



***EMPLOYMENT RETENTION RATES
OF REFUGEES IN ITALY***



TOR VERGATA ECONOMICS FOUNDATION
UNIVERSITY OF ROME TOR VERGATA - ITALY



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This study constitutes the Phase I Report carried out by the Tor Vergata Economics Foundation team, coordinated by Martino Lo Cascio and composed by Barbara Rossi, Giuseppe Paolicelli and Giorgia Mangani

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Foreword

This document constitutes the first report of the Tor Vergata Economics Foundation (FUET) study on “Employment Retention rates of Refugees in Italy” (sponsored Research Agreement by and between FUET and The Tent Foundation, December 2017).

The document covers the first two deliverables of the “Project”, which respectively are:

1. Data needed and data bases to be explored or to be built starting from administrative archives and statistical surveys (we are currently building up a Panel of qualified expert to analyze qualitative information and case studies, to be finally developed in the phase II of the Agreement);
2. Drive the useful matching between databases of different international and national official statistical sources; extract, from different official archives, matching data to build multidimensional matrices (data queries organized results).

The report is divided in three chapters plus two annexes.

Chapter one provides a wide range of official data sources, both international and national, on immigration stocks and flows, asylum requests, foreign and foreign-born population and acquisition of citizenship. The overall research effort is focused on Italy, but in order to carry out a better comparative analysis, we went through some general OECD data developing deeper insights on the core European Countries (Italy, Germany, France, Spain). Permanent migration stock and flows, by Country of origin, by age and sex, level of education, are isolated in the frame of international and national data sources.

Humanitarian, economic, temporary and permanent immigration are the bridges to the contents of Chapter two, where the labor market structure and conditions are considered.

We have also treated micro data on Sectorial and Regional, native-born and (UE – Extra UE) immigrant, which have been directly extracted from administrative registers.

An information system on labor market achievements and challenges has been built, starting from spatial and sectorial characteristics of native-born and immigrants, considering as crucial points the differences in their level of satisfaction and their salary payments.

The mismatch demand/supply (regional/sectorial) of Italian labor market is preliminarily approached using VELA archives, to be further developed in phase 2. Where labor demand exceeds labor supply, a driving force for immigrants inclusion emerges, being crucial the related satisfaction levels and wage characteristics, coupled with retention rates.

First results of a qualitative survey on reception policies on inclusion (“Migration Compact”, “Employers together for Immigration”, ...) will conclude Chapter two.

In Chapter three, some preliminary achievements of the project are presented, coupled with some examples of multidimensional matrices, databases and metadata.

We are sure that the first target of the project has been successfully achieved.

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1. Official data sources and registers extracted data

International data sources

- **United Nations** – Department of economic and social affairs, The International Migration Report
(<https://www.un.org/development/desa/publications/international-migration-report-2017.html>)
- **OECD**, International migration policies and data
(<http://www.oecd.org/migration/mig/>)
- **Eurostat** – Statistics Explained, Migration and migrant population statistics
(http://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics)
- **International Organization for Migration** – IOM, Migration data portal
(https://migrationdataportal.org/?i=stock_abs_&t=2017)

Databases of these organizations are useful to understand the migration trends around some OECD countries as well as to compare immigrants' flows and stocks in Italy with those of other EU countries and US. Humanitarian reasons are also included.

Italian data sources

- **Ministry of the Interior**
(<http://www.interno.gov.it/it/temi/immigrazione-e-asilo/argomenti#block-menu-menu-menu-tab-tema>)
- **Ministry of Labor and Social Policy**
(<http://www.lavoro.gov.it/temi-e-priorita/immigrazione/Pagine/default.aspx>)
- **ISTAT** – Italian National Institute of Statistics
(<http://www.istat.it/en/>)
- **INPS** – National Institute for the Pensions and Social Policies
(<https://www.inps.it/nuovoportaleinps/default.aspx?sPathID=%3b0%3b46292%3b50879%3b&lastMenu=50879&iMenu=12&iNodo=50879&p4=2>)

- **Caritas Italiana** – Italian Episcopal Conference, Caritas e Migrantes – Rapporto Immigrazione
(http://www.caritasitaliana.it/pls/caritasitaliana/v3_s2ew_consultazione.mostra_pagina?id_pagina=7150)

These data allow us to blow up the Italian dimension, focusing on regional areas (North, Centre, South) of Italy and business sectors (agriculture, manufacturing, trade and services such as accommodation and food service activities and so forth). Labor market characteristics for both native-born and immigrants belong to this sources and are mainly organized by education, employment and wages.

Italian data archives

- **ISTAT – Immigrants.Stat**
(<http://stra-dati.istat.it/Index.aspx?lang=en&SubSessionId=f43890a9-f63b-4aee-bc98-31322bc52283&themetreeid=-200>)
- **ISTAT – RCFL**, labor force survey
(<https://www.istat.it/it/archivio/8263>)
- **ISTAT – VELA**, survey on job vacancies and worked hours
(<https://www.istat.it/it/archivio/86998>)
- **Ministry of Labor and Social Policy – CICO**, subset of the mandatory communications system of a random sample about dependent, parasubordinate and independent workers
(<https://www.cliclavoro.gov.it/Barometro-Del-Lavoro/Pagine/Microdati-per-la-ricerca.aspx>)

Since these archives contain a big amount of both aggregate data (Immigrants.Stat and VELA) and micro data (RCFL and CICO), they allow getting several interesting big data. A huge effort is currently undertaken to develop a proper quality and validating analysis of those data. However, during this first phase, the monitoring process of the above data has been sufficiently successful.

2. Labor market structure: data and methodology

2.1 First section – global migration framework: tables and charts list

Table 1: *Immigrants inflows into OECD countries, 2007-2015* (Rows: all OECD countries, Italy, Germany, France, Spain; Columns: 2007-2015, $\Delta\%$ 2015-14 2014-13 2013-12 2015-11 2015-07), OECD data source

Table 2: *% of national inflows on total immigrants inflows into OECD countries, 2007-2015* (Rows: Italy, Germany, France, Spain; Columns: 2007-2015), OECD data source

Table 3: *Number of entries for humanitarian reasons in OECD countries, 2007-2015* (Rows: all OECD countries, Italy, Germany, France, Spain; Columns: 2007-2015, Δ % 2015-14 2014-13 2013-12 2015-11 2015-07), OECD data source

Table 4: *% of national number on total number of entries for humanitarian reasons in OECD countries, 2007-2015* (Rows: Italy, Germany, France, Spain; Columns: 2007-2015), OECD data source

Table 5: *% of total number of entries for humanitarian reasons on total immigrants inflows in OECD countries, 2007-2015* (Rows: all OECD countries, Italy, Germany, France, Spain; Columns: 2007-2015), OECD data source

Table 6: *Immigrants inflows into EU countries part of OECD countries, 2007-2015* (Rows: Germany, United Kingdom, France, Spain, Italy, Netherlands, Sweden, Belgium, Austria, Denmark, Ireland, Czech Republic, Portugal, Finland, Luxembourg, total EU countries into OECD; Columns: 2007-2015), OECD data source

Table 7: *Number of entries for humanitarian reasons in EU countries part of OECD countries, 2007-2015* (Rows: Germany, United Kingdom, France, Spain, Italy, Netherlands, Sweden, Belgium, Austria, Denmark, Ireland, Czech Republic, Portugal, Finland, Luxembourg, total EU countries into OECD; Columns: 2007-2015), OECD data source

Table 8: *New asylum applications by country where application is filed, 2012-2016* (Rows: OECD total, Italy, Germany, France, Spain; Columns: 2012-14 annual average, 2015, 2016, 2015-16 absolute change, % change 2015-16, top three origins) OECD data source

Chart 1: *Inflows of immigrants into OECD countries, 2015* (% of Italy, Germany, France, Spain and all other OECD countries on total OECD countries in 2015), OECD data source

Chart 2: *Number of entries for humanitarian reasons into OECD countries, 2015* (% of Italy, Germany, France, Spain and all other OECD countries on total OECD countries in 2015), OECD data source

Chart 3: *Flows and stocks of immigrants in some countries and their trends* (Italy, Germany, France, Spain, United Kingdom, United States; 2008-2015), OECD data source

2.2 Second section – labor market: tables and charts list

Table 1: *Working age population (15-64 years old) for country of residence, 2007-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 2: *Number of employees (15-64 years old) for country of residence, 2007-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 3: *Number of unemployed for country of residence, 2008-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 4: *Number of long-term unemployed (15-74 years old) for country of residence, 2008-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 5: *Labour force participation rate (15-64 years old) for country of residence, 2007-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 6: *Employment rate (1-64 years old) for country of residence, 2007-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 7: *Unemployment rate for country of residence, 2007-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 8: *Long-term unemployment rate (15-74 years old) for country of residence, 2007-2016* (Rows: countries of residence; Columns: gender, age classes, 2007-2016), Eurostat data source

Table 9: *Employment rate of third-country nationals (20-64 years old), 2006-2016*, Eurostat data source

Table 10: *Non-EU foreign people (15-74 years old) involuntary unemployed for country of residence, 2006-2016*, Eurostat data source

Table 11: *Number of employed foreign people in Italy (15- years old), 2011-2016*, Istat data source

Table 12: *Number of employed foreign people in Italy (15- years old), 2011-2016*, Istat data source

Table 13: *Number of employed foreign people in Italy (15- years old), 2011-2016* (Rows: 2011-2016; Columns: gender, geographical distribution, classification of occupations Istat CP2011), Istat data source

Table 14: *Job vacancies rate in Italy, for companies with at least 10 employees and business sector (Ateco 2007), 2005Q1-2017Q4 (raw and seasonally adjusted data)*, Istat data source – VELA dataset

Table 15: *Employment rate of foreign people in Italy, 2000-2016* (Rows: 2000-2016; Columns: gender, country of birth (natives and foreigners)), OECD data source

Table 16: *Labor force participation rate of foreign people in Italy, 2000-2016* (Rows: 2000-2016; Columns: gender, country of birth (natives and foreigners)), OECD data source

Table 17: *Jobs by type (ordinary and non-ordinary) by level of payment (high, medium and low) divided by natives and foreigners. Years 2000-2015, OECD data source*

Table 18: *Expected Business revenues in 2017 for large professional groups, sector of activity, territorial division and size class. Absolute values and %, Unioncamere data source*

Table 19: *Expected entrances by companies in 2017 of immigrant personnel, by sector of activity, territorial division and size class. Absolute values and %, Unioncamere data source*

Table 20: *Expected entrances by companies in 2017, overall and according to the required experience, for large professional groups and macro-sector of activities. Absolute values and %, Unioncamere data source*

Table 21: *Expected entrances by companies in 2017 of specialized workers and plant operators, for large professional groups, most requested professions of each group and main characteristics. Absolute values and %, Unioncamere data source*

Table 22: *Expected entrances by companies in 2017 of unqualified professions, for large professional groups, most requested professions of each group and main characteristics. Absolute values and %, Unioncamere data source*

Table 23: *Expected entrances by companies in 2017 considered hard to acquire and main reasons for such difficulty for large professional groups and macro-sector of activity. Absolute Values and %, Unioncamere data source*

Table 24: *Planned overall recruitment for immigrant personnel, by sector of activity, territorial division and size class. Absolute Values and %, Unioncamere data source*

Table 25: *Expected entrance by companies in 2017 of immigrant personnel, by geographical area, region, province and size class. Absolute values and %, Unioncamere data source*

Table 26: *Expected recruitment by companies in 2017 of immigrant personnel, by territorial division, region, province and size class. Absolute values and %, Unioncamere data source*

Table 27: *Skilled jobs in commercial activities and services: main characteristics required in 2017 (% share of the total). Absolute values and %, Unioncamere data source*

Table 28: *Artisans, skilled workers and farmers: main characteristics required in 2017 (% share of the total). Absolute values and %, Unioncamere data source*

Table 29: *Plant operators and workers of fixed and mobile machinery: main characteristics required in 2017 (share% of the total). Absolute values and %, Unioncamere data source*

Table 30: *Unqualified professions: main characteristics required in 2017 (% share of the total). Absolute values and %, Unioncamere data source*

Table 31: *Some characteristics of the expected entrance indicated by companies in 2017 at the territorial level (immigrant personal detail). Absolute values and %, Unioncamere data source*

RCFL Matrix: *to be completed*

Job Vacancy Matrix: *to be completed*

2.3 Third section – welfare analysis: tables and charts list

Started and to be completed and delivered in the second phase.

2.4 Fourth section – registers data processed and methodology

Tables have been produced using elaborations carried out by a sample of Istat micro data about the labor force survey (Istat – RCFL). Specifically, we extracted the number of employees, distinguished by foreign (EU-27 and extra-EU) and domestic components, disaggregated for different dimensions: country/area of origin, education, profession, economic activity sectors and regions. From these multidimensional matrices we developed a simplified flow chart as a mean to further develop smart allocation software of countries/areas of origin, education/profession bridge matrix, profession/sector bridge matrix and sector/Italian region bridge matrix (see the box below to check the aforementioned sequence). Some matrices are reported in Annex 2.

Specialization indices

The methodology we use is based on Lo Cascio-Bagarani (LB) specialization indices (Lo Cascio et al., 1991). This index varies from the upper limit 1 (highest specialization) to the lower limit -1 (lowest specialization).

The difference between LB_{ij} calculated on value added, and LB_{ij} calculated on number of employees, can be considered as a measure of productivity of each region relatively to the whole Italian sample.

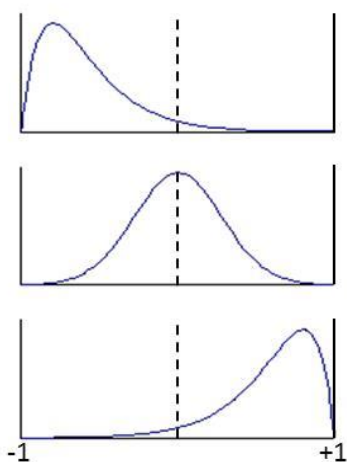
The *algebra* of the index is:

$$LB_{i,j} = \frac{q_{i,j} - q_{i..}}{(1 - q_{i,j}) \times q_{i..} + (1 - q_{i..}) \times q_{i,j}}$$

With:

$$q_{i,j} = \frac{x_{ij}}{\sum_i x_{ij}} ; \text{ and } q_{i..} = \frac{\sum_j x_{ij}}{\sum_{ij} x_{ij}}$$

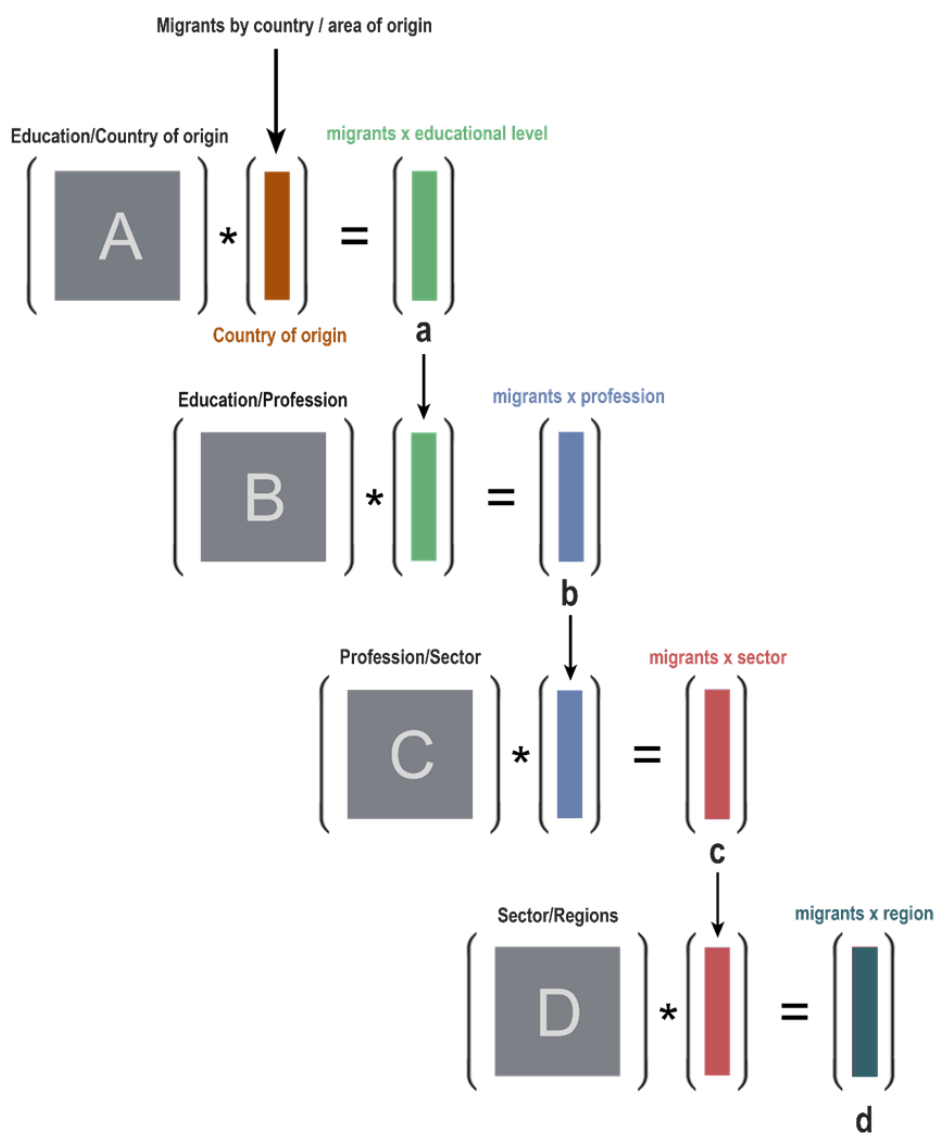
Where: X_{ij} value added or number of employees of the region i in the sector j



Theoretical distribution of the index

In addition, we produce a table concerning a job vacancy rate (for companies with more than ten employees) by activity sector and territorial dimension able to estimate an “employable” share based on the both dimension. We calculate a specialization index (in a range -1 to +1) for each table, which allows providing information on the sectorial, educational and professional structure of the employees (particularly on extra-EU people) in every regional area.

Flow diagram



We have built up a model for the allocation of migrants by country of origin, sector of activity and region through different bridge matrices and vectors.

The bridge matrices refer to 2016 and have been constructed using data extracted from national databases such as ISTAT, VELA and other national registers.

During the second phase coefficients will be recalibrated through similar data from previous years.

The flow diagram contains four bridges matrices, which respectively refer to:

A. Education/Country of origin

B. Education/Profession

C. Profession/Sector of activity

D. Sector of activity/Regions

To construct the flow, we went through the following steps:

- Matrix **A** must be multiplied by the vector “countries/areas of origin” to obtain a vector **a**, which represents the N° of migrants per educational level.
- Matrix **B** must be multiplied by vector **a** to obtain a vector **b** which represents the N° of migrants per profession.
- Matrix **C** must be multiplied by vector **b** to obtain a vector **c** which represents the N° of migrants per sector.
- Matrix **D** must be multiplied by vector **c** to finally obtain a vector **d** which represents the N° of migrants per region.

In order to evaluate the attractiveness of domestic labor demand for foreign component (particularly on extra-EU people), tables extracted from Istat RCFL archive have been elaborated to measure the satisfaction level on work performed, work environment, employment stability perception, wages. Collected information were distributed by economic activity sector and Italian Region, compared on two levels: satisfied; not satisfied.

In order to capture the probability of remaining in the work place (a proxy to represent the labor market retention) a Logit/Probit model is and will be quantified. Using the administered questionnaires, we have built an index transforming the nominal scale into 0-1 matrices, where:

STAB: the expectation to stay in the workplace;

LAV: job satisfaction;

RETR: salary satisfaction;

AMB: working environment satisfaction.

The specification of the Logit model explains the probability metrics STAB as a function of LAV, RETR and AMB matrices:

$$\text{Prob}(\text{STAB}) = \exp(\alpha_1 + \beta_1 \text{LAV} - \beta_2 \text{RETR} + \beta_3 \text{AMB}) \quad (1)$$

Where β_1 represents the marginal effect of job satisfaction to the probability to stay in workplace divided by the complementary probability, the Odds ratio (how many times $\text{Prob}(\text{STAB})$ exceed $1 - \text{Prob}(\text{STAB})$).

Where β_2 represents the marginal effect of salary satisfaction to the probability to stay in workplace divided by the complementary probability, the Odds ratio.

Where β_3 represents the marginal effect of working environment satisfaction to the probability to stay in workplace divided by the complementary probability, the Odds ratio.

3. First results and policy survey

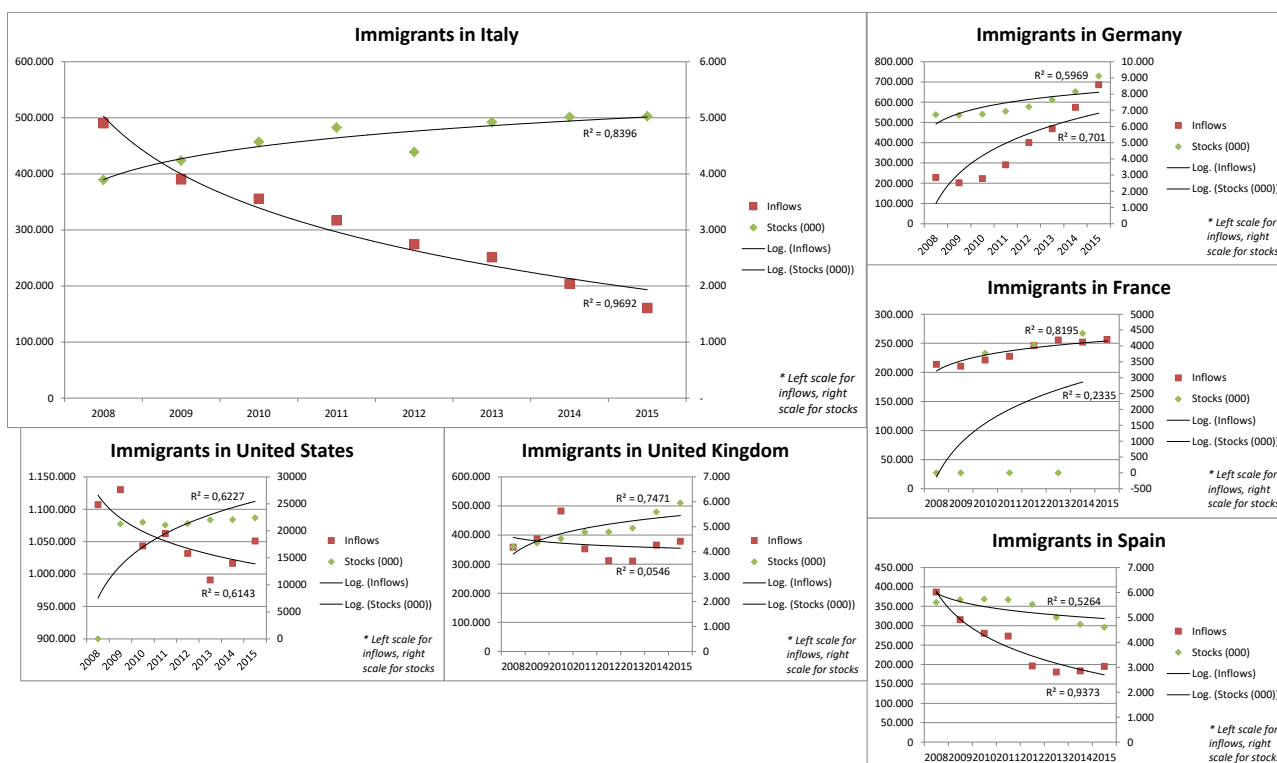
In Italy, from 2008 to 2015, the stock of immigrants is slowly increasing so that, flows are continuously falling.

In Germany and France however, both stock and flows seem to grow in the same direction.

In both United Kingdom and US, the stock is growing whereas the flow is falling.

In Spain, both stock and flows are declining.

Years	Italy		Germany		France		Spain		United Kingdom		United States	
	Inflows	Stocks (000)	Inflows	Stocks (000)	Inflows	Stocks (000)	Inflows	Stocks (000)	Inflows	Stocks (000)	Inflows	Stocks (000)
2008	490.400	3.891	228.300	6.728	213.800	...	386.700	5.599	358.100	4.196	1.107.100	...
2009	390.300	4.235	201.500	6.695	210.500	...	315.300	5.709	387.100	4.348	1.130.200	21.274
2010	355.700	4.570	222.500	6.754	221.100	3.769	280.400	5.731	482.400	4.524	1.043.300	21.581
2011	317.300	4.826	290.800	6.931	227.600	...	273.200	5.711	352.300	4.785	1.062.400	21.057
2012	274.400	4.388	400.200	7.214	245.800	4.036	196.300	5.520	312.000	4.788	1.031.900	21.359
2013	251.400	4.922	468.800	7.634	255.600	...	180.400	5.000	310.500	4.941	990.800	22.016
2014	204.100	5.014	574.500	8.153	251.900	4.395	183.600	4.719	365.400	5.592	1.016.500	22.047
2015	160.900	5.027	686.000	9.108	256.500	4.400	194.900	4.601	378.800	5.951	1.051.000	22.426

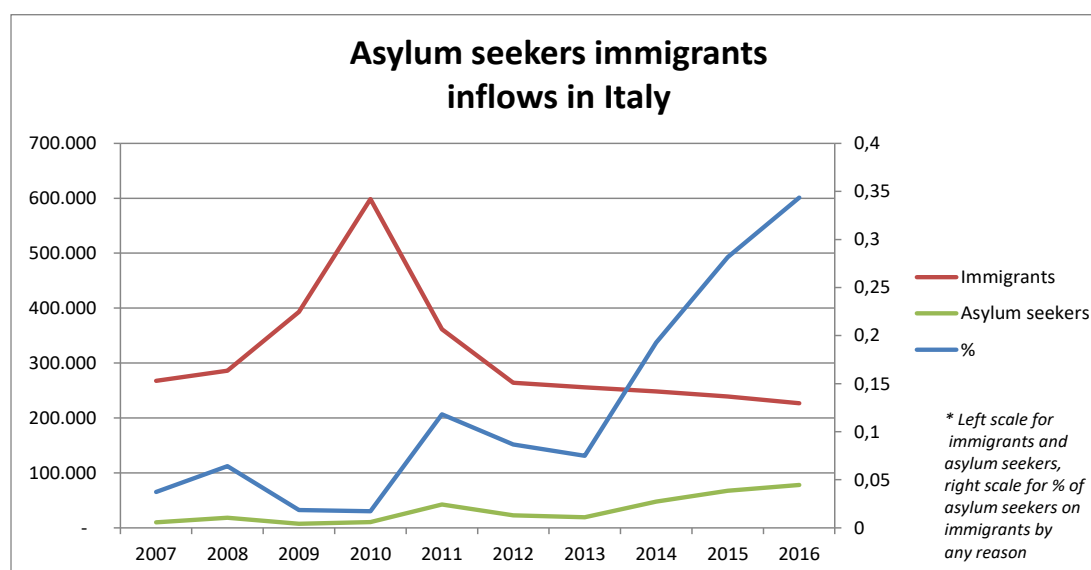


Source: *International migration policies and data, OECD*

On January the 1st, 2016, the resident population in Italy was 60 million; of which foreign resident were more than 5 million (8,3%). The share of European native-born of foreign residents in Italy is approximately the 50% (2,6 million European citizens).

On January the 1st, 2016, most of residency permit are requested for job reasons (42%) or family (41,5%) reasons while 9,7% of requests have been done by asylum seekers (the asylum request share is currently increasing). In fact, Istat data (Immigrants.Stat archive) show that from 2014 asylum seekers from Ghana, Nigeria, Senegal, Bangladesh, and Pakistan have increased up to 40% (see the following table).

	2014			2015			2016		
	Immigrants	Asylum seekers	Percent	Immigrants	Asylum seekers	Percent	Immigrants	Asylum seekers	Percent
World	248.323	47.873	19,28%	238.936	67.271	28,15%	226.934	77.927	34,34%
Abania	15.510	150	0,97%	16.813	298	1,77%	17.517	221	1,26%
Moldova	3.919	20	0,51%	3.203	34	1,06%	2.538	24	0,95%
Russia	4.038	59	1,46%	3.852	34	0,88%	3.057	36	1,18%
Serbia/Kosovo/Montenegro	4.375	261	5,97%	5.115	368	7,19%	4.195	379	9,03%
Ukraine	10.109	1.132	11,20%	10.543	3.058	29,01%	7.034	1.772	25,19%
Egypt	10.133	767	7,57%	7.328	496	6,77%	7.687	361	4,70%
Ghana	3.160	1.544	48,86%	4.482	2.896	64,61%	4.362	3.233	74,12%
Morocco	20.378	222	1,09%	17.281	299	1,73%	17.493	991	5,67%
Nigeria	11.125	7.065	63,51%	17.074	13.739	80,47%	20.740	17.306	83,44%
Senegal	8.775	3.265	37,21%	9.844	5.411	54,97%	8.815	5.527	62,70%
Tunisia	4.603	181	3,93%	3.875	147	3,79%	3.459	171	4,94%
Bangladesh	14.744	2.852	19,34%	10.662	5.085	47,69%	8.881	4.709	53,02%
China	17.243	87	0,50%	15.084	302	2,00%	12.118	480	3,96%
Philippines	5.691	12	0,21%	4.003	45	1,12%	4.013	56	1,40%
India	13.127	76	0,58%	11.762	193	1,64%	9.560	303	3,17%
Pakistan	13.697	5.489	40,07%	14.437	8.571	59,37%	15.585	11.063	70,98%
Sri Lanka (ex Ceylon)	6.344	58	0,91%	4.970	67	1,35%	3.427	87	2,54%
Brazil	4.670	23	0,49%	4.148	27	0,65%	3.465	48	1,39%
Peru	3.287	17	0,52%	2.446	17	0,70%	2.575	23	0,89%
United States	10.326	4	0,04%	10.007	2	0,02%	8.185	..	0,00%
Other country	63.069	24.589	38,99%	62.007	26.182	42,22%	62.228	31.137	50,04%



Source: *Immigrants.Stat archive, ISTAT*

In the first semester of 2016, working age immigrants are more than four million (Istat – RCFL archive micro data) in Italy. In the follow, the table shows the number (2016 annual mean) of extra-EU employees, divided by region and economic activities.

Number of extra-EU employees, 2016 annual average		Statistical Classification of Economic Activities in the European Community (2008)					
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage
Italian region	Piemonte	4.086	24.046	10.036	9.704	13.096	3.879
	Valle d'Aosta	89	368	246	151	614	15
	Lombardia	8.013	91.514	34.764	36.623	46.460	24.366
	Trentino Alto Adige	576	3.466	2.897	3.106	5.814	1.389
	Veneto	6.007	44.610	11.936	9.661	19.240	16.812
	Friuli Venezia Giulia	619	11.975	2.648	3.469	3.394	415
	Liguria	390	2.668	8.735	5.621	6.129	1.215
	Emilia Romagna	10.164	53.944	14.386	16.021	14.211	15.105
	Toscana	9.628	17.661	16.745	15.577	14.682	3.187
	Umbria	2.197	4.142	4.711	1.677	3.009	1.009
	Marche	2.076	14.276	4.037	2.365	4.204	560
	Lazio	13.200	4.635	9.049	33.161	27.084	3.611
	Abruzzo	3.392	2.916	4.813	896	3.823	431
	Molise	514	674	334	533	211	137
	Campania	6.409	6.940	6.356	17.738	8.016	1.094
	Puglia	8.784	2.427	3.021	5.603	2.862	602
	Basilicata	1.106	240	293	1.411	270	-
	Calabria	3.722	1.034	2.187	6.722	814	238
	Sicilia	5.235	966	1.222	13.550	5.990	285
Sardegna	942	438	259	9.499	934	-	
	ITALY	87.151	288.941	138.672	193.085	180.858	74.350

continue

Statistical Classification of Economic Activities in the European Community (2008)						
Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities	TOTAL
1.298	-	7.584	140	5.728	34.519	114.116
-	-	195	13	115	531	2.337
2.239	1.842	53.954	-	19.690	110.501	429.965
-	-	3.675	21	1.079	3.916	25.940
858	-	11.511	-	3.764	31.729	156.128
103	144	2.149	-	2.409	6.590	33.913
80	76	3.492	-	2.035	17.085	47.527
357	-	16.099	154	7.795	41.581	189.818
126	-	11.173	56	3.566	31.369	123.770
-	-	1.411	-	636	8.717	27.509
138	-	1.230	-	619	8.065	37.571
-	332	13.893	-	5.271	75.551	185.786
-	-	764	-	116	3.909	21.060
-	-	-	-	54	588	3.045
111	-	1.215	-	450	31.172	79.500
-	-	385	120	328	10.313	34.446
-	-	-	-	97	351	3.768
-	-	66	-	-	6.109	20.891
-	-	1.977	329	614	17.894	48.063
-	-	113	-	109	3.960	16.253
5.310	2.394	130.886	833	54.475	444.450	1.601.406

Source: *Our data processing from Istat – RCFL archive micro data*

Now, in the follow, you can see the table of specialization indices referred on the table above, where this index varies from the upper limit 1 (highest specialization) to the lower limit -1 (lowest specialization). Moreover, we show you a table with estimated numbers of job vacancy employable by extra-EU involuntary unemployed.

Specialization index of extra-EU employees (2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)					
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage
Italian region	Piemonte	-0,2187	0,0839	0,0083	-0,1836	0,0086	-0,1646
	Valle d'Aosta	-0,1758	-0,0675	0,0969	-0,3038	0,3995	-0,7598
	Lombardia	-0,5676	0,1162	-0,0463	-0,2212	-0,0300	0,1409
	Trentino Alto Adige	-0,4243	-0,1511	0,1289	-0,0036	0,3371	0,0725
	Veneto	-0,1867	0,2565	-0,0685	-0,3445	0,0485	0,4602
	Friuli Venezia Giulia	-0,5032	0,3330	-0,0527	-0,0837	-0,0616	-0,5876
	Liguria	-0,7435	-0,5330	0,3746	-0,0099	0,0684	-0,2960
	Emilia Romagna	-0,0092	0,2612	-0,0748	-0,1955	-0,2239	0,3094
	Toscana	0,1944	-0,1254	0,2423	0,0233	0,0267	-0,3032
	Umbria	0,1934	-0,0917	0,3360	-0,3323	-0,0163	-0,1192
	Marche	0,0079	0,3678	0,1103	-0,3191	-0,0047	-0,5202
	Lazio	0,1526	-0,7790	-0,3056	0,2248	0,1460	-0,4400
	Abruzzo	0,5049	-0,1331	0,4592	-0,4818	0,2368	-0,3909
	Molise	0,5138	0,1017	0,1185	0,1848	-0,2389	-0,0143
	Campania	0,2062	-0,3595	-0,0419	0,3189	-0,0594	-0,5555
	Puglia	0,6721	-0,4437	0,0064	0,1524	-0,1551	-0,4582
	Basilicata	0,6899	-0,4781	-0,0544	0,5146	-0,2234	-1,0000
	Calabria	0,5429	-0,5726	0,0959	0,4636	-0,4905	-0,6090
Sicilia	0,3476	-0,8044	-0,5536	0,4185	0,0508	-0,7785	
Sardegna	0,0318	-0,7423	-0,6914	0,6692	-0,3276	-1,0000	

continue

Statistical Classification of Economic Activities in the European Community (2008)						
Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities
-0,1646	0,6167	-1,0000	-0,1101	0,4486	0,2100	0,0465
-0,7598	-1,0000	-1,0000	0,0100	0,8342	0,1846	-0,1000
0,1409	0,3301	0,8018	0,3129	-1,0000	0,2133	-0,0518
0,0725	-1,0000	-1,0000	0,2739	0,2179	0,1023	-0,2987
0,4602	0,2815	-1,0000	-0,0567	-1,0000	-0,1854	-0,1685
-0,5876	-0,0464	0,4937	-0,1290	-1,0000	0,3627	-0,1795
-0,2960	-0,3317	0,0352	-0,0547	-1,0000	0,1185	0,1331
0,3094	-0,3019	-1,0000	0,0210	0,2561	0,1078	-0,1315
-0,3032	-0,5493	-1,0000	0,0540	-0,0727	-0,0891	-0,0490
-0,1192	-1,0000	-1,0000	-0,2318	-1,0000	-0,1931	0,0674
-0,5202	0,0522	-1,0000	-0,4337	-1,0000	-0,3525	-0,1304
-0,4400	-1,0000	0,1025	-0,0499	-1,0000	-0,1012	0,2189
-0,3909	-1,0000	-1,0000	-0,3883	-1,0000	-0,7250	-0,2006
-0,0143	-1,0000	-1,0000	-1,0000	-1,0000	-0,3193	-0,1799
-0,5555	-0,4201	-1,0000	-0,6959	-1,0000	-0,7251	0,1816
-0,4582	-1,0000	-1,0000	-0,7633	0,7689	-0,5678	0,0388
-1,0000	-1,0000	-1,0000	-1,0000	-1,0000	-0,1413	-0,4976
-0,6090	-1,0000	-1,0000	-0,9266	-1,0000	-1,0000	0,0264
-0,7785	-1,0000	-1,0000	-0,3371	0,9094	-0,4615	0,1510
-1,0000	-1,0000	-1,0000	-0,8447	-1,0000	-0,6733	-0,0656

Source: *Our data processing and specialization index calculation from Istat – RCFL archive micro data*

Number of extra-EU employable people (evaluation), mean 2016 (average value over 4 quarters)	Italian region									
	Piemonte	Valle d'Aosta	Lombardia	Trentino Alto Adige	Veneto	Friuli Venezia Giulia	Liguria	Emilia Romagna	Toscana	Umbria
Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008)										
B: Mining and quarrying	0	-	1	1	-	-	-	-	0	-
C: Manufacturing	161	2	611	22	297	83	18	365	122	28
D: Electricity, gas, steam and air conditioning supply	1	-	-	-	3	-	-	-	-	-
E: Water supply; sewerage, waste management and remediation activities	3	0	15	1	6	1	1	7	1	1
F: Construction	65	2	226	19	78	17	57	94	109	31
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	70	1	266	23	70	25	41	116	113	12
H: Transportation and storage	16	0	97	6	67	2	5	60	13	4
I: Accommodation and food service activities	151	7	534	67	221	39	70	163	169	35
J: Information and communication	14	-	25	-	9	1	1	4	1	-
K: Financial and insurance activities	-	-	10	-	-	1	0	-	-	-
M: Professional, scientific and technical activities	23	0	72	3	11	3	5	14	13	2
N: Administrative and support service activities	31	1	271	20	64	11	17	88	61	7
P: Education	13	-	34	3	6	4	3	11	13	3
Q: Human health and social work activities	26	1	93	5	18	11	10	38	14	2
R: Arts, entertainment and recreation	25	-	55	2	16	2	1	9	19	2
S: Other service activities	36	1	171	5	48	7	4	28	20	4
TOTAL	635	15	2.480	174	915	208	232	998	667	130

continue

Italian region										
Marche	Lazio	Abruzzo	Molise	Campania	Puglia	Basilicata	Calabria	Sicilia	Sardegna	ITALY
-	-	-	-	-	-	-	-	-	-	2
99	31	19	5	45	17	2	6	4	3	1.938
-	-	-	-	-	-	-	-	-	-	4
0	1	1	-	2	-	-	1	2	0	40
26	59	31	2	41	20	2	14	8	2	901
17	240	6	4	129	41	10	49	98	69	1.400
2	14	2	1	4	2	-	1	1	-	297
48	311	44	2	92	33	3	9	69	11	2.080
2	-	-	-	1	-	-	-	-	-	58
-	2	-	-	-	-	-	-	-	-	13
-	41	1	-	-	1	-	-	7	-	197
7	50	4	-	7	2	-	0	8	1	652
3	13	-	-	6	-	-	-	6	-	116
2	23	1	0	-	2	1	-	1	1	248
6	20	1	-	6	4	-	2	1	1	173
5	53	16	-	71	12	1	2	10	-	493
219	859	126	14	404	133	18	84	215	86	8.613

Source: Our data processing and vacancy evaluation from Istat – VELA archive data

Note: The survey on job vacancies and hours worked (VELA), measurement, job vacancies and hours worked and those paid in companies with employees in the private non-agricultural sector. The indicators on these variables are produced quarterly for the sections B to S (O excluded) of the Ateco 2007 classification.

The Logit model

The following table contains the estimates of the equation (1), of the above-mentioned Logit model.

Table X Logit Model estimates.

Method: ML - Binary Logit (Quadratic hill climbing)

Included observations: 319

Convergence achieved after 4 iterations

Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
α_1	-1.938729	0.278738	-6.955379	0.0000
β_1	0.920566	0.351561	2.618508	0.0088
β_2	2.400395	0.320208	7.496371	0.0000
β_3	0.503739	0.330433	1.524479	0.1274
McFadden R-squared	0.326218	Mean dependent var	0.554859	
S.D. dependent var	0.497762	S.E. of regression	0.384927	
Akaike info criterion	0.951011	Sum squared resid	46.67322	
Schwarz criterion	0.998224	Log likelihood	-147.6863	
Hannan-Quinn criter.	0.969866	Deviance	295.3726	
Restr. Deviance	438.3800	Restr. log likelihood	-219.1900	
LR statistic	143.0074	Avg. log likelihood	-0.462966	
Prob(LR statistic)	0.000000			
Obs with Dep=0	142	Total obs	319	
Obs with Dep=1	177			

Using a cutoff of 50%, in the follow table we report the percentage of success and failure of the estimates shown in the Table X.

Table x Expectation-Prediction Evaluation for Binary Specification

	Estimated Equation			Constant Probability		
	Dep=0	Dep=1	Total	Dep=0	Dep=1	Total
P(Dep=1)≤C	106	25	131	0	0	0
P(Dep=1)>C	36	152	188	142	177	319
Total	142	177	319	142	177	319
Correct	106	152	258	0	177	177
% Correct	74.65	85.88	80.88	0.00	100.00	55.49
% Incorrect	25.35	14.12	19.12	100.00	0.00	44.51
Total Gain*	74.65	-14.12	25.39			
Percent Gain**	74.65	NA	57.04			

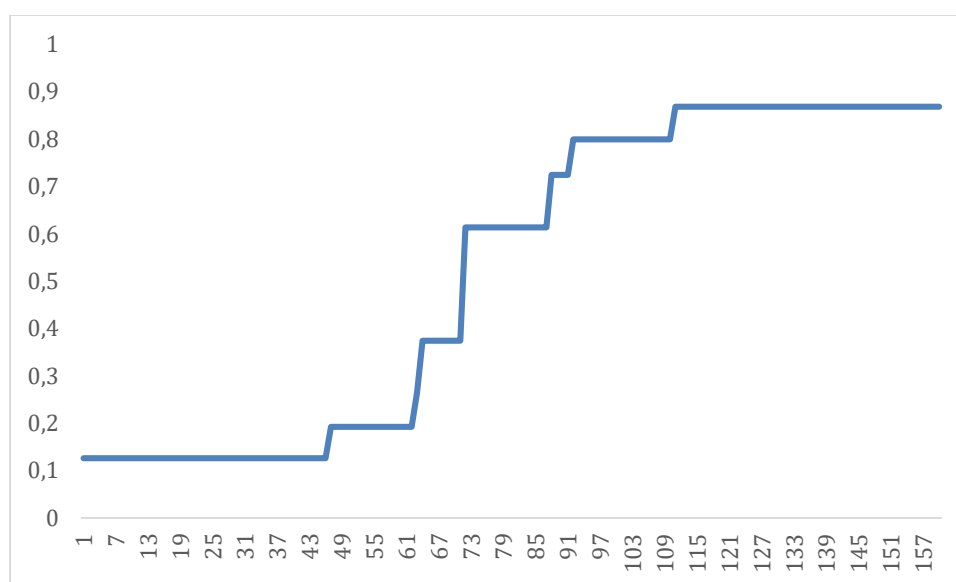
	Estimated Equation			Constant Probability		
	Dep=0	Dep=1	Total	Dep=0	Dep=1	Total
E(# of Dep=0)	95.36	46.64	142.00	63.21	78.79	142.00
E(# of Dep=1)	46.64	130.36	177.00	78.79	98.21	177.00
Total	142.00	177.00	319.00	142.00	177.00	319.00
Correct	95.36	130.36	225.71	63.21	98.21	161.42
% Correct	67.15	73.65	70.76	44.51	55.49	50.60
% Incorrect	32.85	26.35	29.24	55.49	44.51	49.40
Total Gain*	22.64	18.16	20.15			
Percent Gain**	40.80	40.80	40.80			

*Change in "% Correct" from default (constant probability) specification

**Percent of incorrect (default) prediction corrected by equation

Finally, in the follow graph we plot the estimated values of dependent variables.

Graph X Estimated values of model



In the Italian labor market the expectation to stay in the same workplace (retention) on the averages of sectors and regions depends on salaries two times and half more than the general satisfaction on job and 0,5 times more than workplace's environment conditions.

Specific estimates by sectors and regions (both for native born and immigrants) are being currently carried out and will be presented in phase 2 report.

Specialization index maps of Italian regions

Annex 2 contains data about:

- Immigrants' flows, which are needed to build up the bridge matrices displayed in the flow chart.
- Specialization indices and Italian labor market vacancies for firms with more than 10 employees. For vacancies we mean the sector/region where there is a mismatch between labor demand and supply ($D > S$)

The three most important sectors according to the immigrants' employment rate and vacancies level are: manufacturing, construction and accommodation and food service activities where the most paradoxical results appeared. Agriculture is excluded from this particular analysis because data are collected in separate registers and most of the times are affected by seasonality.

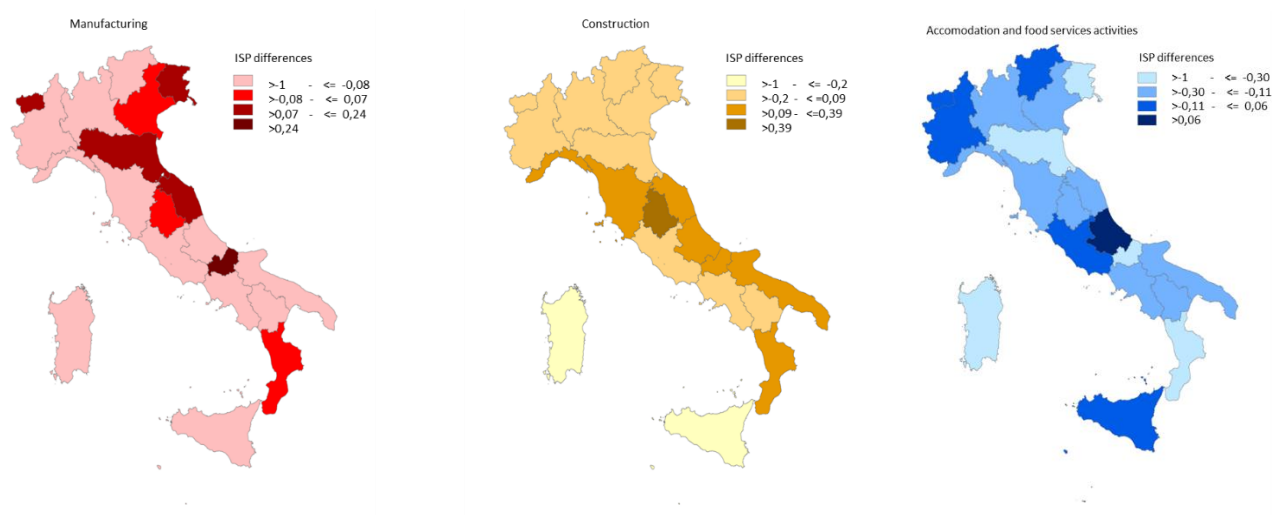
To simplify the data analysis we have plotted the difference between extra EU immigrants and regional sectorial vacancies specialization indices.

With respect to the construction sector, what emerges from the regional map is that, the allocation effort should be mainly focused on Sardinia and Sicily and to a lesser extent to both the Tyrrhenian coastline and some Italian Northern regions.

Concerning the accommodation and food service sector instead, attraction territories seem to be on one hand Trentino Alto Adige and Emilia Romagna for the Northern region, on the other hand Calabria and Sardinia for the Southern one.

Further systematic information will be developed during the second phase and pointed out in the final report.

Extra-EU immigrants ISP minus labor demand excess over supply



Overall framework on immigration and inclusion policies

As we all know, the large migratory flows towards the European Union are covering a central position in current debates within and between all Member States. Almost everyone is aware of the fact that this worrying phenomenon is not going to stop due to the entrenched nature of many factors driving people to move across the borders. Geopolitical and economic factors such as the increasing presence of civil wars and political instability in many developing countries, along with the total absence of social and economic growth opportunities are driving unprecedented migratory flows that will continue, and maybe intensify, over the coming years.

Despite ever-increasing efforts by the EU to deal with this alarming issue, deaths in the Mediterranean Sea occur on a daily basis. Sadly, this represents only a part of a current global challenge, which involves more than 60 million displaced people worldwide. Since the current massive migration phenomenon is firstly determined by long-term structural factors, within the European Union there is a growing awareness about the need to design a strategy accordingly.

The current Communitarian strategy is named “Partnership Framework”, an approach that seeks to bring order into migratory flows, through the cooperation and the development of strong partnerships between the Member States, EU institutions and key third countries. The social inclusion of migrants along with their economic integration, represent the most crucial objective that Member States are currently striving to achieve, trying to transform the migration challenge into an opportunity for both the Union and countries of origin. The strategy’s key goal is to pursue a coherent EU engagement, in which the Union and its Member States act in a coordinated manner, combining their respective instruments and tools to agree compacts with third countries in order to better manage migration. Development and neighborhood policy tools to reinforce local capacity building, including for border control, asylum, counter-smuggling and reintegration efforts, are the basic ideas behind the EU Partnership Framework.

Inside this general Partnership Framework, the Italian Prime Minister Matteo Renzi during April 2016 submitted an unofficial document to the EU Commission President Jean Claude Juncker to propose a primary draft and start discussing about how Italy could participate proactively to migration issues enforcing the inclusion as well as the integration of migrants in destination countries. The document is called “Migration Compact” and it’s aiming at reducing the migration flows along the Mediterranean route through the stipulation of new multilateral agreements with both countries of transit and origin. However, the most crucial point of the Italian strategy is to primarily strengthen those with African countries that should be financed with innovative financial instruments such as UE-Africa bonds. On the basis of the Migration Compact, the UE could offer to third Countries a wide range of services, such as: investments projects, UE-Africa bonds, cooperation of the security and safety front, legal migration opportunities, relocation scheme, borders monitoring and flows reduction, cooperation of repatriation – readmission, refugees’ flows management, national asylum system application, joint fight against smugglers.

Now, what really matters for the sake of our research is to go a bit deeper into the Italian reception policy, which aims at promoting national governance primarily oriented toward integration through the so called National Integration Plan.

The National Integration Plan constitutes a further stage in the governance of integration, in this specific case in relation to the inclusion of those who have already obtained the recognition of the asylum right or subsidiary protection. The strategy undertaken by the Plan concerns the commitment of both institutions and private subjects in several different areas, starting from two priority axes: on the one hand inter-religious and intercultural dialogue, on the other hand linguistic training and access to the education system.

The implementation of intercultural and interreligious dialogue envisages the creation of opportunities for meetings, exchange and mutual exchange in communities, as well as between communities and the external environment, in order to prevent and fight also the spread of racism. Communities of faith, which must necessarily be organized as open places, can thus represent the privileged locations for the implementation of integration policies.

The linguistic training for the youngest represents the second area of intervention, realized in access to the education system. Language is the first essential tool for an effective exchange with the host communities: without language learning, there can be no integration and no participation in the civil, working and social life of the community.

Alongside these two fundamental areas, the integration strategy defined by the Plan considers the social-labor insertion of the international protection holder as a priority, to the extent to which a job makes the person an active part of the community's economic and social system. Never as in this case, it is necessary that at the territorial level, positive synergies should be built between public actors and productive categories, in view of the conception and implementation of sustainable initiatives.

The Plan also stresses the need to make health care effectively available to all migrants and refugees, with particular reference to the needs of care for vulnerable groups. Similarly, it is essential that the institutional actors involved, who are in charge of managing asylum seekers, at the time of the status' recognition, definitively give the necessary support for the exit from the SPRAR system (the Protection System for Asylum Seekers and Refugees established in Italy in 2002), in order to achieve residential autonomy. The Plan also promotes the protection of the family unity right considering the reunification a crucial factor that definitively fosters integration.

The most recent data show 145 thousand migrants welcomed by our country, with flows that are not bound to stop. Italy already has a structured relocation plan, which on one side provides a regional distribution based on local inhabitants, while on the other, establishes that, the eight thousand municipalities of the peninsula will have to host, 2 and a half people per 1000 inhabitants. This data of course, has to be rebalanced and adapted to local realities. The calculation has been made on the basis of the average arrivals that have remained more or less stable over the years. An excellent solution, which would guarantee 180 thousand, places. Unfortunately, not all mayors are agreeing on this point that is why the Government is currently trying to build up an incentives scheme, which should be designed for municipalities that commit themselves in guaranteeing hospitality.

A good integration policy, must take into account the territories' specificities for which it was planned to obtain effective and real results. The economic as well as the social inclusion must have territorial roots to produce effective results.

Local governments, in fact, are no longer conceived exclusively as terminals of regional policies, but as real protagonists of their elaboration and implementation, especially according to welfare interventions. Local authorities are increasingly competing in their planning for immigration responsibility. Regions and Local Authorities are currently dealing with different key sectors such as healthcare, education and social care, to teach Italian, to enhance the culture of origin, to give

cultural mediation in services, to provide training courses, and to finally give access to housing and job placement. The reception phase represents a fundamental opportunity to receive the necessary support to undertake the inclusion in the Italian society. An essential strategic choice is to use the hosting period in the best possible way, providing immediately both applicants and asylum seekers with some supporting activities for integration.

Pending that the SPRAR system becomes the only second reception system, the reception centers will have to approve their services and activities (language training, work and service orientation) to those offered in the SPRAR system, where municipalities' should definitively participate more.

In addition, the temporary centers must be distributed on the basis of the recent Distribution Plan agreed with the ANCI (National Association of Italian Municipalities), which implies the local authorities involvement and the implementation of a widespread reception, allowing the second reception services to assume a complementary role with respect to the local welfare system, involving the most active territorial social actors and using a wider social support network.

The goal is to fully make the reception system more oriented towards integration, raising the level of services offered in the extraordinary reception system (CAS), undertaking immediately the integration process and strengthening existing initiatives through:

- Promoting the integration process since the first reception, in particular including language teaching and cultural orientation from the very beginning.
- The tenders' provision for the reception centers management through the employment of competent professional figures, who are able to work in multicultural contexts and social mediation, ensuring particular attention to situations of vulnerability, gender differences and households unity.

Even if during the last couple of years the mayor migration flow has been coming from Libya, the current trends show that migrants, who are now disembarking Italy, mostly come from Eritrea (25%), Tunisia (20%) and Nigeria (6%). The portion of Libyan migrants has decreased up to 5% due to some agreements undertaken by the Italian Ministry of the Intern with the local Libyan militia, aimed at blocking the Libyan flows. In Italy the mayor arrival ports are all concentrated in the South especially in the Sardinia, Sicilia, Puglia and Calabria regions.

Fortunately, their reception centers are currently assisted by the so-called Hotspots. These are structures settled up to quickly identify, record, photograph and collect migrants' fingerprints. They have been created a couple of years ago to support most exposed countries such as Italy and Greece, to new arrivals. Migrants are held in those hotspots, created in already existing and equipped centers until the conclusion of the whole identification process.

Hotspots are managed by national authorities and border police officers, together with technicians and experts from European Agencies such as Europol (the European Police Office), EASO (the European Agency for the right to asylum), Eurojust (for cooperation judicial cooperation between various national authorities against crime) and Frontex (the European Agency for the Management of International Cooperation at the External Borders of the Member States of the European Union). The collaboration between European and national authorities aims at monitoring the whole process



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understanding who has the right to stay or not. Moreover, it tries to ensure a fair relocation making first, a clean distinction between asylum seekers and the so-called "economic" migrants, who are fleeing poverty and not from war and violence.

4. Annex 1: The Italian reception system

- *Introduction*
- *Hotspots and First Reception Centres*
- *The Secondary Reception: SPRAR system*
- *The extraordinary reception: CASs*
- *Current Challenges*

Introduction

The Italian reception system operates on two levels: first reception, which includes the hotspots and the first reception centres and the second reception, identified in the SPRAR system (Protection System for Asylum Seekers and Refugees). In theory, if everything ran smoothly, the first reception should serve to guarantee first aid to migrants, to proceed with their identification and to start the procedures for the asylum application. They should be quick procedures to assign, thereafter, asylum seekers to SPRAR projects, the so called second reception, which is a program that manages to ensure a process of integration in the territories at 360 degrees, which goes far beyond food and housing. In reality however, the whole process doesn't work so smoothly. Reception system beneficiaries (asylum seekers, refugees and subsidiary and humanitarian protection holders) have increased dramatically since 2014, due to the increasing number of sea arrivals in Italy of people applying for asylum, thus entering the reception system. The SPRAR program to work well as it works and to ensure an effective reception as well as integration in the territory needs municipalities' adhesion, and many municipalities are not willing to do so. Therefore, we arrive at a situation in which, faced with too many applications and too few places, we need to find a rapid emergency solution, that is identified in the so-called CAS (Centres of Extraordinary Reception), an hybrid that formally falls into first reception that is often accessed directly from the disembarkation ports, but that practically gives a long-term reception as happens in the second reception.

Hotspots and First Reception Centres

The first reception is carried out in collective centres where the newly arrived migrants in Italy are identified and can either initiate or not, the asylum application procedures. Hotspots are centres where migrants are collected upon their arrival in Italy. Here they receive the first medical treatment, are subjected to health screening, are identified and they may ask for international protection (and in fact, the vast majority of migrants arriving by sea does so). Up to date, there are four major hotspots: Lampedusa, Pozzallo, Trapani and Taranto. After an initial evaluation, migrants applying for asylums are transferred (theoretically within 48 hours) to the first reception centres (also known as regional hubs), where are held for the time needed to identify a proper solution in the second reception.

In reality this linear chain hotspot - first reception - second reception is more on paper than on reality. Those who do not apply for asylum, even if very few, are conducted in the CIE. The CIEs (Centers of Identification and Expulsion) are centers where those who have received expulsion procedures are put, and subsequently must be repatriated. Migrants should be held for up to 90 days (which can be extended quite easily to 12 months). CIEs are currently transforming into CPRs (Centres for Permanence and Repatriation). The Italian CPRs should become twenty in total, one per Region, and should be smaller than CIEs. As far as we know, some regions such as Lombardy, Friuli Venetia Giulia, Piedmont, Emilia Romagna, Lazio, Campania, Puglia, Basilicata, Calabria, Sardinia and Sicily have already sent to the Ministry of the Interior a list of structures that should host the Centres of Permanence and Repatriation on their own territory.

The Secondary Reception: SPRAR system

Once transitioned from hotspots and first reception centres, asylum seekers are assigned to the second reception, becoming part of the SPRAR program (Protection System for Asylum Seekers and Refugees) at least in theory. Since, as we have already seen, being the SPRAR programme of small dimensions, and also hosting refugees and subsidiary and humanitarian protection holders, asylum seekers arriving in Italy are actually diverted to CAS. Law 189 of 2002 established the SPRAR, although in reality a decentralized reception network involving municipalities and third sector organizations in the experimentation of reception experiences had already been active since 1999. It is therefore a bottom-up practice, which was then institutionalized becoming a national system. The Ministry of the Interior in collaboration with ANCI, the National Association of Italian Municipalities, coordinate the system. Local authorities that choose to join the SPRAR can apply to access ministerial funds at any time. If the Ministry positively assesses the application, the local authority receives a three-year loan for the activation of the SPRAR project in its territory. At that point, the body in turn publishes a call for a tendering procedure to assign the resources obtained to a managing body, which must be a non-profit organization (cooperatives or associations). The proposal considered to be the best one, obtains the contract for the management of the SPRAR project, with the municipality, which still remains the reference body. Projects must implement the basic principle of the SPRAR system: integrated reception, which implies the establishment of a local network (with third sector organizations, volunteering, but also other actors) to ensure a 360 degree integration in the local community, to be realized through activities of social and scholastic, work and cultural inclusion as well. Institutions must identify housing for applicants, refugees and subsidiary or humanitarian protection holders, which may be whether apartments or small (15 people), medium (up to 30 people) and large (more than 30 people) collective centres. In the SPRAR system housing, refugees and subsidiary or humanitarian protection holders can be hosted, and can remain there for six months, extendable for another six months, during which they are supported in finding an independent accommodation. Asylum seekers, on the other hand, stay as long as they receive a positive or negative answer about their asylum application. If they receive the denial of international protection, they must leave the SPRAR system. In addition to housing, the managing bodies provide a series of basic goods and services: cleaning and environmental hygiene (also performed by self-managed guests); meals (breakfast and two main meals, better if managed independently by the guests); kitchen equipment; clothing and products for personal hygiene; a telephone card and / or a recharge coupon; the subscription to urban or extra-urban public transport based on the characteristics of the territory.

Then there are a whole series of other services for social inclusion that managing bodies are required to guarantee, and which make the difference for the real reception goal. These are services that allow the refugee and the asylum seeker to enter the legal, health, educational and social system; to learn the language with which to communicate with Italians; to have some work opportunities; to include minors at school together with all other minors in the area; to do sport, or culture. This programme allows local population to know these people, sharing festive occasions, daily life, maybe even conflict, but always mediated by project operators. Personnel and employees

are usually the most important expense in SPRAR projects. The remaining portion goes to the activation of integration services (job grants, enrolment in courses or sports or cultural activities), any structure maintenance intervention, and finally to the pocket money, which directly goes into beneficiaries' hands, who can spend it as they wish. This is a contribution that ranges from 1.5 to 3 euros per day, which accounts for less than 10% of the cost of the projects.

The extraordinary reception: CASs

Since few municipalities are currently adhering to the SPRAR, the overall system is insufficient to respond to the reception needs of hundreds of thousands of asylum seekers arriving in Italy. For this reason the CAS (Extraordinary Reception Centres) were introduced, conceived as temporary structures to be opened in case of "substantial and close arrivals of applicants" (Legislative Decree 142/2015, article 11) and which can't be accepted through the ordinary system. Given that, since 2014 close and consistent arrivals have been the rule, the CAS has consequently become the rule. These are not necessarily centres (you can also use apartments, as in the SPRAR) and their reception is anything but extraordinary: it is nowadays the ordinary way in which migrants are inserted (78% of attendance, as we'll see). Unlike the SPRAR projects, managed by non-profit organizations entrusted by the municipalities, the CAS can be managed by both profit and non-profit organizations on direct assignment of the prefectures. Each territorial prefecture then publishes periodic calls for tenders for the management of CAS modality places. CAS can be managed in either collective or diffused reception. The collective reception includes hundreds of people facilities that are the ones who give more often problems both for migrants and for the territories where they are located: hotels, bed & breakfasts, farmhouses and colonial houses. Widespread reception, instead, takes place in apartments and, although with less quality guarantees than the SPRAR apartments, turns out to have a more sustainable impact on the territory in which it is implemented. As the SPRAR system, CASs are also financed by the National Fund for Asylum Policies and Services and are, as mentioned, awarded through calls for tenders based on a daily fee for each user. The indicative line recognized to the managing bodies is 35 euros per person accepted per day, but each prefecture can change the starting auction base, raising or lowering the straight line. Also here, around 1.5 - 3 euros per day are allocated for asylum seekers pocket money. Despite having in practice a function practically identical to the SPRAR, the CASs are conceived and managed in a very different way, as if they were temporary structures where to park beneficiaries waiting for entering the SPRAR. Actually they are not temporary at all, because beneficiaries often remain in the CAS for the whole duration of their asylum practice. This misalignment between theory and practice leads to problematic situations. Places are assigned to respond to emergencies, and since the prefecture needs structures in a short time, it is forced to accept even non-optimal solutions. Moreover, since there is a lack of definite and agreed guidelines as it happens in the SPRAR projects, the reception quality is much more uneven and left, in the final analysis, to the responsibility of the managing bodies. There are managing bodies that carry out their work very seriously, guaranteeing all services as if they were under SPRAR even at the cost of investing their own resources, but there are others instead, who sadly take advantage of the situation to provide less

services, hire less operators and to reduce costs to get a profit margin on those 35 euros per day. Another problem is that the CAS fails the trust agreement between the Ministry and the territories, because the allocation is managed directly by the Ministry, through the Prefectures, without neither being coordinated with the ANCI nor without informing municipalities that some groups of asylum seekers will be distributed on its territory. It must be said that this modality, which arouses protests from both municipalities and citizens, also stems from the reluctance of many municipalities to join the SPRAR network, a situation that has in fact forced the Ministry to operate coercively without making agreements with bodies that probably would have hampered the opening of CASs on their territory.

Current Challenges

The situation of the reception system in Italy is extremely fluid. New laws redraw the processes, dismantle acronyms, identify new actors. Regarding the first reception, we will move in two directions. On the one hand, the network of first reception centers will be strengthened, identifying more and more regional hubs, possibly smaller and smaller, to mitigate their impact on individual territories as much as possible. On the other hand, the transformation of CIEs into CPR will occur, with the identification of a structure by region where to keep migrants subject to expulsion provisions. As for the second reception, the slogan is "more SPRAR, less CAS", but its application is anything but simple. The aim is to make the SPRAR network more and more likely to increase the number of places available in the program's facilities, possibly at ever faster rates. If we look at the numbers, SPRAR program beneficiaries have been continuously increasing since its establishment until today, but the rates are still too slow compared to asylum seekers demand. To further increase the number of member municipalities, and therefore available places, the government's strategy is to improve accession's incentives. In particular, much focus is placed on the introduction of the safeguard clause, which will allow the municipalities participating in the SPRAR to see the presence of migrants in the reception facilities on the territory at about 3 per 1000 inhabitants, exposing other municipalities to the risk of being imposed numbers well superior through the CAS channel. We will see if this strategy will prove successful. The work of the ANCI (National Association of Italian Municipalities, promoter of the SPRAR together with the Ministry of the Interior) in this sense is very intense, and aims at explaining to Mayors the advantages of joining the program. Mayors are thus beginning to understand that, beyond the political line of belonging, the activation of SPRAR projects is convenient for everyone, because a welcome done well is certainly beneficial for the territory. On the other hand there are, and there will still be many municipalities that, for political reasons, refuse regardless of joining the SPRAR but then raise the local population against the government when the prefecture requires the opening of a CAS on its territory. The dream of transforming all CAS into SPRAR is therefore certainly worth pursuing, but it seems far from realizing, despite this manoeuvre would make everyone gain: Italians, migrants, municipalities, the State.

Table 1: Regional allocation of migrants according to reception centers in April 2017

Region	Hotspot	First reception centres	SPRAR	CAS	Total	% distribution
Lombardia			1535	21856	23.391	13
Lazio		849	4231	9912	14.992	9
Veneto		2795	535	10439	13.769	9
Piemonte			1270	12866	14.136	9
Campania			1325	13061	14.386	9
Sicilia	206	4564	4374	4623	13.767	9
Toscana			858	11621	12.479	7
Emilia Romagna		654	1208	10537	12.399	7
Puglia	156	3292	2362	6280	12.090	7
Calabria		1102	2537	3624	7.263	4
Liguria			506	5282	5.788	3
Sardegna			201	5323	5.524	3
Friuli V.G.		1222	355	3463	5.040	3
Marche			739	3884	4.623	3
Abruzzo			259	3479	3.738	2
Molise			517	2896	3.413	2
Umbria			408	2796	3.204	2
Basilicata			454	2072	2.526	1
P.A Bolzano			0	1359	1.359	1
P.A Trento			148	1299	1.447	1
Valle d'Aosta			0	306	306	0.2
Total	362	14.388	23.822	136.978	175.550	100

Source: *Parliamentary Committee of Inquiry on reception system, Chamber of Deputies*

5. Annex 2: Flow tables and specialization indices

Glossary

Resident foreign national: Person with foreign or stateless citizenship formally registered in the registry office.

Non-EU citizens legally residing: They are all non-EU foreigners in possession of a valid residence permit (either an expiring permit or long-term card) and members registered on the permit of a family member.

Entry of non-EU citizens: All entries are recorded (new releases) during the year, regardless of whether the permit is still valid or expired at the end of the year. Entries are recorded not people. A person who has obtained two different permits in the same year is counted twice.

Registered on a family member permit: Some people stay regularly in our country because they are registered on the permit of a family member.

Reason to apply for the residence permit. The reasons for the permit issuance are aggregated in the following ways:

- **Work:** The foreign citizen who comes to Italy for working purposes and/or for all motivations, which may concern occupation, for instance, people who are temporarily unemployed and who are either waiting or looking for a job.
- **Family:** Can be issued to the family member of a legally resident foreigner. Permits granted for adoption or custody should also be considered in this mode.
- **Study:** A visa for study purposes can be requested from the Italian Embassy in the residence country of the foreigner. Its validity is equal to the course duration and is renewed from year to year.
- **Asylum:** Are permits issued to refugees, namely to those who have received the recognition to enjoy political asylum from our country - Asylum application: These are permits issued to those applying for political asylum who are waiting a final response on their application.
- **Humanitarian grounds:** all forms of protection different from the political asylum, which Italy recognizes to third-country nationals.
- **Other reasons:** they could be religion, elective residence, health and "other".
- **Subsidiary protection:** it is granted to a foreign citizen who does not possess the requisites to be recognized as a refugee, but it is believed that if he came back to the country of origin, he would run a real risk of suffering a serious harm.

Number of extra-EU employees by region and economic activities, 2016 annual average

Number of extra-EU employees, 2016 annual average		Statistical Classification of Economic Activities in the European Community (2008)												
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities	TOTAL
Italian region	Piemonte	4.086	24.046	10.036	9.704	13.096	3.879	1.298	-	7.584	140	5.728	34.519	114.116
	Valle d'Aosta	89	368	246	151	614	15	-	-	195	13	115	531	2.337
	Lombardia	8.013	91.514	34.764	36.623	46.460	24.366	2.239	1.842	53.954	-	19.690	110.501	429.965
	Trentino Alto Adige	576	3.466	2.897	3.106	5.814	1.389	-	-	3.675	21	1.079	3.916	25.940
	Veneto	6.007	44.610	11.936	9.661	19.240	16.812	858	-	11.511	-	3.764	31.729	156.128
	Friuli Venezia Giulia	619	11.975	2.648	3.469	3.394	415	103	144	2.149	-	2.409	6.590	33.913
	Liguria	390	2.668	8.735	5.621	6.129	1.215	80	76	3.492	-	2.035	17.085	47.527
	Emilia Romagna	10.164	53.944	14.386	16.021	14.211	15.105	357	-	16.099	154	7.795	41.581	189.818
	Toscana	9.628	17.661	16.745	15.577	14.682	3.187	126	-	11.173	56	3.566	31.369	123.770
	Umbria	2.197	4.142	4.711	1.677	3.009	1.009	-	-	1.411	-	636	8.717	27.509
	Marche	2.076	14.276	4.037	2.365	4.204	560	138	-	1.230	-	619	8.065	37.571
	Lazio	13.200	4.635	9.049	33.161	27.084	3.611	-	332	13.893	-	5.271	75.551	185.786
	Abruzzo	3.392	2.916	4.813	896	3.823	431	-	-	764	-	116	3.909	21.060
	Molise	514	674	334	533	211	137	-	-	-	-	54	588	3.045
	Campania	6.409	6.940	6.356	17.738	8.016	1.094	111	-	1.215	-	450	31.172	79.500
	Puglia	8.784	2.427	3.021	5.603	2.862	602	-	-	385	120	328	10.313	34.446
	Basilicata	1.106	240	293	1.411	270	-	-	-	-	-	97	351	3.768
	Calabria	3.722	1.034	2.187	6.722	814	238	-	-	66	-	-	6.109	20.891
	Sicilia	5.235	966	1.222	13.550	5.990	285	-	-	1.977	329	614	17.894	48.063
Sardegna	942	438	259	9.499	934	-	-	-	113	-	109	3.960	16.253	
	ITALY	87.151	288.941	138.672	193.085	180.858	74.350	5.310	2.394	130.886	833	54.475	444.450	1.601.406

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of extra-EU employees by region and economic activities (2016 annual average)

Specialization index of extra-EU employees (2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)											
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities
Italian region	Piemonte	-0,2187	0,0839	0,0083	-0,1836	0,0086	-0,1646	0,6167	-1,0000	-0,1101	0,4486	0,2100	0,0465
	Valle d'Aosta	-0,1758	-0,0675	0,0969	-0,3038	0,3995	-0,7598	-1,0000	-1,0000	0,0100	0,8342	0,1846	-0,1000
	Lombardia	-0,5676	0,1162	-0,0463	-0,2212	-0,0300	0,1409	0,3301	0,8018	0,3129	-1,0000	0,2133	-0,0518
	Trentino Alto Adige	-0,4243	-0,1511	0,1289	-0,0036	0,3371	0,0725	-1,0000	-1,0000	0,2739	0,2179	0,1023	-0,2987
	Veneto	-0,1867	0,2565	-0,0685	-0,3445	0,0485	0,4602	0,2815	-1,0000	-0,0567	-1,0000	-0,1854	-0,1685
	Friuli Venezia Giulia	-0,5032	0,3330	-0,0527	-0,0837	-0,0616	-0,5876	-0,0464	0,4937	-0,1290	-1,0000	0,3627	-0,1795
	Liguria	-0,7435	-0,5330	0,3746	-0,0099	0,0684	-0,2960	-0,3317	0,0352	-0,0547	-1,0000	0,1185	0,1331
	Emilia Romagna	-0,0092	0,2612	-0,0748	-0,1955	-0,2239	0,3094	-0,3019	-1,0000	0,0210	0,2561	0,1078	-0,1315
	Toscana	0,1944	-0,1254	0,2423	0,0233	0,0267	-0,3032	-0,5493	-1,0000	0,0540	-0,0727	-0,0891	-0,0490
	Umbria	0,1934	-0,0917	0,3360	-0,3323	-0,0163	-0,1192	-1,0000	-1,0000	-0,2318	-1,0000	-0,1931	0,0674
	Marche	0,0079	0,3678	0,1103	-0,3191	-0,0047	-0,5202	0,0522	-1,0000	-0,4337	-1,0000	-0,3525	-0,1304
	Lazio	0,1526	-0,7790	-0,3056	0,2248	0,1460	-0,4400	-1,0000	0,1025	-0,0499	-1,0000	-0,1012	0,2189
	Abruzzo	0,5049	-0,1331	0,4592	-0,4818	0,2368	-0,3909	-1,0000	-1,0000	-0,3883	-1,0000	-0,7250	-0,2006
	Molise	0,5138	0,1017	0,1185	0,1848	-0,2389	-0,0143	-1,0000	-1,0000	-1,0000	-1,0000	-0,3193	-0,1799
	Campania	0,2062	-0,3595	-0,0419	0,3189	-0,0594	-0,5555	-0,4201	-1,0000	-0,6959	-1,0000	-0,7251	0,1816
	Puglia	0,6721	-0,4437	0,0064	0,1524	-0,1551	-0,4582	-1,0000	-1,0000	-0,7633	0,7689	-0,5678	0,0388
	Basilicata	0,6899	-0,4781	-0,0544	0,5146	-0,2234	-1,0000	-1,0000	-1,0000	-1,0000	-1,0000	-0,1413	-0,4976
	Calabria	0,5429	-0,5726	0,0959	0,4636	-0,4905	-0,6090	-1,0000	-1,0000	-0,9266	-1,0000	-1,0000	0,0264
Sicilia	0,3476	-0,8044	-0,5536	0,4185	0,0508	-0,7785	-1,0000	-1,0000	-0,3371	0,9094	-0,4615	0,1510	
Sardegna	0,0318	-0,7423	-0,6914	0,6692	-0,3276	-1,0000	-1,0000	-1,0000	-0,8447	-1,0000	-0,6733	-0,0656	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Specialization index > 0,4 (extra-EU employees by region and economic activities, 2016 annual average)

Specialization index > 0,4 (extra-EU employees, 2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)											
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities
Italian region	Piemonte							0,6167			0,4486		
	Valle d'Aosta										0,8342		
	Lombardia								0,8018				
	Trentino Alto Adige												
	Veneto						0,4602						
	Friuli Venezia Giulia								0,4937				
	Liguria												
	Emilia Romagna												
	Toscana												
	Umbria												
	Marche												
	Lazio												
	Abruzzo	0,5049		0,4592									
	Molise	0,5138											
	Campania												
	Puglia	0,6721									0,7689		
	Basilicata	0,6899				0,5146							
	Calabria	0,5429				0,4636							
Sicilia					0,4185					0,9094			
Sardegna					0,6692								

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of EU(27) employees by region and economic activities, 2016 annual average

Number of EU(27) employees, 2016 annual average		Statistical Classification of Economic Activities in the European Community (2008)											TOTAL	
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities		Other service activities
Italian region	Piemonte	3.425	18.112	9.953	4.351	5.736	5.178	655	-	4.850	-	8.723	28.624	89.607
	Valle d'Aosta	51	96	215	204	445	13	21	11	82	20	143	550	1.849
	Lombardia	1.878	24.536	14.079	5.744	6.011	11.210	1.609	388	17.679	58	14.678	21.896	119.766
	Trentino Alto Adige	611	2.995	1.277	2.027	4.377	593	216	100	1.668	71	1.535	2.296	17.765
	Veneto	8.043	30.252	7.665	3.682	4.913	4.900	937	-	6.019	-	2.713	16.968	86.092
	Friuli Venezia Giulia	1.411	6.655	1.882	538	1.463	474	230	99	480	-	2.009	3.966	19.208
	Liguria	415	1.716	2.609	681	970	1.226	351	-	725	-	1.798	4.857	15.348
	Emilia Romagna	3.398	14.376	5.117	2.932	7.352	5.650	-	277	6.131	178	7.182	15.809	68.403
	Toscana	6.006	6.817	8.172	3.937	5.380	1.771	189	276	4.465	-	5.087	22.672	64.773
	Umbria	1.516	2.465	1.556	508	2.266	224	-	-	678	-	1.068	6.686	16.968
	Marche	474	3.743	2.239	815	597	1.795	-	-	2.207	-	1.027	7.321	20.219
	Lazio	5.736	9.886	28.253	10.448	10.784	5.231	685	452	12.932	77	7.009	57.995	149.488
	Abruzzo	2.229	3.051	5.508	460	1.269	-	-	-	1.390	-	787	4.483	19.177
	Molise	71	205	564	68	365	-	-	71	185	-	50	974	2.553
	Campania	4.591	3.076	5.356	1.809	3.399	-	-	-	773	-	478	9.755	29.236
	Puglia	7.133	1.045	779	1.278	2.108	-	-	-	-	-	271	9.458	22.071
	Basilicata	1.493	388	489	487	466	-	139	-	168	-	30	1.521	5.181
	Calabria	6.577	512	1.666	236	874	-	-	-	317	-	222	3.832	14.235
	Sicilia	4.718	1.406	2.896	918	3.355	135	241	-	1.400	-	1.044	11.266	27.378
Sardegna	-	517	962	90	1.573	35	59	-	539	-	565	5.854	10.194	
ITALY	59.773	131.848	101.236	41.213	63.703	38.437	5.332	1.675	62.688	404	56.419	236.783	799.511	

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of EU(27) employees by region and economic activities (2016 annual average)

Specialization index of EU(27) employees (2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)											
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities
Italian region	Piemonte	-0,3499	0,1157	-0,0730	-0,0335	-0,1211	0,1045	0,0517	-1,0000	-0,2016	-1,0000	0,1833	0,0428
	Valle d'Aosta	-0,4628	-0,5216	-0,0420	0,3635	0,5039	-0,7457	0,2500	0,4790	-0,2805	0,9146	0,0469	0,0017
	Lombardia	-0,6891	0,1296	-0,0434	-0,0421	-0,2568	0,4006	0,4208	0,2626	0,3807	-0,0300	0,3324	-0,2672
	Trentino Alto Adige	-0,3750	0,0113	-0,2804	0,3896	0,5290	-0,1838	0,2992	0,4717	0,0920	0,8081	0,1035	-0,3977
	Veneto	0,1260	0,4232	-0,1913	-0,1032	-0,1817	0,0954	0,2773	-1,0000	-0,0637	-1,0000	-0,4099	-0,2197
	Friuli Venezia Giulia	-0,0091	0,3670	-0,1302	-0,3010	-0,0230	-0,3266	0,2936	0,4378	-0,5225	-1,0000	0,2001	-0,1820
	Liguria	-0,4735	-0,1950	0,1495	-0,0764	-0,1173	0,2547	0,5654	-1,0000	-0,2515	-1,0000	0,2542	0,0338
	Emilia Romagna	-0,2164	0,1335	-0,2747	-0,0998	0,1648	0,2963	-1,0000	0,3595	0,0735	0,7877	0,2185	-0,1334
	Toscana	0,1178	-0,2357	-0,0020	0,0902	0,0227	-0,2920	-0,4110	0,3825	-0,0695	-1,0000	0,0584	0,0914
	Umbria	0,0910	-0,0646	-0,1628	-0,2696	0,2596	-0,5740	-1,0000	-1,0000	-0,3299	-1,0000	-0,0581	0,1453
	Marche	-0,5293	0,0594	-0,0686	-0,1249	-0,4654	0,3075	-1,0000	-1,0000	0,1689	-1,0000	-0,1664	0,1031
	Lazio	-0,3684	-0,4788	0,2546	0,1925	-0,0604	-0,1869	-0,2184	0,2327	0,0611	0,0142	-0,2370	0,1703
	Abruzzo	0,2236	-0,0184	0,4015	-0,3701	-0,0945	-1,0000	-1,0000	-1,0000	-0,0402	-1,0000	-0,2695	-0,1203
	Molise	-0,4611	-0,3453	0,2722	-0,3184	0,2848	-1,0000	-1,0000	0,8657	-0,0394	-1,0000	-0,5648	0,1266
	Campania	0,3734	-0,2275	0,1909	0,0947	0,1951	-1,0000	-1,0000	-1,0000	-0,5050	-1,0000	-0,6323	0,0619
	Puglia	0,6536	-0,5607	-0,5709	0,0596	0,0931	-1,0000	-1,0000	-1,0000	-1,0000	-1,0000	-0,7093	0,1888
	Basilicata	0,5941	-0,3773	-0,1464	0,2938	0,0614	-1,0000	0,6080	-1,0000	-0,4176	-1,0000	-0,8489	-0,0043
	Calabria	0,7442	-0,6459	-0,0402	-0,5180	-0,1318	-1,0000	-1,0000	-1,0000	-0,5618	-1,0000	-0,6424	-0,0485
	Sicilia	0,4146	-0,5338	-0,0926	-0,2176	0,2212	-0,8194	0,1441	-1,0000	-0,2165	-1,0000	-0,3059	0,1697
Sardegna	-1,0000	-0,5331	-0,1475	-0,7091	0,3244	-0,8674	-0,0741	-1,0000	-0,1966	-1,0000	-0,1218	0,3250	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Specialization index > 0,4 (EU(27) employees by region and economic activities, 2016 annual average)

Specialization index > 0,4 (EU(27) employees, 2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)											
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities
Italian region	Piemonte												
	Valle d'Aosta					0,5039			0,4790		0,9146		
	Lombardia						0,4006	0,4208					
	Trentino Alto Adige					0,5290			0,4717		0,8081		
	Veneto		0,4232										
	Friuli Venezia Giulia								0,4378				
	Liguria							0,5654					
	Emilia Romagna										0,7877		
	Toscana												
	Umbria												
	Marche												
	Lazio												
	Abruzzo				0,4015								
	Molise								0,8657				
	Campania												
	Puglia	0,6536											
	Basilicata	0,5941							0,6080				
	Calabria	0,7442											
Sicilia	0,4146												
Sardegna													

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of Italian employees by region and economic activities, 2016 annual average

Number of Italian employees, 2016 annual average		Statistical Classification of Economic Activities in the European Community (2008)												TOTAL
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities	
Italian region	Piemonte	54.405	417.523	83.232	236.404	72.495	64.525	46.886	52.490	186.786	68.188	235.442	88.742	1.607.117
	Valle d'Aosta	1.673	5.933	4.462	5.930	5.003	2.471	783	1.115	5.008	5.368	9.410	3.082	50.237
	Lombardia	54.070	1.017.732	210.962	525.528	168.581	167.032	137.575	170.383	482.973	116.815	563.877	162.439	3.777.967
	Trentino Alto Adige	22.822	69.614	32.173	62.624	36.456	17.574	8.865	14.105	40.716	26.691	88.204	17.822	437.667
	Veneto	58.577	503.187	107.388	257.607	102.810	80.032	37.106	58.818	196.645	69.383	266.897	100.536	1.838.985
	Friuli Venezia Giulia	13.213	106.016	21.533	55.756	25.145	24.004	9.955	16.964	47.724	35.285	68.013	21.913	445.520
	Liguria	9.397	65.552	39.127	92.217	38.452	39.046	17.986	18.036	67.376	39.917	85.904	33.666	546.676
	Emilia Romagna	62.849	449.518	80.861	241.012	91.213	69.964	50.492	59.364	184.732	68.802	263.036	87.077	1.708.920
	Toscana	38.418	299.028	75.056	214.977	99.319	63.094	26.063	48.830	153.608	81.392	193.956	83.625	1.377.365
	Umbria	8.963	66.195	17.853	49.397	17.371	13.573	5.319	6.775	37.036	20.158	52.674	14.438	309.750
	Marche	12.442	164.808	27.394	81.352	28.152	20.188	11.608	14.229	58.976	28.011	83.939	30.893	561.991
	Lazio	29.285	188.906	92.775	265.622	126.547	121.584	118.141	78.488	303.190	228.311	319.607	128.218	2.000.673
	Abruzzo	21.594	107.668	31.256	65.451	24.727	22.288	7.111	6.611	45.110	24.204	67.587	21.494	445.101
	Molise	5.845	19.563	6.852	16.195	4.995	4.503	1.309	1.720	9.251	9.284	16.540	4.194	100.250
	Campania	57.067	219.614	94.384	252.450	93.798	100.706	24.531	32.805	177.387	117.502	267.662	89.753	1.527.658
	Puglia	90.049	176.900	75.921	186.943	76.058	45.446	13.054	20.166	128.953	81.960	186.538	55.932	1.137.920
	Basilicata	14.010	35.533	14.208	24.629	8.344	6.589	2.789	2.900	20.855	12.428	33.557	7.711	183.553
Calabria	53.234	38.034	32.180	82.747	22.374	26.157	7.265	4.327	57.202	46.499	96.272	21.659	487.950	
Sicilia	92.187	120.293	80.242	216.199	73.407	62.001	16.394	26.560	131.783	126.824	259.522	70.557	1.275.969	
Sardegna	36.975	48.781	35.960	74.190	35.128	21.311	8.149	10.012	62.226	53.925	104.629	44.364	535.650	
	ITALY	737.076	4.120.398	1.163.819	3.007.229	1.150.373	972.087	551.381	644.697	2.397.536	1.260.946	3.263.265	1.088.113	20.356.921

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of Italian employees by region and economic activities (2016 annual average)

Specialization index of Italian employees (2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)											
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities
Italian region	Piemonte	-0,0364	0,1363	-0,0534	-0,0023	-0,1207	-0,0932	0,0404	0,0168	-0,0072	-0,1998	-0,0487	0,0177
	Valle d'Aosta	-0,0418	-0,2635	0,2174	-0,1120	0,2768	0,0148	-0,2698	-0,1765	-0,0834	0,2669	0,0779	0,0689
	Lombardia	-0,4843	0,1801	-0,0144	-0,0367	-0,1406	-0,0469	0,1866	0,2237	0,0508	-0,3812	-0,0435	-0,1299
	Trentino Alto Adige	0,1851	-0,1222	0,1281	-0,0163	0,1966	-0,0882	-0,1470	0,0089	-0,1197	-0,0080	0,1167	-0,1378
	Veneto	-0,0699	0,1669	0,0117	-0,0291	-0,0059	-0,0507	-0,1584	0,0054	-0,0528	-0,2608	-0,0543	0,0124
	Friuli Venezia Giulia	-0,1015	0,0827	-0,0855	-0,0844	-0,0006	0,0617	-0,0978	0,0941	-0,0484	0,1254	-0,0250	-0,0425
	Liguria	-0,3624	-0,2612	0,1153	0,0682	0,1124	0,2052	0,0999	0,0210	0,0233	0,0845	-0,0102	0,0728
	Emilia Romagna	0,0085	0,1439	-0,1021	-0,0252	-0,0311	-0,0833	0,0476	0,0507	-0,0466	-0,2272	-0,0221	-0,0261
	Toscana	-0,1378	0,0377	-0,0257	0,0295	0,1312	-0,0223	-0,1879	0,0607	-0,0292	-0,0252	-0,0691	0,0685
	Umbria	-0,1131	0,0276	0,0041	0,0389	-0,0039	-0,0436	-0,2267	-0,1853	0,0077	0,0251	0,0300	-0,0694
	Marche	-0,2463	0,1895	-0,0816	-0,0104	-0,0618	-0,1448	-0,1380	-0,1143	-0,0592	-0,1110	-0,0363	0,0144
	Lazio	-0,4497	0,3881	-0,1144	-0,0588	0,0628	0,1348	0,4289	0,1197	0,1410	0,3396	-0,0019	0,1013
	Abruzzo	0,1490	0,0910	0,1050	-0,0024	-0,0087	0,0243	-0,2622	-0,3666	-0,0765	-0,0664	-0,0277	-0,0518
	Molise	0,2352	-0,0184	0,0895	0,0449	-0,0632	-0,0308	-0,3506	-0,2983	-0,1219	0,1996	0,0145	-0,1224
	Campania	0,0169	-0,1807	0,0421	0,0608	0,0450	0,1751	-0,2707	-0,2042	-0,0077	0,1176	0,0482	0,0513
	Puglia	0,4031	-0,1379	0,0820	0,0564	0,0891	-0,0939	-0,4189	-0,2942	-0,0204	0,0801	0,0119	-0,0443
	Basilicata	0,3609	-0,0225	0,1519	-0,0485	-0,1093	-0,1429	-0,2830	-0,3364	-0,0181	0,0449	0,0663	-0,1208
	Calabria	0,5204	-0,4499	0,0732	0,0707	-0,1064	0,0592	-0,2956	-0,5684	-0,0024	0,2185	0,1063	-0,0947
Sicilia	0,3626	-0,3796	0,0510	0,0734	0,0096	0,0093	-0,3715	-0,2176	-0,0696	0,2516	0,1274	0,0181	
Sardegna	0,3230	-0,3857	0,0825	-0,0331	0,0764	-0,0932	-0,2861	-0,2628	-0,0070	0,2462	0,1014	0,2226	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Specialization index > 0,4 (Italian employees by region and economic activities, 2016 annual average)

Specialization index > 0,4 (Italian employees, 2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)												
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities	
Italian region	Piemonte													
	Valle d'Aosta													
	Lombardia													
	Trentino Alto Adige													
	Veneto													
	Friuli Venezia Giulia													
	Liguria													
	Emilia Romagna													
	Toscana													
	Umbria													
	Marche													
	Lazio								0,4289					
	Abruzzo													
	Molise													
	Campania													
	Puglia	0,4031												
	Basilicata													
Calabria	0,5204													
Sicilia														
Sardegna														

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of total employees in Italy by region and economic activities, 2016 annual average

Number of total employees in Italy, 2016 annual average		Statistical Classification of Economic Activities in the European Community (2008)												
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities	TOTAL
Italian region	Piemonte	61.916	459.681	103.221	250.459	91.327	73.582	48.839	52.490	199.221	68.327	249.892	151.884	1.810.841
	Valle d'Aosta	1.813	6.397	4.923	6.284	6.061	2.499	804	1.126	5.284	5.402	9.669	4.162	54.423
	Lombardia	63.961	1.133.783	259.804	567.895	221.052	202.607	141.422	172.613	554.606	116.873	598.246	294.836	4.327.699
	Trentino Alto Adige	24.010	76.075	36.347	67.757	46.647	19.556	9.081	14.205	46.059	26.783	90.818	24.034	481.372
	Veneto	72.627	578.049	126.988	270.949	126.962	101.745	38.901	58.818	214.175	69.383	273.375	149.233	2.081.205
	Friuli Venezia Giulia	15.242	124.645	26.064	59.763	30.002	24.894	10.288	17.207	50.353	35.285	72.431	32.468	498.641
	Liguria	10.203	69.935	50.471	98.519	45.551	41.487	18.417	18.112	71.594	39.917	89.737	55.608	609.550
	Emilia Romagna	76.410	517.839	100.364	259.966	112.776	90.719	50.850	59.642	206.962	69.134	278.012	144.467	1.967.141
	Toscana	54.052	323.506	99.972	234.490	119.381	68.052	26.378	49.106	169.247	81.448	202.609	137.666	1.565.908
	Umbria	12.676	72.802	24.120	51.581	22.646	14.806	5.319	6.775	39.124	20.158	54.379	29.840	354.227
	Marche	14.992	182.827	33.669	84.532	32.953	22.543	11.746	14.229	62.413	28.011	85.585	46.280	619.781
	Lazio	48.220	203.427	130.076	309.230	164.414	130.426	118.826	79.272	330.015	228.389	331.887	261.764	2.335.948
	Abruzzo	27.215	113.635	41.577	66.807	29.819	22.719	7.111	6.611	47.264	24.204	68.489	29.886	485.338
	Molise	6.430	20.442	7.750	16.796	5.571	4.640	1.309	1.791	9.436	9.284	16.643	5.757	105.849
	Campania	68.067	229.630	106.096	271.997	105.212	101.800	24.642	32.805	179.375	117.502	268.590	130.679	1.636.394
	Puglia	105.966	180.372	79.721	193.824	81.028	46.048	13.054	20.166	129.338	82.080	187.137	75.703	1.194.438
	Basilicata	16.609	36.161	14.990	26.526	9.081	6.589	2.928	2.900	21.022	12.428	33.684	9.584	192.502
	Calabria	63.533	39.581	36.032	89.705	24.061	26.395	7.265	4.327	57.585	46.499	96.493	31.600	523.077
	Sicilia	102.140	122.664	84.359	230.668	82.753	62.422	16.636	26.560	135.160	127.153	261.180	99.716	1.351.409
Sardegna	37.917	49.735	37.181	83.779	37.635	21.346	8.207	10.012	62.878	53.925	105.303	54.178	562.097	
	ITALY	884.000	4.541.187	1.403.727	3.241.527	1.394.934	1.084.874	562.023	648.766	2.591.110	1.262.183	3.374.160	1.769.346	22.757.838

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of total employees in Italy by region and economic activities (2016 annual average)

Specialization index of total employees in Italy (2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)											
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities
Italian region	Piemonte	-0,0688	0,1315	-0,0427	-0,0159	-0,1047	-0,0860	0,0480	0,0091	-0,0186	-0,2033	-0,0388	0,0413
	Valle d'Aosta	-0,0768	-0,2591	0,1897	-0,1048	0,2909	-0,0188	-0,2520	-0,1594	-0,0796	0,2839	0,0904	-0,0083
	Lombardia	-0,5013	0,1725	-0,0167	-0,0501	-0,1099	-0,0111	0,1776	0,2138	0,0740	-0,3941	-0,0429	-0,0802
	Trentino Alto Adige	0,1274	-0,1183	0,1032	-0,0061	0,2311	-0,0814	-0,1364	0,0176	-0,0884	0,0016	0,1228	-0,2215
	Veneto	-0,0586	0,1834	-0,0060	-0,0492	-0,0026	0,0139	-0,1502	-0,0048	-0,0553	-0,2675	-0,0662	-0,0443
	Friuli Venezia Giulia	-0,1216	0,1150	-0,0843	-0,0879	-0,0095	0,0236	-0,0915	0,0975	-0,0612	0,1243	-0,0105	-0,0902
	Liguria	-0,4042	-0,2752	0,1508	0,0650	0,1018	0,1819	0,1036	0,0213	0,0160	0,0854	-0,0036	0,0822
	Emilia Romagna	-0,0000	0,1527	-0,1026	-0,0408	-0,0365	-0,0181	0,0250	0,0338	-0,0430	-0,2404	-0,0262	-0,0311
	Toscana	-0,0630	0,0187	0,0185	0,0269	0,1176	-0,0495	-0,2001	0,0513	-0,0279	-0,0344	-0,0726	0,0662
	Umbria	-0,0416	0,0150	0,0502	0,0112	0,0214	-0,0666	-0,2467	-0,1994	-0,0154	0,0131	0,0177	0,0408
	Marche	-0,2374	0,1995	-0,0651	-0,0223	-0,0728	-0,1377	-0,1348	-0,1105	-0,0629	-0,1046	-0,0365	-0,0207
	Lazio	-0,3294	-0,4184	-0,0566	-0,0406	0,0775	0,0887	0,4019	0,0978	0,1213	0,3177	-0,0237	0,2057
	Abruzzo	0,1862	0,0816	0,1669	-0,0175	0,0012	-0,0093	-0,2594	-0,3583	-0,0795	-0,0542	-0,0252	-0,1183
	Molise	0,2212	-0,0164	0,0860	0,0542	-0,0764	-0,0421	-0,3338	-0,2559	-0,1222	0,2265	0,0295	-0,1775
	Campania	0,0370	-0,1852	0,0269	0,0835	0,0258	0,1441	-0,2564	-0,1852	-0,0204	0,1398	0,0550	0,0144
	Puglia	0,4218	-0,1450	0,0417	0,0690	0,0536	-0,1110	-0,3993	-0,2665	-0,0264	0,1133	0,0292	-0,1068
	Basilicata	0,3836	-0,0304	0,1171	-0,0167	-0,1312	-0,1653	-0,2392	-0,3104	-0,0210	0,0765	0,0834	-0,2207
Calabria	0,5340	-0,4559	0,0565	0,0949	-0,1454	0,0291	-0,2848	-0,5559	-0,0172	0,2384	0,1117	-0,1280	
Sicilia	0,3484	-0,3891	0,0064	0,0965	-0,0005	-0,0168	-0,3485	-0,1932	-0,0685	0,2791	0,1413	-0,0277	
Sardegna	0,2779	-0,3915	0,0359	0,0233	0,0453	-0,1157	-0,2617	-0,2354	-0,0091	0,2760	0,1197	0,1100	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Specialization index > 0,4 (total employees in Italy by region and economic activities, 2016 annual average)

Specialization index > 0,4 (total employees in Italy, 2016 annual average)		Statistical Classification of Economic Activities in the European Community (2008)													
		Agriculture, forestry and fishing	Industries	Construction	Commerce	Accommodation and food service activities	Transportation and storage	Information and communication	Financial and insurance activities	Real estate activities; professional, scientific and technical activities	Administrative and support service activities; public administration and defence; compulsory social security	Education; human health and social work activities	Other service activities		
Italian region	Piemonte														
	Valle d'Aosta														
	Lombardia														
	Trentino Alto Adige														
	Veneto														
	Friuli Venezia Giulia														
	Liguria														
	Emilia Romagna														
	Toscana														
	Umbria														
	Marche														
	Lazio								0,4019						
	Abruzzo														
	Molise														
	Campania														
	Puglia	0,4218													
	Basilicata														
Calabria	0,5340														
Sicilia															
Sardegna															

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of extra-EU employees in Italy by classifications of education and occupations, 2016 annual average

Number of extra-EU employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
International Standard Classification of Education (2011)	Early childhood education	263	455	546	214	13.638	11.513	4.430	41.422	84	72.564
	Primary	24	-	708	55	19.229	20.691	11.561	51.704	-	103.972
	Lower secondary	4.986	1.663	6.382	6.165	182.683	170.252	69.219	291.769	-	733.120
	Upper secondary (2-3 years)	73	-	1.052	1.304	39.785	31.273	16.073	66.127	-	155.688
	Upper secondary (4-5 years)	3.611	2.737	12.933	12.853	115.211	60.968	31.480	127.486	-	367.280
	Post-secondary non-tertiary	-	1.376	225	-	990	193	232	664	-	3.681
	Short-cycle tertiary	89	224	3.588	625	6.177	1.348	1.640	3.879	-	17.569
	Bachelor or equivalent	-	2.079	2.675	1.549	4.539	555	517	4.962	-	16.876
	Master or equivalent	-	3.731	1.391	2.367	399	-	370	410	-	8.668
	Previous system degree	2.409	14.037	11.716	6.885	38.063	9.278	6.404	33.197	-	121.989
	TOTAL	11.457	26.301	41.217	32.016	420.714	306.072	141.926	621.619	84	1.601.406

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of extra-EU employees in Italy by classifications of education and occupations (2016 annual average)

Specialization index of extra-EU employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
International Standard Classification of Education (2011)	Early childhood education	- 0,338	- 0,459	- 0,559	- 0,752	- 0,172	- 0,097	- 0,191	0,201	1,000
	Primary	- 0,940	- 1,000	- 0,598	- 0,952	- 0,184	0,022	0,122	0,133	- 1,000
	Lower secondary	- 0,046	- 0,852	- 0,643	- 0,560	- 0,048	0,195	0,060	0,023	- 1,000
	Upper secondary (2-3 years)	- 0,887	- 1,000	- 0,609	- 0,434	- 0,015	0,028	0,085	0,050	- 1,000
	Upper secondary (4-5 years)	0,215	- 0,439	0,212	0,385	0,118	- 0,089	- 0,022	- 0,071	- 1,000
	Post-secondary non-tertiary	- 1,000	0,920	0,409	- 1,000	0,012	- 0,570	- 0,168	- 0,366	- 1,000
	Short-cycle tertiary	- 0,172	- 0,128	0,792	0,284	0,146	- 0,430	0,026	- 0,277	- 1,000
	Bachelor or equivalent	- 1,000	0,779	0,734	0,654	0,012	- 0,708	- 0,489	- 0,139	- 1,000
	Master or equivalent	- 1,000	0,936	0,730	0,872	- 0,703	- 1,000	- 0,351	- 0,784	- 1,000
	Previous system degree	0,527	0,866	0,656	0,537	0,094	- 0,450	- 0,271	- 0,188	- 1,000

Source: *Our data processing and specialization index calculation from Istat – RCFL archive micro data*

Specialization index > 0,6 (extra-EU employees in Italy by classifications of education and occupations, 2016 annual average)

Specialization index > 0,6 (extra-EU employees in Italy, 2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
International Standard Classification of Education (2011)	Early childhood education									1,000
	Primary									
	Lower secondary									
	Upper secondary (2-3 years)									
	Upper secondary (4-5 years)									
	Post-secondary non-tertiary		0,920							
	Short-cycle tertiary			0,792						
	Bachelor or equivalent		0,779	0,734	0,654					
	Master or equivalent		0,936	0,730	0,872					
Previous system degree		0,866	0,656							

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of EU(27) employees in Italy by classifications of education and occupations, 2016 annual average

Number of EU(27) employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
International Standard Classification of Education (2011)	Early childhood education	-	-	-	304	4.882	2.429	343	5.899	-	13.857
	Primary	-	-	-	-	4.178	4.147	739	7.953	-	17.016
	Lower secondary	1.711	70	2.478	2.290	58.979	59.536	16.998	76.066	-	218.129
	Upper secondary (2-3 years)	262	1.191	3.337	1.929	31.545	46.765	22.980	40.819	-	148.828
	Upper secondary (4-5 years)	2.107	3.608	12.019	9.504	89.149	60.724	33.408	89.584	-	300.102
	Post-secondary non-tertiary	370	2.077	425	-	678	-	-	258	-	3.807
	Short-cycle tertiary	-	334	7.761	303	3.701	159	-	1.167	-	13.425
	Bachelor or equivalent	-	1.254	4.533	800	2.882	567	1.247	1.928	-	13.211
	Master or equivalent	-	1.072	1.008	798	693	-	57	284	-	3.912
	Previous system degree	2.534	23.190	10.202	6.018	9.054	3.293	2.954	9.980	-	67.225
	TOTAL	6.984	32.795	41.763	21.945	205.739	177.619	78.726	233.938	-	799.511

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of EU(27) employees in Italy by classifications of education and occupations (2016 annual average)

Specialization index of EU(27) employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	
International Standard Classification of Education (2011)	Early childhood education	- 1,000	- 1,000	- 1,000	- 0,113	0,159	- 0,120	- 0,602	0,189	-	
	Primary	- 1,000	- 1,000	- 1,000	- 1,000	- 0,024	0,047	- 0,393	0,236	-	
	Lower secondary	- 0,072	- 0,989	- 0,712	- 0,526	0,034	0,147	- 0,153	0,124	-	
	Upper secondary (2-3 years)	- 0,709	- 0,717	- 0,450	- 0,407	- 0,116	0,220	0,286	- 0,039	-	
	Upper secondary (4-5 years)	- 0,163	- 0,659	- 0,196	0,119	0,120	- 0,073	0,102	0,016	-	
	Post-secondary non-tertiary	0,842	0,868	0,364	- 1,000	- 0,183	- 1,000	- 1,000	- 0,625	-	
	Short-cycle tertiary	- 1,000	- 0,249	0,861	- 0,099	0,035	- 0,900	- 1,000	- 0,546	-	
	Bachelor or equivalent	- 1,000	0,406	0,758	0,385	- 0,084	- 0,680	- 0,021	- 0,338	-	
	Master or equivalent	- 1,000	0,746	0,668	0,769	- 0,185	- 1,000	- 0,743	- 0,603	-	
	Previous system degree	0,722	0,927	0,558	0,609	- 0,332	- 0,659	- 0,404	- 0,346	-	

Source: *Our data processing and specialization index calculation from Istat – RCFL archive micro data*

Number of Italian employees in Italy by classifications of education and occupations, 2016 annual average

Number of Italian employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
International Standard Classification of Education (2011)	Early childhood education	965	668	1.804	1.609	5.503	10.504	2.437	15.146	334	38.970
	Primary	13.606	496	7.528	9.316	83.824	197.081	65.908	150.902	432	529.093
	Lower secondary	119.857	21.655	307.691	344.236	1.344.850	1.521.132	883.809	959.216	44.836	5.547.282
	Upper secondary (2-3 years)	20.748	22.986	192.801	183.945	338.487	345.071	166.167	140.018	8.904	1.419.127
	Upper secondary (4-5 years)	251.664	691.035	2.252.398	1.586.481	1.715.944	778.236	451.970	379.456	140.887	8.248.072
	Post-secondary non-tertiary	1.432	59.931	11.643	6.870	11.631	5.263	748	3.316	177	101.010
	Short-cycle tertiary	2.635	33.299	114.331	9.487	8.728	2.693	1.475	1.470	1.408	175.525
	Bachelor or equivalent	8.512	97.292	315.720	94.272	68.245	7.978	5.359	5.580	15.031	617.988
	Master or equivalent	4.818	184.779	116.704	44.514	24.674	3.366	1.447	889	2.251	383.440
	Previous system degree	182.015	2.062.553	603.490	262.311	126.678	20.179	6.564	11.305	21.320	3.296.415
	TOTAL	606.253	3.174.694	3.924.109	2.543.039	3.728.564	2.891.502	1.585.883	1.667.297	235.580	20.356.921

Source: *Our data processing from Istat – RCFL archive micro data*

Specialization index of Italian employees in Italy by classifications of education and occupations (2016 annual average)

Specialization index of Italian employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	
International Standard Classification of Education (2011)	Early childhood education	- 0,092	- 0,802	- 0,613	- 0,504	- 0,130	0,311	- 0,110	0,654	- 0,150	
	Primary	- 0,075	- 0,988	- 0,866	- 0,758	- 0,074	0,465	0,238	0,577	- 0,871	
	Lower secondary	- 0,206	- 0,964	- 0,630	- 0,410	0,202	0,495	0,541	0,567	- 0,229	
	Upper secondary (2-3 years)	- 0,358	- 0,823	- 0,184	0,020	0,143	0,288	0,219	0,100	- 0,312	
	Upper secondary (4-5 years)	0,021	- 0,420	0,328	0,418	0,112	- 0,298	- 0,262	- 0,396	0,372	
	Post-secondary non-tertiary	- 0,356	0,588	- 0,253	- 0,296	- 0,229	- 0,465	- 0,827	- 0,429	- 0,738	
	Short-cycle tertiary	- 0,332	0,099	0,551	- 0,398	- 0,575	- 0,806	- 0,807	- 0,816	- 0,183	
	Bachelor or equivalent	- 0,375	0,005	0,473	0,103	- 0,254	- 0,838	- 0,805	- 0,806	0,370	
	Master or equivalent	- 0,411	0,526	0,230	- 0,037	- 0,485	- 0,886	- 0,909	- 0,946	- 0,331	
	Previous system degree	0,379	0,811	- 0,031	- 0,254	- 0,692	- 0,930	- 0,958	- 0,932	- 0,320	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of total employees in Italy by classifications of education and occupations, 2016 annual average

Number of total employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
International Standard Classification of Education (2011)	Early childhood education	1.229	1.123	2.350	2.126	24.023	24.445	7.210	62.467	418	125.391
	Primary	13.631	496	8.236	9.371	107.231	221.918	78.207	210.558	432	650.081
	Lower secondary	126.555	23.388	316.551	352.691	1.586.512	1.750.920	970.026	1.327.051	44.836	6.498.530
	Upper secondary (2-3 years)	21.083	24.177	197.190	187.178	409.817	423.109	205.220	246.964	8.904	1.723.642
	Upper secondary (4-5 years)	257.382	697.380	2.277.350	1.608.838	1.920.304	899.928	516.858	596.526	140.887	8.915.453
	Post-secondary non-tertiary	1.802	63.384	12.293	6.870	13.299	5.456	980	4.239	177	108.498
	Short-cycle tertiary	2.724	33.856	125.680	10.415	18.606	4.201	3.115	6.515	1.408	206.519
	Bachelor or equivalent	8.512	100.625	322.928	96.620	75.665	9.100	7.123	12.469	15.031	648.074
	Master or equivalent	4.818	189.581	119.103	47.679	25.765	3.366	1.874	1.583	2.251	396.020
	Previous system degree	186.959	2.099.780	625.408	275.214	173.794	32.751	15.922	54.482	21.320	3.485.628
	TOTAL	624.695	3.233.790	4.007.089	2.597.000	4.355.017	3.375.194	1.806.535	2.522.853	235.664	22.757.838

Source: *Our data processing from Istat – RCFL archive micro data*

Specialization index of total employees in Italy by classifications of education and occupations (2016 annual average)

Specialization index of total employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
International Standard Classification of Education (2011)	Early childhood education	- 0,475	- 0,882	- 0,808	- 0,742	0,001	0,137	- 0,161	0,642	- 0,515
	Primary	- 0,137	- 0,990	- 0,869	- 0,781	- 0,076	0,411	0,212	0,512	- 0,882
	Lower secondary	- 0,223	- 0,964	- 0,647	- 0,436	0,178	0,459	0,487	0,470	- 0,260
	Upper secondary (2-3 years)	- 0,402	- 0,832	- 0,226	- 0,027	0,118	0,272	0,220	0,139	- 0,352
	Upper secondary (4-5 years)	0,042	- 0,402	0,343	0,433	0,101	- 0,278	- 0,233	- 0,351	0,395
	Post-secondary non-tertiary	- 0,247	0,613	- 0,218	- 0,287	- 0,220	- 0,495	- 0,796	- 0,480	- 0,729
	Short-cycle tertiary	- 0,353	0,072	0,559	- 0,389	- 0,362	- 0,760	- 0,683	- 0,559	- 0,208
	Bachelor or equivalent	- 0,359	0,046	0,499	0,137	- 0,247	- 0,831	- 0,762	- 0,710	0,398
	Master or equivalent	- 0,390	0,557	0,267	0,027	- 0,497	- 0,893	- 0,889	- 0,932	- 0,295
Previous system degree	0,405	0,822	0,011	- 0,208	- 0,626	- 0,897	- 0,906	- 0,782	- 0,290	

Source: *Our data processing and specialization index calculation from Istat – RCFL archive micro data*

Number of extra-EU employees in Italy by classifications of economic activities and occupations, 2016 annual average

Number of extra-EU employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	342	-	-	336	135	22.029	1.932	62.377	-	87.151
	Industries	2.145	3.361	4.953	5.413	1.831	126.796	102.287	42.155	-	288.941
	Construction	1.233	-	1.222	604	-	120.143	1.698	13.772	-	138.672
	Commerce	1.517	656	4.378	5.642	80.341	16.255	4.489	79.808	-	193.085
	Accommodation and food service activities	2.513	-	543	5.381	137.318	3.345	-	31.758	-	180.858
	Transportation and storage	331	-	2.546	2.849	630	986	23.671	43.337	-	74.350
	Information and communication	-	2.044	2.397	-	767	-	-	103	-	5.310
	Financial and insurance activities	-	545	373	1.476	-	-	-	-	-	2.394
	Real estate activities; professional, scientific and technical activities	1.846	7.482	5.444	5.988	7.589	6.950	6.353	89.235	-	130.886
	Administrative and support service activities; public administration and defence; compulsory social security	-	140	-	56	-	-	-	637	-	833
	Education; human health and social work activities	134	6.521	13.818	1.975	25.362	394	347	5.927	-	54.475
	Other service activities	1.397	5.553	5.543	2.296	166.743	9.174	1.149	252.511	84	444.450
TOTAL	11.457	26.301	41.217	32.016	420.714	306.072	141.926	621.619	84	1.601.406	

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of extra-EU employees in Italy by classifications of economic activities and occupations (2016 annual average)

Specialization index of extra-EU employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	- 0,304	- 1,000	- 1,000	- 0,689	- 0,989	0,148	- 0,613	0,319	- 1,000	
	Industries	0,023	- 0,201	- 0,234	- 0,039	- 0,961	0,525	0,843	- 0,503	- 1,000	
	Construction	0,120	- 1,000	- 0,513	- 0,663	- 1,000	0,744	- 0,774	- 0,614	- 1,000	
	Commerce	0,053	- 0,685	- 0,071	0,219	0,265	- 0,419	- 0,615	0,036	- 1,000	
	Accommodation and food service activities	0,376	- 1,000	- 0,810	0,227	0,584	- 0,840	- 1,000	- 0,406	- 1,000	
	Transportation and storage	- 0,242	- 1,000	0,150	0,335	- 0,940	- 0,876	0,609	0,212	- 1,000	
	Information and communication	- 1,000	0,924	0,898	- 1,000	- 0,291	- 1,000	- 1,000	- 0,905	- 1,000	
	Financial and insurance activities	- 1,000	0,868	0,718	0,940	- 1,000	- 1,000	- 1,000	- 1,000	- 1,000	
	Real estate activities; professional, scientific and technical activities	0,367	0,634	0,262	0,442	- 0,658	- 0,586	- 0,310	0,306	- 1,000	
	Administrative and support service activities; public administration and defence; compulsory social security	- 1,000	0,822	- 1,000	0,544	- 1,000	- 1,000	- 1,000	0,327	- 1,000	
	Education; human health and social work activities	- 0,497	0,807	0,869	0,302	0,291	- 0,929	- 0,870	- 0,571	- 1,000	
	Other service activities	- 0,469	- 0,179	- 0,424	- 0,665	0,262	- 0,851	- 0,958	0,281	1,000	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of EU(27) employees in Italy by classifications of economic activities and occupations, 2016 annual average

Number of EU(27) employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	131	373	-	211	312	14.525	2.945	41.278	-	59.773
	Industries	2.417	3.807	3.851	2.315	466	60.044	43.574	15.375	-	131.848
	Construction	1.269	162	664	1.031	-	84.236	3.281	10.594	-	101.236
	Commerce	603	1.132	3.184	5.268	17.261	4.936	1.826	7.002	-	41.213
	Accommodation and food service activities	1.130	162	22	1.520	51.181	1.171	325	8.191	-	63.703
	Transportation and storage	125	-	1.214	2.910	494	388	23.276	10.030	-	38.437
	Information and communication	88	2.008	2.535	346	-	238	-	117	-	5.332
	Financial and insurance activities	11	-	618	474	-	-	-	572	-	1.675
	Real estate activities; professional, scientific and technical activities	168	7.597	6.017	4.338	4.277	5.289	2.827	32.174	-	62.688
	Administrative and support service activities; public administration and defence; compulsory social security	-	178	15	134	-	77	-	-	-	404
	Education; human health and social work activities	558	11.356	19.829	2.367	16.758	478	-	5.073	-	56.419
	Other service activities	484	6.021	3.814	1.031	114.990	6.237	673	103.532	-	236.783
	TOTAL	6.984	32.795	41.763	21.945	205.739	177.619	78.726	233.938	-	799.511

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of EU(27) employees in Italy by classifications of economic activities and occupations (2016 annual average)

Specialization index of EU(27) employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	- 0,618	- 0,751	- 1,000	- 0,785	- 0,963	0,049	- 0,351	0,452	-	
	Industries	0,456	- 0,201	- 0,321	- 0,252	- 0,977	0,442	0,725	- 0,475	-	
	Construction	0,210	- 0,934	- 0,800	- 0,493	- 1,000	0,723	- 0,539	- 0,507	-	
	Commerce	0,270	- 0,207	0,206	0,706	0,255	- 0,311	- 0,392	- 0,276	-	
	Accommodation and food service activities	0,381	- 0,891	- 0,988	- 0,076	0,585	- 0,858	- 0,909	- 0,409	-	
	Transportation and storage	- 0,470	- 1,000	- 0,256	0,503	- 0,909	- 0,917	0,785	- 0,060	-	
	Information and communication	0,312	0,813	0,812	0,410	- 1,000	- 0,667	- 1,000	- 0,861	-	
	Financial and insurance activities	- 0,144	- 1,000	0,755	0,826	- 1,000	- 1,000	- 1,000	0,077	-	
	Real estate activities; professional, scientific and technical activities	- 0,550	0,560	0,329	0,487	- 0,601	- 0,470	- 0,391	0,304	-	
	Administrative and support service activities; public administration and defence; compulsory social security	- 1,000	0,830	- 0,184	0,848	- 1,000	- 0,075	- 1,000	- 1,000	-	
	Education; human health and social work activities	0,067	0,749	0,845	0,228	0,077	- 0,931	- 1,000	- 0,548	-	
Other service activities	- 0,699	- 0,303	- 0,614	- 0,790	0,501	- 0,841	- 0,960	0,307	-		

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of Italian employees in Italy by classifications of economic activities and occupations, 2016 annual average

Number of Italian employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	53.405	3.138	15.735	13.805	6.612	399.562	31.446	213.373	-	737.076
	Industries	146.454	210.482	829.007	454.079	75.286	1.129.425	982.802	292.863	-	4.120.398
	Construction	64.145	22.300	100.586	63.862	1.485	787.972	71.860	51.608	-	1.163.819
	Commerce	84.797	103.736	438.291	275.624	1.556.112	319.610	46.153	182.908	-	3.007.229
	Accommodation and food service activities	41.433	4.556	28.215	65.613	920.788	27.469	4.628	57.672	-	1.150.373
	Transportation and storage	24.495	23.810	130.786	264.064	27.125	30.573	370.157	101.077	-	972.087
	Information and communication	20.785	188.655	237.601	76.432	10.563	12.877	1.088	3.380	-	551.381
	Financial and insurance activities	21.178	79.406	364.343	174.406	4.345	-	92	925	-	644.697
	Real estate activities; professional, scientific and technical activities	43.638	738.883	644.685	404.528	130.619	70.475	30.574	334.135	-	2.397.536
	Administrative and support service activities; public administration and defence; compulsory social security	33.000	148.951	224.827	349.635	213.706	12.302	13.205	29.867	235.453	1.260.946
Education; human health and social work activities	50.546	1.533.687	759.425	294.860	366.526	14.582	21.640	221.871	127	3.263.265	
Other service activities	22.377	117.091	150.607	106.131	415.397	86.656	12.236	177.618	-	1.088.113	
TOTAL		606.253	3.174.694	3.924.109	2.543.039	3.728.564	2.891.502	1.585.883	1.667.297	235.580	20.356.921

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of Italian employees in Italy by classifications of economic activities and occupations (2016 annual average)

Specialization index of Italian employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	0,440	- 0,949	- 0,806	- 0,746	- 0,910	0,620	- 0,300	0,592	- 1,000
	Industries	0,113	- 0,563	0,027	- 0,077	- 0,850	0,433	0,731	- 0,087	- 1,000
	Construction	0,322	- 0,791	- 0,395	- 0,404	- 0,987	0,721	- 0,122	- 0,310	- 1,000
	Commerce	- 0,032	- 0,674	- 0,159	- 0,176	0,610	- 0,165	- 0,705	- 0,169	- 1,000
	Accommodation and food service activities	0,101	- 0,953	- 0,784	- 0,387	0,691	- 0,724	- 0,907	- 0,251	- 1,000
	Transportation and storage	- 0,087	- 0,738	- 0,185	0,396	- 0,745	- 0,649	0,717	0,125	- 1,000
	Information and communication	0,121	0,388	0,397	0,053	- 0,815	- 0,723	- 0,952	- 0,864	- 1,000
	Financial and insurance activities	0,051	- 0,121	0,516	0,385	- 0,931	1,000	- 0,996	- 0,967	- 1,000
	Real estate activities; professional, scientific and technical activities	- 0,265	0,389	0,191	0,173	- 0,572	- 0,685	- 0,743	0,305	- 1,000
	Administrative and support service activities; public administration and defence; compulsory social security	- 0,068	- 0,146	- 0,041	0,414	- 0,041	- 0,878	- 0,774	- 0,567	1,000
	Education; human health and social work activities	- 0,355	0,661	0,114	- 0,186	- 0,273	- 0,948	- 0,865	- 0,109	- 0,994
	Other service activities	- 0,191	- 0,192	- 0,172	- 0,129	0,379	- 0,293	- 0,758	0,357	- 1,000

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of total employees in Italy by classifications of economic activities and occupations, 2016 annual average

Number of total employees in Italy, 2016 annual average		International Standard Classification of Occupations (2008)									TOTAL
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	53.877	3.511	15.735	14.352	7.059	436.116	36.323	317.028	-	884.000
	Industries	151.016	217.650	837.812	461.807	77.582	1.316.265	1.128.664	350.392	-	4.541.187
	Construction	66.647	22.463	102.471	65.497	1.485	992.352	76.839	75.974	-	1.403.727
	Commerce	86.917	105.524	445.853	286.533	1.653.714	340.801	52.468	269.718	-	3.241.527
	Accommodation and food service activities	45.076	4.718	28.781	72.514	1.109.287	31.984	4.953	97.621	-	1.394.934
	Transportation and storage	24.951	23.810	134.546	269.824	28.248	31.948	417.105	154.444	-	1.084.874
	Information and communication	20.874	192.706	242.533	76.779	11.329	13.115	1.088	3.599	-	562.023
	Financial and insurance activities	21.189	79.951	365.334	176.356	4.345	-	92	1.497	-	648.766
	Real estate activities; professional, scientific and technical activities	45.652	753.961	656.147	414.853	142.486	82.713	39.754	455.544	-	2.591.110
	Administrative and support service activities; public administration and defence; compulsory social security	33.000	149.269	224.842	349.826	213.706	12.379	13.205	30.504	235.453	1.262.183
Education; human health and social work activities	51.238	1.551.564	793.072	299.201	408.646	15.454	21.987	232.871	127	3.374.160	
Other service activities	24.259	128.665	159.964	109.459	697.130	102.068	14.057	533.662	84	1.769.346	
	TOTAL	624.695	3.233.790	4.007.089	2.597.000	4.355.017	3.375.194	1.806.535	2.522.853	235.664	22.757.838

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of total employees in Italy by classifications of economic activities and occupations (2016 annual average)

Specialization index of total employees in Italy (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
Statistical Classification of Economic Activities in the European Community (2008)	Agriculture, forestry and fishing	0,400	- 0,948	- 0,822	- 0,758	- 0,923	0,572	- 0,327	0,561	- 1,000
	Industries	0,122	- 0,551	0,029	- 0,071	- 0,864	0,439	0,740	- 0,214	- 1,000
	Construction	0,290	- 0,808	- 0,429	- 0,435	- 0,990	0,727	- 0,193	- 0,358	- 1,000
	Commerce	- 0,014	- 0,662	- 0,140	- 0,145	0,573	- 0,193	- 0,695	- 0,162	- 1,000
	Accommodation and food service activities	0,087	- 0,956	- 0,801	- 0,389	0,679	- 0,744	- 0,919	- 0,237	- 1,000
	Transportation and storage	- 0,092	- 0,742	- 0,181	0,397	- 0,769	- 0,679	0,714	0,131	- 1,000
	Information and communication	0,154	0,429	0,436	0,092	- 0,813	- 0,733	- 0,953	- 0,893	- 1,000
	Financial and insurance activities	0,089	- 0,073	0,547	0,426	- 0,934	- 1,000	- 0,997	- 0,960	- 1,000
	Real estate activities; professional, scientific and technical activities	- 0,239	0,406	0,208	0,193	- 0,583	- 0,673	- 0,702	0,263	- 1,000
	Administrative and support service activities; public administration and defence; compulsory social security	- 0,026	- 0,096	0,006	0,452	- 0,064	- 0,882	- 0,777	0,655	1,000
	Education; human health and social work activities	- 0,322	0,682	0,173	- 0,144	- 0,254	- 0,949	- 0,868	- 0,262	- 0,994
Other service activities	- 0,352	- 0,341	- 0,339	- 0,314	0,387	- 0,460	- 0,830	0,522	- 0,992	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of extra-EU employees in Italy by region and classification of occupations, 2016 annual average

Number of extra-EU employees, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
Italian region	Piemonte	830	5.164	4.290	2.310	37.915	23.880	12.726	27.002	-	114.116
	Valle d'Aosta	14	29	78	41	1.067	431	136	541	-	2.337
	Lombardia	3.490	5.427	15.278	12.938	98.593	77.653	46.471	170.115	-	429.965
	Trentino Alto Adige	213	198	389	446	8.898	4.862	2.480	8.453	-	25.940
	Veneto	546	860	3.435	3.045	32.546	36.306	21.025	58.364	-	156.128
	Friuli Venezia Giulia	93	397	891	787	10.864	9.200	3.882	7.715	84	33.913
	Liguria	-	336	825	463	17.611	9.787	1.752	16.753	-	47.527
	Emilia Romagna	2.235	3.283	5.066	3.248	40.841	45.108	28.117	61.920	-	189.818
	Toscana	1.200	1.815	3.462	2.929	35.564	30.831	7.789	40.179	-	123.770
	Umbria	134	111	246	295	6.898	7.867	1.809	10.149	-	27.509
	Marche	189	388	985	220	9.694	14.701	3.997	7.399	-	37.571
	Lazio	1.927	5.547	4.930	4.348	54.125	15.722	3.020	96.168	-	185.786
	Abruzzo	-	320	519	155	6.570	8.013	1.795	3.688	-	21.060
	Molise	-	-	-	-	676	569	143	1.658	-	3.045
	Campania	324	450	151	481	24.593	10.893	4.502	38.108	-	79.500
	Puglia	261	164	230	92	10.909	3.299	1.310	18.179	-	34.446
	Basilicata	-	-	68	55	1.001	436	39	2.169	-	3.768
	Calabria	-	241	164	-	3.959	3.919	455	12.153	-	20.891
	Sicilia	-	1.572	-	111	11.229	1.930	224	32.997	-	48.063
Sardegna	-	-	210	52	7.162	666	256	7.908	-	16.253	
ITALY	11.457	26.301	41.217	32.016	420.714	306.072	141.926	621.619	84	1.601.406	

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of extra-EU employees in Italy by region and classification of occupations (2016 annual average)

Specialization index of extra-EU employees (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
Italian region	Piemonte	0,0089	0,5220	0,2045	0,0066	0,1270	0,0489	0,1243	-0,2564	-1,0000
	Valle d'Aosta	-0,1011	-0,1406	0,1314	-0,0689	0,2700	-0,0179	-0,2068	-0,2529	-1,0000
	Lombardia	0,0883	-0,1707	0,2322	0,2977	-0,0906	-0,0383	0,1403	0,0131	-1,0000
	Trentino Alto Adige	0,0700	-0,3693	-0,2665	-0,0759	0,1351	-0,0099	0,0384	-0,0886	-1,0000
	Veneto	-0,3666	-0,5234	-0,0860	-0,0138	-0,1260	0,1095	0,2337	-0,0208	-1,0000
	Friuli Venezia Giulia	-0,4501	-0,1710	0,0107	0,0763	0,1012	0,1777	0,1303	-0,2651	1,0000
	Liguria	-1,0000	-0,4057	-0,1993	-0,3512	0,1764	0,0384	-0,4199	-0,0496	-1,0000
	Emilia Romagna	0,2864	0,0294	0,0206	-0,0872	-0,1114	0,1249	0,2951	-0,0973	-1,0000
	Toscana	0,1655	-0,0609	0,0453	0,0919	0,0487	0,1443	-0,1812	-0,0959	-1,0000
	Umbria	-0,1933	-0,6102	-0,4883	-0,3055	-0,0237	0,2030	-0,1502	-0,0258	-1,0000
	Marche	-0,1781	-0,2327	0,0094	-0,5531	-0,0093	0,3548	0,0935	-0,3321	-1,0000
	Lazio	0,2130	0,3413	0,0173	0,0899	0,0588	-0,4159	-0,7158	0,1648	-1,0000
	Abruzzo	-1,0000	-0,0399	-0,0225	-0,4651	0,0870	0,3372	-0,0197	-0,3813	-1,0000
	Molise	-1,0000	-1,0000	-1,0000	-1,0000	-0,0841	-0,0116	-0,3088	0,1679	-1,0000
	Campania	-0,2849	-0,5003	-0,8689	-0,5483	0,0861	-0,1720	-0,2292	0,1112	-1,0000
	Puglia	0,0296	-0,5549	-0,5928	-0,7680	0,0954	-0,3372	-0,4047	0,1563	-1,0000
	Basilicata	-1,0000	-1,0000	-0,1739	-0,1584	0,0055	-0,2459	-0,7923	0,1951	-1,0000
	Calabria	-1,0000	-0,1762	-0,5368	-1,0000	-0,1636	-0,0094	-0,6086	0,2027	-1,0000
Sicilia	-1,0000	0,3453	-1,0000	-0,7977	-0,0603	-0,6596	-0,9028	0,2887	-1,0000	
Sardegna	-1,0000	-1,0000	-0,3339	-0,7277	0,2562	-0,6491	-0,7003	0,1137	-1,0000	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of EU(27) employees in Italy by region and classification of occupations, 2016 annual average

Number of EU(27) employees, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
Italian region	Piemonte	69	3.560	4.792	1.792	23.174	20.196	12.772	23.253	-	89.607
	Valle d'Aosta	16	66	118	57	1.010	314	53	215	-	1.849
	Lombardia	756	7.404	12.427	4.020	20.072	28.343	16.446	30.299	-	119.766
	Trentino Alto Adige	384	1.338	1.200	1.232	6.098	3.107	1.478	2.929	-	17.765
	Veneto	1.024	3.463	1.834	1.760	14.745	21.482	17.457	24.328	-	86.092
	Friuli Venezia Giulia	190	485	1.216	402	5.693	5.457	3.435	2.331	-	19.208
	Liguria	187	892	1.867	112	4.482	4.004	692	3.110	-	15.348
	Emilia Romagna	1.039	2.627	5.132	3.359	19.904	14.505	10.793	11.043	-	68.403
	Toscana	347	3.207	4.992	2.593	18.840	13.033	4.435	17.325	-	64.773
	Umbria	255	528	281	415	5.568	3.196	491	6.234	-	16.968
	Marche	-	115	938	577	5.750	5.202	2.174	5.463	-	20.219
	Lazio	1.567	6.672	5.443	4.406	38.226	34.404	7.016	51.754	-	149.488
	Abruzzo	-	458	176	332	4.554	7.813	617	5.227	-	19.177
	Molise	-	-	122	-	522	586	205	1.118	-	2.553
	Campania	233	-	60	-	8.313	7.099	-	13.530	-	29.236
	Puglia	422	271	-	211	7.105	1.723	-	12.341	-	22.071
	Basilicata	39	68	139	-	1.619	316	278	2.723	-	5.181
	Calabria	-	-	236	-	3.422	2.461	-	8.117	-	14.235
	Sicilia	458	832	698	677	9.935	3.130	382	11.265	-	27.378
Sardegna	-	808	94	-	6.709	1.249	-	1.333	-	10.194	
ITALY	6.984	32.795	41.763	21.945	205.739	177.619	78.726	233.938	-	799.511	

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of EU(27) employees in Italy by region and classification of occupations (2016 annual average)

Specialization index of EU(27) employees (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
Italian region	Piemonte	-0,8537	-0,0180	0,0133	-0,1734	0,0028	0,0081	0,2108	-0,0670	-
	Valle d'Aosta	-0,0048	-0,0661	0,0985	0,0611	0,3604	-0,1345	-0,5476	-0,4312	-
	Lombardia	-0,1842	0,2467	0,4125	0,1200	-0,2395	0,0374	0,1996	-0,0843	-
	Trentino Alto Adige	0,4378	0,3036	0,1309	0,4470	0,1468	-0,1214	-0,0858	-0,2838	-
	Veneto	0,1747	-0,0110	-0,4487	-0,1610	-0,2197	0,0655	0,4050	-0,0195	-
	Friuli Venezia Giulia	0,0645	-0,2420	0,0982	-0,1382	0,0724	0,1257	0,2991	-0,4196	-
	Liguria	0,1696	0,1767	0,4102	-0,5840	0,0645	0,0819	-0,3761	-0,1846	-
	Emilia Romagna	0,3026	-0,0358	0,1992	0,3178	0,0675	-0,0254	0,2588	-0,3076	-
	Toscana	-0,2560	0,1029	0,2126	0,2064	0,0669	-0,0536	-0,1925	-0,0486	-
	Umbria	0,2716	-0,1401	-0,5244	-0,0591	0,1239	-0,0839	-0,5509	0,1161	-
	Marche	-1,0000	-0,7615	-0,0609	0,0202	0,0513	0,0753	0,0452	-0,0408	-
	Lazio	0,1141	0,0524	-0,2109	0,0442	-0,0039	0,0218	-0,4031	-0,1052	-
	Abruzzo	-1,0000	-0,2684	-0,7056	-0,2300	-0,0411	0,3037	-0,5134	-0,0363	-
	Molise	-1,0000	-1,0000	-0,0464	-1,0000	-0,1145	0,0167	-0,1014	0,1995	-
	Campania	-0,0468	-1,0000	-0,9269	-1,0000	0,0519	0,0462	-1,0000	0,2359	-
	Puglia	0,3869	-0,5461	-1,0000	-0,4909	0,1150	-0,4870	-1,0000	0,3247	-
	Basilicata	-0,0805	-0,5168	-0,3230	-1,0000	0,0974	-0,5705	-0,2965	0,2871	-
Calabria	-1,0000	-1,0000	-0,5228	-1,0000	-0,0347	-0,1267	-1,0000	0,3295	-	
Sicilia	0,3285	-0,1533	-0,3521	-0,0539	0,1773	-0,3280	-0,7580	0,1759	-	
Sardegna	-1,0000	0,3233	-0,7028	-1,0000	0,4460	-0,2916	-1,0000	-0,3852	-	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of Italian employees in Italy by region and classification of occupations, 2016 annual average

Number of Italian employees, 2016 annual average		International Standard Classification of Occupations (2008)									
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	TOTAL
Italian region	Piemonte	52.257	218.615	321.919	202.960	281.255	233.026	165.140	120.069	11.876	1.607.117
	Valle d'Aosta	1.315	6.386	8.587	6.659	12.376	7.849	2.962	3.646	456	50.237
	Lombardia	115.029	614.952	895.056	498.393	550.803	497.088	338.140	256.561	11.944	3.777.967
	Trentino Alto Adige	16.564	61.315	85.541	57.368	80.022	73.263	28.129	31.808	3.659	437.667
	Veneto	41.307	243.521	400.629	228.438	327.115	301.085	162.494	126.742	7.655	1.838.985
	Friuli Venezia Giulia	11.890	57.663	100.159	57.644	75.666	64.149	38.992	30.734	8.622	445.520
	Liguria	11.679	87.923	117.040	66.637	122.590	71.579	27.375	35.429	6.424	546.676
	Emilia Romagna	64.972	261.417	392.262	221.341	274.472	244.651	148.581	91.409	9.817	1.708.920
	Toscana	40.560	197.445	262.132	186.108	276.661	212.329	104.779	82.573	14.777	1.377.365
	Umbria	9.859	47.110	57.683	44.463	56.055	46.512	25.390	19.904	2.774	309.750
	Marche	15.239	84.145	100.300	65.103	99.352	105.049	50.910	37.706	4.187	561.991
	Lazio	67.740	398.697	379.685	309.183	373.145	179.541	100.921	138.236	53.526	2.000.673
	Abruzzo	9.496	61.050	77.456	38.932	92.550	78.933	49.800	33.723	3.162	445.101
	Molise	1.923	14.178	17.079	8.758	21.194	18.097	11.729	6.065	1.227	100.250
	Campania	52.961	273.513	206.946	160.092	318.703	225.707	116.752	148.815	24.170	1.527.658
	Puglia	30.784	151.477	156.712	112.534	239.499	175.045	80.002	160.401	31.467	1.137.920
	Basilicata	2.861	26.231	24.945	20.334	34.459	30.291	18.430	24.584	1.418	183.553
	Calabria	16.447	82.715	65.292	53.579	97.098	63.818	25.521	77.956	5.525	487.950
	Sicilia	32.078	203.359	175.022	152.048	276.205	176.853	64.678	177.195	18.530	1.275.969
	Sardegna	11.290	82.981	79.666	52.464	119.345	86.638	25.160	63.741	14.364	535.650
	ITALY	606.253	3.174.694	3.924.109	2.543.039	3.728.564	2.891.502	1.585.883	1.667.297	235.580	20.356.921

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of Italian employees in Italy by region and classification of occupations (2016 annual average)

Specialization index of Italian employees (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
Italian region	Piemonte	0,0478	-0,0736	0,0209	0,0059	-0,0247	0,0112	0,1511	-0,0497	-0,2350
	Valle d'Aosta	-0,0644	-0,1021	-0,0602	0,0297	0,1476	0,0477	-0,1387	-0,0605	-0,1214
	Lombardia	0,0136	0,0264	0,1292	0,0337	-0,1360	-0,0466	0,0864	-0,1123	-0,6203
	Trentino Alto Adige	0,1222	-0,0547	0,0071	0,0246	-0,0009	0,0839	-0,0978	-0,0609	-0,1642
	Veneto	-0,1519	-0,0890	0,0676	-0,0031	-0,0161	0,0785	0,0696	-0,0938	-0,4945
	Friuli Venezia Giulia	-0,0559	-0,0948	0,0786	0,0180	-0,0386	0,0070	0,0595	-0,0874	0,2587
	Liguria	-0,1684	0,0158	0,0539	-0,0126	0,1039	-0,0418	-0,2221	-0,1194	0,0078
	Emilia Romagna	0,1341	-0,0105	0,0958	0,0198	-0,0712	0,0043	0,0602	-0,2248	-0,3564
	Toscana	-0,0060	-0,0450	-0,0069	0,0422	0,0496	0,0440	-0,0127	-0,1641	-0,0405
	Umbria	0,0338	-0,0127	-0,0175	0,0705	-0,0061	0,0282	0,0258	-0,1224	-0,1292
	Marche	-0,0481	-0,0209	-0,0396	-0,0387	-0,0182	0,1409	0,0776	-0,1019	-0,2215
	Lazio	0,0716	0,1371	-0,0087	0,1189	0,0101	-0,2442	-0,2319	-0,0932	0,4591
	Abruzzo	-0,1683	-0,0654	-0,0522	-0,1796	0,0648	0,1133	0,1838	-0,0398	-0,2433
	Molise	-0,2173	-0,0491	-0,0620	-0,1776	0,0720	0,1199	0,2018	-0,1509	0,0280
	Campania	0,0825	0,0749	-0,1861	-0,0941	0,0706	0,0213	-0,0104	0,0942	0,1698
	Puglia	-0,0507	-0,0833	-0,1747	-0,1223	0,0738	0,0423	-0,0541	0,2852	0,4450
	Basilicata	-0,3148	-0,0440	-0,1743	-0,0605	0,0124	0,0756	0,1275	0,2438	-0,2007
	Calabria	0,0634	0,0427	-0,1841	-0,0659	0,0425	-0,0422	-0,2005	0,3327	-0,0111
Sicilia	-0,0897	0,0116	-0,1778	-0,0251	0,0894	-0,0131	-0,2226	0,2801	0,1215	
Sardegna	-0,1749	-0,0034	-0,1320	-0,1239	0,1006	0,0667	-0,2527	0,1906	0,4122	

Source: *Our data processing and specialization index calculation from Istat – RCFL archive micro data*

Number of total employees in Italy by region and classification of occupations, 2016 annual average

Number of total employees, 2016 annual average		International Standard Classification of Occupations (2008)									TOTAL
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations	
Italian region	Piemonte	53.156	227.339	331.001	207.061	342.344	277.102	190.638	170.323	11.876	1.810.841
	Valle d'Aosta	1.345	6.481	8.783	6.757	14.453	8.594	3.152	4.403	456	54.423
	Lombardia	119.276	627.784	922.761	515.351	669.468	603.083	401.058	456.975	11.944	4.327.699
	Trentino Alto Adige	17.161	62.851	87.129	59.046	95.018	81.232	32.086	43.190	3.659	481.372
	Veneto	42.878	247.843	405.898	233.243	374.405	358.873	200.975	209.434	7.655	2.081.205
	Friuli Venezia Giulia	12.174	58.545	102.266	58.833	92.222	78.806	46.308	40.780	8.706	498.641
	Liguria	11.866	89.151	119.731	67.213	144.683	85.370	29.819	55.293	6.424	609.550
	Emilia Romagna	68.246	267.327	402.460	227.948	335.217	304.264	187.491	164.372	9.817	1.967.141
	Toscana	42.107	202.468	270.587	191.631	331.065	256.192	117.004	140.077	14.777	1.565.908
	Umbria	10.248	47.748	58.210	45.172	68.521	57.575	27.691	36.287	2.774	354.227
	Marche	15.427	84.647	102.222	65.900	114.795	124.952	57.082	50.568	4.187	619.781
	Lazio	71.235	410.916	390.058	317.938	465.495	229.667	110.956	286.157	53.526	2.335.948
	Abruzzo	9.496	61.828	78.151	39.419	103.674	94.759	52.212	42.638	3.162	485.338
	Molise	1.923	14.178	17.201	8.758	22.393	19.252	12.076	8.841	1.227	105.849
	Campania	53.518	273.963	207.157	160.573	351.609	243.698	121.253	200.452	24.170	1.636.394
	Puglia	31.466	151.913	156.943	112.837	257.513	180.067	81.312	190.921	31.467	1.194.438
	Basilicata	2.900	26.299	25.152	20.389	37.078	31.044	18.746	29.476	1.418	192.502
	Calabria	16.447	82.956	65.692	53.579	104.479	70.198	25.976	98.226	5.525	523.077
Sicilia	32.536	205.764	175.720	152.836	297.369	181.913	65.284	221.457	18.530	1.351.409	
Sardegna	11.290	83.789	79.970	52.516	133.216	88.554	25.416	72.982	14.364	562.097	
	ITALY	624.695	3.233.790	4.007.089	2.597.000	4.355.017	3.375.194	1.806.535	2.522.853	235.664	22.757.838

Source: Our data processing from Istat – RCFL archive micro data

Specialization index of total employees in Italy by region and classification of occupations (2016 annual average)

Specialization number of total employees (2016 annual average)		International Standard Classification of Occupations (2008)								
		Chief Executives, Senior Officials and Legislators	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Services and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Armed Forces Occupations
Italian region	Piemonte	0,0365	-0,0668	0,0204	0,0011	-0,0066	0,0170	0,1542	-0,0884	-0,2392
	Valle d'Aosta	-0,0526	-0,0883	-0,0436	0,0423	0,1628	0,0314	-0,1567	-0,1566	-0,1060
	Lombardia	0,0025	0,0128	0,1205	0,0264	-0,1277	-0,0382	0,0972	-0,0299	-0,6295
	Trentino Alto Adige	0,1331	-0,0432	0,0141	0,0369	0,0158	0,0660	-0,0889	-0,1074	-0,1562
	Veneto	-0,1546	-0,0961	0,0565	-0,0099	-0,0339	0,0834	0,1086	-0,0530	-0,4998
	Friuli Venezia Giulia	-0,0598	-0,0971	0,0780	0,0171	-0,0174	0,0325	0,0802	-0,1538	0,2626
	Liguria	-0,1740	0,0148	0,0562	-0,0176	0,1106	-0,0294	-0,2424	-0,1024	0,0090
	Emilia Romagna	0,1290	-0,0244	0,0826	0,0084	-0,0631	0,0230	0,1007	-0,1517	-0,3704
	Toscana	-0,0111	-0,0505	-0,0101	0,0376	0,0537	0,0529	-0,0324	-0,1138	-0,0497
	Umbria	0,0267	-0,0268	-0,0350	0,0564	0,0055	0,0465	-0,0078	-0,0401	-0,1407
	Marche	-0,0502	-0,0204	-0,0336	-0,0363	-0,0168	0,1572	0,0764	-0,1557	-0,2150
	Lazio	0,0589	0,1200	-0,0295	0,0989	0,0226	-0,2208	-0,2722	0,0559	0,4397
	Abruzzo	-0,1707	-0,0557	-0,0456	-0,1714	0,0562	0,1400	0,1546	-0,1180	-0,2314
	Molise	-0,2042	-0,0297	-0,0403	-0,1600	0,0504	0,1022	0,1804	-0,1412	0,0564
	Campania	0,0948	0,0887	-0,1739	-0,0807	0,0626	0,0022	-0,0370	0,0540	0,1919
	Puglia	-0,0217	-0,0583	-0,1521	-0,0989	0,0630	0,0086	-0,0806	0,1929	0,4712
	Basilicata	-0,2931	-0,0198	-0,1491	-0,0376	0,0033	0,0422	0,1028	0,1617	-0,1697
	Calabria	0,0695	0,0562	-0,1706	-0,0552	0,0219	-0,0511	-0,2345	0,2653	0,0102
Sicilia	-0,0693	0,0368	-0,1584	-0,0048	0,0744	-0,0513	-0,2548	0,2077	0,1496	
Sardegna	-0,1582	0,0246	-0,1086	-0,1019	0,1095	0,0310	-0,2792	0,0810	0,4387	

Source: Our data processing and specialization index calculation from Istat – RCFL archive micro data

Number of total job vacancy (evaluation for every employee) in Italy by economic activities and region (vacancy calculated as mean 2016, average value over four quarters)

Number of job vacancy for everybody (evaluation)	Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008)																TOTAL
	B: Mining and quarrying	C: Manufacturing	D: Electricity, gas, steam and air conditioning supply	E: Water supply; sewerage, waste management and remediation activities	F: Construction	G: Wholesale and retail trade; repair of motor vehicles and motorcycles	H: Transportation and storage	I: Accommodation and food service activities	J: Information and communication	K: Financial and insurance activities	M: Professional, scientific and technical activities	N: Administrative and support service activities	P: Education	Q: Human health and social work activities	R: Arts, entertainment and recreation	S: Other service activities	
Piemonte	8	3.031	56	57	671	1.816	294	1.050	537	289	1.395	461	1.204	834	353	399	12.249
Valle d'Aosta	0	37	4	1	32	46	10	70	9	6	36	12	49	31	22	9	350
Lombardia	21	7.465	177	120	1.689	4.117	810	2.542	1.556	949	3.968	1.216	3.101	1.898	644	910	30.567
Trentino Alto Adige	5	475	23	11	236	491	78	536	100	78	340	102	518	267	73	90	3.237
Veneto	9	3.818	46	84	825	1.964	407	1.460	428	323	1.613	453	1.346	899	338	557	14.409
Friuli Venezia Giulia	2	816	19	17	169	433	100	345	113	95	358	110	391	223	69	103	3.307
Liguria	2	408	34	20	328	714	166	524	203	100	492	160	417	306	161	128	4.045
Emilia Romagna	5	3.447	59	53	652	1.885	363	1.297	559	328	1.559	420	1.388	906	346	446	13.419
Toscana	5	2.071	64	60	650	1.700	272	1.373	290	270	1.161	398	1.105	618	388	379	10.445
Umbria	1	468	14	13	157	374	59	260	59	37	307	80	331	151	54	59	2.318
Marche	1	1.225	14	20	219	613	90	379	129	78	504	110	526	235	107	154	4.258
Lazio	7	1.156	102	74	845	2.242	522	1.891	1.307	436	2.221	771	1.845	997	643	571	14.553
Abruzzo	5	697	18	36	270	484	91	343	78	36	335	115	410	193	69	133	3.262
Molise	-	133	6	2	50	122	19	64	14	10	79	16	88	52	7	25	673
Campania	2	1.403	43	81	690	1.972	407	1.210	271	180	1.248	422	2.001	579	341	414	10.669
Puglia	8	1.106	23	60	518	1.405	184	932	144	111	894	325	1.086	542	171	246	7.457
Basilicata	3	215	3	14	97	192	26	104	32	16	150	52	219	87	22	32	1.222
Calabria	3	192	21	29	234	650	106	277	80	24	371	161	677	227	64	113	3.068
Sicilia	7	631	38	91	548	1.672	250	952	183	146	848	374	1.609	714	221	295	8.228
Sardegna	3	245	22	38	242	607	85	433	90	55	359	188	589	315	115	107	3.345
ITALY	97	29.039	784	880	9.124	23.501	4.339	16.042	6.182	3.568	18.240	5.948	18.899	10.073	4.207	5.172	151.080

Source: Our data processing and vacancy evaluation from Istat – VELA archive data

Note: The survey on job vacancies and hours worked (VELA), measurement, job vacancies and hours worked and those paid in companies with employees in the private non-agricultural sector. The indicators on these variables are produced quarterly for the sections B to S (O excluded) of the Ateco 2007 classification.

Specialization index of total job vacancy (evaluation for every employee) in Italy by economic activities and region (vacancy calculated as mean 2016, average value over four quarters)

Specialization index of job vacancy for everybody (evaluation)	Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008)															
	B: Mining and quarrying	C: Manufacturing	D: Electricity, gas, steam and air conditioning supply	E: Water supply; sewerage, waste management and remediation activities	F: Construction	G: Wholesale and retail trade; repair of motor vehicles and motorcycles	H: Transportation and storage	I: Accommodation and food service activities	J: Information and communication	K: Financial and insurance activities	M: Professional, scientific and technical activities	N: Administrative and support service activities	P: Education	Q: Human health and social work activities	R: Arts, entertainment and recreation	S: Other service activities
Piemonte	-0,00234	0,13823	-0,07277	-0,12059	-0,05284	-0,02611	-0,09607	-0,11479	0,03786	-0,00112	-0,03165	-0,02484	-0,12897	0,01123	0,01885	-0,02650
Valle d'Aosta	-0,21280	-0,28856	0,42234	-0,26065	0,20470	-0,08935	-0,00322	0,30514	-0,23731	-0,14419	-0,07545	-0,05229	0,06033	0,14098	0,38460	-0,11630
Lombardia	0,05306	0,15404	0,06827	-0,23395	-0,05518	-0,08849	-0,04966	-0,14784	0,14002	0,17669	0,04582	0,00639	-0,12750	-0,04414	-0,16806	-0,08617
Trentino Alto Adige	0,45997	-0,13723	0,15785	-0,28833	0,09664	-0,01266	-0,08792	0,22482	-0,14286	0,01104	-0,07122	-0,11246	0,12531	0,10859	-0,10749	-0,10386
Veneto	-0,04174	0,17894	-0,25181	-0,00202	-0,02911	-0,07230	-0,00927	-0,02577	-0,17278	-0,02792	-0,04145	-0,12248	-0,15800	-0,03628	-0,09384	0,06709
Friuli Venezia Giulia	-0,17355	0,12773	0,05215	-0,07187	-0,08372	-0,08730	0,02418	-0,00891	-0,09091	0,09812	-0,05508	-0,08402	-0,02824	0,00507	-0,14558	-0,04659
Liguria	-0,12771	-0,31725	0,24967	-0,07377	0,15102	0,06518	0,18214	0,10198	0,10378	0,02152	0,00433	0,00390	-0,09903	0,06566	0,18127	-0,04077
Emilia Romagna	-0,24831	0,16019	-0,09118	-0,20262	-0,11736	-0,05572	-0,03300	-0,05135	0,01013	0,01891	-0,02096	-0,12356	-0,10314	0,00688	-0,04177	-0,01608
Toscana	-0,20716	0,01671	0,08735	-0,01025	0,01594	0,02435	-0,05203	0,11508	-0,20262	0,04877	-0,04437	-0,01708	-0,08942	-0,06349	0,15508	0,03178
Umbria	-0,43731	0,02495	0,08627	-0,01809	0,05756	0,01857	-0,05929	0,02875	-0,23978	-0,19234	0,04738	-0,06667	0,06655	-0,01282	-0,08589	-0,15080
Marche	-0,45580	0,20577	-0,24148	-0,10787	-0,08259	-0,03986	-0,15491	-0,09032	-0,15201	-0,12788	-0,00981	-0,21056	-0,00671	-0,09733	-0,05045	0,02871
Lazio	-0,18150	-0,43996	0,16537	-0,07298	-0,02140	-0,00537	0,12356	0,11248	0,43105	0,13264	0,13079	0,16604	0,00756	0,01494	0,25708	0,07559
Abruzzo	0,40682	0,05406	0,02331	0,31892	0,16078	-0,02376	-0,01561	-0,00510	-0,26524	-0,36379	-0,08305	-0,05538	0,00193	-0,06142	-0,13827	0,08863
Molise	-	0,01344	0,24524	-0,31042	0,10768	0,07605	-0,02016	-0,05454	-0,31413	-0,23529	-0,01573	-0,24934	0,02172	0,07508	-0,48318	0,04959
Campania	-0,48912	-0,19882	-0,13840	0,14068	0,03664	0,09318	0,15358	0,03552	-0,24727	-0,17582	-0,01716	0,00271	0,21818	-0,10942	0,07419	0,06806
Puglia	0,27475	-0,13473	-0,26907	0,17043	0,07394	0,10107	-0,07890	0,08582	-0,37175	-0,23618	-0,00351	0,05372	0,08006	0,04522	-0,10187	-0,01884
Basilicata	0,63889	-0,04367	-0,30323	0,32296	0,13920	0,00576	-0,14342	-0,10903	-0,21791	-0,28996	0,00935	0,03861	0,17974	0,03226	-0,22691	-0,13517
Calabria	0,24684	-0,51306	0,13386	0,24107	0,11932	0,15720	0,09215	-0,08299	-0,22567	-0,51063	0,00143	0,14596	0,28376	0,05260	-0,14576	0,03751
Sicilia	0,12400	-0,44340	-0,06509	0,33346	0,05220	0,14170	0,02913	0,04533	-0,30754	-0,14866	-0,08321	0,07560	0,23555	0,13956	-0,14893	0,02511
Sardegna	0,20460	-0,45338	0,11721	0,33199	0,09167	0,07917	-0,06012	0,10105	-0,20874	-0,18177	-0,05959	0,18054	0,17382	0,17519	0,10830	-0,03337

Source: Our data processing and specialization index calculation from Istat – VELA archive data

Note: The survey on job vacancies and hours worked (VELA), measurement, job vacancies and hours worked and those paid in companies with employees in the private non-agricultural sector. The indicators on these variables are produced quarterly for the sections B to S (O excluded) of the Ateco 2007 classification.

Number of job vacancy for extra-EU (evaluation) in Italy by economic activities and region (vacancy calculated as mean 2016, average value over four quarters)

Number of job vacancy for extra-EU (evaluation)	Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008)																
	B: Mining and quarrying	C: Manufacturing	D: Electricity, gas, steam and air conditioning supply	E: Water supply; sewerage, waste management and remediation activities	F: Construction	G: Wholesale and retail trade; repair of motor vehicles and motorcycles	H: Transportation and storage	I: Accommodation and food service activities	J: Information and communication	K: Financial and insurance activities	M: Professional, scientific and technical activities	N: Administrative and support service activities	P: Education	Q: Human health and social work activities	R: Arts, entertainment and recreation	S: Other service activities	TOTAL
Piemonte	0	161	1	3	65	70	16	151	14	-	23	31	13	26	25	36	635
Valle d'Aosta	-	2	-	0	2	1	0	7	-	-	0	1	-	1	-	1	15
Lombardia	1	611	-	15	226	266	97	534	25	10	72	271	34	93	55	171	2.480
Trentino Alto Adige	1	22	-	1	19	23	6	67	-	-	3	20	3	5	2	5	174
Veneto	-	297	3	6	78	70	67	221	9	-	11	64	6	18	16	48	915
Friuli Venezia Giulia	-	83	-	1	17	25	2	39	1	1	3	11	4	11	2	7	208
Liguria	-	18	-	1	57	41	5	70	1	0	5	17	3	10	1	4	232
Emilia Romagna	-	365	-	7	94	116	60	163	4	-	14	88	11	38	9	28	998
Toscana	0	122	-	1	109	113	13	169	1	-	13	61	13	14	19	20	667
Umbria	-	28	-	1	31	12	4	35	-	-	2	7	3	2	2	4	130
Marche	-	99	-	0	26	17	2	48	2	-	-	7	3	2	6	5	219
Lazio	-	31	-	1	59	240	14	311	-	2	41	50	13	23	20	53	859
Abruzzo	-	19	-	1	31	6	2	44	-	-	1	4	-	1	1	16	126
Molise	-	5	-	-	2	4	1	2	-	-	-	-	-	0	-	-	14
Campania	-	45	-	2	41	129	4	92	1	-	-	7	6	-	6	71	404
Puglia	-	17	-	-	20	41	2	33	-	-	1	2	-	2	4	12	133
Basilicata	-	2	-	-	2	10	-	3	-	-	-	-	-	1	-	1	18
Calabria	-	6	-	1	14	49	1	9	-	-	-	0	-	-	2	2	84
Sicilia	-	4	-	2	8	98	1	69	-	-	7	8	6	1	1	10	215
Sardegna	-	3	-	0	2	69	-	11	-	-	-	1	-	1	1	-	86
ITALY	2	1.938	4	40	901	1.400	297	2.080	58	13	197	652	116	248	173	493	8.613

Source: Our data processing and vacancy evaluation from Istat – VELA archive data

Note: The survey on job vacancies and hours worked (VELA), measurement, job vacancies and hours worked and those paid in companies with employees in the private non-agricultural sector. The indicators on these variables are produced quarterly for the sections B to S (O excluded) of the Ateco 2007 classification.

Specialization index of job vacancy for extra-EU (evaluation) in Italy by economic activities and region (vacancy calculated as mean 2016, average value over four quarters)

Specialization index of job vacancy for extra-EU (evaluation)	Statistical Classification of Economic Activities in the European Community, Rev. 2 (2008)															
	Italian region	B: Mining and quarrying	C: Manufacturing	D: Electricity, gas, steam and air conditioning supply	E: Water supply; sewerage, waste management and remediation activities	F: Construction	G: Wholesale and retail trade; repair of motor vehicles and motorcycles	H: Transportation and storage	I: Accommodation and food service activities	J: Information and communication	K: Financial and insurance activities	M: Professional, scientific and technical activities	N: Administrative and support service activities	P: Education	Q: Human health and social work activities	R: Arts, entertainment and recreation
Piemonte	0,47439	0,06519	0,49950	0,00016	-0,00980	-0,20110	-0,18214	-0,00951	0,60535	0,00000	0,25358	-0,22416	0,21333	0,18809	0,36023	-0,01177
Valle d'Aosta	-	-0,15691	0,00000	0,00244	0,01142	-0,37947	-0,79377	0,32507	0,00000	0,00000	-0,20456	-0,03110	0,00000	0,19405	0,00000	-0,12109
Lombardia	0,36841	0,06518	0,00000	0,16142	-0,09454	-0,26682	0,09310	-0,07830	0,28626	0,78379	0,17104	0,27655	0,01069	0,19670	0,06907	0,13302
Trentino Alto Adige	0,90521	-0,28794	0,00000	-0,15124	0,01692	-0,11573	-0,04009	0,23377	0,00000	0,00000	-0,18005	0,22206	0,10676	-0,03841	-0,36647	-0,34605
Veneto	0,00000	0,20792	0,94490	0,19413	-0,11583	-0,38587	0,42171	0,00082	0,23700	0,00000	-0,35687	-0,04368	-0,39309	-0,20100	-0,06715	-0,04774
Friuli Venezia Giulia	0,00000	0,28574	0,00000	-0,21632	-0,11917	-0,14980	-0,62980	-0,12801	-0,11297	0,44132	-0,16048	-0,17061	0,21849	0,31878	-0,30862	-0,25432
Liguria	0,00000	-0,50316	0,00000	-0,31587	0,41602	0,03917	-0,25049	0,11713	-0,28728	0,08419	0,01751	-0,02796	-0,02400	0,19843	-0,71831	-0,52485
Emilia Romagna	0,00000	0,27784	0,00000	0,21586	-0,06197	-0,18311	0,32100	-0,21158	-0,29010	0,00000	-0,25732	0,08767	-0,12048	0,16116	-0,39104	-0,36436
Toscana	-0,15862	-0,11164	0,00000	-0,60069	0,24139	0,02229	-0,30412	0,02571	-0,54995	0,00000	-0,07074	0,09976	0,18959	-0,17009	0,18792	-0,33369
Umbria	0,00000	-0,03059	0,00000	0,12763	0,39324	-0,27230	-0,05371	0,04975	0,00000	0,00000	-0,23773	-0,15341	0,26832	-0,27128	-0,17984	-0,28862
Marche	0,00000	0,34842	0,00000	-0,44757	0,06995	-0,35514	-0,54923	-0,04538	0,01156	0,00000	0,00000	-0,38943	-0,06520	-0,48050	0,17054	-0,40834
Lazio	0,00000	-0,74663	0,00000	-0,64091	-0,22693	0,30351	-0,36920	0,22771	0,00000	0,18535	0,40239	-0,14425	0,06832	-0,03635	0,09611	0,04481
Abruzzo	0,00000	-0,20930	0,00000	0,24002	0,41563	-0,52210	-0,43559	0,18531	0,00000	0,00000	-0,43076	-0,40940	0,00000	-0,70457	-0,52950	0,39463
Molise	0,00000	0,19827	0,00000	0,00000	0,19409	0,25848	0,06316	-0,16451	0,00000	0,00000	0,00000	0,00000	0,00000	-0,15653	0,00000	0,00000
Campania	0,00000	-0,35066	0,00000	0,03509	-0,01208	0,34551	-0,53450	-0,02960	-0,39522	0,00000	0,00000	-0,62634	0,00729	0,00000	-0,15556	0,54507
Puglia	0,00000	-0,27984	0,00000	0,00000	0,17257	0,31082	-0,31592	0,01155	0,00000	0,00000	-0,46393	-0,70472	0,00000	-0,36300	0,24435	0,21083
Basilicata	0,00000	-0,41511	0,00000	0,00000	0,00303	0,55561	0,00000	-0,16818	0,00000	0,00000	0,00000	0,00000	0,00000	0,01073	0,00000	-0,25235
Calabria	0,00000	-0,51180	0,00000	0,18185	0,23625	0,56931	-0,50997	-0,37315	0,00000	0,00000	0,00000	-0,88446	0,00000	0,00000	0,12090	-0,44473
Sicilia	0,00000	-0,85470	0,00000	0,21332	-0,48517	0,49274	-0,73870	0,14371	0,00000	0,00000	0,20512	-0,32937	0,34335	-0,77948	-0,50824	-0,10443
Sardegna	0,00000	-0,74474	0,00000	-0,58426	-0,68770	0,67307	0,00000	-0,32129	0,00000	0,00000	0,00000	-0,81343	0,00000	-0,61332	-0,44361	0,00000

Source: Our data processing and specialization index calculation from Istat – VELA archive data

Note: The survey on job vacancies and hours worked (VELA), measurement, job vacancies and hours worked and those paid in companies with employees in the private non-agricultural sector. The indicators on these variables are produced quarterly for the sections B to S (O excluded) of the Ateco 2007 classification.