IMMIGRATION AND CHANGING LABOUR FORCE STRUCTURE IN THE SOUTHERN EUROPEAN UNION

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Studies of labour market trends in the European Union, in Spain and other Mediterranean countries especially, have highlighted the growing importance, both quantitative and qualitative, of immigrant labour force participation, and have examined its impact by economic sector (Baldwin-Edwards and Arango, 1999; Colectivo Ioé, 2002; Garrido and Toharia, 2004; Carrasco et al., 2004; Balch, 2005; Gil and Domingo, 2006). The demand for these new workers (Domingo, Gil and Vidal, 2006) appears to be driven less by recent demographic changes than labour market segmentation (Cachón, 1997, continuing the work of Piore, 1979). Such a situation has occurred and been studied previously in other countries (Dickens and Lang, 1988; Enchautegui, 1998; King et al., 2000; Feld, 2000; Ambrosini, 2001; Baganha, 2003), but the Spanish case is particularly interesting because of the rapid pace and short time frame of growth in immigration.

The transition from sending to receiving country and its effects on the labour market were already a focus of attention in the 1990s (Muñoz Pérez and Izquierdo Escribano, 1989; Di Comite, 1990; Bonifazi, 1998; Pteroudis, 1996; Malheiros, 1996), though the levels of immigration reached today in the countries concerned were as yet unforeseeable (Salt and Almeida, 2006). This short paper analyses and compares the Spanish situation with that reported in other southern countries of the European Union, as well as in France, a long-standing destination for foreign migrants.

Two waves (2000 and 2005, second quarter) of the Labour Force Survey in the European Union countries were used to analyse the impact of the growing number of foreign nationals in the economically active population. The survey is coordinated by Eurostat and is based on the different national surveys, such as the Spanish labour force survey, *Encuesta de Población Activa* (EPA), which was specifically used as data source for Spain.

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I. The situation in Spain

1. Characteristics of Spanish and foreign workers

Spain's surveys of the active population show a rise in the number of labour force participants from 15.5 million in 2000 to 18.9 million in 2005 (Table 1). The additional 3.4 million is almost equally divided between Spanish (+1.8 million) and foreign (+1.6 million) nationals, reflecting much stronger relative growth in the immigrant population: +382% against +12% for Spanish nationals. But the absolute growth of 1.8 million in the Spanish working population is not without significance, since it means that the massive inflow of foreign workers occurred not at a time of shrinkage but of significant expansion in the native labour force. The idea that foreign immigrants came to Spain to do the jobs that could not be filled by the country's own dwindling working-age population must be discarded therefore. As we have previously demonstrated (Domingo, Gil and Vidal, 2006), this may be the case in some European countries but does not hold true for Spain, other Mediterranean countries or Ireland.

The Spanish labour force certainly did grow older between 2000 and 2005, though the ageing process was partially offset by inflows of generally younger immigrants (Table 1). This ageing was partly due to the entry of large numbers of Spanish women into the labour market, for while they are somewhat younger than their male peers (36.3 years on average for active women against 37.8 years for active men in 2005), their mean age rose more quickly over the five-year period (+1.3 years versus +0.8 years for men).

But the most marked change over the five-year period was the feminization of the labour force, with close to 1.2 million Spanish women entering the labour market – for only 0.6 million men – alongside 0.7 million women of foreign origin. Among the foreign labour force, the number of men rose most in absolute terms (almost +0.9 million), but in relative terms, female participation grew faster than that of men. The wave of immigration therefore occurred in a context of steadily rising female labour force participation, with women making up 40% of the total labour force in 2005.

In addition to ageing and increased female labour force participation, there has been a significant rise in educational attainment among Spanish nationals, especially Spanish women, in recent years (Table 2). Of the 1.8 million Spanish workers entering the labour force between 2000 and 2005, 1.4 million – of whom 60% are women – have a degree in tertiary education; 1.3 million – half of them women – completed secondary education; while the number of labour force participants with a below-secondary educational level (of which 28% are women) has fallen by almost 1 million. This reduction has affected men more than women, as the low-skilled population mostly comprises people from older generations which in Spain were characterized by a low female participation rate.

Table 1. Total Spanish and foreign labour force by economic sector. Spain, 2000-2005

	2000		2005		Variation 2000-20005			Mean age (in years)		
Sector	Labour force	%	Labour force	%	Absolute	Relative (%)	In points	2000	2005	Variation
Agriculture, forestry and fishing										
Spanish	997,478	6.63	856,408	5.08	– 141,070	– 14.1	– 1.55	40.4	41.5	1.1
Foreign	37,776	8.91	130,222	6.37	92,446	244.7	– 2.54	30.7	31.5	0.8
Total	1,035,254	6.69	986,630	5.22	– 48,624	– 4.7	– 1.47	40.0	40.2	0.1
Industry and transport										
Spanish	3,932,340	26.14	4,032,976	23.93	100,636	2.6	– 2.20	36.0	37.1	1.1
Foreign	65,759	15.51	334,253	16.35	268,494	408.3	0.84	33.0	33.6	0.5
Total	3,998,100	25.84	4,367,230	23.11	369,130	9.2	– 2.73	36.0	36.8	0.9
Construction										
Spanish	1,660,965	11.04	1,920,507	11.40	259,541	15.6	0.36	35.2	35.9	0.7
Foreign	44,780	10.57	418,760	20.49	373,980	835.2	9.92	33.1	32.5	– 0.6
Total	1,705,745	11.03	2,339,266	12.38	633,521	37.1	1.35	35.2	35.3	0.1
Wholesale and retail trade, hotels and restaurants										
Spanish	3,404,051	22.62	3,666,317	21.76	262,267	7.7	– 0.87	34.6	35.6	1.0
Foreign	127,924	30.18	508,010	24.86	380,086	297.1	– 5.33	34.3	32.3	– 2.0
Total	3,531,975	22.83	4,174,327	22.09	642,352	18.2	– 0.74	34.6	35.2	0.6
Finance and real estate										
Spanish	1,496,369	9.95	1,982,920	11.77	486,551	32.5	1.82	35.2	36.0	0.9
Foreign	35,657	8.41	156,926	7.68	121,269	340.1	– 0.73	38.9	36.2	– 2.7
Total	1,532,026	9.90	2,139,847	11.32	607,821	39.7	1.42	35.2	36.0	0.8
Public administration, education and health										
Spanish	2,609,104	17.34	3,325,143	19.73	716,039	27.4	2.39	38.3	39.3	1.0
Foreign	28,735	6.78	96,329	4.71	67,595	235.2	– 2.07	37.7	35.9	– 1.7
Total	2,637,839	17.05	3,421,472	18.11	783,634	29.7	1.06	38.2	39.2	1.0
Other services, including domestic services										
Spanish	945,685	6.29	1,066,870	6.33	121,185	12.8	0.05	36.4	37.1	0.7
Foreign	83,213	19.63	399,276	19.54	316,063	379.8	– 0.10	34.6	33.5	– 1.2
Total	1,028,898	6.65	1,466,146	7.76	437,248	42.5	1.11	36.2	36.1	– 0.1
Overall										
Spanish	15,045,993	100.00	16,851,142	100.00	1,805,149	12.0		36.2	37.2	1.0
Foreign	423,843	100.00	2,043,777	100.00	1,619,933	382.2		34.3	33.2	– 1.1
Total	15,469,836	100.00	18,894,919	100.00	3,425,083	22.1		36.2	36.7	0.6

Source: Labour Force Surveys (LFS).

Table 2. Total Spanish and foreign labour force by educational level. Spain, 2000-2005

	2000		2005		Variation 2000-2005			
Educational level	Labour force	%	Labour force	%	Absolute	Relative (in %)	In points	Distribution (in %)
Spanish nationals								
Men								
Lower sec. or below	2,965,289	31.0	2,280,318	22.4	-684,971	– 23.1	– 8.62	72.2
Upper secondary	4,271,269	44.7	4,948,013	48.7	676,744	15.8	3.94	51.2
Tertiary	2,314,907	24.2	2,940,902	28.9	625,995	27.0	4.68	43.7
Total	9,551,465	100.0	10,169,233	100.0	617,768	6.5	0.00	34.2
Women								
Lower sec. or below	1,293,103	23.5	1,028,895	15.4	– 264,207	– 20.4	– 8.14	27.8
Upper secondary	2,360,154	43.0	3,005,100	45.0	644,946	27.3	2.02	48.8
Tertiary	1,841,272	33.5	2,647,914	39.6	806,642	43.8	6.12	56.3
Total	5,494,528	100.0	6,681,909	100.0	1,187,381	21.6	0.00	65.8
Combined								
Lower sec. or below	4,258,392	28.3	3,309,213	19.6	-949,179	– 22.3	– 8.66	100.0
Upper secondary	6,631,422	44.1	7,953,113	47.2	1,321,690	19.9	3.12	100.0
Tertiary	4,156,179	27.6	5,588,816	33.2	1,432,638	34.5	5.54	100.0
Total	15,045,993	100.0	16,851,142	100.0	1,805,149	12.0	0.00	100.0
Foreign nationals								
Men								
Lower sec. or below	91,507	36.2	331,608	28.9	240,100	262.4	– 7.34	62.8
Upper secondary	99,573	39.4	569,024	49.5	469,451	471.5	10.13	53.8
Tertiary	61,596	24.4	247,974	21.6	186,378	302.6	– 2.79	51.1
Total	252,675	100.0	1,148,605	100.0	895,929	354.6	0.00	55.3
Women								
Lower sec. or below	34,642	20.2	177,035	19.8	142,393	411.0	– 0.46	37.2
Upper secondary	82,771	48.4	485,751	54.3	402,980	486.9	5.91	46.2
Tertiary	53,755	31.4	232,386	26.0	178,631	332.3	– 5.44	48.9
Total	171,168	100.0	895,172	100.0	724,004	423.0	0.00	44.7
Combined								
Lower sec. or below	126,149	29.8	508,642	24.9	382,493	303.2	– 4.88	100.0
Upper secondary	182,344	43.0	1,054,775	51.6	872,431	478.5	8.59	100.0
Tertiary	115,351	27.2	480,359	23.5	365,009	316.4	– 3.71	100.0
Total	423,843	100.0	2,043,777	100.0	1,619,933	382.2	0.00	100.0

Source: Labour Force Surveys (LFS).

As lower-skilled older generations have been replaced by more highly-skilled ones, among women especially, the Spanish labour force has increased in size and quality, improving the relative position of Spanish workers in the labour market, as shown in Table 3. Of the 1.8 million additional Spanish labour force participants, more than one million are professionals, a category where growth in female participation has outpaced that of men. By contrast, there is a discernible contraction in the agricultural labour force and in elementary occupations. In some instances, the trends are sex-specific: the number of male plant and machine operators and assembly workers has risen slightly, while the number of women in these occupations has declined. The picture is reversed for unskilled manual workers, with a rise (albeit relatively small) in the number of jobs held by women, and a fall among men. Employment growth in services, finally, is below the male average for Spanish men, but above-average for women. The overall rise in Spanish female labour force participation was so strong over the period 2000-2005 to increase the presence of women both in mid and lower level occupations, although the sharpest rise (in numbers and share) is among professionals, technicians and associate professionals.

Growth in immigrant female labour force participation, by contrast, has been concentrated in the least-skilled jobs (especially among elementary occupations and primary sector workers); while for men, other classes of occupation – clerical workers, craft and related trades workers and skilled manual workers – have posted relatively substantial growth. The number of immigrant women in service work has risen faster than the number of immigrant men. Hence, the relative improvement in positions held by the Spanish labour force, women especially, has attracted foreign labour to fill the jobs left vacant by Spanish workers (unskilled and agricultural employment).

2. Complementary or competing?

How has the inflow of foreign labour affected the Spanish labour market? In which sectors of economic activity has foreign labour gradually displaced Spanish labour, and in which sectors have the numbers of Spanish and foreign nationals increased in parallel? To differentiate the two processes, we used the model proposed by Feld (2000, p. 30), which distinguishes four scenarios according to the combination of growth or decline in jobs occupied by Spanish and foreign workers. As foreign labour has increased in all economic sectors in Spain, the categories were adapted as follows: first, sectors where a decline in the absolute number or relative share of Spanish workers is combined with an increase in foreign workers; second, sectors where the numbers of Spanish *and* foreign labour force participants have increased together; and finally, sectors where the Spanish labour force has risen much more sharply than the foreign labour force, thus becoming specialized "Spanish-dominated" or "reserved" sectors.

Table 3. Number of Spanish and foreign workers by occupational class. Spain, 2000-2005

Type of occupation	Year		Variation	
	2000	2005	Absolute	Relative (%)
Spanish nationals				
Senior officials and managers				
Men	800,833	829,492	28,659	3.6
Women	366,196	387,805	21,609	5.9
Total	1,167,029	1,217,297	50,268	4.3
Professionals				
Men	902,085	1,117,622	215,537	23.9
Women	845,977	1,172,816	326,839	38.6
Total	1,748,062	2,290,438	542,376	31.0
Technicians and associate professionals				
Men	879,911	1,135,086	255,175	29.0
Women	577,044	920,475	343,431	59.5
Total	1,456,955	2,055,561	598,606	41.1
Clerks				
Men	602,409	604,099	1,690	0.3
Women	895,346	1,072,120	176,774	19.7
Total	1,497,755	1,676,219	178,464	11.9
Service and sales workers				
Men	911,137	957,472	46,335	5.1
Women	1,212,266	1,535,044	322,778	26.6
Total	2,123,403	2,492,516	369,113	17.4
Farmers and skilled workers in the primary sector				
Men	513833	415,092	– 98,741	– 19.2
Women	175172	116,930	– 58,242	– 33.2
Total	689005	532,022	– 156,983	– 22.8
Craft and related trades workers and skilled manual workers in industry and construction				
Men	2,382,787	2,591,086	208,299	8.7
Women	190,212	208,372	18,160	9.5
Total	2,572,999	2,799,458	226,459	8.8
Plant and machine operators, assembly workers				
Men	1,374,331	1,416,536	42,205	3.1
Women	242,707	210,215	– 32,492	– 13.4
Total	1,617,038	1,626,751	9,713	0.6
Elementary occupations				
Men	1,108,390	1,022,488	– 85,902	– 7.8
Women	984,625	1,050,258	65,633	6.7
Total	2,093,015	2,072,746	– 20,269	– 1.0
Overall				
Men	9,551,466	10,169,233	617,767	6.5
Women	5,494,528	6,681,909	1,187,381	21.6
Total	15,045,994	16,851,142	1,805,148	12.0

Table 3 (cont'd). Number of Spanish and foreign workers by occupational class. Spain, 2000-2005

Type of occupation	Year		Variation	
	2000	2005	Absolute	Relative (%)
Foreign nationals				
Senior officials and managers				
Men	28,487	42,311	13,824	48.5
Women	15,489	27,119	11,630	75.1
Total	43,976	69,430	25,454	57.9
Professionals				
Men	21,131	46,606	25,475	120.6
Women	12,849	48,022	35,173	273.7
Total	33,980	94,628	60,648	178.5
Technicians and associate professionals				
Men	17,652	53,036	35,384	200.5
Women	9,342	44,436	35,094	375.7
Total	26,994	97,472	70,478	261.1
Clerks				
Men	3,949	28,566	24,617	623.4
Women	17,828	41,064	23,236	130.3
Total	21,777	69,630	47,853	219.7
Service and sales workers				
Men	39,719	134,535	94,816	238.7
Women	44,749	258,397	213,648	477.4
Total	84,468	392,932	308,464	365.2
Farmers and skilled workers in the primary sector				
Men	9,204	46,437	37,233	404.5
Women	547	4,664	4,117	752.7
Total	9,751	51,101	41,350	424.1
Craft and related trades workers and skilled manual workers in industry and construction				
Men	46,591	356,047	309,456	664.2
Women	6,757	31,681	24,924	368.9
Total	53,348	387,728	334,380	626.8
Plant and machine operators, assembly workers				
Men	18,922	99,894	80,972	427.9
Women	3,996	14,713	10,717	268.2
Total	22,918	114,607	91,689	400.1
Elementary occupations				
Men	67,020	341,174	274,154	409.1
Women	59,613	424,582	364,969	612.2
Total	126,633	765,756	639,123	504.7
Overall				
Men	252,675	1,149,101	896,426	354.8
Women	171,170	894,678	723,508	422.7
Total	423,845	2,043,779	1,619,934	382.2

Interpretation: Grey shading – above-average growth.
Source: Labour Force Surveys (LFS).

This sector analysis was conducted after grouping all the sectors of activity together in the seven broad groups shown in Table 1. The only sector to post an absolute loss of participants is the primary sector, where the drop of more than 141,000 Spanish primary workers is not offset by the inflow of 92,000 foreign ones. The Spanish agricultural labour force has also aged significantly (by 1.1 years on average), as has the industry and transport sector where Spanish workers have not declined in numbers but have lost relative share – the proportion of industry and transport jobs held by Spanish workers fell from 26.1% in 2000 to 23.9% five years later, while rising among foreign workers. This process is mirrored in the service sector – including domestic services – where the rising number of foreign nationals in the labour force – increasingly young, with a mean age falling from 34.6 to 33.5 years – has outpaced that of Spanish workers, whose mean age has risen from 36.4 to 37.1 years. These three sectors – agriculture, industry and transport, and the sector including the domestic services – are representative of the ongoing substitution process.

Both the construction and the trade, hotels and restaurants sectors – particularly the latter – are especially marked by parallel growth in the Spanish and foreign labour forces. The number of Spanish workers employed in both sectors has grown, but at above-average rates in the construction industry – increasing the relative share of Spanish workers in the sector – where the national labour force has also aged relatively less (reflecting a degree of generation replacement). The business/hospitality sector has experienced below-average growth and near-average ageing of the Spanish labour force in parallel with a rejuvenation of the foreign labour force.

Finally, the higher value-added, higher-income sectors like finance and real estate, and those with predominantly civil service jobs (public administration, education and health), have recorded the strongest growth in the number of Spanish labour force participants, but below-average growth of foreign workers. This has increased the share of Spanish workers from 10% to 11.8% in the former sector and from 17.3% to 19.7% in the latter. These can be considered as the sectors with the strongest appeal for Spanish natives. The public sector, where access by foreign nationals to certain jobs is limited, has also benefited most from increasing female labour force participation: nearly half a million Spanish women took public administration, education and health sector jobs between 2000 and 2005.

Participation in the various economic sectors differs by sex: growth in Spanish female participation has been concentrated in the public sector (26.3% of jobs were held by Spanish women in 2000 and 29% in 2005), finance and real estate (12.2% and 14.1%) and to a very minor extent, in the construction industry. In all other sectors, except for the primary sector (with a marked fall in the female labour force), female participation has increased , but at rates that remain below the average, so the rankings of these sectors have fallen in relative terms: this is the case for the trade, hotels and restaurants sector, industry and transport, and other services, including domestic services. For Spanish men, the three economic sectors with strongest growth were the financial sector (rising from 8.6% of the Spanish male labour force in 2000 to 10.2% in 2005), construction (from 16.5% to 17.7%), and the public sector, education and health (from 12.2% to 13.6%). Spanish male employment decreased in numbers in the primary sector and in relative terms in two other sectors: industry and transport, and the trade, hotels and restaurants sector.

Specialization by sex has been even more marked among foreign nationals: male participation has increased especially in the construction industry (from 17.5% of foreign workers in 2000 to 35.6% in 2005), followed by industry (from 18.1% to 21.6%), while that of women has increased in the service sector, including domestic services (from 39% to 39.4%), the trade, hotels and restaurants sector (from 27.9% to 29.6%) and agriculture (from 1.8% to 3.5%).

Between 2000 and 2005, therefore, a discernible trend can be seen towards concentration of the jobs occupied by Spanish women and foreign men. The construction industry remains an exception, with strong employment growth among Spanish and foreign men alike (+220,000 Spanish nationals and almost +365,000 foreign workers). While the total number of low-educated economically active Spanish men declined by 23% – approximately 685,000 individuals between 2000 and 2005 – the number working in the construction industry fell by only 9.5%, i.e. 67,000 individuals; they are also on average 0.3 years younger than five years before, pointing to generation replacement. Hence, while construction accounted for 23.8% of the jobs held by low-educated Spanish men in 2000, that share had risen to 28.1% five years later. In other words, Spain's "building boom" is able to generate substantial male employment growth in the sector, independently of nationality and educational level.

While construction most clearly illustrates the process of combined growth of Spanish and foreign labour in the same sector, domestic services are typical of a substitution process. The Spanish female participants in this sector are in early middle age (rising in age from 43.7 to 45.5 years on average between 2000 and 2005) and low-educated, having to contend with an influx of much younger and, in some cases, better-educated immigrant women. There remains a degree of specialization, however, for live-in domestic jobs for example, which are more often held by immigrant women. Substitution processes are also observed in industry, among men, and in agriculture, for both sexes.

Last, in the finance and real estate sector, the Spanish workforce has grown. This is also the sector which has gained most university-educated workers, both male and female, in relative terms, although it is in the public sector that the number of economically active female graduates has increased most in absolute terms. These are sectors where employment of foreign workers has recorded below-average growth, reflecting the appeal of higher wages (finance sector) or better working conditions for Spanish workers, combined with certain access restrictions for foreigners, to public sector jobs for example.

II. Comparison with France and the southern EU countries

1. Differences and similarities between countries

Do the findings for Spain hold true in the other Mediterranean countries of the European Union? Previous research (Domingo, Gil and Vidal, 2006) has shown the similarities between the Mediterranean countries – and differences relative to other EU Member States – with regard to recent changes in certain population and labour market characteristics: 1) a native working-age population which has increased (while it has decreased in most northern EU countries) and aged less than in the other EU countries; 2) a much sharper rise in migrant inflows; 3) higher educational levels among young people, particularly among women, compared with the older generations; 4) a very substantial rise in female labour force participation rates, especially among younger women who are now more highly-educated than young men of the same generation; and 5) the existence of economic sectors such agriculture, tourism (hotels, bars and restaurants), construction and domestic services with strong demand for immigrant labour.

To determine by statistical means whether similarities exist, we used cluster analysis to create the groups that are most homogeneous – with respect to the variables analysed – and at the same time differ most from the other groups. The EU-15 countries were thus classified on the basis of two socioeconomic variables: growth in the population of foreign nationals and a decrease in the proportion of low-educated women between 2000 and 2005. The results show that the EU-15 countries fall into three groups (figure 1).

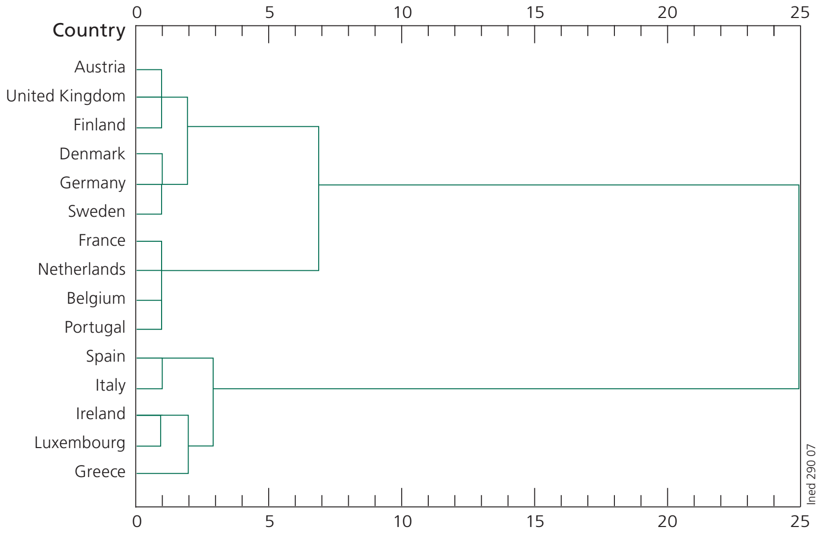
The group most highly differentiated from the others is that which comprises the three Mediterranean countries (Spain, Italy and Greece), plus Ireland and Luxembourg, which have all recorded mass immigration and a sharp rise in women's educational level in recent years. France and Portugal, with Belgium and the Netherlands, make up a second group characterized by lower immigration[(1)] and a slighter improvement in women's educational level (in the case of France, Belgium and the Netherlands, because the baseline situation was better; in the Portuguese case, because the improvement was smaller). The other EU-15 countries form the third group, with characteristics opposite to group one.

This classification brings out characteristics shared by the EU's Mediterranean countries (plus Ireland and Luxembourg) but not by all southern countries, since Portugal, as we have just seen, differs in several ways from the other southern EU countries. It has comparatively lower immigration[(2)] combined

(1) While immigration into France has increased since 1997 (Thierry, 2004), levels are currently lower than those recorded in the Mediterranean countries analysed. Portugal has been the southern EU country least affected by the new immigration flows.

(2) In fact, there was a massive surge of immigration in 2001 and 2002 in the wake of a change in legislation and a construction boom, but the inflow slowed down thereafter (Marques and Góis, 2006).

Figure 1. Tree diagram produced from a hierarchical analysis of the variables of foreign population growth and rising female educational level between 2000 and 2005 in EU-15



Source: Eurostat, Labour Force Surveys.

with a lesser rise in the educational level of young generations in a setting of traditionally higher and more stable female labour force participation.

Unlike Portugal, Greece and Italy are included with Spain the country group where improved educational levels, and hence upward mobility in the labour market of young (especially female) generations, appear to go together with rising labour force participation. With young Spanish men turning away from the most strenuous, low-paid and low-status jobs, demand has grown for foreign workers to fill them, including in domestic services, where new jobs are being created to meet the growing needs of working Spanish women.

2. Developments in the different economic sectors

As for Spain, we shall now examine the labour force participation of native and foreign workers by sector in the southern EU countries and in France using Feld's categorization as modified by us (section I.1, first paragraph).

Table 4 shows that two different processes are at work in the two country groups represented. Spain, Italy and Greece reveal a sharp rise in the number of foreign workers in almost all sectors, especially those shunned by native workers. At the same time, these three countries are creating large numbers of jobs for native and foreign workers in sectors like construction (especially for men) or the hospitality industry (mainly for women), reflecting joint growth

Table 4. Native and foreign labour force by economic sector, 2000-2005, EU-15

	Spain		Italy[1]		Greece		Portugal		France		EU-15	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Agriculture, forestry and fishing												
Native	– 123,392	– 30,455	– 162,727	– 78,282	– 116,057	– 71,550	– 9,439	– 12,517	– 26,379	– 20,149	– 778,341	– 381,094
Foreign	69,460	28,263	43,191	9,803	12,668	5,782	973	– 1	– 1,392	8,466	117,865	48,698
Industry and energy												
Native	– 11,648	25,706	– 244,861	– 149,876	– 6,996	– 22,361	– 50,339	– 65,911	– 210,140	– 82,713	– 2,543,577	– 1,076,856
Foreign	151,902	47,669	274,764	83,228	12,722	2,982	4,312	– 3,594	– 42,956	– 20,616	249,877	45,575
Construction												
Native	228,802	35,820	122,536	– 904	12,383	1,061	– 48,452	– 1,494	123,337	– 1,015	– 199,789	– 23,996
Foreign	364,919	9,061	217,195	8,804	57,773	167	8,101	891	– 25,515	– 1,245	581,746	16,499
Commerce, transport and communications												
Native	73,465	229,328	– 179,999	79,297	26,893	53,528	47,127	29,452	104,087	269,781	– 686,993	– 108,765
Foreign	133,463	73,202	189,790	67,243	5,768	7,052	6,632	8,385	– 30,606	– 2,505	421,715	211,433
Hotels, restaurants and cafeterias												
Native	– 4,622	82,018	76,575	110,613	3,407	11,747	1,472	853	– 7,696	6,583	52,142	73,725
Foreign	73,863	163,203	64,467	74,886	6,463	9,714	2,817	5,683	– 4,592	683	185,165	277,854
Financial intermediaries and real estate services												
Native	214,821	273,013	292,102	378,823	42,964	45,760	36,902	34,775	203,111	83,272	623,576	742,717
Foreign	53,654	67,615	73,433	62,556	1,513	6,846	5,068	1,986	12,464	– 10,041	220,644	184,884

	Spain		Italy[1]		Greece		Portugal		France		EU-15	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Public administration and defence												
Native	126,573	89,066	– 250,906	– 160,158	27,872	14,768	1,228	9,159	51,487	106,770	– 488,729	130,470
Foreign	7,274	– 799	15,627	13,731	– 239	– 105	2,084	272	– 1,136	– 4,385	45,092	19,241
Education, health and social work												
Native	98,677	405,704	– 42,697	242,949	37,835	57,028	14,139	88,294	65,878	426,554	125,183	1,218,640
Foreign	11,514	49,605	20,340	92,816	– 461	154	299	5,398	– 760	18,997	79,842	296,167
Domestic services												
Native	2,658	– 22,968	– 22,024	– 6,722	– 436	– 1,765	– 383	– 9,844	76,633	– 3,721	69,657	– 27,567
Foreign	9,008	265,780	19,363	136,990	0	17,188	91	11,194	7,353	7,325	36,399	442,532
Other services												
Native	42,064	100,172	28,744	126,270	3,029	14,710	– 10,541	11,153	11,616	30,374	131,913	276,215
Foreign	20,872	20,404	38,165	55,531	973	3,111	2,594	599	– 3,624	– 3,618	65,057	84,093
Total												
Native	647,398	1,187,404	– 383,257	542,010	30,894	102,925	– 18,286	83,920	426,518	846,485	– 887,603	2,519,409
Foreign	895,930	724,004	956,333	605,587	97,180	52,890	32,969	30,813	– 89,780	– 3,061	2,061,811	1,632,486

[1] The data for Italy are classified by birthplace rather than by nationality.
Interpretation: Grey shading: decrease in total labour force between 2000 and 2005.
Source: Eurostat, Labour Force Surveys.

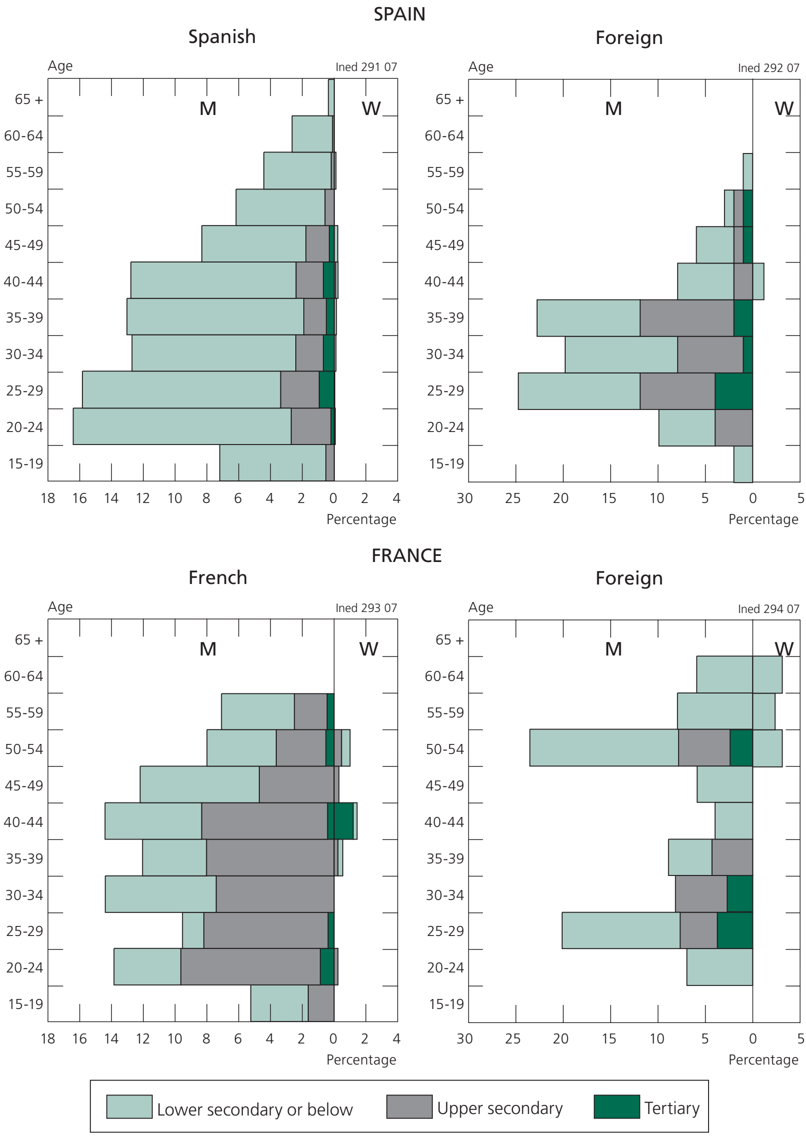
of both native and foreign labour that is almost non-existent in France and Portugal. Both these countries – especially France – have sectors where the number of foreign workers is actually decreasing, notably agriculture, industry, energy, commerce, transport, etc. Generally, the sector-specific employment trends in both countries would seem to show more stability, with fewer jobs created for native and foreign workers alike. As a consequence, labour immigration is lower since there are fewer newly-created jobs or positions left vacant by native workers.

To illustrate the processes of combined growth of native and foreign labour and of substitution in the countries studied, we chose two sectors with high levels of immigrant labour: construction and domestic services. We analysed only the lowest-skilled jobs in the Labour Force Survey classification (*elementary occupations*), most likely to be held by foreign migrants according to the dual labour market theory (Reyneri, 2004). We hypothesized that if there is a process of combined growth, then for an equivalent sex-age structure and educational level, native and foreign workers will hold the same jobs; if there is a substitution process, native and immigrant workers may be found in the same sector, but their characteristics will differ. For example, if the native workers are older than the foreign workers in a branch of economic activity, that means that the latter are replacing the former in this particular sector. This analysis compares the sex-age structure and educational level of native and foreign workers in 2005 in the economic sectors mentioned above in two countries representative of the two groups: France and Spain.

In the male-dominated construction industry (Figure 2), Spain typically reflects a process of combined native/foreign labour growth: the native and foreign labour forces have similar age structures, with a prevalence of young workers, but the latter are relatively more skilled than the former. This means that this sector, which is booming in Spain, has been a major source of new jobs for young immigrant workers and lower-skilled young native workers alike. The sector is less dynamic in France, dominated less by young workers and with a bigger share of both French and foreign older workers.

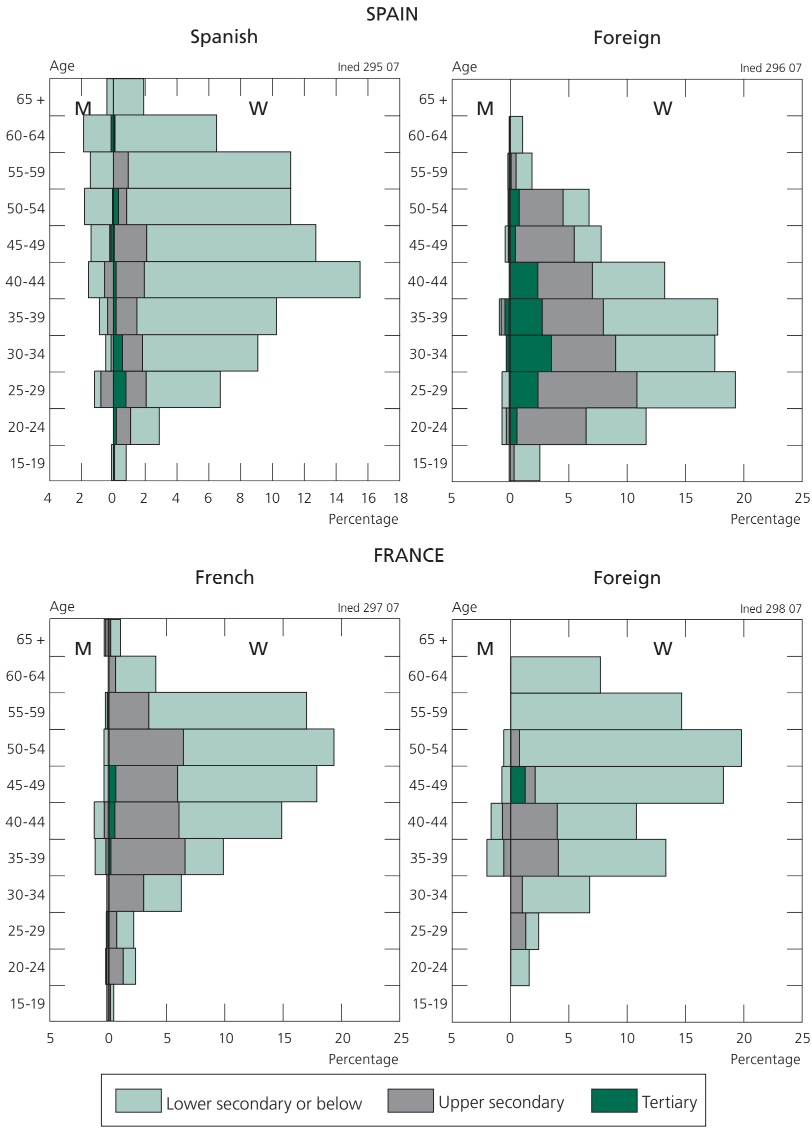
In the female-dominated domestic services (Figure 3), by contrast, Spain is a typical illustration of a substitution process: native female workers here are older and lower-educated, while immigrant women are on average younger and better-educated. By contrast, French and non-French female workers present very similar profiles in France, being predominantly older (aged 45-59) and with low educational skills. The relative absence of young immigrant women in this sector in France may be because these jobs are still mainly held by women who immigrated in the 1960s and 1970s. In Spain (and the other two Mediterranean countries), on the other hand, the labour market entry of young, more highly-educated native women is likely to have created strong demand for young immigrant women for housework duties, especially childcare and eldercare.

Figure 2. Sex-age structure and educational level of low-skilled native and foreign workers in the construction industry, Spain and France, 2005



Source: Eurostat, Labour Force Survey, 2005.

Figure 3. Sex-age structure and educational level of low-skilled native and foreign workers in domestic services, Spain and France, 2005



Source: Eurostat, Labour Force Survey, 2005.

Conclusion

The analysis of the labour market in Spain and other southern EU countries plus France shows a direct correlation between mass immigration and changes in the pattern and characteristics of labour in the host country, whose improved socioeconomic situation appears to "draw in" migrant workers. This can be described as a process of "complementarity" between native and foreign labour, as a relation appears to exist between increased immigration flows and upward mobility in the native population.

Complementarity is more obvious in some countries. Among the countries studied, it is visible in Spain, Greece and Italy, where the rising labour force participation of better-educated young women appears to be creating demand for foreign workers to take the hardest, lowest-paid jobs, such as housework, childcare and, above all, eldercare, tasks previously devolved upon native women in a historical context of limited state welfare provision. This has combined with a steadily ageing population in recent decades, increasing demand for labour in the sector.

One may wonder whether the combined presence of native and foreign workers in some branches of economic activity – construction, for example – creates competition between the two groups of workers for the same jobs, or whether native workers have more promotion opportunities than immigrant workers, as is the case in formerly male-dominated sectors where the number of women has increased but where the remaining men rise to higher positions than women. To answer this question and, in general, to study social mobility in the labour force, requires a cohort analysis that was not possible here for want of suitable data.

Finally, if immigration to the southern EU countries is not attributable to the labour shortage caused by demographic trends in the host countries, increased ageing over the coming decades will likely act in the same way as the social processes mentioned. As the depleted cohorts born in the 1980s and 1990s reach working age, therefore, this will add to the demand for foreign workers and, if the complementarity hypothesis holds true, should further boost the upward mobility of young native workers.

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Andreu Domingo and Fernando Gil-Alonso • Immigration and Changing Labour Force Structure in the Southern European Union

This short paper considers how very rapid growth in immigration flows may have shaped changes in the structure of the labour force in Spain relative to that of the other southern countries of the European Union (Greece, Italy and Portugal) plus France (a traditional immigration country). We consider the processes at work in each sector of economic activity, distinguishing those where native-born labour is being replaced by foreign labour, those characterized by a combined increase of the two, and those that appear to be more of a national workers' preserve. The findings show that Spain, Italy and Greece share similar characteristics, different from those of France and Portugal, attributable notably to rising educational levels among the young and much higher female labour force participation compared to previous generations in these countries.

Andreu Domingo and Fernando Gil-Alonso • Immigration et évolution de la structure de la main-d'œuvre au Sud de l'Union européenne

Dans un contexte de très forte croissance des flux d'immigration, cette note vise à analyser les évolutions de la structure de la main-d'œuvre en Espagne et à les comparer avec celles des autres pays méridionaux de l'Union (la Grèce, l'Italie et le Portugal) et de la France (vieux pays d'immigration internationale). On examine les dynamiques à l'œuvre dans chaque secteur d'activité, en distinguant ceux dans lesquels il existe une substitution de la main-d'œuvre étrangère à la main-d'œuvre autochtone, ceux qui sont caractérisés par une croissance conjointe des deux groupes, et ceux qui apparaissent davantage réservés aux actifs nationaux. Les résultats montrent que l'Espagne, l'Italie et la Grèce partagent des caractéristiques similaires – et différentes des modèles représentés par la France et le Portugal – qui s'expliquent notamment par le fait que dans ces pays, la hausse du niveau d'instruction des jeunes générations et de la participation des femmes au marché du travail comparativement aux générations précédentes a été particulièrement importante.

Andreu Domingo and Fernando Gil-Alonso • Inmigración y evolución de la estructura de la mano de obra al Sur de la Unión europea

En una situación de muy elevado crecimiento de los flujos de inmigración, esta nota analiza las evoluciones de la estructura de la mano de obra en España y las compara a las de los demás países meridionales de la Unión (Grecia, Italia y Portugal) y de Francia (país de inmigración internacional desde hace mucho tiempo). Se examinan las dinámicas en marcha en cada sector de actividad, distinguiendo aquéllos en los que existe una sustitución por la mano de obra extranjera de la mano de obra autóctona, aquéllos que se caracterizan por un crecimiento conjunto de ambos grupos y aquéllos que aparecen más reservados a los activos nacionales. Los resultados muestran que España, Italia y Grecia comparten características similares y diferentes de los modelos representados por Francia y Portugal que se explican en particular por el hecho de que en los primeros países, el alza del nivel de instrucción de las jóvenes generaciones y de la participación de las mujeres en el mercado de trabajo comparada con las generaciones anteriores ha sido particularmente significativa.

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