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Immigrants and Autochthonous People in the Italian Labor Market: A Comparative Study

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Abstract

The inclusion of immigrants in local labor markets is a complex process that is influenced by the local labor market's structural and individual characteristics, social networks and migratory projects. We test the contrasting assimilation hypothesis with the segmented assimilation hypothesis and verify the presence of ethnic penalties among immigrants who originate from specific countries/ areas. We use data from the Continuous Survey on the Italian Labor Forces to compare the levels of employment and the conditions of immigrants with natives in the Italian labor market in 2010. Subsequently, we focus on the main determinants of time-related underemployment and underqualified employment. The results show that immigrants assume higher risks than native Italians of experiencing the worst conditions. The results also suggest that the segmented assimilation theory applies to the Italian case. Given the existing geographical gradient in the Italian productive system, the economic sector of employment plays an important role in the working conditions that affect men and women differently. Immigrants are unable to improve their occupational situation over time, and the gap between their educational levels and employment positions persists. Moreover, the risk to be “trapped” in underqualified employment is amplified for immigrants who originate from specific countries/ areas, which suggests the presence of ethnic penalties.

Keywords

Immigrants, employment, working condition, labor force, Italy

Introduction

Since the 1990s, immigration flows have been increasing steadily in Italy. In 2010, Italy, with a foreign presence of 4.5 million individuals, was ranked fourth in the European Union (EU) after Germany, Spain and the United Kingdom in terms of absolute numbers of immigrants (Eurostat 2013). The share of foreigners as a percent of total population reached 7.5% as of 1 January 2011 (Istat 2011a). Regarding geographical distribution, somewhat less than two-thirds of foreigners are concentrated in the more developed North, one-quarter are concentrated in the Center, and slightly more than 10% are concentrated in the South (<http://demo.istat.it/altridati/noncomunitari/index.html>).

The share of people who immigrate for work reasons among the citizens of countries outside the EU reaches 56% in 2010. Over 2 million foreigners are employed (around 8.4% of the total employed). The unemployed comprise almost 28 thousand (around 1.3% of the total unemployed) (Istat 2011b). Approximately 90% of foreign workers originate from countries outside of the EU, which is the case for the entire foreign resident population. The majority of foreigners are Europeans, especially Romanians and Albanians, followed by Africans (mostly Moroccans) and Asians (mostly Chinese and Filipinos). Women constitute the majority only among the workers who originate from EU countries and the Philippines (Istat 2011c).

The structure of the Italian labor market is rigid and characterized by high labor costs. It is also marked by a sharp segmentation according to age, gender and region and by a widespread underground economy. The unemployment rate is very high among residents in the southern regions, young people and females, mainly due to a significant North-South divide. Employment is biased towards the poorest jobs: the proportion of managers and professionals is low, whereas the proportion of manual workers is high. There are large labor shortages for “poorly qualified” jobs because most natives who have high educational levels and elevated social expectations can wait for a “good job” by relying on the support of their families (Reyneri and Fullin 2011).

Compared to native workers, immigrant workers participate more in the labor market and are more persistent in searching for employment, probably because most immigrants move for employment reasons. The presence of immigrants is predominantly biased towards sectors with low productivity, and the demand for labor is mainly for unskilled (laborers with low qualifications) laborers (Istat 2007, 2011c). Over 40% of foreigners work in industry, mainly in the construction sector. In contrast, a lower quota of foreigners than Italians work in the services sector. These workers, especially if they are female, are mainly employed in the household services sector (Istat 2011c).

Moreover, Italy shows an ethnic segmentation of the labor market, which is increased by the segregation of different immigrant communities in specific sectors of the economy. This process interacts and reinforces other existing forms of labor market segmentation that are based on gender, education, residence, and professional qualifications (Reyneri 2001; Cangiano and Strozza 2005; Paterno et al. 2013).

According to recent data on Italy published by the Italian Statistical Institute (Istat, <http://dati.istat.it/>), in the period 2006-2010, respectively before and during the economic recession, the lowering of employment rates in the age range from 15 to 64 years affected both men (from 70.4% in 2006 to 67.5% in 2010) and women (from 46.3% to 46.1%) and was widespread throughout the country. In 2010, employment rates were significantly higher in the North than in the South (73.7% versus 57.6% among men, and 56.2% versus 30.5% among women), resulting in a regional disparity in employment rates.

Younger generations have been severely affected by the cyclical downturn. The rate of employment of individuals aged between 15 and 29 years fell between 2006 and 2010 from 40.5% to 34.1%. In 2010, the rate of youth employment declined four times more than the total rate. Territorial disparities have increased. In 2010, 43.5% of young people in the North and 23.5% in the South were employed. In addition, the decrease of youth employment was greater for men than for women. In particular, the greatest job losses were recorded among men in the South and among women in the North.

Unemployment rates increased in the whole country (from 6.8% in 2006 to 8.4% in 2010), with a higher increase for men (from 5.4% to 7.5%) than women (from 8.8% to 9.6%). The trend was less negative in the Center-North and more pronounced in the South, where in 2010 the unemployment rate (13.3%) was more than double that of the North (5.9%).

The increase in unemployment, which involved all age groups, was particularly evident among the young population. In the period 2006-2010, the unemployment rate for the 15-29 age group increased from 13.9% to 19.2% for men, and from 18.5% to 21.8% for women, reaching a level nearly four times higher than that

of the individuals aged 25-54. Youth unemployment was much lower in the North (14.0% in 2010) than in the South (30.8%).

The effect of the crisis has negatively affected foreigners more than the Italians. The employment rate declined more for foreigners (from 67.2% to 63.1%) than for Italians (57.9% to 56.2%) from 2006 to 2010. In 2010, the decline in the employment rates of foreigner was more than twice that of the Italians. Nevertheless, it is anticipated that the number of employed persons with foreign citizenship will continue to grow.

The unemployment rate increased more among foreigners (from 8.6% to 11.6%) than among the autochthonous population (from 6.7% to 8.1%) in the period 2006-2010. In the same period, foreign men (from 5.4% to 10.4%) were more negatively impacted the crisis than women (from 13.3% to 13.0), while the opposite occurred among Italian men (from 5.4% to 7.2%) and women (from 8.5% to 9.2%).

The disadvantage of foreigners with respect to the Italians increased in areas where the foreign presence was greater. The data show that, in comparison to the Italians, the employment rate for foreign men in the North fell precipitously and the unemployment rate increased substantially. In comparison to the Italians, the employment rate for foreign women showed a greater decrease, and the unemployment rate was higher. In the center region, foreigners showed both a higher employment rate and a greater difficulty in finding work. In the South, the foreigners showed a higher participation in the labor market and unemployment rates were lower than the Italians.

In terms of occupation, over 40% of foreigners worked in the industrial sector, mainly undertaking construction work. In contrast, fewer foreigners than Italians worked in the services sector. These workers, especially female workers, were mainly employed in household services.

The economic recession, started in 2007, also affected the quality of work. The deterioration of working conditions negatively impacted foreigners more than Italians, with an increase in underemployment and underutilization of their human capital. The gap was even more pronounced for women due to their relative higher level of education with respect to men and higher concentration in occupations with low qualifications (Istat 2007, 2011c). In addition, according the Istat data (2011c), the spread of underqualified employment, especially for immigrants, did not decline despite the increasing duration of stay in Italy.

Compared with the native labor force, the foreign labor force has suffered more, especially during recessions. The foreign labor force has been concentrated more in sectors that have been more exposed to economic fluctuations, such as workers with contracts of limited duration and workers in less stable workplaces. Immigrants have suffered more than Italians from the deterioration of working conditions, with an increase in underemployment and underutilization of their human capital (Istat 2006; OECD 2010).

The Italian and foreign employment trends, stratified by type of occupation and sector of activity, indicate the accentuation of the dual labor market conditions and the penalization of foreigner workers. The largest part of the Italian decrease in employment has involved skilled professions for men and women. Foreign employment has been increasingly concentrated in the unskilled occupations. The concentration of foreigners in low-skilled jobs is due to the demand for this type of employment and the eagerness of qualified foreigners to accept work that is not attractive to the autochthonous population, with obvious waste of human capital (Dell'Arringa and Pagani 2011; Reyneri and Fullin 2011; Istat 2009; King and DeBono 2013).

This article compares the conditions of immigrants and natives in the Italian labor market and focuses on the individual and occupational determinants of time-related underemployment and underqualified employment. We test the contrasting hypotheses of *assimilation* and *segmented assimilation* concerning the inclusion process of immigrants in the Italian labor market. The possible presence of an *ethnic penalty* among immigrants from particular countries or areas is also considered. The analyzed data were gathered from the Continuous Survey on Labor Forces (RCFL) of 2010 that was conducted by the Italian Institute of Statistics.

After discussing the relevant international literature, the data and methods that are used are described in detail. The results section discusses the findings of macro/ micro level analyses that were obtained through segmentation analysis to examine the levels of employment. Logistic regression models were used to estimate the main determinants of time-related underemployment and underqualified employment. The results and conclusions are discussed in the last section.

Theoretical background

Theories and studies on the inclusion of immigrants in labor markets in receiving countries have mainly focused on the socio-economic processes that influence the incorporation of immigrants into host societies – often analyzing the processes involved in the labor market attainment of the immigrant and comparing those processes to native populations.

To provide further insights on the inclusion process of immigrants in the Italian labor market, we focus on the main theories and empirical results that relate to employment, time-related underemployment and underqualified employment.

Assimilation theory was the first hypothesis used by us to examine immigrant labor force participation. The early works of Park (1926), Gordon (1964) and Chiswick (1978), among others, demonstrated that upon arrival in the host country many immigrants experience a wide depreciation of their human capital because of its non-

transferability. Subsequently, immigrants improve their position by learning the language of the host country, acquiring training and gaining labor experience. This phase is sometimes characterized by part-time jobs, frequent job turnovers and low earnings. In the next phase, immigrants are fully assimilated in the labor market because of their acquisition of skills, training and experience, and their occupational attainment reaches levels and conditions that are similar to natives (see, among others, Alba and Nee 2003; Borjas 1994; Friedberg 2000; Gans 1979).

Our second hypotheses, called the *segmented assimilation theory*, rejects that immigrants' disadvantages may weaken over time. Proponents of this hypothesis argue that labor markets are segmented into a primary or capital-intensive sector with skilled workers and a secondary or labor-intensive sector with mostly unskilled workers who are assigned to menial jobs. Immigrants cannot acquire the human capital that is relevant in the host country or search for higher-status employment if job-search costs are high or the immigrants have short-term migratory projects. Therefore, immigrants may be trapped in "lousy jobs" that are characterized by low working status, low salaries and dangerous or unpleasant conditions with no opportunities for an upward career progression to skilled jobs. This situation is particularly evident in countries that are characterized by strong labor market segmentation or restrictive citizenship laws (see, among others, Blossfeld et al. 2006; Kalter and Kogan, 2006; Kogan 2011; Piore 1979; Portes and Zhou 1993).

Another theoretical approach suggests that an *ethnic penalty* could result from discriminatory practices that are adopted by both employers and institutions. The studies that use survey data tend to infer discrimination when, controlling for all available relevant variables, ethnic status has an independent effect on the labor market performance of immigrants. An ethnic penalty reveals whether immigrants from a particular country or area have fewer opportunities to secure employment or higher-level jobs than natives who have the same characteristics, but the theory does not explain the reasons for this disadvantage (see, among others, Berthoud 2000; Heath and Cheung 2007; Heath and Ridge 1983; Kalleberg and Sørensen 1979; Suttles 1968).ⁱ

Several scholars have emphasized the important role of that a myriad of diverse factors play in determining the levels and characteristics of immigrant labor force participation. Among these factors, the evidence suggests the importance of gender: immigrant women more often than men end up in unsatisfying jobs (Bevelander and Groeneveld 2010; Goździak and Martin 2004; Tastsoglou and Preston 2000). In addition, the heterogeneity of the skill levels of immigrant cohorts, the changing national origin composition of immigrants, and the age of immigrants at the time of arrival have been emphasized (Borjas and Freeman 1992; Chiswick 1986). Moreover, the following factors have been found to be crucial in determining the inclusion of immigrants in the host labor market: the general economy; the structure, regulation and practices of the productive system; the sector of employment; the business cycle on arrival; the immigration policies and regulations; the educational system; and the welfare regime (Chao and Levine 2004; Reitz 1998).

Other research has focused on the adequacy of employment, with a particular emphasis on time-related underemployment and underqualified employment (Harvey and McKee-Ryan 2011). Cross-country comparative analyses have found that many of the determinants of employment that are described above also have a significant effect on underemployment (Claes and Ruiz-Quintanilla 1996; De Jong and Madamba 2001; Stratton 1996). Among these other determinants, workers in the industrial and service sectors, along with self-employed workers, were impacted significantly by underemployment (Barrett and Doiron 2001; Farber 1999; Wilkins 2006). Changes in the productive system and institutional features affect underemployment as well (Wilkins and Wooden 2011).

Considering underqualified employment, researchers have emphasized as primary determinants the lack of formal recognition of foreign qualifications in the destination country, the differences in educational quality, non-citizenship (Chiswick and Miller 2005; Fernández and Ortega 2008; Lindley 2009), the relatively little time spent working in the host country (OECD 2007), and the young age of workers (Crompton 2002; Dekker et al. 2002). The evidence concerning gender provides contradictory results. Most empirical studies find that women are more likely to have underqualified employment than men. The difference is, however, sometimes very small, and the reverse has also been found (Faini et al. 2009; Quintini 2011a). Moreover, some workers may choose to accept a job for which they are overqualified because of crucial events, such as a prolonged recession, job separations (for a dismissal or other reasons) and first-time employment (Quintini 2011b). Finally, overqualification can be caused by skill heterogeneity among individuals with the same qualifications and the heterogeneity of jobs with the same occupational code (Chevalier 2003; McGuinness 2006).ⁱⁱ

Focusing on Italy, comparative studies have shown that immigrant workers, similar to other southern European countries, have fairly easy access to irregular, unqualified and semi-qualified employment, irrespective of their level of qualifications and with no opportunities for future upward promotion (Di Bartolomeo et al. 2016). However, these immigrant workers experience serious difficulties in entering regular and qualified jobs (Causa and Jean 2007). In many cases, these difficulties are consequence of different factors. The first factor is a serious shortage of demand for highly qualified labor, which coexists with a significant demand for low-qualified labor (Bernardi et al. 2010; European Commission 2007). In addition, the underground economy exerts an important pulling effect on unauthorized workers (Reyneri 2001). Another determinant is the existence of serious bureaucratic impediments to the official recognition of the qualifications that are achieved abroad and the possible different competencies that are conferred by the formal education attained in the origin country. The educational levels of immigrants in Italy (and in other southern European host countries) is higher than that of immigrants in northern and western European host countries, and the penalization of immigrants increases if educational attainment is considered (Heath and Cheung 2007). A final factor is related to the meagre benefits that immigrants receive from the welfare states and their impossibility (unlike the natives) of relying on support from their families, which forces immigrants to find a source of their own earnings even though it may fall considerably short of their qualifications (Fullin and Reyneri 2010).

The immigrants' disadvantages are also accentuated by a low degree of labor market flexibility. In fact, strict employment protection legislation, which imposes high dismissal costs on the employer, may be a deterrent in hiring immigrants, which leads to their discrimination (Kogan 2011). Moreover, although regular immigrant workers have the same social rights as Italians, there is, nevertheless, no effective national policy to promote their economic and social integration (Diez Guardia and Pichelmann 2006).

Finally, ethnicisation process causes the occupational segregation of many different foreign communities in specific sectors of the economy. This form of ethnic segregation is particularly evident for women: the overwhelming majority of them work either in housekeeping and elder care because the scarce supply of public care services has caused a growing demand for these types of workers (Paterno et al. 2013; Strozza et al. 2009).

Data and methods

Data

The micro data that we used came from the 2010 Continuous Survey on Labor Forces (RCFL), known in Italian as the *Rilevazione continua sulle forze lavoro*, which is periodically conducted by Istat. The RCFL is a wide cross-sectional sample survey and involves a questionnaire that is submitted every three months to 165 thousand individuals (on average) of different ages. These individuals are, on average, 94% Italians, and 6% immigrants (Istat 2006, 2010). The survey sample reflects the structure of the Italian resident population. Complex weight-systems are provided by Istat and are used to permit statistically valid inferences from the sample to the universe it represents. The advantage of these data is that they use a large sample that allows a fine comparative analysis of occupational status by the different socio-economic, demographic and territorial characteristics of the interviewees. However, in terms of our analysis, the RCFL has one main limitation that relates to the nature of the sample used: it only includes regular immigrants who are documented in population registers (Strozza et al. 2009). Accordingly, the estimates based on the RCFL sample significantly underestimate the true presence of immigrants in the labor market in absolute terms. Nevertheless, the data cover three-quarters of the immigrant population in the country (Blangiardo 2008) because the database does not provide information concerning irregular immigrants and those that are legally staying in the country with a permit of stay but are not registered in population registers. Most importantly, the RCFL "observes" a segment of the labor market that is selected for being more stable in terms of residence and employment. This approach is particularly important in the economic sectors that are characterized by high irregularity, such as agriculture, construction and household services. However, this limitation must be considered when interpreting the analysis of these data. Despite these limitations, the RCFL survey remains one of the most reliable sources of information to conduct comparative studies on the labor force in Italy.

Population under study

This study focuses on the segment of the RCFL population that is aged 15-64 years. The population sample was divided into three subgroups according to country of birth – listed in Istat as Italians (autochthonous), immigrants who originated from developed countries (DC immigrants), and immigrants who originated from high migration pressure countries (MC immigrants).ⁱⁱⁱ

Following previous studies (Borjas 1995; Reyneri and Fullin 2011), our analysis was based on two assumptions: 1) that the unobserved characteristics of immigrants do not change over time, and 2) that return migration is not a selective process related to the employment success in the destination country (thus it involves both the immigrants who have succeeded in finding a good job and those who have remained unemployed for a long time or who were unsatisfied with their job and their social position). The migratory process of immigrants can be different in terms of duration of stay, and the process can be influenced by working conditions as well as personal characteristics and family links. Our assumption is that immigrants who are working regularly in the labor market are not selected by employment status.

Core indicators

In accordance with the Istat (2006) classification, we separately considered employed, unemployed and inactive people. Employed people are aged 15 years and older who work for at least one hour of paid employment in the reference week. Unemployed people are persons that have made at least one action to find a job in the four weeks that preceded the interview and are available for work in the next two weeks. The inactive population includes children, students, pensioners and housewives, or husbands who are not working at all and are either unavailable or are not seeking work.

The concept of underemployment derives from the ILO (1998) classification that refers to persons who work for less than forty hours per week during a reference period, although they are willing to work additional hours and are available to do so. This classification also has been adopted by Istat (2004), and we also refer to it in the way it is calculated. The main objective of this indicator is to contribute to the definition of policies that attempt to improve the match between the demand and the offer of employment.

Underqualified employment tests the coherence between the workers' profession and educational level. It derives from the crossed information of "individual professional level" according to the International Standard Classification of Occupations (Isco-88) and individual educational level according to the International Standard Classification of Education (Isced-97). The definition and operationalization of underqualified employment derives from Istat (2005): the major groups, from group 2 to group 8 of the Isco-88 classification, are arranged according to the levels of the Isced-97 classification. In particular, group 2 (intellectual, scientific and highly specialized professions) corresponds to bachelor's or post-graduate degrees, whereas group 8 (unqualified occupations) corresponds to basic literacy (primary school). Ultimately, group 1 (legislators,

executives and entrepreneurs) and group 9 (military professions) are not associated with any level of education. For this reason, these groups are excluded from the analysis. The mismatch between the characteristics of the labor force (particularly for the higher educational qualifications) and the profession identifies the inefficient use of labor input in the production process and reveals the disconnection between the educational system and labor demand.

Methods and covariates

RCFL data are utilized to identify and compare the main determinants of occupational conditions of the immigrants in a comparative perspective with the natives. Because the RCFL data are individual, this paper analyzes the structure of association of only the individual characteristics of employment, underemployment and underqualified employment.

The selection of the variables that are included in the analysis was guided by two factors, namely, the results of the previously discussed literature and the availability of information included in the RCFL survey. In particular, the lack of information in the available data made it impossible to consider several variables that have been considered in previous studies (e.g., formal recognition of foreign qualifications in Italy).

The analysis is first developed at a macro level through segmentation methods (i.e. regression trees). These methods were developed by Kass (1980) and (particularly) Breiman et al., (1986) and are based on work by Morgan and Sonquist (1963). The goal is to explore the role and the importance of the covariates and emphasize the association among the variables (predictors and outcome), although not quantifying the strength of the associations. The methodology consists in the creation of trees with nodes (branches that fork) and leaves, which maximize the probability of success in terms of the event of interest. For the sake of a synthetic representation, only two profiles are shown for each group: the successful profile (in terms of the event of interest “being employed”) and the penalization profile. The successful profile identifies the combination of individual and contextual characteristics that assure a higher employment rate. Conversely, the penalized profile points out which variables lead to more disadvantage conditions in the labor market. Each profile is characterized by the maximum and minimum percentages of success, respectively. The procedure is CHAID from SPSS software (version 17.0) with a minimum of 1,000 observations for each node and 500 for each final leaf, which is a depth of five levels (the maximum number of splits), and the Likelihood Ratio as a splitting criterion. For immigrants who originate from developing countries, there were a minimum of 500 observations for each node and 100 for each final leaf because of the reduced number of observations.

Second, the analysis focuses on micro level data and estimates the impact of both of the covariates that were previously considered and the added predictors of underemployment and underqualified employment that were measured through logistic models. The analyses are divided according to gender because of the important differences between men and women concerning employment opportunities and conditions – differences that

were emphasized in the previous literature. For both phenomena, the dependent variable is a dummy that separately considers if the respondent is underemployed or underqualified (the value is 1, and the value is 0 otherwise). Only the significant predictors are preserved in the final models that are reported in the next sections.

The independent variables consider three aspects: socio-demographic characteristics, employment features, and migration factors. The first aspect includes age at the time of the interview, educational attainment and the macro-area of residence. Age and educational attainment attempt to test the studies that relate the worst occupational conditions to low educational levels and young age (see theoretical background, above). The models include the macro-area of residence to consider the different characteristics of the labor market and the occupational conditions according to the Italian territorial contexts. Educational attainment was excluded from the models that involve underqualified employment because of collinearity. The employment characteristics include the typologies of occupation and the economic sector. Some scholars (discussed previously in the theoretical background) showed how some workers accept penalized job conditions in case of self-employment, first employment and working in the industry and service sectors. We want to test if these results occur in Italy. The last group considers the length of stay in Italy, the citizenship, and the country/ area of origin. The inclusion of the length of stay in Italy aims to check the contrasting hypotheses of *assimilation* versus *segmented assimilation*. According to the literature, Italian citizens^{iv} are more likely to have the best occupational conditions. Various researchers have suggested that an *ethnic penalty* could reveal whether immigrants from a particular country or area have less opportunities to secure high-level jobs than natives who have the same characteristics. The choice of modalities was affected by the sample size to maintain a certain representativeness in the classification.

Immigrant working conditions: a macro level analysis

The RCFL data are first analyzed at a macro level through descriptive indexes that provide a picture of employment, underemployment and underqualified employment. The employment rates are 33.5% for Italians, 48.1% for DC immigrants, and 52.4% for MC immigrants (see table 1). We observe higher levels of employment for males in all three groups of workers. Depending on the structure of the local labor market, a gender stratification of employment opportunities exists in the various sectors of economic activities that penalize women (Strozza et al. 2009). For the younger age group (15-24 years), we detect the lowest employment rate (18.4% for natives, 16.2% for DC immigrants, and 28.4% for MC immigrants). This result confirms that young people are the most vulnerable group because of their limited employment experiences and undeveloped skills. Currently, the difficult economic situation causes a large proportion of young people to extend their education, and their transition from education to employment is particularly complicated (CNEL 2011). However, in the younger age group, MC immigrants record the highest employment rate. Higher

educational levels correspond to higher employment rates. The existence in Italy of a North-South gradient in the level of employment is confirmed, and the northern area of the country records the highest employment rates.

Table 1. Employment, underemployment, underqualified employment according to selected variables (percentage values)

Variables	Employment			Underemployment			Underqualified employment		
	Italians	MC	DC	Italians	MC	DC	Italians	MC	DC
TOTAL %	33.5	62.4	58.8	4.1	10.7	4.1	19.6	35.9	22.6
TOTAL <i>N</i>	206013	24325	5314	8447	2603	218	40379	8733	1201
TOTAL SAMPLE <i>N</i>	614965	38983	9038	206013	24325	5314	206013	24325	5314
<i>Gender</i>									
Males	45.0	67.7	64.2	4.0	10.8	4.2	19.4	35.9	22.7
Females	28.7	44.5	38.8	4.3	11.5	6.1	20.0	50.4	22.9
<i>Age at interview</i>									
15-24	19.5	30.8	16.8	4.5	10.9	4.6	32.9	30.5	23.6
25-34	65.8	64.3	57.1	4.0	11.1	4.4	30.5	41.6	34.2
35-44	75.5	71.0	66.4	4.4	12.2	4.9	20.4	44.8	23.0
45-54	71.9	73.4	70.3	3.9	10.7	5.7	13.2	44.5	17.2
55-64	35.9	55.7	38.2	3.8	5.9	4.5	10.2	36.4	15.1
<i>Educational attainment</i>									
Primary or lower	8.9	48.7	16.1	7.0	9.2	7.7	-	-	-
Lower secondary	41.4	54.8	46.2	5.5	11.2	5.8	-	-	-
Upper secondary	60.1	67.7	55.7	3.5	11.7	4.6	-	-	-
Tertiary	70.7	66.6	71.8	2.7	9.8	4.7	-	-	-
<i>Area of residence</i>									
North West	41.4	55.8	53.0	4.1	14.4	5.8	17.6	42.1	23.3
North East	42.4	55.2	58.2	3.8	10.3	3.2	18.3	41.3	17.4
Center	39.0	59.2	48.3	4.2	10.7	5.8	22.6	47.6	20.9
South	28.7	49.4	44.2	4.1	4.8	5.5	21.3	32.7	27.2
Islands	29.7	47.9	42.5	4.6	3.9	4.9	19.1	30.9	28.5
<i>Economic Sector</i>									
Agriculture	-	-	-	3.9	7.5	4.8	19.2	28.3	30.1
Industry	-	-	-	5.5	10.5	5.2	20.1	37.5	22.6
Construction	-	-	-	6.4	12.5	3.5	15.2	34.2	19.2
Trade	-	-	-	3.0	7.9	6.3	24.1	32.7	24.8

Services	-	-	-	3.6	11.6	4.8	18.8	49.0	22.4
<i>Duration on stay in Italy</i>									
1-2 years	-	17.7	17.7	-	11.0	0.0	-	44.4	3.1
3-5 years	-	37.6	31.4	-	10.0	9.2	-	55.9	43.3
6-10 years	-	51.6	35.9	-	12.4	5.9	-	55.1	30.6
11-15 years	-	49.5	37.0	-	12.4	7.2	-	48.6	26.1
16-20 years	-	55.0	35.8	-	12.2	9.5	-	43.2	32.8
+ 20 years	-	41.8	40.9	-	8.1	5.6	-	32.9	20.2

Source: Our elaboration on RCFL data, 2010.

Focusing only on immigrants, the observed rates are lowest in the first two years of stay. A more complete picture of the Italian labor market emerges when the analysis focuses only on workers and in particular when we examine and compare the levels of underemployment and underqualified employment among different groups of workers.

Regarding underemployment, its level among natives and DC immigrants is identical (4.1% for both groups). In contrast, MC immigrants record an overall underemployment rate of 10.7%. Among the MC workers, the underemployment rate tends to increase among women (11.5%), residents who have been in Italy for six years or more (12.4%), workers who are employed in the construction industry (12.5%), and residents in the North-West (14.4%).

When examining the level of underqualified employment, we observe that MC workers generally record much higher rates (35.9%) than the other two groups (19.6% Italians, 22.6% DC workers), and for MC women, this rate rises to 50.4%. Generally, young workers (aged 15-34) comprise the largest percentage of underqualified employment among the three groups, although we observe the persistence of high percentages at older ages among MC immigrants. According to the geographical residence, the highest rates are among MC immigrants in the central regions (47.6%). The largest percentage of underqualified employment is among the MC immigrant workers in the service sector (49.0%) and for Italians in the trade sector (24.1%). Although they remain high, the disadvantages of MC immigrants decrease for workers who have been in Italy for 20 years or more.

The micro level analysis on labor force conditions

Segmentation analysis on employment

The previous descriptive analysis shows the complexity of the Italian labor market. Using a multivariate analysis of underemployment and underqualified employment, it is useful to define the context of interest

concerning occupation. Therefore, we conducted an exploratory analysis with segmentation trees to better define the context of interest, where the dependent variable is the employment rate according to several important variables (covariates). For employment rates, we separately considered the three groups: Italians, MC immigrants and DC immigrants.

The best profile for employed Italians is represented by a male who is aged 35-44 years, a resident in the North-East (usually the most dynamic area), and has a tertiary education. For MC and DC immigrants, it is more important to be a male who is 45-54 years old, and only for MC immigrants, to reside in the North-East and have a tertiary education. It is interesting to note the differences in the overall percentages of the employed among Italians (33.5%), MC immigrants (52.4%) and DC immigrants (48.1%). At the last level of segmentation, Italians show the higher occupation rate (97.6%), which is more than MC (85%) and DC (87%) immigrants. This result means that for Italians the lower overall occupation rate is likely justified by the presence of an important proportion of individuals still attending school. Finally, for the entire sample, the better employment rates depend primarily on age, residence and gender (with a different order among Italians and MC/DC immigrants), followed by education. The penalized profile for Italians is represented by a female (5.6%) who is aged 15-24 years (18.5%) with a low education (primary and lower secondary, 9.8%) and a residence in the South-Central (4.3%). For MC immigrants, the first three levels of segmentation only differ in the last split where a lower level of employment is observed in the northern areas (12.5%).

Regression analysis on underemployment and underqualified employment

After defining the Italian context of employment and its main predictors, we extend our analysis by examining the occupational conditions. The underemployment models show the relations that exist between single covariates (net to the other covariates) and the laborers' availability to work additional hours during the week.

The obtained results (see table 2) show an inverse relation between the dependent variable and the *age at interview*, although it is much more significant among women than men. This result suggests that people are able to obtain a "satisfactory" occupational condition in terms of the number of working hours. Considering the interaction effects between immigration status and age (not shown here because of space limitations), we observe no adding and significant differential paths with respect to the ones reported above.^{vi}

The highest risks of underemployment are observed among the *lowest educated people* (compulsory). The odd-ratios decline linearly and significantly at increasing educational levels and reach the lowest level among the highest educated people (university degree and more). We observe the same pattern according to gender, but it assumes higher relative risks among women. We observe the lowest risk of underemployment for people who reside in the *North-East*, whereas the highest risks of underemployment are mostly in the *Islands*. The territorial disparities are much more significant among females than males.

The second block of covariates concerns the employment characteristics of the workers. According to the *economic sector* of occupation, agriculture and trade assume lower odds than the reference group (industry). The same result occurs for both men and women if we consider *self-employment* (compared with dependent employment) and *first-employment* (compared with successive employment).

Table 2. Determinants of underemployment and overskilled employment (logistic regressions)

Variables	Underemployment						Underqualified employment					
	Men			Women			Men			Women		
	Od.R	St.Er.	P> z	Od.R	St.Er.	P> z	Od.R	St.Er.	P> z	Od.R	St.Er.	P> z
<i>Age at interview (ref. 35-44)</i>												
15-24	1.10	0.1		1.27	0.1	***	1.68	0.0	***	1.77	0.1	***
25-34	1.01	0.0		1.02	0.0		1.55	0.0	***	1.62	0.0	***
45-54	0.99	0.0		0.76	0.0	***	0.64	0.0	***	0.62	0.0	***
55-64	0.88	0.0	***	0.54	0.0	***	0.46	0.0	***	0.41	0.0	***
<i>Educational attainment (ref. High school)</i>												
Compulsory	1.41	0.1	***	2.13	0.1	***	---	--	-	---	--	-
Middle school	1.21	0.0	***	1.62	0.1	***	---	--	-	---	--	-
Univ. degree and more	0.68	0.0	***	0.81	0.0	***	---	--	-	---	--	-
<i>Area of residence (ref. North-West)</i>												
North-East	0.78	0.0	***	0.77	0.0	***	0.96	0.0	*	0.99	0.0	
Center	1.06	0.0		1.11	0.0	**	1.28	0.0	***	1.53	0.0	***
South	0.97	0.0		1.17	0.1	***	1.22	0.0	***	1.38	0.0	***
Islands	1.09	0.1	*	1.40	0.1	***	1.04	0.0		1.27	0.0	***
<i>Economic sector (ref. Industry)</i>												
Agriculture	0.61	0.0	***	0.48	0.0	***	0.99	0.0		1.02	0.1	
Construction	1.06	0.0		0.83	0.1		0.66	0.0	***	0.38	0.0	***
Trade	0.44	0.0	***	0.52	0.0	***	1.04	0.0	*	1.52	0.0	***
Services	0.61	0.0	***	0.80	0.0	***	0.91	0.0	***	1.15	0.0	***
<i>Type of employment (ref. Dependent employment)</i>												
Self-employment	0.61	0.0	***	0.72	0.0	***	1.04	0.0	**	0.86	0.0	***
<i>First employment (ref. No)</i>												
Yes	0.70	0.0	***	0.63	0.0	***	1.02	0.0		0.91	0.0	***
<i>Citizenship (ref. Foreigner)</i>												
Italian	0.58	0.1	***	0.79	0.1	**	1.00	0.1		0.71	0.0	***
<i>Area/country of origin (ref. Italy)</i>												
Developed countries	0.50	0.2		0.22	0.2	**	0.64	0.1	***	0.68	0.2	*
Albania	0.93	0.4		0.51	0.4		1.86	0.4	***	1.59	0.4	**
Romania	0.69	0.3		0.39	0.3		2.06	0.3	***	2.22	0.5	***

Ukraine	0.77	0.4	0.26	0.2		2.99	0.6	***	4.25	1.0	***
Rest of Center-East											
Europe	0.85	0.4	0.34	0.2		2.03	0.4	***	2.37	0.6	***
Morocco	0.95	0.4	0.66	0.5		1.77	0.1	**	1.66	0.2	**
North Africa	1.13	0.5	0.41	0.3		1.78	0.4	***	0.70	0.2	
Rest of Africa	0.92	0.4	0.45	0.3		1.37	0.3		0.66	0.2	
East Asia	1.10	0.5	0.32	0.2		1.47	0.3	*	1.13	0.3	
Rest of Asia	0.99	0.4	0.35	0.3		1.22	0.3		0.90	0.2	
Central and South											
America	1.15	0.5	0.35	0.3		2.08	0.4	***	1.60	0.4	**
<i>Duration on stay in Italy (ref. Born in Italy)</i>											
1-2 yrs.	1.31	0.4	1.83	0.7	*	0.73	0.1		0.78	0.2	
3-5 yrs.	1.20	0.4	1.77	0.6	*	0.74	0.2		1.17	0.3	
6-10 yrs.	1.32	0.4	2.18	0.7	**	0.93	0.2		1.12	0.3	
11-15 yrs.	1.35	0.4	2.17	0.7	**	1.15	0.2		1.19	0.3	
16-20 yrs.	1.46	0.4	2.45	0.8	***	1.36	0.3		1.34	0.3	
+ 20 yrs.	1.56	0.5	1.77	0.5	**	1.10	0.2		1.20	0.3	
N. obs	131691		94106			131691			94106		
-2log di lambda	2068.3		1517.9			5707.4			7864.2		

Source: our elaborations on RCFL data, 2010.

Note: *p<0.1; **p<0.05; ***p<0.01.

These results partially confirm what we have previously shown through descriptive analysis but with added elements of interest. New disparities arise if we consider the migratory characteristics. In fact, the underemployment risk is significantly lower among native Italians (born in Italy with *Italian citizenship*) than immigrant employees. Surprisingly, no significant differences are observed according to the *country/ area of origin*. The same result occurs considering the *length of stay* in the host country, which is not a safety measure against underemployment among immigrant men. Among immigrant women, a labor offer that is not fully matched to the candidate's qualifications persists despite an increasing duration of stay in Italy.

The models regarding underqualified employment show the relations that exist between single covariates (net to the other covariates) and the coherence between the profession and the educational levels of the workers.

Concerning the socio-demographic variables, there is an inverse relation between *age at interview* and the risks of underqualified employment with no evident gender differences. Age (and presumably the labor career) generates a better link between occupational and educational levels. However, the interaction effects between immigration status and age (not shown here for space limitations) show a differential pattern among immigrants. Among men, there is not a declining pattern with the increase of the age, while among women underqualified employment level increases between age classes 15-24 and 25-34 and remains stable at older

ages. In addition, *residence* in the central, southern and island regions increases the risk of underqualified employment compared with the reference group (North-East). In particular, women who reside in the central Italian regions assume the highest odd-ratios.

Considering employment characteristics, men who are employed in the trade economic sector are affected by the highest risk of mismatch between profession and educational level compared with the reference group. The same result occurs for employed women when considering both the trade and service sectors. In contrast, the lowest risk is observed in the construction sector for both genders. The *type of employment* assumes an opposite direction according to gender. Self-employment increases the observed risk among men and decreases it among women. *First employment* decreases the risk of performing an underqualified job among women, but the same result does not occur among men.

Regarding migratory characteristics, Italian *citizenship* reduces the risk of having underqualified employment only among women. However, we observe interesting gender-based variability among immigrants according to the country and area of origin. Among men, immigrants who originate from central and eastern Europe, particularly from Romania and Ukraine, assume the highest risks. The same occurs for women, except to a greater degree.

The *length of stay* in Italy does not significantly affect the risk to have underqualified employment for both men and women.

We also estimated models for underemployment and underqualified employment including the iterations of the first order. Because of the high number of observations, all iterations are statistically significant. In most cases, they confirm the following traditional/ usual characteristics of migrations in Italy: 1) a different allocation of immigrants according to *area/ country of origin* and *area of residence* for both men and women and 2) the different effects of the *economic sector* when it is iterated with other predictors, such as *area and country of origin*, and *area of residence and age*, particularly for male workers.

Discussion

The analysis shows the fragile positions of the weakest social groups in the Italian labor market. Generally, considering underemployment and underqualified employment, immigrants assume higher risks than Italians of experiencing the worst conditions.

With regard to the aim to check the contrasting *assimilation* and *segmented assimilation* hypotheses, in the Italian case, it was found that the disadvantaged working conditions of immigrants are not reduced by

immigrants' lengthening their stay in Italy. This result suggests that the *segmented assimilation* theory applies to the Italian case. Thus, the rigid structure of the Italian labor market does not allow immigrants to improve their occupational situation over time, producing a persisting disconnection between their educational levels and labor demand. Similar evidence on the difficulty for immigrants to improve their employment positions has also been supported by Istat (2011, 2013).

In addition, we attempted to test the presence of an *ethnic penalty*. Considering underemployment, no significant ethnic disparities emerged from our analysis. In contrast, the risks to be "trapped" in underqualified employment is amplified (net to the duration of stay in Italy) for immigrants who come from some countries/areas, such as non-EU central and eastern Europe, Latin America, Ukraine, Romania and Morocco. This result can be interpreted in the light of the *ethnic penalty* theory (Istat 2011; Strozza et al. 2009; Fullin and Reyneri 2010). The high vulnerability of some national groups can demonstrate the influence of both the cultural distance between the origin and the host country and the difficulties in obtaining formal recognition of the qualifications that were acquired in the homeland. This outcome is consistent with the situations that also emerge for other European countries of immigration (Goździak and Martin 2004), particularly for Germany (Kogan 2011) and Spain (Bernardi et al. 2010). In addition, the effect of being a non-citizen in increasing the risks of performing underqualified work is consistent with previous studies (Chiswick and Miller 2005; Fernández and Ortega 2006; Lindley 2009; OECD 2007).

We also attempted to verify if, as shown in previous studies, specific determinants exert a significant effect on shaping the employment conditions of the observed workers. The presence of high risks of being penalized among the youngest and lowest educated workers is consistent with the previously discussed studies (e.g. Crompton 2002; Dekker et al. 2002). Our results also show the importance of the geographical gradient in the Italian economic and productive system that emerged from other analyses (Istat 2011, 2013). Among women, these territorial disparities are even more evident (Bevelander and Groeneveld 2010; Goździak and Martin 2004; Tastsoglou and Preston 2000). Moreover, consistent with previous results, the economic sector of employment plays a decisive role in working conditions. Underemployment is much more evident in the industrial and construction sectors for both genders; underqualified employment affects mainly women who are occupied in the trade and service sectors (Wilkins and Wooden 2011). The disadvantage of women regarding the risk of having an underqualified occupation is consistent with the findings of other studies (Faini et al. 2009; Istat 2011c, 2013; Paterno et al. 2013; Quintini 2011a). In fact, among women who come from the non-EU European countries, such as Romania and Ukraine, the mismatch results from their high level of education and their concentration in occupations with low qualifications, especially occupations related to household services.

Conclusions

The identification of several aspects that significantly affect the opportunity to be employed, underemployed and to perform underqualified work among immigrants and Italians who were interviewed with the RCFL contributes to the international debate on these issues and suggests the most useful policy responses to be developed.

First, it is evident that in Italy additional efforts must be realized to broaden the available knowledge of the labor market and its functioning, as well as working conditions when compared with natives. There is a clear need to widen the methodological approaches that are used to collect data and to improve the analysis techniques of available information. The feedback loop between research and policy formation must be better understood and made more efficient.

A second observation is linked to the characteristics of the available data. As previously highlighted, the RCFL is limited because it significantly underestimates the presence of immigrants in the labor market. In fact, it includes only legally resident immigrants and excludes both those who have a permit of stay but no legal residency, and irregular or illegal immigrants. As a consequence, the survey analyzes a part of the labor market that is selected for being the most stable with reference to residence and employment conditions. Therefore, obtained results need to be interpreted with caution because they do not include immigrants who do not live permanently in Italy or who are not regularly present – immigrants that are significantly numerous in the sectors of activity where the weight of the underground economy is larger (agriculture, construction, care and home services, food). Previous analyses (Strozza et al. 2009) estimated that 84% of residents are employed in regular activities, while 79% of the illegal immigrants are employed in irregular activities, and a little more than 20% of them are unemployed, highlighting a strong relationship between the legal status and the occupational one. We hope that more detailed data on immigrants that have a permit of stay but do not have a residence permit, as well as better data on irregular or illegal immigrants will be available. The availability and analysis of such data will deepen our knowledge on this important part of the foreign presence in the Italian labor market.

This appears particularly true if we consider that, according to the Italian law, the chance of being regularly employed is conditional on holding a permit to stay and, at the same time, that it is possible to renew the permit to stay only if holding a regular working contract. In almost all cases the two conditions, legal residence and regular employment overlap, and this circularity makes the direction of the causal relationship between legal status and a regular job difficult to define.^v Moreover, differences in the legal status and labor market opportunities may affect the employment stability of immigrants, producing an “employment frailty” that should be managed only through specific policies. In an economic crisis, such as the one that currently impacting Italy and virtually all developed countries, interventions that seek to increase work flexibility and

reduce labor costs could be extremely useful. In addition, measures that are designed to reduce the high levels of segmentation, the scale of underground economy, the high unemployment rates, and the significant differences between northern and southern Italy will be essential. In fact, during the preparation of this article, a broad political debate took place in Italy to identify and realize the most effective interventions and reforms.

Concerning the immigrants' presence, the inability of the length of stay in Italy to improve the working conditions of immigrants, in addition to ethnic penalties, should stimulate the realization of good immigrant integration policies. Investments should aim to fight against discrimination to enhance immigrants' human capital and establish social and legal standards for the appropriate treatment of workers by employers. Such efforts can create a backdrop for good and mature social interactions between immigrants and natives. The most useful interventions can be identified in the reforms that are designed to facilitate access to citizenship, improve admission policies and the regulation of immigrant flows, and grant access to social support systems. Immigrants in underqualified employment would also benefit from measures that are targeted to recognize their qualifications and assist them in finding employment that matches their skills. Experiences in other countries, such as Australia, Denmark and Sweden, lend support to this view (see, for example, OECD 2007, 2009; Quintini 2011b).

Finally, it is important to improve the cooperation of the different actors, namely, central and local political institutions, public employment services and social partners, private employers, and individual workers. This cooperation is indispensable to avoid competition and social conflict between native and immigrant workers and to ensure them equal rights and opportunities in labor and their social lives.

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ⁱ Other theories exist regarding the assimilation of immigrant workers in the host labor market (among others, the social network theory and the selectivity theory), but unfortunately, the lack of suitable data does not allow us to test them.

ⁱⁱ Scholars have also analyzed the mismatch between the profession and the skill level of workers (so-called under-skilled employment). Among the approaches that are used to study such phenomena are the human capital theory, the job competition theory, the signalling theory and the assignment theory (among others, Hartog 2000; McGuinness 2006). Moreover, McGuinness and Wooden (2009) argued that qualification levels and skill are not necessarily correlated. We exclude under-skilled employment from our analysis because the available data do not allow us to quantify it, and the cited approaches do not explicitly consider immigrant workers.

ⁱⁱⁱ DC countries are all countries in the European Union and Andorra, the Vatican City, Iceland, Liechtenstein, Malta, Monaco, Norway, San Marino, and Switzerland, as well as North America (excluding Mexico), Oceania, Israel and Japan; MC countries are all remaining countries.

^{iv} It seems useful to recall that Italian law is based on the principle of *jus sanguinis*: generally, immigrant adults can request Italian citizenship if they can demonstrate that they have legally resided in Italy without interruption for at least ten years. Fewer years are requested in specific cases, such as marriage to an Italian citizen.

^v According to Italian law, foreigners who regularly entered Italy and who plan to stay in the country for more than three months must apply for a permit to stay. Foreigners who apply for a permit to stay valid for at least one year must stipulate with the Italian State an agreement which commits them to achieve specific objectives of integration. The duration of the permit to stay may not exceed two years if it is required for work or family reasons. While waiting for the release of the first permit for work reasons, foreigners may temporarily have an employment. This chance is also provided for the renewal of the permit. The renewal of the permit to stay for work reasons is granted after the verification of the availability of an income from employment or from other lawful source. The residence permit must be applied by foreigners who wish to reside in Italian territory for a period exceeding three months. The permit required for work reasons is granted after checking that the foreigners are employed and that they have an income for themselves and their families. Foreigners coming from non-EU countries must have already obtained a permit to stay. In some cases (dependent employment, family reunification and foreign children awaiting

adoption) foreigners from non-EU countries can obtain a residence permit even in the absence of a permit to stay, or before it is released.

^{vi} Other interactions have been performed in order to find how they affects Italians and immigrants differently. However, we do not included them in the final version of outputs, as they do not provide any significant and further element of discussion.