteristics.

Thus, we estimate a wage regression, for individual employed full time, in the standard form:

$$\ln(w_i) = \beta_i X_i + \varepsilon_i \quad (1)$$

where the individual (log) daily wage is a function of a matrix of characteristics (X), and ε is an i.i.d. error term.

From the distribution of estimated residuals we define skilled workers those individuals whose residuals fall in and above the eight decile of the residuals distribution. By our definition, therefore, the overall number of the so-called skilled workers is equal to thirty percent of the total workers in the sample.

The data we are using here have been derived from the Social Security (*INPS*) Archives, which collect data on social contributions of private employees. The Archive includes data both on individual employees and on firms from 1986 to 1996. Data refer to individual characteristics such as place of birth, nationality, age, gender, etc., and to employment information such as place of work, yearly wage, number of months, weeks and days worked, type of contract and occupation. To avoid problems due to missing or uncompleted data on nationality, we selected foreign workers using the place of birth. Our total foreign employment is very close to the ISTAT revised estimates of the foreign employees³.

Equation (1) is estimated separately, for all years 1986-1996. The vector of characteristics includes the following variables: age and its square, gender, tenure up to 132 months and a dummy for truncated tenure (132 months and more)⁴, firm size in log, dummies for temporary contracts, apprentices, and other atypical contracts, a dummy for managers; to better control for occupation we include a variable that describes the occupation of a worker (blue/white collar) interacted with 20 different sector of activities. We also include 20 regional controls to take the wider geographical heterogeneity of economic conditions into account.

³ For more information on the construction of this dataset on immigrants, see Venturini and Villosio (1999) Laboratorio R. Revelli (2002)

⁴ Unfortunately in our data we have no retrospective information, so our measure for tenure is

Table 3 shows the share of foreign workers on total employment, on total white collars and managers, and in the skilled group as defined above. We can notice that foreign employment is increasing in the period in all groups analysed. The methodology proposed, however, by using the distribution of estimated residuals, allow us to include among the skilled also the high specialised manual workers, who couldn't be identified by simply looking at their occupation. In this dataset, in fact, occupation is defined only by 4 broad categories (apprentices, blue collars, white collars and manager) and a more detailed desegregation for occupation is not available.

Table 3 Share of foreign employment - different groups 1986-1996

	86	88	90	92	94	96	Foreign employment growth rate 90-96
% of foreign employment on total employment	1.7	2.0	2.8	3.8	3.9	4.8	0.60
% of foreign white collars and managers on total white collars and managers	2.0	2.2	2.3	2.4	2.7	2.9	0.20
% of foreign <i>skilled</i> workers on total <i>skilled</i> workers	1.8	2.1	2.7	3.4	3.3	3.8	0.31

Note: Skilled workers are defined those whose estimated residuals from the wage regression (I) fall in and above the eight decile

Source: INPS

Discriminating by country of origin, Figure 1, we can see that the foreign skilled workers are mostly composed by Europeans and workers from Africa. The first group shows a constant increase in the ten years period, while for the African group is clear the effect of the 1990 legalisation law when illegal immigrants were granted working permits and resident status (Law n. 39 of the 28/2/1990)⁵. Is worth noticing also the high increase, in the last years, of the number of workers coming from the East Europe. This phenomenon, which is indeed very interesting, is too recent to be analysed with the data we have.

truncated on the left.

⁵ With this law the Italian government intended to make illegal immigration and irregular work visible, regularise them, and start off a project aiming at integrating the foreign community into various contexts in the Italian society (labour market, social security, healthcare, education, family).

Figure 1 High skill foreign workers by origin

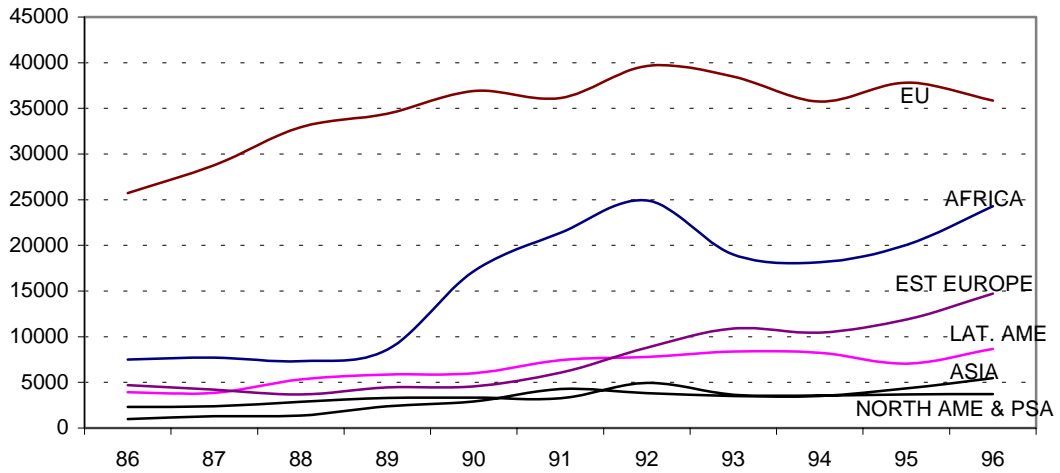
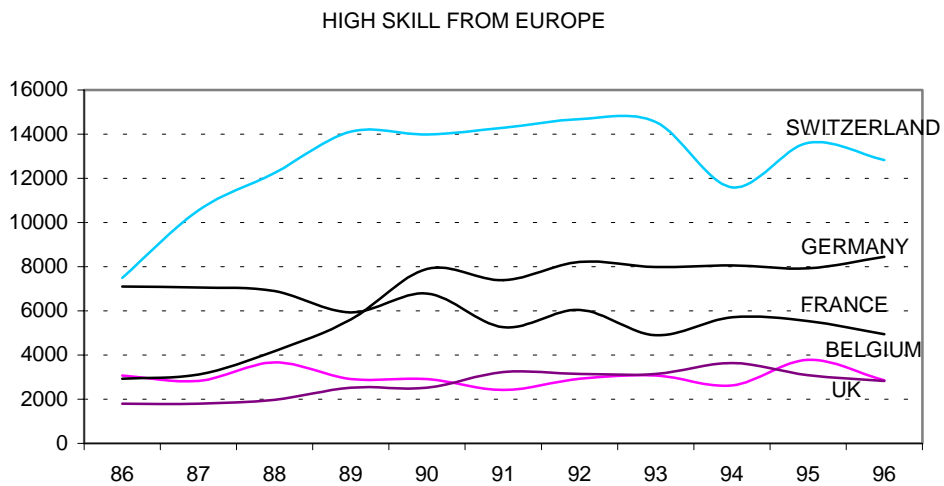


Figure 2 shows the five most representative countries in the European high skilled immigration in Italy.

Figure 2



The graph clearly points out that the main inflows in Italy, with the exception of UK, are from countries of former Italian emigration⁶. So they probably are descendent of Italians emigrated abroad. The problem here is to identify if they are foreign immigrants or "ethnic italians"⁷.

If they still hold the Italian passport, in fact, they are considered Italian nationals upon arrival and they are not requested to have a residence permit. This fact seems to be particularly evident for Swiss and Belgians: if we compare the number of workers from our dataset and the number of residence permits issued by the Ministry, the presence of "ethnic Italians" comes clear. While for France, Germany and UK the number of foreign workers recorded by our dataset is a share between 40 and 15 of the total residence permits, for Switzerland and Belgium this same share is much higher (Table 4). More evidence comes from the comparison with the number of *work* permits issued: while foreign workers recorded in our data represent, in 1996, about the 70% of the work permits for France, Germany and UK, they are more than two times the work permits for Switzerland and Belgium.

Table 4 Foreign workers on residence permits

	1989	1990	1991	1992	1993	1994	1995	1996
Germany	22.6	30.9	28.0	30.7	28.9	27.8	26.2	27.5
France	35.8	40.8	31.6	34.5	26.6	29.2	26.3	22.3
United Kingdom	14.8	14.7	18.6	17.3	16.8	18.6	15.1	13.0
Switzerland	96.9	94.6	95.2	96.3	94.0	73.4	83.7	80.8
Belgium	93.3	92.8	77.0	90.5	91.3	74.1	101.2	72.3

At the moment we were not able to devise an obvious method to control and discriminate, for these two nationalities, between foreign immigrants from Switzerland and Belgium and "ethnic Italians". For these reason, in the following, we simply excluded them from the analysis.

Table 5 shows that the distribution of workers in high skilled occupations for some characteristics is quite different among natives and foreigners. The proportion of natives manual workers is declining, according to the general trend in the manual occupation, while the same proportion substantially increased among the

⁶ The areas of main destination where in 60s France, Switzerland and Germany

immigrants. The share of women among immigrants was sensibly higher than that of natives, but it sharply declined. In the most recent years, the share of female is increasing due to an inflows of immigrant women in the service sector, which is not already captured by our data. Also the high skilled immigrants are employed in small firms (0-49): about 90% of foreign employment registered in the high skill groups is in firms which employ less than 50 workers, whereas only 50% of the employed natives work in small firms.

Immigrants are typically younger than natives, but they are ageing in the period analysed. Half of the skilled immigrants are aged less than 30. On the contrary, the share of foreign workers aged more than 40 is sensibly lower than that of natives.

Table 5 Do high skilled foreign workers differ from high skilled native workers? (Proportion of natives and foreigner with selected characteristics on total natives and foreigners)

	1986		1991		1996	
	Natives	Foreigner	Natives	Foreigner	Natives	Foreigner
% manual	68.6	63.6	65.8	72.1	63.6	73.0
% female	30.4	47.6	30.9	35.3	31.4	33.5
% < 49 employees	51.0	87.4	52.1	86.9	51.7	87.6
% > 1000 employees	16.4	12.6	17.6	13.1	17.8	12.4
% North	58.2	59.9	57.7	61.0	60.3	61.5
Mean age	35.9	32.4	35.0	30.1	36.1	32.3
% Age < 30	37.5	54.6	41.8	64.0	36.0	49.2
% Age > 40	35.2	23.8	34.0	13.6	35.5	15.6

Europe and the Africa are the most representative nationalities among the skilled immigrants, however they have very different features as shown by Table 6.

⁷ Similar to the German *Aussiedler* and the Ethnic Greeks.

Table 6 Foreign European and African skilled workers compared

		1986		1996	
		Africans	Europeans (°)	Africans	Europeans (°)
% manual	ALL	53.3	67.3	91.4	63.3
% manual	High skill	41.6	64.8	85.0	62.9
% female	ALL	31.0	42.8	9.6	41.2
% female	High skill	34.5	47.5	14.7	48.9
% firm size < 50 employ.	ALL	43.9	61.3	71.4	58.0
% firm size < 50 employ.	High skill	51.9	59.4	64.0	58.5
% North	ALL	57.9	63.9	78.3	57.8
% North	High skill	52.2	63.7	69.2	56.6
Mean age	ALL	37.4	32.8	34.8	33.3
Mean age	High skill	39.0	32.3	33.8	32.6

(°) Swiss and Belgians excluded

Starting from occupation, we can notice that the share of manual workers among the African skilled immigrants doubled in the ten year-period: most of the recent inflows of skilled immigrants from Africa is made of manual workers. The share of female immigrants is almost constant in the period analysed for workers from European countries; this share for the African workers, instead, sensibly decrease on average, but the decline is less sharp in the skilled group. Looking at firm size we can see that foreign workers from Africa have increased their presence in the small firms, while European workers have slightly reduced their own. In the same direction has gone the concentration of skilled Africans in the firms of northern Italy, where about 70% of them are employed, compared to the 57% of the Europeans. Finally there are more young skilled Europeans than Africans.

These descriptive statistics confirm the shared knowledge that there is a demand for highly specialised manual workers coming from medium-small firms located in the north which is satisfied by experienced male immigrants coming from non European countries.

4. High skill immigration from Europe: a preliminary estimation

In this section we focus on the European high skill immigration in Italy. About 40% of the foreign high skill workers come from other European countries. The previous section has shown us that high skill immigration from Europe has different feature from the high skill immigration from non European countries and especially from Africa (the second most numerous group).

In order to better understand which are the main determinants of the European inflows, we have tried to estimate a very simple and preliminary model of emigration choice. While it is sufficiently clear which are the factors that attract immigrants from less developed countries, it is interesting to investigate which are the incentives and the motivation of mobility inside Europe. It is known that mobility in Europe is not very high, however we have tried to test what is the effect of those variables that usually influence migrations.

First we have tested a model in which the decision to emigrate is explained the expected income, using variables related to the economic prospects and labour market opportunities. We have included in the specification a measure of the *employment* opportunity and a measure of the *wage* opportunity, indicating the premium the foreign worker expects to obtain moving from his country of origin. The first is measured by the employment growth rate in Italy and in the country of origin⁸, for the second we have at first included alternative measures of the differential in the real GDP per capita in purchase power parity, then we have included also the dispersion, in Italy and in the country of origin, among the upper earnings, measured by the by the ratio of the ninth decile to the median.

To this initial specification we have added a measure of the importance of trade to catch the existence of flows between Italy and the foreign countries as a measure of the degree of openness towards the foreign country. The trade has been included in the specification with the variables value of import and export (in log) between Italy and the foreign country.

⁸ We have decided not to use the unemployment rate, which is commonly used in the analysis of migration, due to the conviction that the unemployment rate is a proxy for the

Finally we have tested the role played by the existing community from the same origin. The importance of the migration chain has been measured by the stock of foreign workers already present in Italy at time t-1 (in log).

So, at the end in our model the inflow in Italy of high skilled workers coming from three European countries, Germany, France and United Kingdom,⁹ is explained by three main factors: the expected income, trade, and the existence of a community from the same origin.

Our dependent variable is the emigration rate at time t, measured as the inflow, for each country, in Italy divided by the stock of Italian population in the country where the flow originate.

$$\frac{M}{P} = f(E_o W_o, E_d W_d) g(I_{o,d}, E_{o,d}) h(MC) \quad (1)$$

where W_o and W_d are the expected income in the area of origin and destination weighted for the relative employment probabilities E_o and E_d ; $I_{o,d}$ and $E_{o,d}$ are the flows of import and export between the area of origin and destination, and MC the migration chain.

Table 7 shows the results of the final specification estimated by OLS with fixed effect.

The main results from our exercise can be summarised as follows.

For the inflow of the high skilled workers no effect is detected by the GDP per capita. In all the different specifications we have tried (the differential in GDP, GDP in level, separately for the country of origin and Italy, without and with the inclusion of the wage dispersion) the variable was never significant.

Statistically significant is, instead, the earnings dispersion. This result stresses the idea that among the high skilled workers is the expectation of a larger wage premium that makes the worker move and not simply the difference in "wealth"

labour market condition which better apply to the unskilled immigration.

⁹ For the reasons explained before we have excluded from our analysis Switzerland and Belgium.

between the two countries which instead is generally the factor that explain migration from less developing countries and for the unskilled workers. In particular the estimated coefficient shows that the higher is the differential in earnings dispersion between Italy and the country of origin, the higher is the inflows of skilled workers from the other countries.

Also the employment opportunities seem to play a role in the decision to emigrate: as expected the employment growth rate in Italy attract more inflows from the other countries, while employment growth in the country of origin reduces (even if not statistically significant) the emigration.

Looking at the effect of trade we can see that the imports show in some specification a negative and significative sign, that is to say the increase of the imports from a foreign country reduces the inflows from that country. A common explanation for this result is that there is a substitution effect between goods and workers: goods previously imported from a country are substituted by inflows of skilled workers from that country. The exports show the expected positive sign, but it is not significant. Finally, a positive effect the migration chain can be detected on the migration pattern of the high skilled¹⁰.

¹⁰ We have tried also different specification of the model: the one we are presenting is the best in term of the explaining power of the model and of the significance of the coefficients. In particular we have tried as the dependent variable the log of the inflows, the inflows divided by the stock of immigrants already present in Italy; for the variables related to GDP we have also used the differential in GDP, the value and its square of GDP in the country of origin; the effect of trade has alternatively been measured as the share of import and export on the total.

Table 7 Estimation results (*t*-statistics in parenthesis)

	Coeff.	t	Coeff.	t	Coeff.	t
Intercept	-0.565	(-0.25)	3.976	(1.63)	4.259	(2.19)
ΔE_o	-0.049	(-1.83)	-0.024	(-0.99)	-0.031	(-1.23)
ΔE_{ITA}	0.039	(1.78)	0.031	(1.67)	0.024	(1.77)
Log(GDP _o)	0.337	(0.18)	-0.605	(-0.38)		
Log(GDP _{ITA})	-0.294	(-0.16)	0.690	(0.43)		
Δ disp (°)			3.021	(2.95)	2.328	(2.32)
Log(imp)	-0.370	(-0.91)	-0.607	(-1.71)	-0.535	(-1.72)
Log(exp)	0.272	(0.90)	0.037	(0.14)	0.010	(0.04)
Log(stock_1)	0.178	(1.04)	0.253	(1.71)	0.266	(1.76)
D	-0.173	(-0.62)	-1.047	(-2.77)	-0.886	(-2.57)
UK	0.032	(0.09)	-0.930	(-2.08)	-0.758	(-2.04)
Adjusted R2	0.51		0.65		0.61	
N. Obs	29		29		29	
OLS regression ° Disp= D9/D5						

Another interesting issue we wanted to investigate, relates to the impact of European integration policy on the mobility of skilled foreign workers. We were interested in testing if the integration of the EU increased or modified the pattern of the inflows from other European countries to Italy.

However, no clear evidence seems to come out from the data (cfr. Figure 1). A more formal test has been carried running a Chow test on the specification described above. Different alternatives have been tested, but in all of them the null hypothesis of the existence of a structural break in the time series is rejected.

This results is by no mean conclusive and deeper analysis need to be carried on this specific issue.

5. Conclusions

In this paper, we have proposed here an alternative method for measuring skill, defining it as unobservable ability for which the worker receives a wage premium over the main wage paid to workers with similar observable characteristics. The application of this methodology to foreign employment allow us to take into account the demand for skilled manual workers for which a shortage of national supply is often declared by employers. Data from the Administrative Social Security Archives form 1986 to 1996 have been used.

Among the skilled foreign workers the two most representative groups are the Europeans and the Africans who are quite different in characteristics. Compared to Europeans, on average skilled immigrants from Africa are older and mostly men, employed in a larger share in manual occupation and in small firms of the North. These descriptive statistics confirm the shared knowledge that there is a demand for highly specialised manual workers coming from medium-small firms located in the north which is satisfied by experienced male immigrants coming from non European countries.

An analysis on the inflows of high skilled Immigrants coming form other European countries showed that they seem to be attracted by the employment prospects and by the expectation of an higher wage premium. Also trade seem to influence foreign mobility, which result to increase if imports decrease; as well as the presence of a group of worker from the same origin.

A preliminary test on the impact of the European integration policy on mobility of the high skilled European immigrants has detect no significant effects.

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7. Appendix

Table 8 Wage regression on daily wage 1996: estimation results

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	69	133001660	1927560	1685.74	<.0001
Error	83312	95263243	1143.45163		
Corrected Total	83381	228264903			
Root MSE	33.81496	R-Square	0.5827		
Dependent Mean	117.96231	Adj R-Sq	0.5823		
Coeff Var	28.66590				
Variable	Parameter Estimate	Standard Error	t Value	Pr > t	
Intercept	141.23389	1.90623	74.09	<.0001	
age	2.44688	0.08770	27.90	<.0001	
age_q	-1.98350	0.10961	-18.10	<.0001	
women	-21.34547	0.28673	-74.45	<.0001	
fixed-t contract	-5.42538	0.63785	-8.51	<.0001	
atypical contr	-4.80519	0.85652	-5.61	<.0001	
manager	60.82935	1.55393	39.15	<.0001	
apprentices	-116.91089	1.12809	-103.64	<.0001	
tenure	0.05918	0.00380	15.59	<.0001	
truncated t	7.01212	0.41602	16.86	<.0001	
log size	4.02522	0.05791	69.51	<.0001	

Regression includes also 20 sector dummies interacted with 2 occupation dummies (white and blue collars) and 20 regional controls.