

# Skilled and Unskilled Foreign Workers in Italy

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## Abstract

During the 80s, the Southern European countries, including Italy, were no longer exporters of labour but became importers. The stock of foreign residents in Italy increased from 300,000 in 1980 to one million in 1996 and reached 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 immigrants have on the labour market has been exclusively focused on the unskilled immigrants: on the one hand natives feared the competition of immigrants in the labour markets and on the other hand there was an excess demand for labour not matched by natives. Almost nothing is known about the skilled foreign workers in Italy.

Our first objective is thus to derive some information on skilled foreign workers from the Social Security Archives, which collect data on social contributions of private employees. This dataset has been used so far to study the effect of immigration on the Italian labour market (see for instance Gavosto, Venturini, Villosio, *Labour* 1999). While the most consistent flows of immigrants follow the subsequent amnesties introduced in Italy, we notice that the share of foreign workers among high-paid white collars and managers is constantly increasing in the last ten years. Moreover the composition inside the foreign share of most skilled workers is changing: workers from European and Asian countries are increasing, while the share of skilled workers from Africa is decreasing.

The distribution of wages, after controlling for observable individual and firm characteristics, has been used to discriminate more precisely between low and high skilled workers. Characteristics and trends of the foreign share in the two groups of workers will be analysed in order to point out its main determinants. In particular, while the effect of Italian legalisation on the inflows of unskilled workers is sufficiently clear, the impact of European integration policy and of international trade on mobility of skilled foreign workers will be tested.

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# 1 Introduction

During the 80s, the Southern European countries, including Italy, were no longer exporters of labour but became importers. The stock of foreign residents in Italy increased from 300,000 in 1980 to one million in 1996 and reached 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 immigrants have on the labour market has been exclusively focused on the unskilled immigrants: on the one hand natives feared the competition of immigrants in the labour markets and 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).
- The share of immigrants has no effect on the probability for natives to lose the job and on the probability to find a job for workers looking for a *new* job; while for people looking for a *first* job (the young) there is a negative effect limited in amount, restricted to the first year and to the South, while the effect is positive in the most recent periods and in the North (Venturini, Villosio, 2000)
- 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 the share of foreign workers among high-

paid white collars and managers is constantly increasing in the last ten years; moreover there is a widespread consensus on the fact that there is a shortage of natives highly skilled **manual** workers that can be satisfied only by foreign workers.

For these reasons a simple definition of skilled measured by occupation is not completing satisfactoring. In this paper we use a different definition of skill based on the salary paid to the worker. The idea is that the extra-pay the workers 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 "high skill workers" those workers with particularly high wage premium, and, on the contrary, "low skilled workers" those workers with relatively low wage premium.

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

The paper is just preliminary, however, section 2 briefly presents the dataset and shows some descriptive statistics, section 3 describes the methodology we have used to measure the skill level, section 4 outlines and compares the main characteristics of immigrants and natives in the high and low skill groups; and section 5 analyses some feature of the high skill immigration from European countries. Section 6, concludes the paper.

## 2 Data

The information on foreign workers that we are using in this paper have been derived from the Social Security (*INPS*) Archives, which collect data on social contributions of private employees. Private employment represents about 56.2% of total employment in Italy and 71.4% of those registered by the Italian Social Security Institute which also includes in other two archives "*Self-employed in the crafts and trade activities, family workers*" "*professional employment*" and "*Employees in the agricultural sector*"<sup>1</sup>.

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<sup>1</sup> For more information on the construction of the SSA data set on immigrants, see Venturini and Villosio (1999),

The INPS does not cover and public employment. The archive of private employment represents about 70% of the relevant total employment for foreigners. This dataset has been used so far to study the effect of immigration on the Italian labour market<sup>2</sup>.

The Archive includes data both on individual employees and on firms. From the archive we selected a random sample of employees from 1986 to 1996 and reorganised it into a longitudinal data-set where each worker has been connected, at all points in time, with the relevant firm. 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.

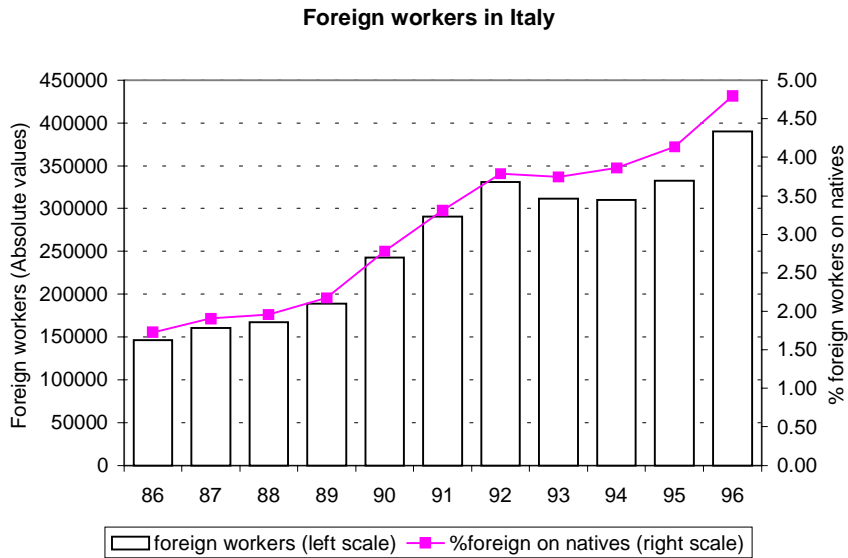
For long time the information on foreign employment from the administrative INPS dataset were not exploited, mainly because the number of foreign workers registered by INPS was an underestimation of the total legal foreign employees, as estimated by the Italian Statistical Office (Istat). The underreporting was caused by the use of nationality as the selection criterion: in fact the field “nationality” is often left blank or uncompleted in the form. We selected foreign workers in a different way. We used the place of birth as the selection criterion. Our total foreign employment is very close to the ISTAT revised estimates of the foreign employees. However we are not able to control for “real” foreigners and in this way we count Italians born abroad as immigrants; thus we end up with an over representation of those group where descendent of Italians emigrated abroad still hold Italian passports.

Figure 1 shows that foreign employment in Italy, as reported in our elaboration of the INPS data-set, is increasing both in absolute and in relative terms. Comparing the foreign employment growth with the total employment growth (Table 1), we can notice that, as expected, foreign employment grows faster than native one, but also that the recession hits foreign employment too, even if one year later.

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<sup>2</sup> See for instance Gavosto, Venturini, Villosio, 1999

**Figure 1 Foreign workers in Italy**

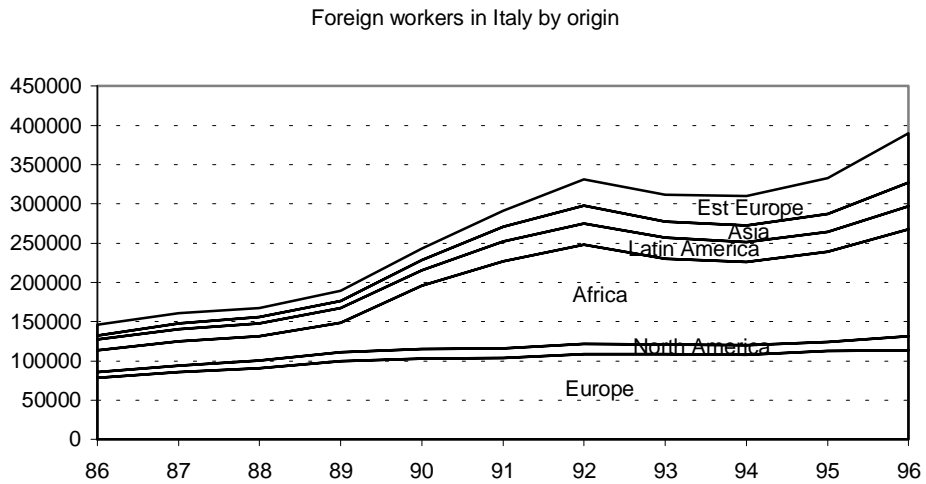


**Table 1 Annual percentage change**

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Total employment		2.28	2.69	2.92	1.32	0.69	-2.33	-3.48	0.79	1.15	-0.51
Foreign employment		9.96	4.29	12.91	28.38	19.83	13.79	-5.83	-0.46	7.26	17.07

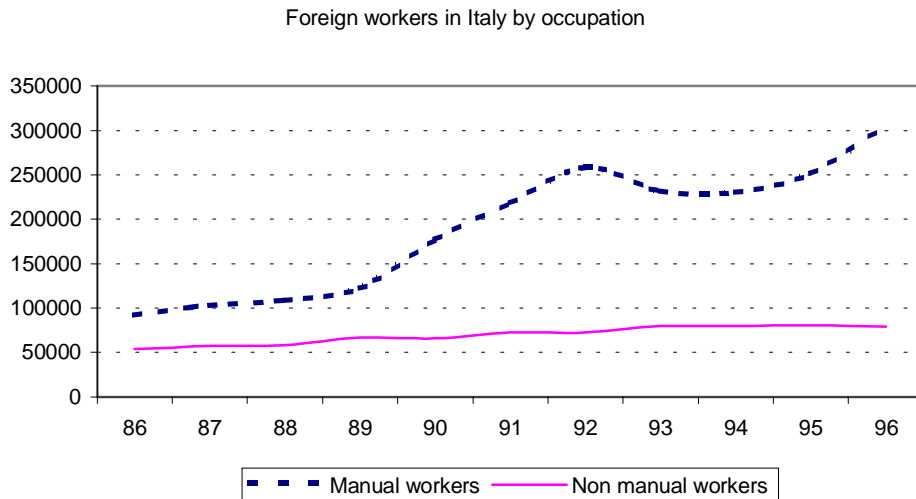
In Figure 2 the evolution of the foreign workers from 1986 to 1996 is shown by country of origin. The relevance of the amnesty of 1990-91, when illegal immigrants were granted working permits and resident status, is highlighted by the data. Immigrants from all areas, except Europe and North America, took advantage of the amnesty: those from Africa displayed the largest increase, while immigration from East-Europe is increasing especially in the last period.

**Figure 2 Immigrant workers by area of origin 1986-1996**



Discriminating by occupation we can notice that the increase in the foreign employment is mostly made by manual workers, where we see the effect of the legalisation laws and also of the recession, while non manual foreign workers increase constantly in the period.

**Figure 3**



### 3 Skill measurement

Given the data we are using, definition and measurement of skill is not straightforward. On one hand our data do not allow us to discriminate on the basis of the educational level, because this information is not present on our dataset. This is less serious than expected because, even if it were available, it would be unreliable and therefore of little use. In fact if the level of education is let to certificate assessment, there is always an under-representation because too rarely foreign certificate are recognised easily, while if it is let to certification made by the immigrant himself, there is always an over-representation because different education degree do not have the same education content and finally the information available cannot be compared with the native ones in the empirical analysis.

On the other hand the work permits issued to foreign workers do not discriminate between low and high skill immigration like in other countries

The debate about the effect immigrants have on the labour market has been exclusively focused on the unskilled immigrants and no attention has been made so far on the skilled foreign workers. However, as it can be seen from the table below, the

share of foreign workers among high-paid white collars and managers is constantly increasing in the last ten years.

**Table 2**

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Foreigners	16,821	17,034	19,649	19,765	20,329	24,415	25,388	26,516	23,815	25,467	24,740
Natives	763,783	745,041	764,179	789,506	823,418	863,136	863,474	831,843	807,206	797,997	784,899
Share of foreign employment (%)	2.15	2.24	2.51	2.44	2.41	2.75	2.86	3.09	2.87	3.09	3.06

Subset made up of managers and white collars aged less than 40, whose wage is in the fourth quartile of the wage distribution for white collars

Moreover is often declared by employers a shortage of natives highly skilled **manual** workers which can only be satisfied by foreign workers.

For all these reasons we try to use a definition of skill which contains all these suggestions. To discriminate more precisely between low and high skilled workers we have decided to use the distribution of wages, after controlling for observable individual and firm characteristics.

We estimate, for all years 1986-1996, a wage regression, for individual employed full time, in the standard form:

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

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

From the distribution of estimated residuals we define low skilled workers those individuals whose residuals fall in and below the third decile of the residuals distribution, and high skilled workers if their computed residuals fall in and above the eighth decile. By our definition, therefore, the overall number of so-called low skilled sample workers is equal to that of high skilled workers; each is equal to thirty percent of the total workers in the sample.



The underlying idea is that the extra-pay an individual with certain characteristics is able to gain respect to an individual with the same characteristics can be seen as a premium for his/her unobservable ability or "skill". So we defined "high skill workers" those workers with particularly high wage premium, and, on the contrary, "low skilled workers" those workers with relatively low wage premium.

This methodology allow us to include among the high skilled also the high specialised manual workers, who couldn't be identified by simply looking at their occupation: in fact in our dataset occupation is defined only by 4 broad categories (apprentices, blue collars, white collars and manager) and a more detailed disaggregation for occupation is not available.

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)<sup>3</sup>, 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. Results for one of the ten cross-sections regression are reported on Table 8 in appendix.

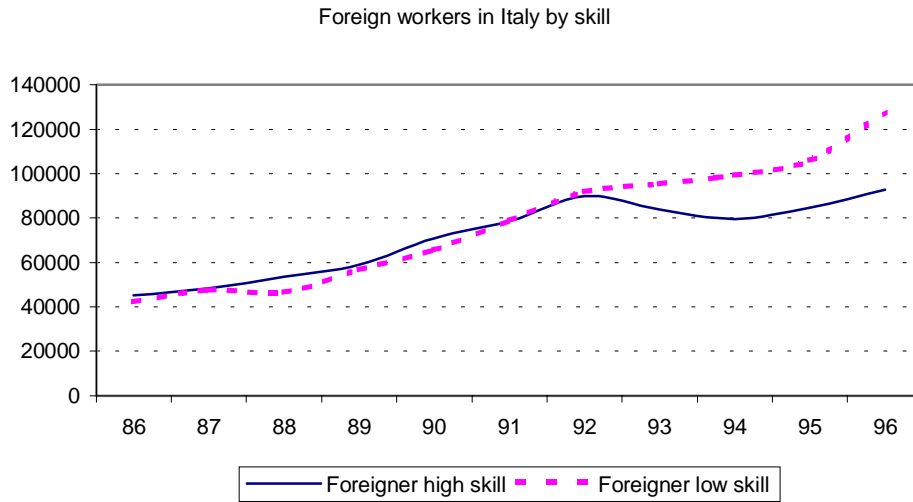
## **4 Descriptive statistics on high and low foreign workers**

The following graphs show the absolute numbers and the share of foreign workers in the high and low skill groups. Foreign employment in both groups is increasing in the period, especially in the low skill group. From the graphs we can notice that the recession has no effect on the low skilled foreign workers whose share on the low skilled group is constantly increasing, even during the years of decline in occupation.

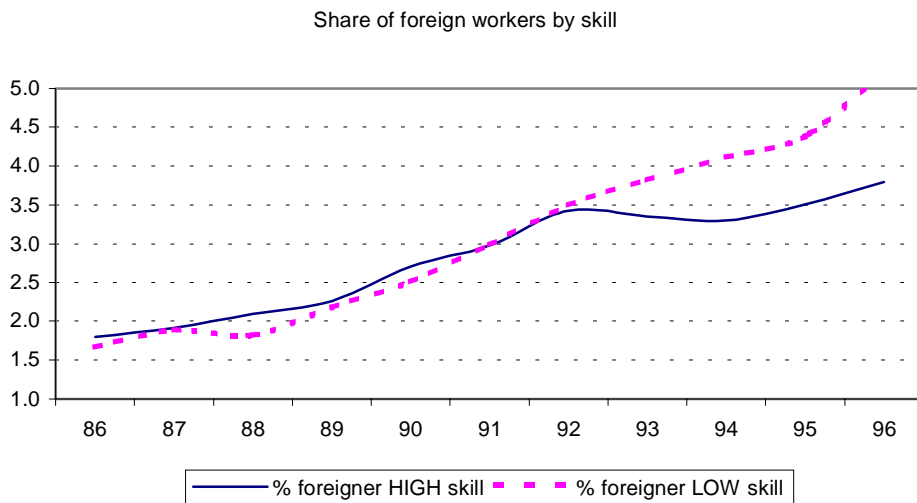
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<sup>3</sup> Unfortunately in our data we have no retrospective information, so our measure for tenure is truncated on the left.

**Figure 4**



**Figure 5**

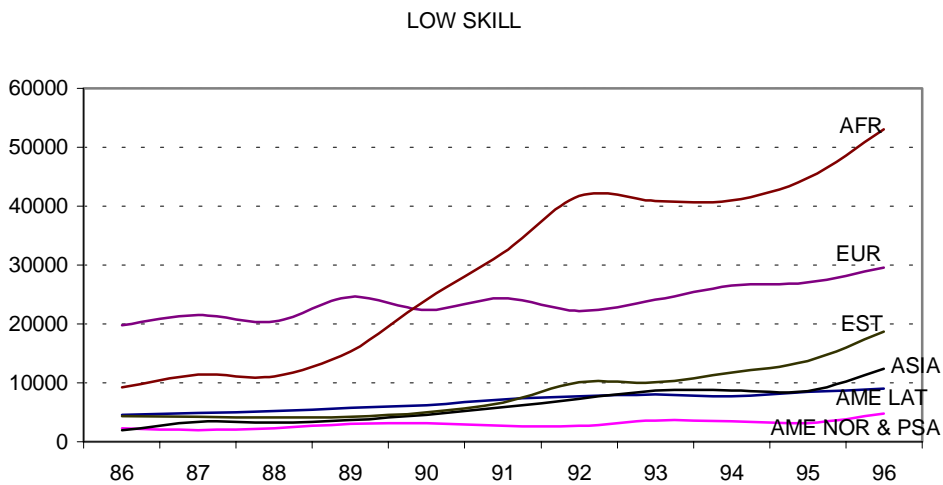


**Table 3**

	1986	1991	1996
% of foreign employment on total employment	1.7	3.3	4.8
% of foreign <b>high skill</b> workers on total high skill workers	1.8	3.0	3.8
% of foreign <b>low skill</b> workers on total low skill workers	1.7	3.0	5.2

Figure 7 and Figure 6 show the country of origin for low and high skilled foreign workers: the high skilled workers are mostly composed by European workers 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 legalisation law. This group is also the one particularly hit by the effect of the recession. Among the low skilled, starting from the 90s, the African group is by far the most important component. 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.

**Figure 6**



**Figure 7**

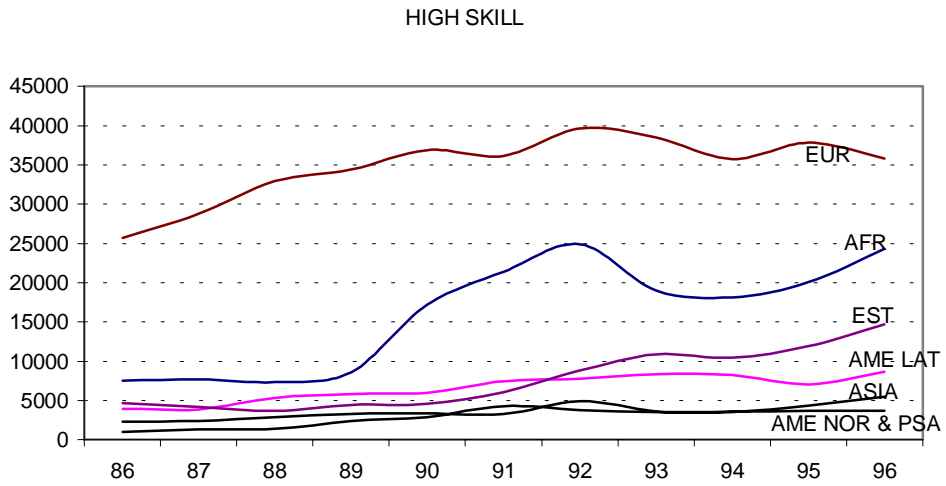
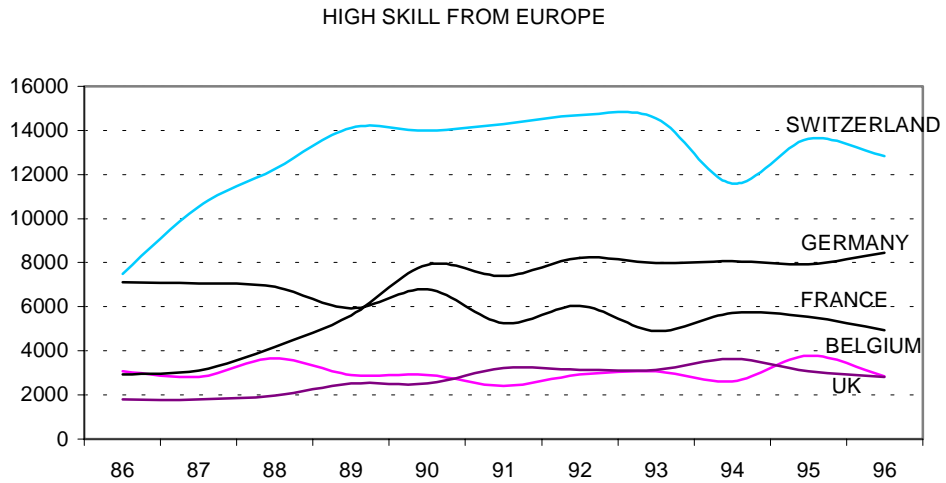


Figure 8 shows the five most representative countries in the European high skilled immigration in Italy.

**Figure 8**



The graph clearly points out that the main inflows in Italy, with the exception of UK, are from countries of former Italian emigration<sup>4</sup>. So they probably are descendent of Italians emigrated abroad. The problem here is to identify if they are foreign immigrants or "ethnic italians"<sup>5</sup>.

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 form 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 and low skilled occupations for some characteristics is quite different among natives and foreigners. The proportion of manual workers in the high skill group is declining, according to the general trend in the manual occupation, while the same proportion substantially increased among the immigrants. Looking at the low skill group we can notice that the share of

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<sup>4</sup> The areas of main destination where in 60s France, Switzerland and Germany

manual foreign workers is about 20 percentages points above the share of manual workers for the native low skill workers. The share of women among immigrants was sensibly higher than that of natives, but it sharply declined especially in the low skill group. 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. Immigrants are employed in small firms (0-49): about 90% of foreign employment registered in both high and low skill groups is in firms which employ less than 50 workers, whereas only 50% of the employed natives work in small firms. The geographical dispersion of immigrants is more limited than that of natives. They are mainly concentrated in the North, especially among the low skill group. Immigrants are typically younger than natives, but they are ageing in the period analysed. Half of the immigrants are aged less than 30, those youngest workers are particularly concentrated among the skilled ones. On the contrary, the share of foreign workers aged more than 40 is sensibly lower than that of natives.

**Table 5 Do high / low skilled foreign workers differ from high / low 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	ALL	68.5	63.2	65.6	75.1	64.0	78.5
% manual	High skill	68.6	63.6	65.8	72.1	63.6	73.0
% manual	Low skill	57.6	50.9	51.8	65.2	50.8	73.8
% female	ALL	29.2	41.1	29.5	27.5	29.7	23.6
% female	High skill	30.4	47.6	30.9	35.3	31.4	33.5
% female	Low skill	23.8	35.6	24.4	22.3	24.9	15.6
% < 49 employees	ALL	50.9	83.0	52.3	89.2	52.9	89.1
% < 49 employees	High skill	51.0	87.4	52.1	86.9	51.7	87.6
% < 49 employees	Low skill	47.0	79.5	45.6	85.9	47.1	86.1
% > 1000 employees	ALL	18.6	17.0	18.5	10.8	17.9	10.9
% > 1000 employees	High skill	16.4	12.6	17.6	13.1	17.8	12.4
% > 1000 employees	Low skill	23.8	20.5	23.7	14.1	22.5	13.9
% North	ALL	60.3	63.2	59.8	67.9	61.9	67.9
% North	High skill	58.2	59.9	57.7	61.0	60.3	61.5
% North	Low skill	59.0	61.9	59.4	69.7	61.9	72.2

<sup>5</sup> Similar to the German *Aussiedler* and the Ethnic Greeks.

Mean age	ALL	36.1	32.3	35.5	30.8	36.4	33.4
Mean age	High skill	35.9	32.4	35.0	30.1	36.1	32.3
Mean age	Low skill	37.7	33.4	37.9	33.6	38.9	36.1
% Age < 30	ALL	36.7	53.8	40.3	57.9	30.7	40.4
% Age < 30	High skill	37.5	54.6	41.8	64.0	36.0	49.2
% Age < 30	Low skill	31.5	47.2	31.6	39.8	25.5	24.8
% Age > 40	ALL	35.9	22.9	35.2	12.9	36.1	17.9
% Age > 40	High skill	35.2	23.8	34.0	13.6	35.5	15.6
% Age > 40	Low skill	40.9	24.0	42.9	19.3	44.1	25.7

#### ***4.1 The most representative groups: the European and the Africans***

We have seen from Figure 7 that the European and the African are the most representative nationalities among the immigrants. However they have very different features as shown by Table 6. Starting from occupation, we can notice that the share of manual workers among the African immigrants doubled in the ten year-period: this share was lower for African than for European in 1986, while in 1996 the manual workers are about the totality of African workers in Italy: all the inflows of immigrants from Africa is almost exclusively 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 and in the low skill group; the decline is less sharp in the high skill group. Looking at firm size we can see that foreign workers from Africa have increased their presence in the small firm, while European workers have slightly reduced their own. In the same direction has gone the concentration of Africans in the firms of northern Italy, where about 80% of them are employed, compared to the 58% of the Europeans. Finally there are more young Europeans than Africans: in all skill groups the modal age for the Europeans is in the 26-30 cohort, while among Africans the 31-35 cohort is the most crowded.

**Table 6 European and African foreign workers compared**

		1986		1996	
		Afr	Eur (°)	Afr	Eur (°)
% manual	ALL	53.3	67.3	91.4	63.3
% manual	High skill	41.6	64.8	85.0	62.9
% manual	Low skill	42.2	60.3	90.7	52.1
% female	ALL	31.0	42.8	9.6	41.2
% female	High skill	34.5	47.5	14.7	48.9
% female	Low skill	24.4	38.1	4.2	33.6
% 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
% firm size < 50 employ.	Low skill	36.8	59.2	70.8	49.9
% North	ALL	57.9	63.9	78.3	57.8
% North	High skill	52.2	63.7	69.2	56.6
% North	Low skill	56.6	61.2	82.0	61.4
Mean age	ALL	37.4	32.8	34.8	33.3
Mean age	High skill	39.0	32.3	33.8	32.6
Mean age	Low skill	36.9	35.0	36.8	36.6

(°) Swiss and Belgians excluded

Summarising, on average immigrants from Africa are, more than Europeans, employed in manual occupation, in small firm size and in firm of the North; there are very few female workers coming from Africa, while European workers are younger than Africans. These differences still remain also discriminating by skill level.

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 (in fact they are not so young) male immigrants coming from non European countries.

## 5 High skill immigration from Europe

In this section we focus on the 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).

On the other hand, comparing Table 5 and Table 6 we can notice that European high skill immigrants are not so different from natives high skill workers, except for the fact that there are more women among the European workers.

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 origin<sup>6</sup>, 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.

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<sup>6</sup> 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 labour market condition which better apply to the unskilled immigration.

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,<sup>7</sup> 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" between the two countries which instead is generally the factor that explain

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<sup>7</sup> For the reasons explained before we have excluded from our analysis Switzerland and Belgium.

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 skilled<sup>8</sup>.

**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)
$\Delta E_o$	-0.049	(-1.83)	-0.024	(-0.99)	-0.031	(-1.23)
$\Delta E_{ITA}$	0.039	(1.78)	0.031	(1.67)	0.024	(1.77)
Log(GDP <sub>o</sub> )	0.337	(0.18)	-0.605	(-0.38)		
Log(GDP <sub>ITA</sub> )	-0.294	(-0.16)	0.690	(0.43)		
$\Delta$ 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 <sub>1</sub> )	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						

<sup>8</sup> 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.

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 8). 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.

## **6 Conclusions**

The paper analyses, using data form the Administrative Social Security Archives form 1986 to 1996, the main characteristics of skilled and unskilled foreign workers in Italy. The distribution of wages, after controlling for observable individual and firm characteristics has been used 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.

Foreign employment in both the high and the low skill group is increasing in the period analysed. The 92-93 recession that reduced Italian overall employment seem to have no effect on the low skilled immigrants, whose share on the low skilled groups is constantly increasing. Comparing the main characteristics of immigrants and natives in the high and low skill group we find out that immigrants are, in general, more concentrated in manual occupation, in small firms, and in firms of the north. They are prevalent male and young. However, sensibly differences are shown by immigrants according to their country of origin. In particular, the two main group: the European and the Africans, are quite different in characteristics especially

among the highly skilled confirming the shared knowledge that there is a demand for highly specialised manual workers which is satisfied by experienced male immigrants coming from non European countries.

An analysis on the inflows of high skilled Immigrants coming from 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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**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	
setb01	-106.80406	2.50566	-42.63	<.0001	
setb02	-108.64562	1.37507	-79.01	<.0001	
setb03	-113.63125	1.14932	-98.87	<.0001	
setb04	-111.25369	1.06492	-104.47	<.0001	
setb05	-114.11947	0.89499	-127.51	<.0001	
setb06	-114.43445	1.96832	-58.14	<.0001	
setb07	-131.67196	1.12654	-116.88	<.0001	
setb08	-108.52082	1.12564	-96.41	<.0001	
setb09	-117.89967	0.94850	-124.30	<.0001	
setb10	-123.26699	1.15690	-106.55	<.0001	
setb11	-104.89837	1.23149	-85.18	<.0001	
setb12	-109.87817	0.96765	-113.55	<.0001	
setb13	-110.37101	1.21262	-91.02	<.0001	
setb14	-111.57598	0.97105	-114.90	<.0001	
setb15	-112.66464	1.02979	-109.41	<.0001	
setb16	-4.09675	2.61762	-1.57	0.1176	
setb17	-98.78824	8.77137	-11.26	<.0001	
setb18	-120.70848	1.17651	-102.60	<.0001	
setb19	-118.66490	1.13875	-104.21	<.0001	
setb20	-88.30211	1.53760	-57.43	<.0001	
setw01	-91.34452	5.55116	-16.46	<.0001	
setw02	-76.37077	2.40407	-31.77	<.0001	
setw03	-77.65836	1.77072	-43.86	<.0001	
setw04	-64.22145	1.23417	-52.04	<.0001	
setw05	-75.79127	0.98754	-76.75	<.0001	
setw06	-77.94079	1.43990	-54.13	<.0001	
setw07	-89.50978	1.67061	-53.58	<.0001	
setw08	-76.15130	1.55461	-48.98	<.0001	
setw09	-85.07400	1.35574	-62.75	<.0001	
setw10	-98.25331	2.00854	-48.92	<.0001	
setw11	-71.08493	1.65254	-43.02	<.0001	
setw12	-79.83953	1.35442	-58.95	<.0001	
setw13	-80.80292	1.05520	-76.58	<.0001	
setw14	-94.93531	1.01264	-93.75	<.0001	
setw15	-77.49954	1.47203	-52.65	<.0001	
setw16	-18.91892	1.75574	-10.78	<.0001	
setw17	-44.53289	0.98510	-45.21	<.0001	
setw18	-84.53149	1.09695	-77.06	<.0001	
setw19	-80.40109	1.19900	-67.06	<.0001	
setw20	-64.13652	1.43823	-44.59	<.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 regional controls