

# European Vacancy Monitor

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## Further Information

- European Job Mobility Bulletin
- EU Employment and Social Situation Quarterly Review
- Employment Package

## HIGHLIGHTS

### VACANCIES: Hesitant increases in Portugal and Spain

Total job vacancies in the second quarter of 2013 (2.1 million for 19 EU countries) were 3 per cent below the corresponding quarter of 2012. The PES vacancy inflow declined by just 1 per cent (19 EU countries). Both total vacancies and PES vacancy inflow increased in Portugal and Spain. This was offset by declines in Germany, the Netherlands and some other countries. In the five countries covered, temporary work agency vacancies (Randstad) up to September continued to decline year-on-year in the five countries covered, but in Spain they increased in October 2013.

*Read more on page 3*

### HIRINGS AND JOB PROSPECTS: Still worst in Southern Europe despite recent improvements

EU27 hirings fell by 4 per cent between the second quarters of 2012 and 2013 despite relatively high increases of 27 per cent in Croatia and Greece. The ratio of unemployed to hirings increased from 2.5 to 2.7 indicating worsening job prospects overall. Developments varied strongly but the ratios remained lowest in the north and west of Europe, and highest in the south and east of Europe.

*Read more on page 7*

### OCCUPATIONAL DEMAND: Decline in medium skilled jobs

Hirings were down in most occupational groups except elementary occupations. The highest increases in employees were mostly in high-skilled jobs in teaching, ICT and finance, but the highest increases in hirings involved a mix of jobs. Occupations with strong growth in both employees and hirings included 'personal care workers in health services'. Across Europe, PES vacancy inflow increased most in low to mid skilled jobs, but also in health care related jobs.

*Read more on page 11*

### EDUCATIONAL DEMAND: Hirings declined at all educational levels

The strongest decline in hirings (down by -9 per cent) was among low educated workers, especially in Greece, Portugal and Spain where they form the

largest occupational group in hirings.

*Read more on page 20*

### SOUTHERN EUROPE: Increasing hirings of qualified workers in low-skilled jobs

Recent developments suggest that in Southern Europe a recovery is beginning to emerge and it is mainly being driven by the private sector, and particularly the trade sector in Portugal. But in general no single private sector was clearly offering the best prospects for job creation, although demand in health care has consistently grown as in the rest of Europe, in particular for 'personal care workers in health services' in Italy. For young people general measures that help recruitment into skilled jobs may be more beneficial in overcoming the high reliance of young workers on elementary jobs, waiting in restaurants or assistance in shops, especially for those with medium educational level who tend to out-crowd the lower educated.

*Read more on page 21*

- TOP 10 employee growth per country on page 27
- TOP 5 growth PES inflow per country on page 34
- TOP 5 in EURES Job Mobility Portal on page 36

### Top 5 growth occupations (employees)

- Primary school and early childhood teachers
- Software and applications developers and analysts
- Finance professionals
- Personal care workers in health services
- Legal, social and religious associate professionals

### Top 5 growth occupations (hirings)

- Refuse workers
- Heavy truck and bus drivers
- Agricultural, forestry and fishery labourers
- Personal care workers in health services
- Cooks

### PES Top 5 growth occupations (vacancy inflow)\*

- Mining and construction labourers
- Other elementary workers
- Creative and performing artists
- Personal care workers in health services
- Agricultural, forestry and fishery labourers

\*9 countries using ISCO-08

# INTRODUCTION

As part of its Europe 2020 flagship initiative 'An Agenda for New Skills and Jobs', in 2010 the European Commission (EC) launched the 'Monitoring Labour Market Developments in Europe' project. The objective of this project is to increase labour market transparency for all stakeholders who need information about recent developments on the demand side of the labour market, such as decision-makers in the fields of education and employment, public and private employment services including EURES advisers, education and training providers, career guidance services, and policy and labour market analysts.

The European Vacancy Monitor is a component of the European Commission's endeavour to develop a labour market monitoring system focusing on changes in the demand for skills including contractual arrangements, sector demand, occupational demand, growing occupations, hard-to-fill vacancies (bottleneck occupations) and skills requirements. Monitoring the activities of different recruitment agencies is important because they are at the interface of labour demand and supply, matching vacancies with suitable jobseekers in particular segments of the labour market. Results of the analysis are disseminated on a quarterly basis.

Other initiatives within this project include a second quarterly bulletin, the 'European Job Mobility Bulletin', and a biennial report, the 'European Vacancy and Recruitment Report' (EVRR)<sup>1</sup>. Together with other relevant studies, labour market data and analyses, these form part of the European Commission's "Skills Panorama" launched in December 2012.

## THE EUROPEAN VACANCY MONITOR (EVM)

The key sources of information for the EVM include European and national sources:

the Labour Force Survey (data of recent job hirings for 28 countries) including a breakdown by sector, occupation, educational level and educational fields, as well as the relationship of unemployment to job hirings (a measurement of the tightness of the labour market), the Job Vacancy Statistics (vacancy data for 19 countries) including by sector, PES data for job vacancy inflow and registered unemployed (19 countries), data from a Temporary Work Agency (TWA) (5 countries) and Eurociett, the European Confederation of Private Employment Agencies.

EVM provides regular updates on developments in the following aspects of labour demand:

- Numbers of job vacancies and of job hirings (quarterly)
- Inflow of newly registered vacancies with PES, also by occupational group (quarterly)
- Recruitment demand in TWAs (quarterly)
- Relationship between recruitment demand and supply (quarterly)
- Occupational demand (quarterly)
- Educational level (quarterly)
- Educational field (annually)
- Job vacancies by economic sector (annually)

## THE EUROPEAN JOB MOBILITY BULLETIN (EJMB)

The main sources of data analysis for the European Job Mobility Bulletin are

- Job vacancies uploaded by the PES to the European Job Mobility portal (EURES portal)
- The EURES database including a breakdown by sectors, occupations and skills.

## THE EUROPEAN VACANCY AND RECRUITMENT REPORT (EVRR)

The biennial report is based upon the data analysis for the European Vacancy Monitor and further national labour market information and studies. In addition to the topics presented in the European Vacancy Monitor, the report focuses on the identification of 'top-growth occupations' with most recent recruits. It also provides an analysis of the job opportunities via recruitment agencies, in particular of PES and of TWAs.

The analysis of the demand for occupations is based on the International Standard Classification of Occupations (ISCO-08 for job hirings and a mix of ISCO-88 and ISCO-08 for PES data). To allow for international comparisons where necessary, some PES data on occupations have been harmonised with ISCO. The analysis of demand by educational level is based on the International Standard Classification of Education (ISCED).

# Part 1

## VACANCIES, HIRINGS AND JOB PROSPECTS

### 1.1 TRENDS IN VACANCIES

#### Vacancies remain fairly stable except for some increase in the public sector

Overall, vacancies remained at between 70 and 80 per cent of the level in the first quarter of 2008 at the beginning of the crisis, and the pattern sustained since the first quarter of 2011 (Chart 1). The quarterly changes are mostly due to seasonal fluctuations in demand from the private sector, the development of which closely mirrored that for total vacancies and shows no signs of improvement. However, as in the previous three quarters, public sector job vacancies have continued to increase and in the second quarter of 2013 were back to the level of that quarter in 2010.

At 76, the total job vacancies index in the second quarter of 2013 in the 15 EU countries covered was just two points below the index for the same quarter of 2012. The index has hovered around this level since the fourth quarter of 2011 with only minor fluctuations, mostly attributable to seasonal changes in labour demand. Job vacancies in the private sector form the major part of total vacancies and so have moved in a similar way. In contrast the index of public sector job vacancies continued to show improvement reaching 85, a level not reached since the same quarter in 2010. As a result, the gap between the public and private sector indices has remained,

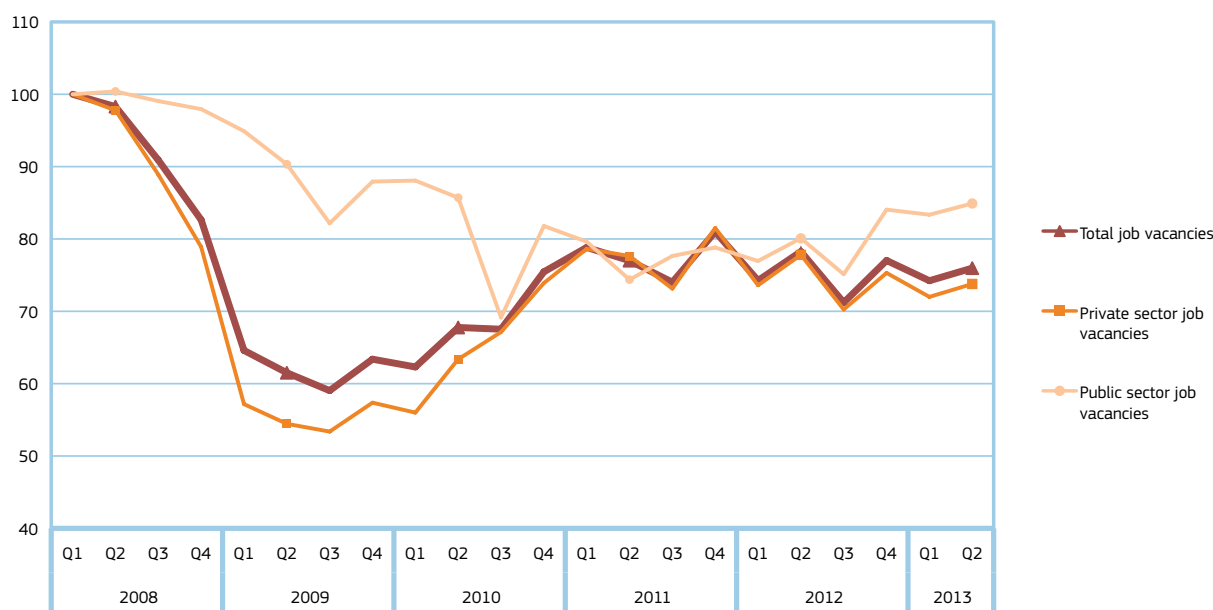
though at 11 points in the second quarter of 2013 it was at the same level as in the first quarter of 2013.

#### Job vacancies (Eurostat Job Vacancy Statistics)

Job vacancies refer to vacant paid posts (i.e. for employees), exclusive of internal vacancies (see Annex A3 for a full definition). In most countries their total number is an estimate based on a survey of companies on their open vacancies at a certain moment of time, but in some countries their number is based on administrative data.

Private sector job vacancies constitute around 80 per cent of the total vacancies and are responsive to changes in economic activity, albeit with a time lag. During the recent prolonged crisis this time lag has tended to lengthen as employers adopt a more cautious approach to recruitment when conditions improve. Furthermore, despite a distinct improvement in the second quarter of 2013 when GDP in the EU28 increased by 0.4 per cent on the preceding quarter<sup>2</sup>, GDP development has continued to be slow and uneven among EU Member States. The highest economic growth in this second quarter was in Germany, Lithuania and Portugal while the largest decreases were in Cyprus, Italy, the Netherlands and Slovenia. However, any economic growth may be sluggish in translating into new jobs if the work force is not immediately adjusted to

**Chart 1: Development of job vacancies (total, private, and public sector)**  
Index, 2008Q1 - 2013Q2, 2008Q1 = 100



Source: Eurostat, Job Vacancy Statistics (15 countries) - own calculations. Countries included in the EU15 total: Bulgaria, Cyprus, the Czech Republic, Germany, Estonia, Latvia, Lithuania, Luxembourg, the Netherlands, Portugal (Portugal exclusive public administration), Romania, Slovakia, Slovenia, Sweden, the United Kingdom. A job vacancy is defined as a paid post that is newly created, unoccupied, or about to become vacant. Here, the public sector is defined as the total of four NACE sectors: 1. public administration, 2. education, 3. human health and 4. arts and other services. Due to data limitations, the private sector here is defined as the rest of the economy exclusive agriculture. Agriculture is not in the total either.  
Number of job vacancies in 2013Q2 (EU15, in thousands): total: 1,765; in private sector: 1,377; in public sector: 388.

new productivity levels, whether up or down. Against this background the lack of movement in the index of private sector job vacancies can therefore be consistent with the hesitant economic growth scenario. This is particularly so if the small increase in private sector vacancies in the second quarter of 2013 in the EU was largely due to the United Kingdom, both compared to the first quarter of 2013 and to the second quarter of 2012.

In the public sector, job vacancies in the 15 EU countries continued to show better growth than those in the private sector, with the index putting on two points between the second and first quarters of 2013 and five points since the second quarter of 2012. This growth can be attributed to the United Kingdom and more precisely to the health care sector, which showed both the highest vacancy growth and the highest employee growth within the public sector between the second quarters of 2013 and 2012.

Over the longer term, the total job vacancies index in the second quarter of 2013, at 76, was still significantly below the 98 value for the second quarter of 2008. The early signs of recovery from the low of 59 points in the third quarter of 2009 have, from the first quarter of 2011, developed into a fairly flat pattern with only small seasonal fluctuations. This is consistent with a fragile economic recovery.<sup>3</sup>

### More countries showing increased vacancies including Portugal and Spain

Comparing the second quarters of 2012 and 2013 the total number of job vacancies in the EU21 countries covered fell by -3 per cent (Chart 2). This compares with a situation of

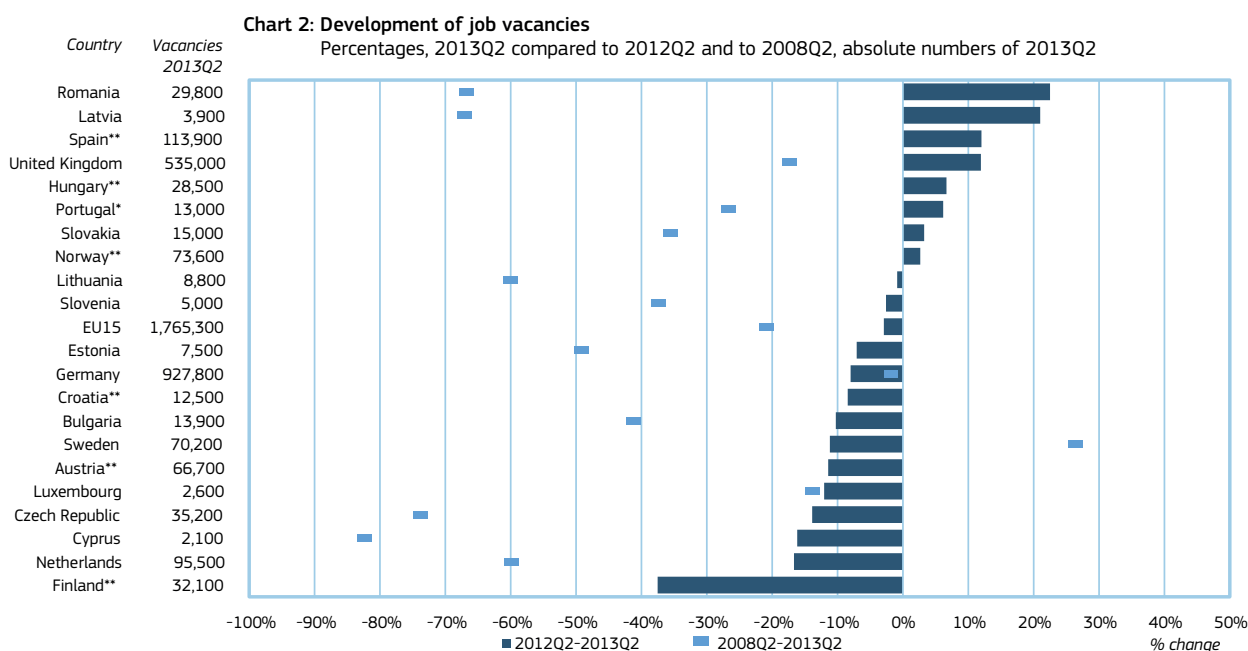
no change in the previous reference period (EVM11) and represents a deterioration in the number of job vacancies on offer. However, in the latest quarter there were more countries showing increased vacancies compared to the first quarter's figures (eight compared to five) with the addition of Norway, Portugal and Spain. In contrast, vacancies declined in a number of countries where the labour markets so far have performed relatively well, including Austria, Finland, Germany, Luxembourg and Sweden.

The 21 countries are grouped below according to the level of change in the stock of job vacancies between the second quarters of 2012 and 2013. Of the eight countries that showed some growth over the period, in only six of them was this significant (i.e. above 5 per cent).

- Growth (> +5 %) Hungary, Latvia, Portugal, Romania, Spain, the United Kingdom
- Relatively stable (> -5 % and ≤ +5 %) Lithuania, Norway, Slovakia, Slovenia
- Decline (≤ -5 %) Austria\*, Bulgaria, Croatia, Cyprus\*, the Czech Republic\*, Estonia, Finland\*, Germany, Luxembourg\*, the Netherlands\*, Sweden\*,

Note: in the countries marked with "\*" the decrease was over 10%.

Looking in more detail at the changes in some of the individual countries, in Romania the year-on-year growth in vacancies was led by industry (adding some 2,400) and across the broad public sector. In Latvia around half of the vacancy growth was in public administration (+400), but overall vacancies in that country were still almost 70 per



Source: Eurostat, Job Vacancy Statistics - own calculations (21 countries). Countries included in the EU15 total: Bulgaria, Cyprus, the Czech Republic, Estonia, Germany, Latvia, Lithuania, Luxembourg, the Netherlands, Portugal, Romania, Slovenia, Slovakia, Sweden, the United Kingdom. A job vacancy is defined as a paid post that is newly created, unoccupied, or about to become vacant.

\* For Portugal public administration is excluded.

\*\* Changes for Austria, Croatia, Finland, Hungary, Norway and Spain are only shown for 2012Q2-2013Q2 due to missing values for 2008Q2. The EU15 total for 2012Q2-2013Q2 does not include these five EU-countries and Norway.

Total number of job vacancies (EU15, in thousands): in 2008Q2: 2,284; in 2012Q2: 1,818; in 2013Q2: 1,765.

Total number of job vacancies (EUR19 including Norway, in thousands): in 2012Q2: 2,159; in 2013Q2: 2,093.

cent below the 2008 base figure. In the United Kingdom the vacancy growth was felt across most sectors but in particular trade and health care (+17,000 each) and the total exceeded half a million vacancies for the first time since 2008 and was consistent with significant new job creation in the first half of 2013. In a recent paper on job creation and destruction in the UK<sup>4</sup> the authors report that net employment certainly fell during the crisis from 2008 to 2011 but mainly due to fewer new jobs being created and there was still a good deal of activity in the labour market. However the paper points out that job churn has always been the most important part of job creation and before the crisis around 4 million jobs were created each year by the private sector, but even during the recession it was still around 3.5 million.

In Spain vacancies grew for the first time in the second quarter of 2013 and with a substantial increase of 12 per cent. Norway had some vacancy growth for the first time in the second quarter of 2013, but at 3 per cent it was a relatively small increase and mostly focused in the trade and health care sectors. In Portugal the slightly larger increase in vacancies of 6 per cent was mostly in the trade sector.

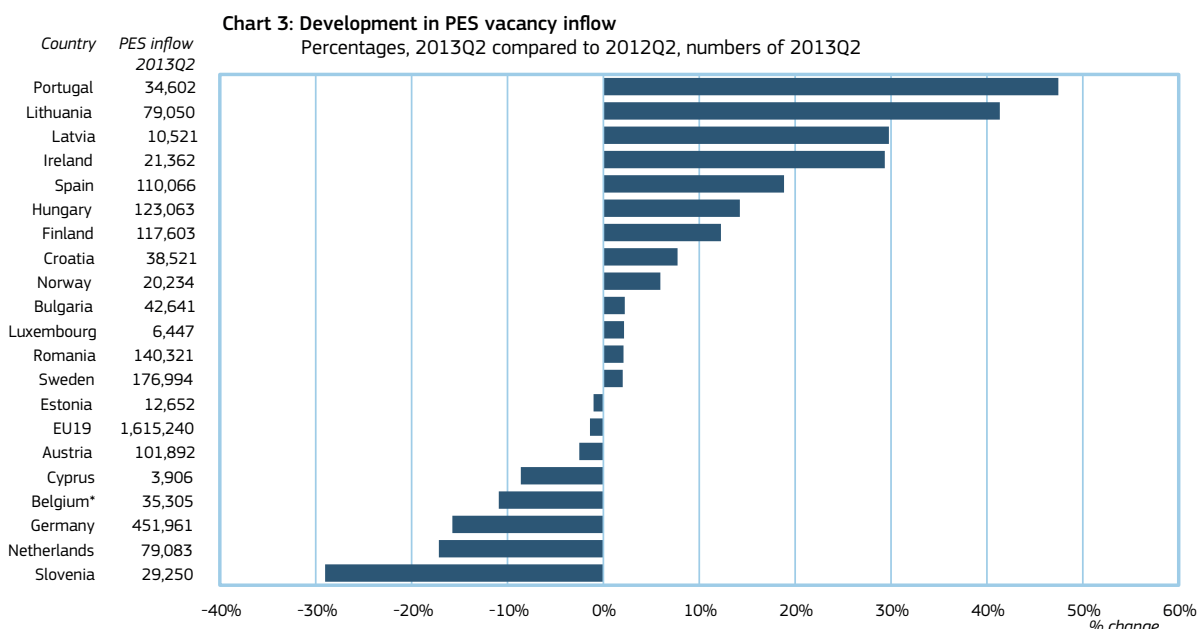
Among the thirteen countries where job vacancies fell between the second quarters of 2012 and 2013, in more than half (seven countries) it was greater than 10 per cent. In the last reference period the greatest fall was recorded by Cyprus and while this country still had a significant decline in vacancies of -16 per cent in the latest quarter, Finland had the biggest fall of -38 per cent, compared to a fall of just -4 per cent in the previous period. In Finland the decline was spread across most sectors though health care, trade and professional services were worst affected. In Cyprus vacancies have fallen consistently year-on-year since the first quarter of 2009. In

the Netherlands the latest -17 per cent fall in vacancies was the seventh consecutive quarter of falling vacancies.

Over the longer term, between the second quarters of 2008 and 2013 in the 15 EU countries collectively job vacancies fell by -23 per cent with just one country, Sweden, showing an increase (and a substantial one of 28 per cent). For the remaining countries Germany was by far the best performer (though still negative) with just a -1 per cent fall in vacancies, with the next lowest fall in the United Kingdom at -19 per cent, this boosted by the more recent growth in vacancies. The worst performing countries over the long term are mostly newer Member States headed by Cyprus with a -84 per cent fall, followed by the Czech Republic (-76 per cent), and Latvia and Romania (both -69 per cent). The only older Member State to come close to these levels of decline was the Netherlands where vacancies fell by 62 per cent between the second quarters of 2008 and 2013.

### PES vacancy inflow reflects total vacancy developments across Europe

The decline in the inflow of PES vacancies almost halted in the 20 countries where comparable information is available. Between the second quarters of 2012 and 2013 the inflow fell by just -1 per cent (Chart 3) and compared favourably with the -3 per cent fall in the previous reference period which, in turn, improved on the -9 and -10 per cent falls in the previous quarters. Further evidence of the improving situation was that 13 of the 20 countries recorded increased inflows (compared to nine in the previous quarter) and in most of these the growth was significant (at 5 per cent or more). As with the total number of vacancies, the PES inflow increased most strongly in



Source: PES - own calculations (20 countries). The EU19 total includes Austria, Belgium\*, Bulgaria, Croatia, Cyprus, Estonia, Finland, Germany, Hungary, Ireland, Latvia, Lithuania, Luxembourg, the Netherlands, Portugal, Romania, Slovenia, Spain and Sweden.  
\* Belgium includes the Walloon region and the Brussels region but not the Flemish region due to a new occupational classification since 2013Q1. Slovakia is excluded due to a new information system in 2012Q2 and the United Kingdom is excluded due to a new information system in 2012Q4.  
PES inflow refers to new job vacancies which have been registered in a certain quarter.  
Total PES inflow (EU19 excl. Norway, in thousands): in 2012Q2: 1,638; in 2013Q2: 1,615.  
Total PES inflow (EUR20 incl. Norway, in thousands): in 2012Q2: 1,657; in 2013Q2: 1,635

the countries where employment was hit hardest by the crisis such as Ireland, Latvia, Lithuania, Portugal and Spain, and some of the strongest decreases in PES inflow were found in countries with relatively well-performing labour markets such as Belgium and Germany.

The relative positions of each of the 20 countries according to the change in PES vacancy inflows is summarised below.

- Growth (+ 5 %) Croatia, Finland\*, Hungary\*, Ireland\*, Latvia\*, Lithuania\*, Norway, Portugal\*, Spain\*
- Relatively stable (>-5 % and ≤ +5 %) Austria, Bulgaria, Estonia, Luxembourg, Romania, Sweden
- Decline (≤ -5 %) Belgium\*, Cyprus, Germany\*, the Netherlands\*, Slovenia\*

Note: in the countries marked with "\*" the change was over 10%

Among the 13 countries recording PES vacancy inflow growth, six had significant increases of over 10 per cent. Of these countries, Latvia and Lithuania had rapidly increasing PES vacancy inflows significantly above the crisis levels in 2010. In other countries changes were less extreme and, for example, in Portugal the PES vacancy inflow was only back at the 2010 level in this second quarter of 2013.

There were seven countries with falls in PES vacancy inflows between the second quarters of 2012 and 2013, though in only four was it significant (at over 10 per cent). In each of these seven countries the falls reflect a decline in the total number of vacancies in the same period. Not only were the biggest falls in Belgium, Germany, Slovenia and the Netherlands, in the first three of these countries the PES inflow also declined year-on-year for the fourth quarter in a row (note: in the Netherlands, data reliability prevents a similar comparison being made). The smaller decreases in Austria (-3

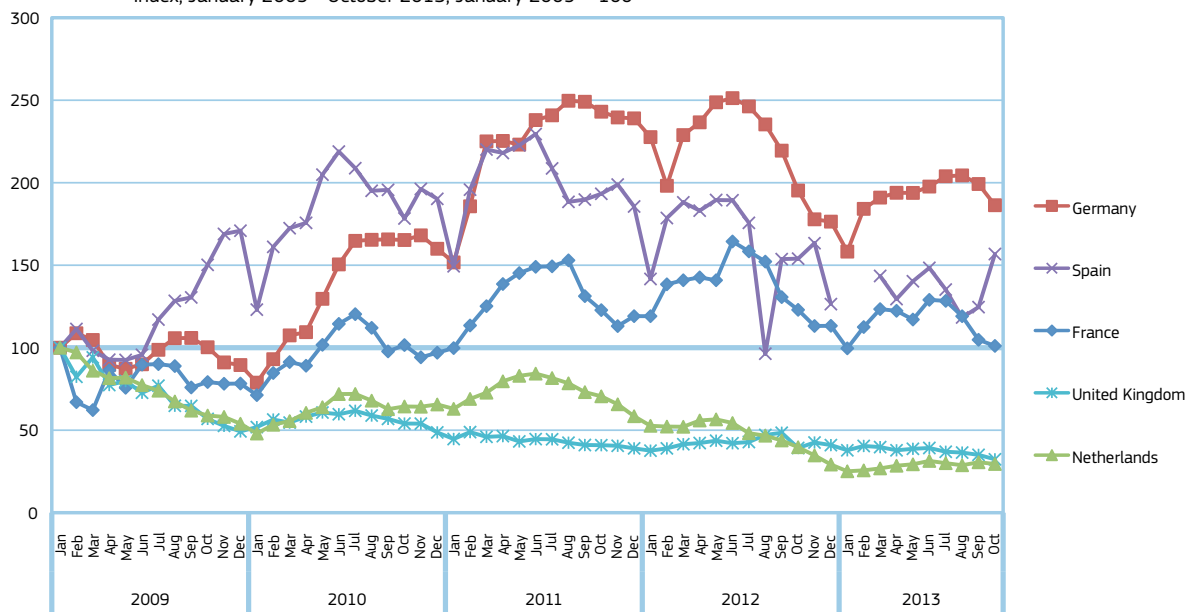
per cent) and Estonia (-1 per cent) represented improvements on the falls in the previous reference period.

While in most countries the development in PES vacancy inflow was in line with the development in the total number of vacancies (see Chart 2), this is notably not the case in Finland. In that country the total number of vacancies dropped by -38 per cent between the second quarters of 2012 and 2013 in most sectors but particularly in the health care sector. In the same period, PES vacancy inflow increased in occupations related to health care and also in construction and education. One possible explanation is that the total number of employers with vacancies decreased, but those employers who had vacancies posted increasing numbers with the PES.

### Some improvements in Randstad vacancies after the second quarter of 2013

The development of Randstad job vacancies in temporary work agencies in the latest ten months (January-October 2013) among the five countries covered continued to differ (Chart 4). Least change was in the Netherlands and the United Kingdom, with the former country's index increasing by 5 points and the latter falling by 6 points. In both countries the indices for October 2013 were below the base month (January 2009) at 30 and 32 respectively. For the other three countries, developments in their indices have been more volatile. In the case of Germany the index started off at 158 in January 2013, peaked at 204 in August/September, before falling back to 186 in October. In France the broad pattern of the index was similar, starting with 100 in January, peaking at 129 in June and ending at 101 in October. Information on Spain is missing for the first two months of 2013 but in March the index was 143, rising to 148 in June and continuing to increase to 157 in October.

Chart 4: Development of job vacancies in temporary work agencies (Randstad) Index, January 2009 - October 2013, January 2009 = 100



Source: Randstad (5 countries). The index is based on the number of open vacancies published by the subsidiaries of the Randstad Group on the internet. Randstad only publishes job vacancies that cannot be filled directly from the available pool of candidates. The figures are based on daily measurements of the number of open job vacancies.

Number of Randstad vacancies October 2013: France: 5,950; Germany: 7,611; the Netherlands: 3,064; Spain: 1,121; the United Kingdom: 5,955.

For Spain, January and February 2013 were left out due to extremely low values.



The indices for the latter three countries reflect the seasonal demand for temporary agency workers with some variation. For example, the patterns of demand for temporary agency workers in France and Germany are typical of summer peaks in demand from such sectors as tourism and agriculture. This is also the case to some extent in Spain, though the summer spike is lower and the index peaks later in the year probably driven by demands in the agricultural sector. All those sectors that are significant users of temporary agency workers are also likely to have significant numbers of undeclared workers and in a recent position paper from Eurociett<sup>5</sup>, comparisons were drawn between these two sources of labour supply. The paper suggested that agency work can help to significantly reduce undeclared work on the basis that too restricted and over-regulated labour markets will lead to both a higher degree of segmentation and more undeclared work. It argues that temporary agency work is part of well-performing labour markets. It refers to a paper in which an econometric simulation for Spain suggests that increasing the penetration of temporary agency work in that country by 1.75 percentage

points (from one of the lowest to one of the highest in the EU) would reduce undeclared work by 1 per cent point.<sup>6</sup> This would be a modest reduction but a reduction nevertheless.

Looking at the year-on-year changes in the job vacancies in temporary work agencies helps overcome some of the seasonal effects. On this year-on-year basis, the Randstad vacancies have fallen consistently since December 2011 in the Netherlands and Spain, since August 2012 in France and Germany, and since March 2013 in the United Kingdom (though only slightly). However the October 2013 figures show that temporary work agency vacancies in 2013 are closing the gap with the 2012 levels in Germany and Spain. In Germany the decline after the end of the summer season was much less in 2013 compared to 2012, while in Spain vacancies actually increased in October. In France temporary agency work vacancies declined due to the usual fall off in seasonal demand after the summer, and were back to 2010 levels in October 2013. Only in Germany were temporary agency work vacancies above the 2010 levels in October 2013.

## 1.2 TRENDS IN HIRINGS AND JOB PROSPECTS

### Job hirings (based on Eurostat Labour Force Survey - LFS)

Job hirings reflect completed recruitment even if no formal vacancies have been posted. For job hirings LFS data are used on employees in a 'reference week' who had started working for an employer at the most three months earlier – this excludes contract renewals. For a person who started multiple jobs within the same quarter, only the last hire is counted. Statistical offices often define such persons as job-finders. Eurostat indicates new jobs by means of the "time since job started".

The Labour Force Survey is a different data source from the Job Vacancy Statistics based on different definitions and survey methods. For example, the data on hirings (LFS) is gathered over a three month period from households; the vacancy data (JVS) in contrast is gathered from enterprises in a single day.

Other factors could also cause divergence. For example, in certain countries, the chronic shortage of IT professionals can cause vacancies to increase and job hirings to decline. It is nevertheless useful to analyse both datasets as they both provide useful information on how sectors and occupations are performing in terms of the provision of job-openings.

### Job hirings continued to decline in the larger EU countries

Between the second quarters of 2012 and 2013 hirings in the EU28 countries fell by -4 per cent which was more than the -2 per cent decrease in the previous quarter (Chart 5). This deterioration in hirings is more or less in line with the -3 per cent fall in overall job vacancies and suggests little sign of improvement in job prospects at the time. Just below half the countries recorded increased hirings over the period. Seven countries had significant growth in hirings (mostly newer

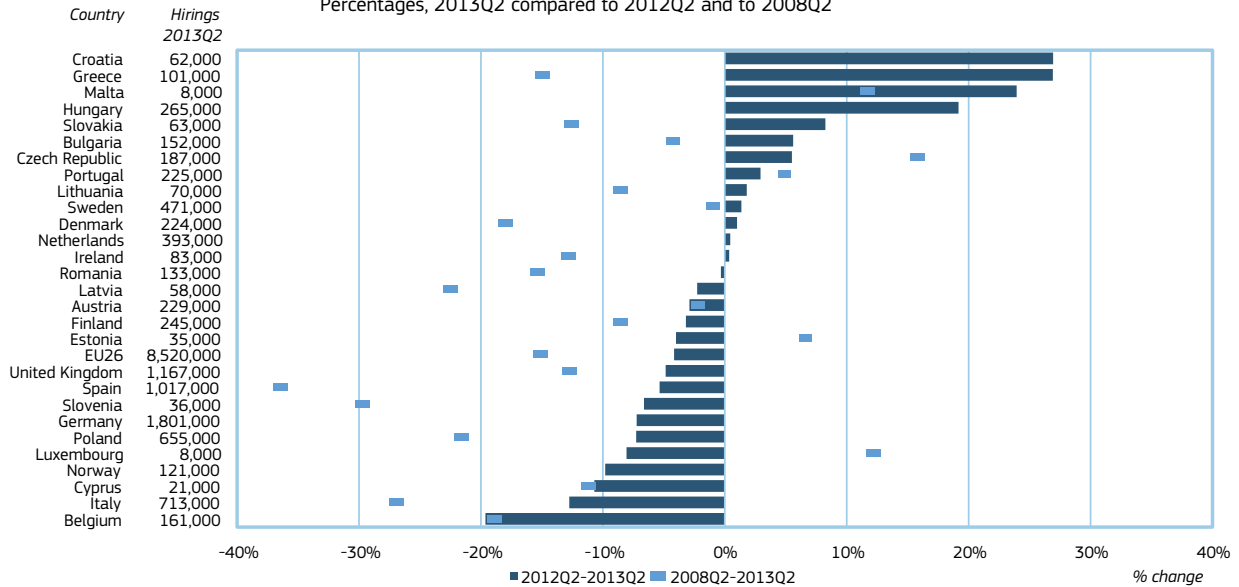
Member States) while nine countries had significant falls in hirings (mostly older Member States, as summarised below).

- Growth (> +5 %) Bulgaria, Croatia\*, the Czech Republic, Greece\*, Hungary\*, Malta\*, Slovakia\*
- Relatively stable (> -5 % and ≤ +5 %) Austria, Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, the Netherlands, Portugal, Romania, Sweden, United Kingdom
- Decline (≤ -5 %) Belgium\*, Cyprus\*, Germany, Italy\*, Luxembourg, Norway, Poland, Slovenia, Spain

*Note: in the countries marked with "\*" the change was over 10%*

The same number of countries (13) recorded increases in hirings between the second quarters of 2012 and 2013 as in the previous reference period (EVM11) and nine were common to both (Bulgaria, Croatia, Denmark, Ireland, Greece, Hungary, Lithuania, Malta, and Slovakia). The four additional countries with growth in the second quarter of 2013 were the Czech Republic, the Netherlands, Portugal and Sweden. Croatia and Greece recorded the highest growth in hirings of 27 per cent each, followed by Malta (24 per cent) and Hungary (19 per cent). In Hungary this was consistent with a growth in job vacancies over the same period though in Croatia vacancies actually fell (comparable JVS information is not available for Greece and Malta). Part of the increased hirings in Croatia, Greece and Malta is likely to be due to improvements in the tourism sector which is particularly important in these countries. However, even though 'waiters and bartenders' are

**Chart 5: Development in hirings**  
Percentages, 2013Q2 compared to 2012Q2 and to 2008Q2



Source: LFS – own calculations (28 countries). Countries included in EU26 total: EU26 exclusive Croatia (no data 2008Q2) and France (high LFS non-response in 2013Q2 job start data).

Job hirings: employees who were employed in a 'reference week' and had started working for their employer at most three months earlier.

\* For the Netherlands and Germany no comparison is made with 2008Q2 because the LFS non-response in 2008-2010 job start data is very high and compromises the calculation of the percentage change.

\*\* Changes for Croatia and Norway are only shown for 2012Q2-2013Q2 due to missing values for 2008Q2.

Numbers of job hirings (EU26, in thousands): in 2008Q2: 10,156; in 2012Q2: 8,890; in 2013Q2: 8,520.

Numbers of job hirings (EUR28 incl. Norway, in thousands): in 2012Q2: 9,073; in 2013Q2: 8,703.

the top growth occupation in Greece, attributing growth to sun tourism would not do full justice to the broader range of recovery in those countries.

In terms of those countries affected by falls in hirings between the second quarters of 2012 and 2013, in five of the six largest EU countries (Germany, Italy, Poland, Spain and the United Kingdom – no comparable data is available for France), hirings fell. In Germany job vacancies also fell over the same period whereas in Spain and the United Kingdom vacancies actually increased, and by significant amounts (12 per cent in each case). This apparent contradiction in the two indicators is likely to be the result of the timing of the different surveys (the JVS and LFS) and their different bases (see box below). In Spain the vacancies increased year-on-year for the first time since the first quarter of 2011, and it may be the case that the new vacancies take some time to result in hirings at a later time, which would be in line with the development in Randstad vacancies up to October 2013 in Spain. However, in the United Kingdom the most recent decline marked the end of six quarters of stable or increasing hirings. In combination with increasing vacancies, this development suggests that in

the United Kingdom increasing numbers of vacancies may not result in hirings after all.

Over the longer term, in six countries (Belgium, Italy, Latvia, Poland, Slovenia, and Spain), hirings were 20 per cent or more below the base values of the second quarter of 2008 and in all cases, most of this development occurred in the last quarters since 2008. For example, hirings declined significantly in Poland for five consecutive quarters, in Belgium and Slovenia for six consecutive quarters and Spain for eight consecutive quarters, and in six out of the last eight quarters in Italy and Latvia. For Germany, which accounts for more than one in five hirings in 2013, data reliability prevents a comparison of hirings with 2008, but job hirings fell significantly here in each of the last five quarters.

**Box: Comparing vacancies and hirings indicators**

Comparing the direction of short-term developments of hirings with job vacancies (Chart 3) shows that countries can fall into one of three categories as illustrated below, mostly for reasons cited in the previous text box.

**Short-term changes in vacancies (JVS) and hirings (LFS) indicators**

Both vacancies and hirings positive  
Both vacancies and hirings negative

Vacancies and hirings opposite

**Countries affected (21)**

Hungary, Portugal, Slovakia  
Austria, Cyprus, Estonia, Finland, Germany, Luxembourg, Slovenia  
Bulgaria, Croatia, the Czech Republic, Latvia, Lithuania, the Netherlands, Norway, Romania, Spain, Sweden, United Kingdom



## The north-south divide in job market prospects prevails

The ratio of unemployed to job hirings indicates the relative ease of hiring, or the relative competition for jobs among unemployed. An increase in the ratio can be due to increasing unemployment, decreasing job hirings or both. A ratio of under 1.0 is possible but may not be indicative of a shortage of labour supply (see country ranking of ratios below).

The continuing difficulties in the European labour market were underlined by a further year-on-year increase in the EU28 ratio of unemployed to hirings which rose from 2.5 in the second quarter of 2012, to 2.7 in the same quarter in 2013 and so just under twice the ratio in the second quarter of 2008 (Chart 6). However, compared to the ratio in the first quarter of 2013 of 3.2, it represents an improvement though due to seasonal developments, unemployed to job hirings ratios tend to be lower in the second quarter of the year than in other quarters. In fact unemployment has remained stubbornly high in the EU with the unemployment rate for the EU28 at 11.0 per cent in the second quarter of 2013 though this was the same level as in the previous quarter and so may indicate that the peak has been reached. Job hirings in the second quarter of 2013 were down -4 per cent compared to the same quarter in 2012 and so the combined effects of this and rising unemployment contributed to the deteriorating ratio. The lowest ratios are mostly found in the north or Europe and not just in the older Member States such as Austria and Denmark, but also in some of the newer Member States such as Estonia and Latvia (as well as Malta in the south).

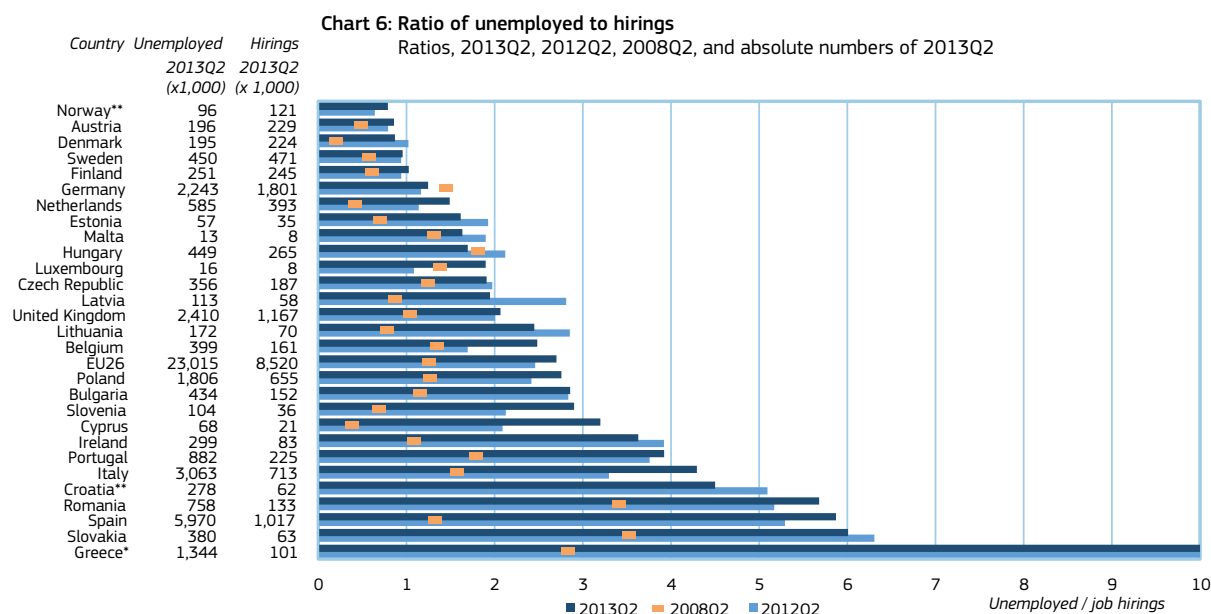
The groupings of countries according to their ratios for the second quarter of 2013 are shown below. Compared to the

last reference period when only one country (Norway) had a ratio of below 1.0, four countries did so in the latest quarter. Norway had the lowest ratio of 0.8 but was joined by Nordic neighbours Denmark and Sweden, as well as Austria. For the next group of nine countries with comparatively low ratios of over 1.0 and up to and including 2.0, the older Member States tended to dominate this group but in this latest quarter they represented just four (Finland, Germany, Luxembourg and the Netherlands), with the newer Member States taking the other five places (Czech Republic, Estonia, Hungary, Latvia and Malta).

- Ratio of 1.0 or under\*: Austria, Denmark, Norway, Sweden
- Ratio of over 1.0 and to 2.0: The Czech Republic, Estonia, Finland, Germany, Hungary, Latvia, Luxembourg, Malta, the Netherlands
- Ratio of more than 2.0 to 3.0: Belgium, Bulgaria, Lithuania, Poland, Slovenia, United Kingdom
- Ratio of 3.0 and over: Croatia, Cyprus, Greece, Ireland, Italy, Portugal, Romania, Slovakia, Spain

\* A ratio of under 1.0 would seem to indicate a shortage of labour supply (fewer people looking for work than there are vacancies available). However this is unlikely to be the case for a number of reasons. Firstly, the LFS unemployment data will not identify all those seeking work – some may remain hidden or undeclared. Secondly, not all job seekers are unemployed – in fact most vacancies are filled by those already in work and who change job without a period of unemployment.

↑ means increasing ratio, ↓ means decreasing ratio, = means equal ratio (0.01 difference).



Source: Eurostat, LFS - own calculations (28 countries). Countries included in the EU26 total: EU28 exclusive Croatia (no data 2008Q2) and France (high LFS non-response in 2013Q2 job start data).

Stock of unemployed: unadjusted, age 15-65.

Job hirings refer to employees who were employed in a 'reference week' and had started working for their employer at most three months earlier.

\* Greece ratio 2012Q2: 14.65; 2013Q2: 13.30.

\*\* Changes for Croatia and Norway are only shown for 2012Q2-2013Q2 due to missing values for 2008Q2. The EU26 total for 2012Q2-2013Q2 does not include these countries either.

Stock unemployed (EU26, in thousands):

in 2008Q2: 14,112; in 2012Q2: 21,866; in 2013Q2: 23,015; for job hirings see Chart 5.

Stock unemployed (EUR28 including Norway, in thousands): in 2012Q2: 22,201; in 2013Q2: 23,389; for job hirings see Chart 5.

In terms of change between the second quarters of 2012 and 2013, hirings fell strongly and unemployment increased at the same time in six countries (Belgium, Cyprus, Italy, Poland, Slovenia and Spain) indicating worsening labour markets, although for Spain the developments in both vacancies and Randstad vacancies suggest the possibility of increased hirings in the third quarter of 2013. In only four countries (Denmark, Hungary, Ireland and Lithuania), falling unemployment and increased hirings were coincident, indicating improving labour markets.

In three countries (Estonia, Germany and Latvia) a fall in unemployment was more than compensated for by falls in hirings. At least for Estonia and Germany, the decline in unemployment cannot be attributed to the 'discouraged worker' effect, causing the unemployed to stop looking for a job and become inactive. This is because the inactivity rate also declined in both countries, especially among workers age 55-64 years old. This is another indication that older workers stay longer in their current jobs which partially contributes to the fall in hirings. In this case there are fewer job-to-job movements resulting in less competition for the unemployed and, as a side effect, there are fewer hirings despite decreasing unemployment. This pattern was also observed in the United Kingdom, but there the decline in unemployment and hirings cancelled each other resulting in little change to the ratio.

In five countries both unemployment and hirings increased (Bulgaria, Croatia, the Czech Republic, Malta and Slovakia). The ratio decreased or was stable in these countries and

indicates continuing job opportunities, but perhaps also a skills mismatch. In that case, some employers will recruit workers with fewer skills than required for a trial period, resulting in higher job turnover and recruitment levels, while other employers will not recruit under-skilled workers who then join the ranks of the unemployed. This means that skills mismatches can cause both hirings and unemployment to increase. There is also some evidence to suggest that in some countries, the participation rate may increase as more employment opportunities become available and this may result in hirings and unemployment increasing.

Taking a broader perspective, the ratio of unemployed to hirings increased in six of the seven countries with the lowest ratios in the EU, confirming one part of the convergence in recruitment levels indicated by job vacancies. However, this is less the case at the other extreme, where ratios did fall in Croatia, Greece and Slovakia indicating improving job prospects, but declined in Romania and Spain indicating worsening job prospects. However the ratios did fall in Greece, Ireland and eight out of thirteen newer Member States, indicating recently improving job prospects in countries generally hit worst by the crisis.

A comparison of Chart 6 with that in the previous issue of the EVM (number 11), shows that the ratio of unemployed to hirings has dropped to below one in Austria, Denmark and Sweden. The reason is that due to seasonal developments, the ratio tends to be lower in the second quarter of the year compared to the other three quarters.

# Part 2 OCCUPATIONS

## 2.1 RECRUITMENT DEMAND FOR OCCUPATIONS

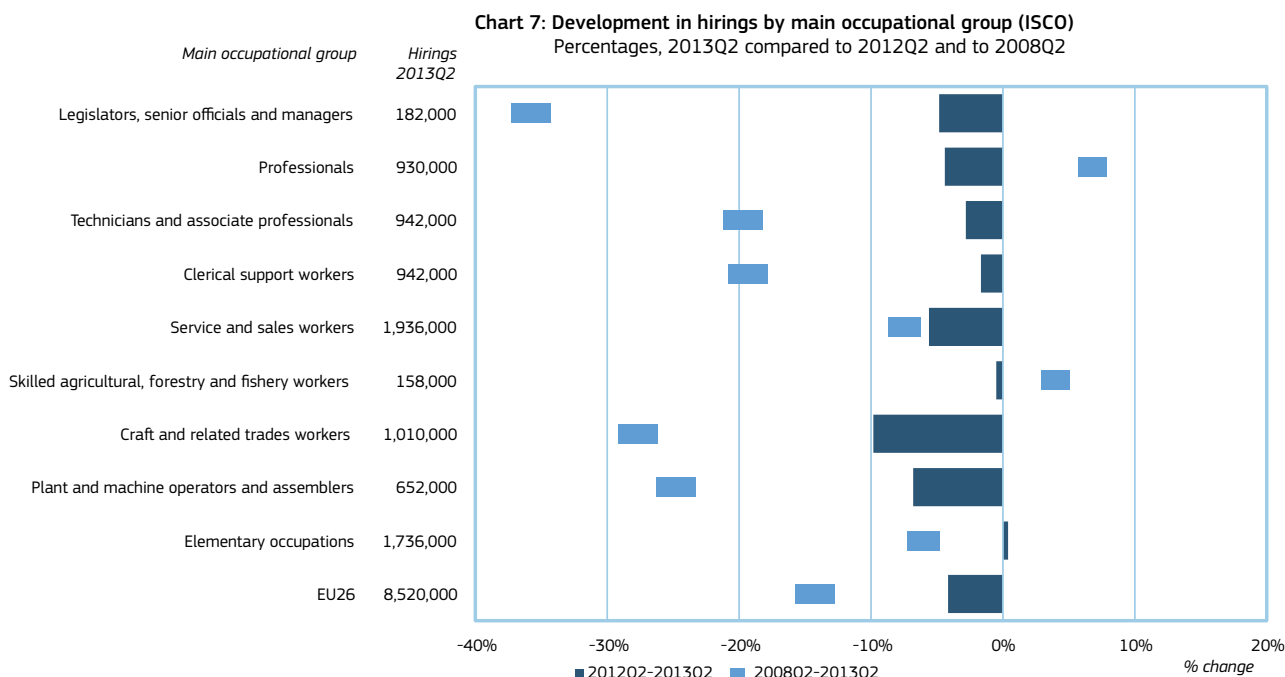
### Hirings continued to fall except for elementary occupations

Hirings in the EU26 countries fell between the second quarters of 2012 and 2013 in most main occupational groups except 'elementary occupations' (Chart 7) where hirings remained stable. This is different from previous quarters where hirings grew in one or more occupational groups, such as 'legislators, senior officials and managers', 'technicians and associate professionals' and 'elementary occupations' in the previous reference period (EVM11). For professionals, hirings fell for the third consecutive quarter following a period of ten consecutive quarters of year-on-year growth. At the same time, hirings ceased to fall by more than 10 per cent in any main occupational group.

The biggest decrease in hirings between the second quarters of 2012 and 2013 was in 'craft and related trades workers' (down by -10 per cent). Hirings also fell by more than 5 per cent in 'plant and machine operators and assemblers' by -7 per cent and 'services and sales workers' by -6 per cent. The 'professionals' occupational group fell for the third consecutive quarter, plus the -5 per cent fall in the latest quarter was the biggest to date. Increasing hirings of professionals in half of the EU countries including Poland, Spain and the UK were insufficient to compensate for the larger falls in other countries including France, Germany and Italy.

Over the longer term, between the second quarters of 2008 and 2013 total hirings in the EU26 countries fell by -16 per cent. This may seem an improvement on the -24 per cent fall in the previous reference period, however the reference value of the second quarter of 2008 was considerably lower than the first quarter of 2008. Among the nine main occupational groups there was much variation in change over this longer period, though seven of the nine experienced falls. The biggest fall was in 'legislators, senior officials and managers' which fell by -38 per cent and may be partly attributed to the continuing shake-out of public administration jobs where many of this occupational groups are employed. In many countries public sector workers have employment rights that make redundancies difficult to implement and so staffing numbers can only be reduced through natural wastage (such as retirements) and by stopping recruitment. But the big fall since 2008 also partly reflects the previous high levels of hiring for this group in the second quarter of 2008, while hirings for most other groups fell at that time.

The next biggest fall was in 'craft and related trades workers' (-30 per cent), and 'plant and machine operators and assemblers' (-27 per cent) and this continues the trend from previous quarters which are a direct result of the difficulties in sectors such as manufacturing and construction caused by the crisis. The construction sector in particular was the first to be seriously affected by the fallout from the financial crisis and in



Source: LFS data by ISCO 1 digit level - own calculations (26 countries). Not included in the EU26 total: Croatia (no data 2008Q2) and France (high LFS non-response in 2013Q2 in job start data). Total is inclusive armed forces and non-response (together 32,000). From 2011, the ISCO-08 classification is used in the LFS, in 2008 the ISCO-88 classification was used. Job hirings: employees who were employed in a 'reference week' and had started working for their employer at most three months earlier.

the second quarter of 2013 there were some signs of activity picking up with a 1.4 per cent increase in productive activity in the EU28 over the previous quarter<sup>7</sup>. However, year-on-year development of hirings for this quarter was still negative at -3.7 per cent and so the sector has some way to go to return to pre-crisis levels of activity. In Spain the long-term fall in hirings of craft workers was less than average (-24 per cent) but the short-term fall was among the sharpest (-16 per cent), undoing most of the recovery after the initial shock of 2008 and 2009.

Hirings in medium-skilled non-manual occupational groups have also fallen significantly over the period from the second quarters of 2008 and 2013. The biggest fall was in 'clerical support workers', down by -21 per cent, followed by 'service and sales workers', down by -9 per cent. The latter occupational group accounted for the largest proportion of total hirings in the second quarter of 2013 with almost one quarter. 'Elementary occupations' formed the second largest numerical group with around 21 per cent of all hirings and over the long term, hirings fell by -8 per cent which was the lowest percentage fall among all seven occupational groups registering decreases.

Of the two occupational groups with positive growth in hirings between the second quarters of 2012 and 2013, 'professionals' increased by 8 per cent and 'skilled agricultural, forestry and fishery workers' increased by 5 per cent. However, the latter occupational group forms only a very small part of total hirings (around 2 per cent) and is sector-specific. The 'professionals' group is much larger with around 11 per cent of all hirings in the second quarter of 2013 and despite recent falls in the past three quarters, they were still hired in greater numbers in the latest quarter than in the same quarter in 2008.

## Strongest growing employment still in high-skilled occupations

### Top 25 occupational growth

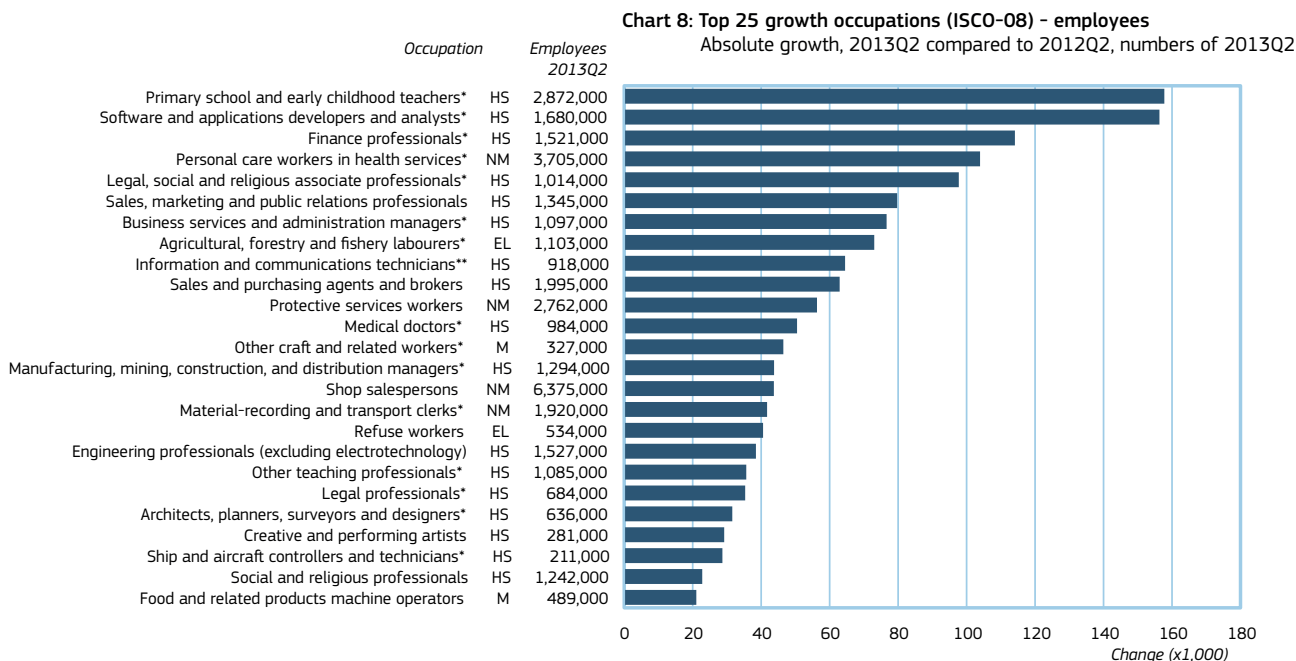
The top 25 occupations are determined by comparing numbers per ISCO category (at 3-digit level) of the third quarter of 2012 compared to the same quarter of 2011. Occupations are ranked by absolute growth rather than percentage change to avoid the numerically smallest occupations always ending on top, or using arbitrary minimum thresholds for selecting larger occupations. To provide a more comprehensive picture of the development of skills demand, this section provides following top 25 occupations:

1. growth in employment (where are increasing numbers of workers needed?)
2. growth in hirings (where are hirings increasing, including those to replace workers leaving employment?)
3. most recent hirings (where is recruitment demand high even if not increasing?)

In the charts four skills groups are distinguished. These are related to the main occupational groups as indicated in the table below:

Skills level	Main occupational groups (ISCO 1-digit)
Highly skilled (HS)	Legislators, managers, professionals and technicians
Skilled non-manual (NM)	Clerks and service/sales workers
Skilled manual (M)	Agricultural, craft and trade workers, machine operators
Elementary (EL)	Labourers, elementary service/sales workers

Source: Cedefop



Source: Eurostat, LFS data by ISCO-08 3 digit level - own calculations (26 countries). Germany is excluded due to changes in the coding of occupations in 2012 and 2013Q1-2013Q2. France is excluded due to high LFS non-response in 2013Q2 job start data. Occupations are indicated with broad skills levels: EL = Elementary (ISCO 9); M = Skilled manual (ISCO 6-8); NM = Skilled nonmanual (ISCO 4-5); HS = high-skilled (ISCO 1-3).  
\* This occupation was also in the top-25 employee growth in the previous quarter (EVM11).  
\*\* Full name occupational group: Information and communications technology operations and user support technicians.

The number of high-skilled occupations in the Top 25 for growth in employee numbers reached 17 between the second quarters of 2013 and 2014 of which eight are even in the top ten (Chart 8). This continued the trend established in the previous two quarters which had 16 and 19 high-skilled occupations among the Top 25 and it underlines the sustained importance of higher skills in the demand for labour. However, for this edition of the EVM in Chart 8 Germany was excluded due to changes in the classification of detailed occupations. Aside from the high-skilled occupations, the Top 25 included four skilled non-manual, two skilled manual and two elementary occupations and in comparison to the previous period, there was one less skilled non-manual occupation in the Top 25.

The occupation that recorded most employee growth between the second quarters of 2012 and 2013 was 'primary school and early childhood teachers' with extra 158,000 employees added to this large employment category and this contributed to maintaining its top position from the previous quarter. The only other occupation in the education sector that also featured prominently in the Top 25 was 'other teaching professionals', but was much lower down in the rankings. The increased numbers of employees in the various teaching professional occupations were represented in the top ten for employee growth in Poland, Spain and seven smaller countries.

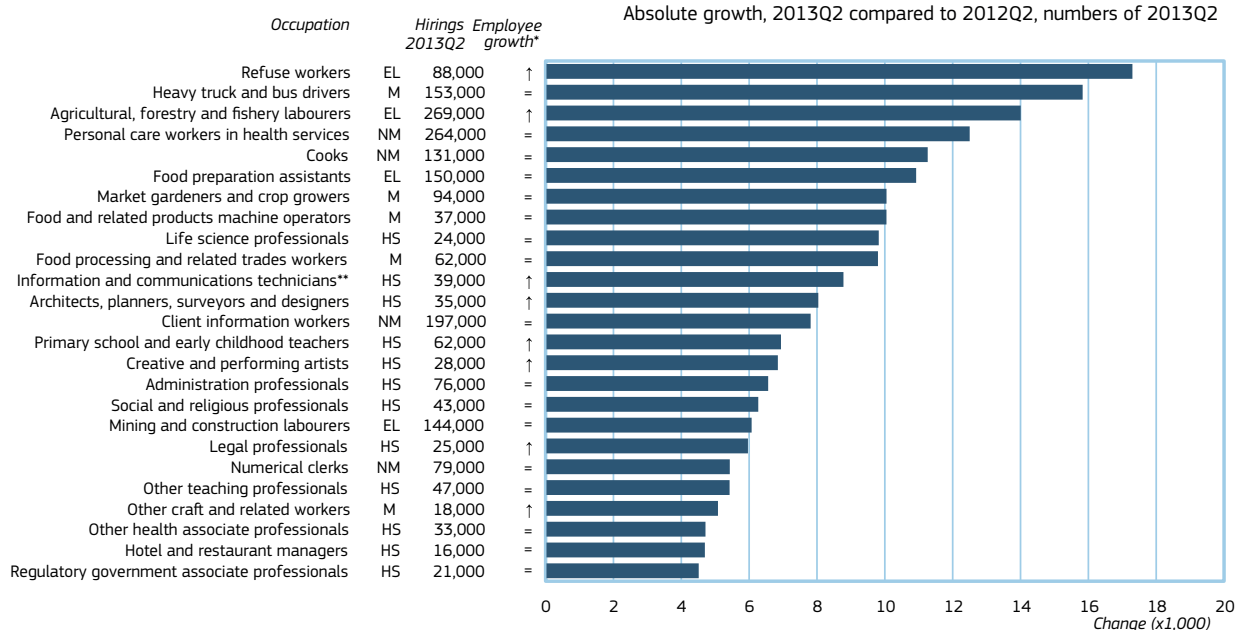
In previous quarters the sector most strongly represented among the Top 25 occupations for employee growth was health with, for example, four occupations in the Top 25 of the previous reference period. However, in the current quarter this importance has diminished and just two health occupations are represented, 'personal care workers in health services' (which is in fourth position) and 'medical doctors' (in

twelfth position). Whereas in the previous quarter the health occupations combined accounted for almost one quarter of all employee growth in the Top 25, in the second quarter of 2013 this had fallen to just half this (12 per cent). Approximately three quarters of employee growth among the 'personal care workers in health services' was in the United Kingdom and just three other countries (Denmark, Italy and Romania) shared the remaining quarter between them. Therefore no significant changes in employee growth the health care sector had taken place outside these countries, confirming the job vacancy data. The health occupations that have slipped out of the Top25 this time are two high-skilled ones of 'nursing and midwifery' and 'other health associate professionals' (though the latter does appear in the Top 25 for hirings, see Chart 9).

Other high-skilled occupations in demand included 'software and applications developers and analysts' (in the top ten of Italy and eight smaller countries), and 'finance professionals' (in the top ten of 14 countries including Italy, Spain and the United Kingdom). Both these occupations are not necessarily sector specific and so tend to be found across most sectors.

Between the two elementary occupations in the Top 25, both were fairly specific activities, namely 'agricultural, forestry and fishery labourers' (at eighth position) and 'refuse workers' (at seventeenth position). Furthermore the increases in employees were mostly concentrated in Spain and some eastern European countries (Bulgaria, Hungary, Romania, and Hungary, Slovakia).

Chart 9: Top 25 growth occupations (ISCO-08) - hirings  
Absolute growth, 2013Q2 compared to 2012Q2, numbers of 2013Q2



Source: Eurostat, LFS data by ISCO-08 3 digit level - own calculations (26 countries). Germany is excluded due to changes in the coding of occupations in 2012 and 2013Q1-2013Q2. France is excluded due to high LFS non-response in 2013Q2 job start data.

Job hirings: employees who were employed in a 'reference week' and had started working for their employer at most three months earlier.

Occupations are indicated with broad skills levels:

EL = Elementary (ISCO 9); M = Skilled manual (ISCO 6-8); NM = Skilled nonmanual (ISCO 4-5); HS = high-skilled (ISCO 1-3).

\* Employee growth (year-on-year change): ≤ -5% (↓); > -5% and ≤ +5% (=); > +5% (↑).

\*\* Full name occupational group: Information and communications technology operations and user support technicians.

## High-skilled occupations continued to be less dominant in hirings growth

While high-skilled occupations also featured prominently in the Top 25 for hirings growth (Chart 9), at 12 their number was substantially below the 17 among the Top 25 for employee growth in the previous Chart 8. This means that other skills categories are more extensively found among hirings growth occupations and here there was a fairly even spread between skilled non-manual (four), skilled manual (five) and elementary (four). Compared to the previous EVM there were the same number of high-skilled occupations (though not necessarily the same occupations), fewer skilled non-manual (two less), fewer skilled manual (one less) and more elementary (two more). The comparison suggests that hirings in the higher skilled occupations have changed little between the quarters while there has been an increase in demand for manual and elementary occupations.

Of the four elementary occupations with increased hirings in the second quarter of 2013 compared to the same quarter

in 2012, only one is common to the previous quarter, 'food preparation assistants', which was in sixth place in the latest Top 25 (down from third place). The remaining three elementary occupations were in fairly specific sectors with 'agricultural, forestry and fishery labourers' and 'mining and construction labourers' and 'refuse workers'. Some increase of hirings may be due to a stronger reliance on seasonal workers if the year-round staff is reduced, some due to increased labour turnover (which tends in general to be higher for lower skilled occupations), but some will also be due to increased demand as is the case for refuse workers and agricultural labourers which featured in the Top 25 employee growth as well.

Comparing the growth in hirings with the growth in employee numbers over the same period provides a useful guide to whether any increase in hirings is due to the creation of new jobs rather than for reasons of labour turnover or replacement demand (for example following retirements). In the second quarter of 2013 there were twelve occupations that appeared in both the Top 25 for employee growth and for hirings growth as follows:

**Chart 10 Top 25 occupations with most recent hirings**

With ranking, indication of employee growth, and numbers of 2013Q2

Ranking	Occupations (ISCO-08, 3-digit level)	Employee Skills level	Hirings y-o-y change*	2013Q2 y-o-y change*	2013Q2 job hirings
1	Shop salespersons***	NM	=	↓	409,000
2	Waiters and bartenders	NM	↓	↓	375,000
3	Domestic, hotel and office cleaners and helpers	EL	=	↓	359,000
4	Agricultural, forestry and fishery labourers	EL	↑	↑	269,000
5	Personal care workers in health services	NM	=	=	264,000
6	Building frame and related trades workers	M	↓	↓	243,000
7	Client information workers	NM	=	=	197,000
8	Heavy truck and bus drivers	M	=	↑	153,000
9	Food preparation assistants	EL	=	↑	150,000
10	Transport and storage labourers	EL	=	↓	150,000
11	Mining and construction labourers	EL	=	=	144,000
12	Cooks	NM	=	↑	131,000
13	Other elementary workers	EL	=	=	110,000
14	Manufacturing labourers	EL	=	↓	108,000
15	Child care workers and teachers' aides	NM	=	↓	101,000
16	Building finishers and related trades workers	M	↓	=	100,000
17	Protective services workers	NM	=	=	97,000
18	Other clerical support workers	NM	=	=	95,000
19	Market gardeners and crop growers	M	=	↑	94,000
20	Sales and purchasing agents and brokers	HS	=	↓	92,000
21	General office clerks	NM	=	↓	91,000
22	Refuse workers	EL	↑	↑	88,000
23	Other sales workers***	NM	↓	=	86,000
24	Numerical clerks	NM	=	↑	79,000
25	Cashiers and ticket clerks	NM	=	↓	79,000
	<b>Total top 25**</b>				<b>4,064,000</b>
	<b>Total**</b>				<b>6,781,000</b>

Source: LFS, EU26 by ISCO-08, 3 digit level - own calculations. France (high non-response 2013Q2) and Germany (coding issues 2012-2013Q1) are excluded.

\* "=" change > -5% and ≤ +5%; ↑ increase ≥ +5%; ↓ decrease < -5%.

\*\* Total exclusive Germany and France

\*\*\* Exclusive the Netherlands for this occupation

HS = high-skilled (ISCO 1-3); NM = Skilled nonmanual (ISCO 4-5); M = Skilled manual (ISCO 6-8); EL = Elementary (ISCO 9).



- **High-skilled** (7 occupations) – ‘*primary school and early childhood teachers*’, ‘*information and communications technicians*’, ‘*other teaching professionals*’, ‘*legal professionals*’, ‘*architects, planners, surveyors and designers*’, ‘*creative and performing artists*’, ‘*social and religious professionals*’.
- **Skilled non-manual** (1 occupation) – ‘*personal care workers in health services*’,
- **Skilled manual** (2 occupations) – ‘*other craft and related workers*’, ‘*food and related products machine operators*’.
- **Elementary** (2 occupations) – ‘*agricultural, forestry and fishery labourers*’, ‘*refuse workers*’.

Compared to the previous quarter, there was the same number of occupations with coincident growth in employees and hirings, but the skills mix was different. Of the above twelve occupations, just four were common to both the latest and the previous quarters, suggesting a more sustained growth in new jobs for these. They consisted of two high-skilled occupations (‘*social and religious professionals*’ and ‘*architects, planners, surveyors and designers*’), one skilled non-manual (‘*personal care workers in health services*’ although mainly in the United Kingdom) and one skilled manual (‘*other craft and related workers*’).

### Non-manual and elementary occupations continue to dominate the Top 25 for hirings

The skilled non-manual and elementary occupations continued to form the most numerous hirings in the 26 EU countries covered in the second quarter of 2013 (Chart 10). However there were slight differences with the previous quarter in

the composition of skills. For example there were twelve skilled non-manual occupations (compared to ten in the previous quarter), eight elementary (compared to eight), four skilled manual (compared to five) and just one high-skilled (compared to three). There were three skilled non-manual and two elementary in the top five occupations for hirings in the second quarter of 2013 and they were the same five as in the previous quarter (with some minor changes in ranking). The only high-skilled occupation to make it into the Top 25 hirings volumes was ‘*sales and purchasing agents and brokers*’ (at twentieth position) which also appeared in the previous quarter (at thirteenth position). The other two high-skilled occupations in the previous quarter’s Top 25, ‘*primary school and early childhood teachers*’ and ‘*sales, marketing and public relations professionals*’ dropped out of the latest rankings. Four occupations joined the top demanded list in the latest quarter, ‘*other clerical support workers*’, ‘*numerical clerks*’, ‘*market gardeners and crop growers*’ and ‘*refuse workers*’.

In terms of the year-on-year change in hirings, just eight occupations among the Top 25 with most numerous hirings increased significantly (with more than 5 per cent) between the second quarters of 2012 and 2013, with a further ten declining and eight with no change. Increased hirings in occupations such as ‘*agricultural, forestry and fishery labourers*’, ‘*market gardeners and crop growers*’, ‘*food preparation assistants*’ and ‘*cooks*’, suggest the start of the seasonal demand for these mostly low to medium-skilled jobs. For the year-on-year change over the same period for employee numbers among the jobs hired in large volumes, there was much less change with the majority (19) registering no significant change, another four declining and just two increasing.

## 2.2 PES VACANCY INFLOW BY OCCUPATION

### Developments in notified PES vacancies for professionals and technicians opposite to hirings

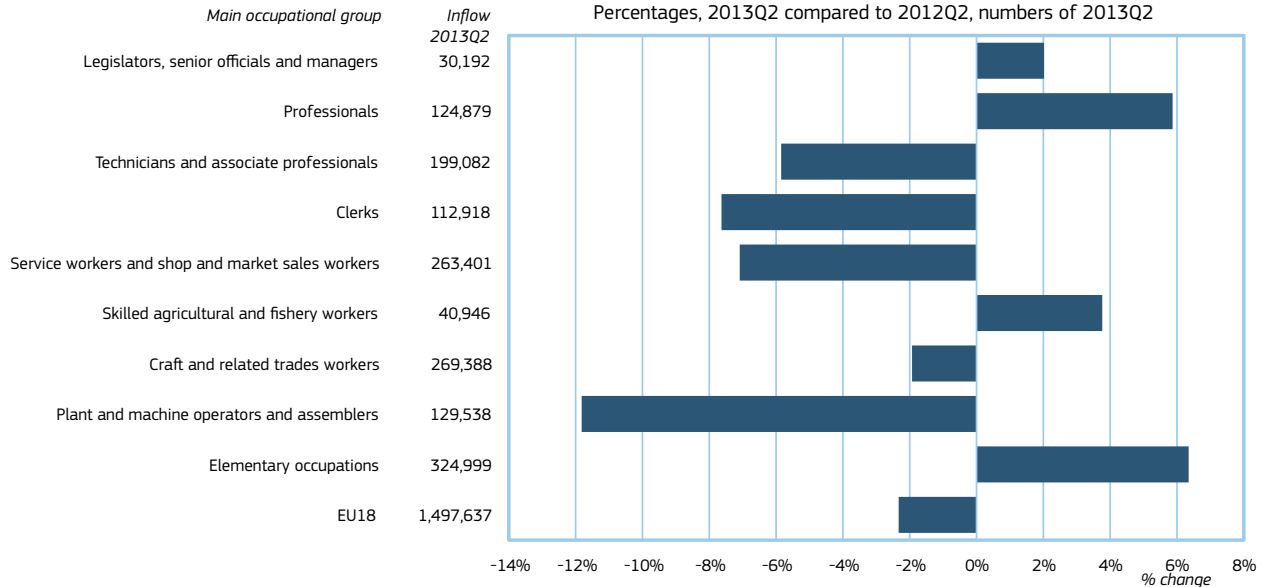
Information on the 18 countries with comparable data shows that the combined inflow of PES job vacancies fell by -2 per cent between the second quarters of 2012 and 2013 (Chart 11). This was slightly less than the -4 per cent fall in the previous quarter.

Against this background there was also some further sign of improvement with four main occupational groups recording growth in PES vacancies, compared to two in the previous period. The biggest increases was for ‘*elementary occupations*’ and at the opposite end of the skills spectrum ‘*professionals*’, both of which rose by 6 per cent and were also the only two occupations to increase in the previous period. Much of the increase in the latter case was due to strong growth in PES vacancies in particularly in Ireland. Next highest was ‘*skilled agricultural and fishery workers*’ with an increase of 4 per cent and ‘*legislators, senior officials and managers*’, up by 2 per cent.

Only one of these four main occupational groups (‘*elementary occupations*’) with growth in PES vacancies between the second quarters of 2012 and 2013 also recorded (minimal) growth in hirings over the same period, the remaining three had PES vacancies and hirings moving in opposite directions, sometimes in the same countries as was the case for Ireland and Germany for professionals. This shows that the PES cover specific segments of the market, partly because public sector employers are more likely to notify all their vacancies than private sector employers.

Of the five main occupational groups with declining PES vacancy inflows between the second quarters of 2012 and 2013, ‘*plant and machine operators and assemblers*’ fell the most by -12 per cent, followed by ‘*clerks*’ (down -8 per cent), ‘*service workers and shop and market sales workers*’ (down -7 per cent), and ‘*technicians and associate professionals*’ (down by -6 per cent). Those countries that contributed most to the falls in the PES vacancy inflows for ‘*technicians and associate professionals*’ were Germany, the Netherlands and Slovenia.

**Chart 11: Development in PES vacancy inflow by main occupational group (ISCO)**  
Percentages, 2013Q2 compared to 2012Q2, numbers of 2013Q2



Source: PES by ISCO, 1-digit, 18 countries, own calculations. Countries included (with ISCO-88 or ISCO-08 classification between brackets): Austria (88), Belgium\* (88), Bulgaria (08), Croatia (08), Cyprus (88), Estonia (08), Germany (08), Hungary (08), Ireland (08), Latvia (08), Lithuania (88), Luxembourg (88), the Netherlands (88), Portugal (88), Romania (08), Slovenia (08), Spain (08) and Sweden (88).  
\* Belgium includes the Walloon region and the Brussels region but not the Flemish region due to a new occupational classification since 2013Q1.  
EU18 is inclusive armed forces and vacancies for undefined occupations.  
Germany changed from ISCO88 to ISCO08 as from 2013Q1, however a comparison at 1 digit level is still considered possible.

### Strongest increases in PES notifications shows a mixture of skills levels

The Top 25 occupations for growth in PES vacancy inflows are presented in two separate charts reflecting the availability of comparable information according to the different versions used of the International Standard Classification of Occupations (ISCO). Chart 12 covers eight countries using ISCO-88 (Austria, Belgium, Cyprus, Lithuania, Luxembourg, the Netherlands, Portugal, and Sweden) and so most vacancies in this group are concentrated in the centre and north of Europe. Chart 12b covers nine countries using ISCO-08 (Bulgaria, Croatia, Estonia, Hungary, Ireland, Latvia, Romania, Slovenia, and Spain) located mostly in the east and south of Europe. For both groups there are notable absences of the largest Member States such as France, Germany, Italy, and the United Kingdom. However the exclusion of these large countries means that the figures are less distorted by trends in just one or two dominant players and so can be more indicative of developments across the groups of countries represented.

In both groups of countries the Top 25 growth occupations for PES vacancy inflow shows a mix of skills levels though with some differences. In the first group, high-skilled, skilled manual and elementary occupations had seven each, while skilled non-manual had four (Chart 12). In the second group of nine countries using the ISCO-08 classification, there was more emphasis on mid-level skills, with skilled non-manual having the most occupations with ten, followed by skilled manual and elementary with six each and high-skilled with just three (Chart 12b). However in both groups of countries the highest-placed growth occupations are dominated by low to mid-skilled jobs. In the first group of countries 'manufacturing labourers' headed the list, with 'domestic and related helpers, cleaners and launderers' in third place (the second position was filled by the high-skilled 'nursing and midwifery associate professionals'). In the second case the top two growth

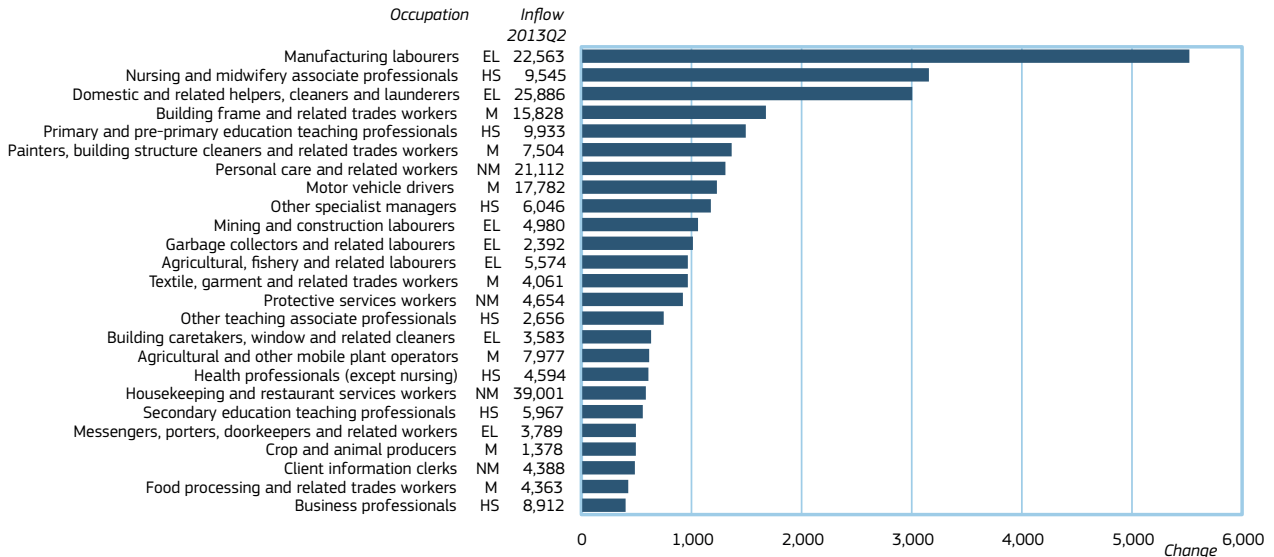
occupations were 'mining and construction labourers' and then the more general 'other elementary workers'.

The importance of lower skilled occupations to the labour market is evident from the fact that the two elementary occupations in the top three in the first group of countries, along with 'housekeeping and restaurant services workers' further down the rankings, combined accounted for 36 per cent of the total PES vacancy inflow of the Top 25 occupations in the second quarter of 2013. In the second group of nine countries, the six elementary occupations combined accounted for almost half the inflow of PES vacancies.

The seven high-skilled jobs in the Top 25 for PES vacancy inflow growth in the first group of countries were much less significant in terms of the proportion of the total inflow for the Top 25, accounting for approximately 19 per cent. However, as in previous quarters, this high-skilled group is dominated by occupations in health and education which, combined, came to 69 per cent of the PES vacancies in the high-skilled occupational groups combined. It is likely that PES receive notification of a high proportion of job vacancies in health and education since most jobs are in the public sector. The scale and consistency of job vacancies in these occupations over time suggests a strong real demand for these skills, though much of it will be for turnover and replacement needs rather than strictly new jobs, particularly outside the United Kingdom. This is evident in the second group of countries where PES vacancies in health and education were less prominent. Here the three high-skilled growth occupations were quite diverse with 'creative and performing artists' the highest placed (at third) for growth in vacancy inflow between the second quarters of 2012 and 2013, followed by 'social and religious professionals' and 'physical and engineering science technicians', both much lower down the ranking and these three occupations together represented just 5 per cent of the Top 25 total.

**Chart 12: Top 25 growth occupations (ISCO-88) - PES vacancy inflow**

Absolute growth, 2013Q2 compared to 2012Q2, numbers of 2013Q2



Source: PES by ISCO-88, 3-digit - own calculations; 8 countries included: Austria, Belgium\*, Cyprus, Lithuania, Luxembourg, the Netherlands, Portugal and Sweden.

\* Belgium includes the Walloon region and the Brussels region but not the Flemish region due to a new occupational classification system since 2013Q2.

Germany is excluded due to a change from ISCO-88 to ISCO-08.

This causes high-skilled jobs to be less dominant than in 2012.

PES inflow refers to new job vacancies which have been registered in a certain quarter.

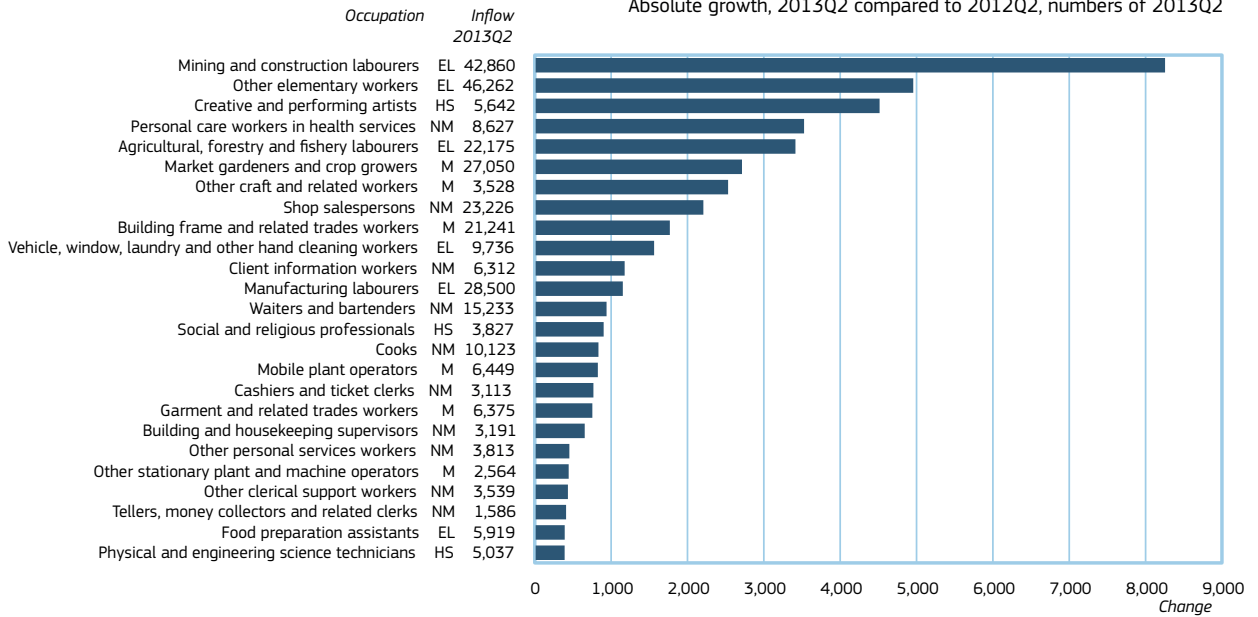
Occupations are indicated with broad skills levels:

EL = Elementary (ISCO 9); M = Skilled manual (ISCO 6-8); NM = Skilled nonmanual (ISCO 4-5);

HS = high-skilled (ISCO 1-3).

**Chart 12b: Top 25 growth occupations (ISCO-08) - PES vacancy inflow**

Absolute growth, 2013Q2 compared to 2012Q2, numbers of 2013Q2



Source: PES by ISCO-08, 3-digit - own calculations; 9 countries included: Bulgaria, Croatia, Estonia, Hungary, Ireland, Latvia, Romania, Slovenia, Spain.

PES inflow refers to new job vacancies which have been registered in a certain quarter.

Occupations are indicated with broad skills levels:

EL = Elementary (ISCO 9); M = Skilled manual (ISCO 6-8); NM = Skilled nonmanual (ISCO 4-5);

HS = high-skilled (ISCO 1-3).

## Vacancies for high-skilled workers more often notified in the centre and north of Europe

In terms of absolute numbers of PES vacancy inflows, figures for the second quarter of 2013 for the eight countries using ISCO-88 (Chart 13) and the nine countries using ISCO-08 (Chart 13b) show somewhat different patterns in terms of occupations and skills mix. The first group of countries (mostly in the centre and north of Europe) high-skilled occupations are the most strongly represented with nine among the Top 25, whereas the second group of countries (mostly in the east and south of Europe) skilled manual occupations dominate, with ten among the Top 25. However, vacancies for 'manufacturing labourers' and 'shop salespersons' are clearly among the top five notified occupations across Europe since they feature in both Chart 13 and Chart 13b.

In the first group of countries, the top three occupations comprised two skilled non-manual ('housekeeping and restaurant services workers' and 'shop salespersons and demonstrators') and one high-skilled occupation ('finance and sales associate professionals') and all three were also within the top 4 in the first quarter of 2013. For the second group of countries, there was a much lower skilled profile with only one high-skilled occupation in the Top 25 ('sales and purchasing agents and brokers' at tenth position) and skilled manual occupations formed the largest group with ten occupations, followed by elementary with eight, and skilled non-manual with six. The top three occupations were all low skilled, headed by 'other elementary workers', with 'mining and construction labourers' in second place and 'manufacturing labourers' in third place.

Chart 13: Top 25 occupations (ISCO-88) with highest recent PES vacancy inflow

	Occupations (ISCO-88, 3-digit level)	Skills level	Change compared to 2012Q2	2013Q2 PES inflow
1	Housekeeping and restaurant services workers	NM	=	39,001
2	Shop salespersons and demonstrators	NM	=	38,693
3	Finance and sales associate professionals	HS	=	26,369
4	Domestic and related helpers, cleaners and launderers	EL	↑	25,886
5	Manufacturing labourers	EL	↑	22,563
6	Personal care and related workers	NM	↑	21,112
7	Motor vehicle drivers	M	↑	17,782
8	Building frame and related trades workers	M	↑	15,828
9	Machinery mechanics and fitters	M	=	13,391
10	Physical and engineering science technicians	HS	↓	13,331
11	Building finishers and related trades workers	M	↓	10,504
12	Primary and pre-primary education teaching professionals	HS	↑	9,933
13	Nursing and midwifery associate professionals	HS	↑	9,545
14	Administrative associate professionals	HS	↓	8,930
15	Business professionals	HS	=	8,912
16	Computing professionals	HS	↓	8,850
17	Electrical and electronic equipment mechanics and fitters	M	↓	8,718
18	Material-recording and transport clerks	NM	=	8,717
19	Architects, engineers and related professionals	HS	↓	8,310
20	Agricultural and other mobile plant operators	M	↑	7,977
21	Stall and market salespersons	NM	↓	7,881
22	Metal workers **	M	=	7,825
23	Painters, building structure cleaners and related trades workers	M	↑	7,504
24	Pre-primary education teaching associate professionals	HS	=	6,821
25	Transport labourers and freight handlers	EL	↓	6,060
	<b>Total top 25</b>			<b>360,443</b>
	<b>Total</b>			<b>517,279</b>

Source: PES by ISCO-88, 3-digit - own calculations; 8 countries included: Austria, Belgium\*, Cyprus, Lithuania, Luxembourg, the Netherlands, Portugal and Sweden.

\* Belgium includes the Walloon region and the Brussels region but not the Flemish region due to a new occupation classification since 2013Q1.

\*\* Metal moulders, welders, sheet-metal workers, structural-metal preparers, and related trades workers

EL = Elementary (ISCO 9); M = Skilled manual (ISCO 6-8); NM = Skilled nonmanual (ISCO 4-5); HS = high-skilled (ISCO 1-3).

"=" change > -5% and ≤ +5%; ↑ increase > +5%; ↓ decrease ≤ -5%.

Chart 13b: Top 25 occupations (ISCO-08) with highest recent PES vacancy inflow

	Occupations (ISCO-08, 3-digit level)	Skills level	Change compared to 2012Q2	2013Q2 PES inflow
1	Other elementary workers	EL	↑	46,262
2	Mining and construction labourers	EL	↑	42,860
3	Manufacturing labourers	EL	=	28,500
4	Market gardeners and crop growers	M	↑	27,050
5	Shop salespersons	NM	↑	23,226
6	Agricultural, forestry and fishery labourers	EL	↑	22,175
7	Building frame and related trades workers	M	↑	21,241
8	Waiters and bartenders	NM	↑	15,233
9	Domestic, hotel and office cleaners and helpers	EL	↓	12,390
10	Sales and purchasing agents and brokers	HS	↓	11,982
11	Protective services workers	NM	=	11,726
12	Heavy truck and bus drivers	M	=	11,271
13	Metal workers *	M	↓	10,144
14	Cooks	NM	↑	10,123
15	Vehicle, window, laundry and other hand cleaning workers	EL	↑	9,736
16	Personal care workers in health services	NM	↑	8,627
17	Transport and storage labourers	EL	=	8,142
18	Assemblers	M	↓	7,322
19	Machinery mechanics and repairers	M	=	7,042
20	Mobile plant operators	M	↑	6,449
21	Garment and related trades workers	M	↑	6,375
22	Building finishers and related trades workers	M	=	6,337
23	Client information workers	NM	↑	6,312
24	Blacksmiths, toolmakers and related trades workers	M	↓	6,137
25	Food preparation assistants	EL	↑	5,919
	<b>Total top 25</b>			<b>372,581</b>
	<b>Total</b>			<b>528,397</b>

"Source: PES by ISCO-08, 3-digit - own calculations; 9 countries included: Bulgaria, Croatia, Estonia, Hungary, Ireland, Latvia, Romania, Slovenia and Spain.

EL = Elementary (ISCO 9); M = Skilled manual (ISCO 6-8); NM = Skilled nonmanual (ISCO 4-5); HS = high-skilled (ISCO 1-3).

\* Sheet and structural metal workers, moulders and welders, and related workers

"=" change > -5% and ≤ +5%; ↑ increase ≥ +5%; ↓ decrease < -5%.

# Part 3 EDUCATIONAL REQUIREMENTS

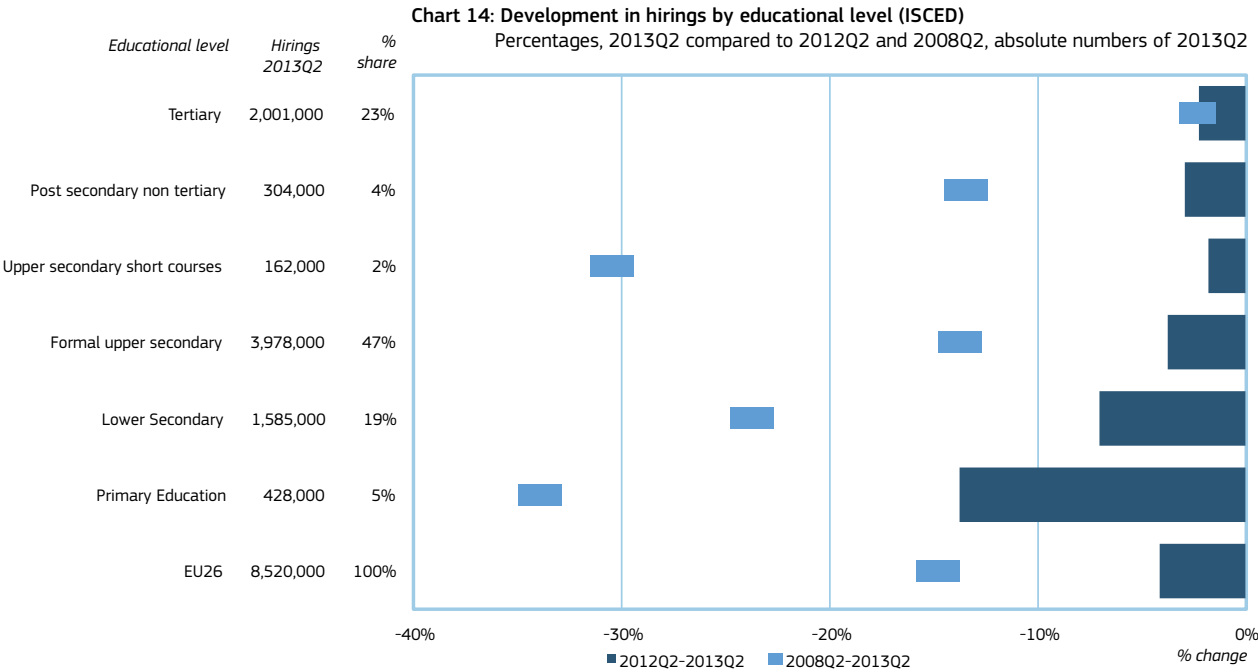
## Hirings decline at all educational levels for the first time since 2009

Over the past few quarters the data on hirings and employee growth confirmed the better job prospects for those holding higher levels of education. In the previous quarter for example, hirings in all three highest educational levels showed positive change over its previous quarter (albeit by a small margin for tertiary level). However, the data for the second quarter of 2013 compared to the same quarter in 2012 shows for the first time since the fourth quarter of 2009, hirings fell in all six educational levels (Chart 14). The biggest falls in hirings were among those holding the lowest levels of educational attainment, with primary falling by 14 per cent and lower secondary by 8 per cent. For the other levels of attainment the falls were much smaller, with formal upper secondary (the largest group in numerical terms) falling by -6 per cent, upper secondary short courses (the smallest group in numerical terms) by -2 per cent, post secondary non-tertiary by -3 per cent, and tertiary by -2 per cent.

The commencement of a recovery in hirings that was observed earlier for a number of Member States in the east and south of Europe has different impacts on job opportunities of persons

with varying educational levels. In the east of Europe, medium educated workers are the dominant group in hirings with a share of 50 per cent or higher and here hirings generally increased between the second quarters of 2012 and 2013. Hirings of medium educated workers increased above 10 per cent in Croatia, Hungary and Slovakia. In Greece, Portugal and Spain lower educated workers are the largest group in hirings but hirings did not increase between the second quarters of 2012 and 2013 despite increasing total hirings (Greece and Portugal) or job vacancies (Portugal and Spain). This indicates that in the south of Europe lower educated workers did not immediately profit from positive developments. But in general developments are mixed for different countries and different educational backgrounds.

Over a longer period, the changes in hirings between the second quarters of 2013 and 2008 confirm the labour market resilience of those with higher levels of educational attainment. Whereas hirings for holders of primary level education fell by -35 per cent, the fall for those with formal upper secondary education fell by less than half this figure (-15 per cent), while holders of tertiary level education saw hirings fall by just -3 per cent.



Source: LFS - own calculations (26 countries). Countries excluded: Croatia (no data 2008Q2) and France (high non-response in job starts 2013Q2).  
 Exclusive 64,000 non-response on educational level (0.7%). In the EU26 total non-response is included.  
 Job hirings: employees who were employed in a 'reference week' and had started working for their employer at most three months earlier.



## Part 4 SPECIAL FOCUS: SOUTHERN EUROPE

This special focus is devoted to an in-depth look at the labour market situation in the four Member States of Southern Europe covering Greece, Italy, Portugal and Spain. All four countries have been among the most affected by the crisis and the subsequent difficulties in the euro-zone and for the past three years have been EU Programme Countries, subject to special measures to control public finances, overseen by the 'Troika' of the European Commission, International Monetary Fund and European Central Bank<sup>9</sup>. This special focus seeks to identify the strengths and weaknesses in the recruitment markets of these countries and where the job opportunities are in challenging labour market conditions.

The extent of the crisis in Southern Europe is evidenced by the continuing weak economic development. In the second quarter of 2013, the EU28 economy was at zero year-on-year GDP growth but this was an improvement on the negative growth in the previous quarter and beyond. However, all four Southern Member States recorded further falls in GDP between the second quarters of 2012 and 2013 with -4.0 per cent in Portugal (first quarter of 2013), -2.0 per cent in Italy, and -1.6 per cent each in Greece and Spain.

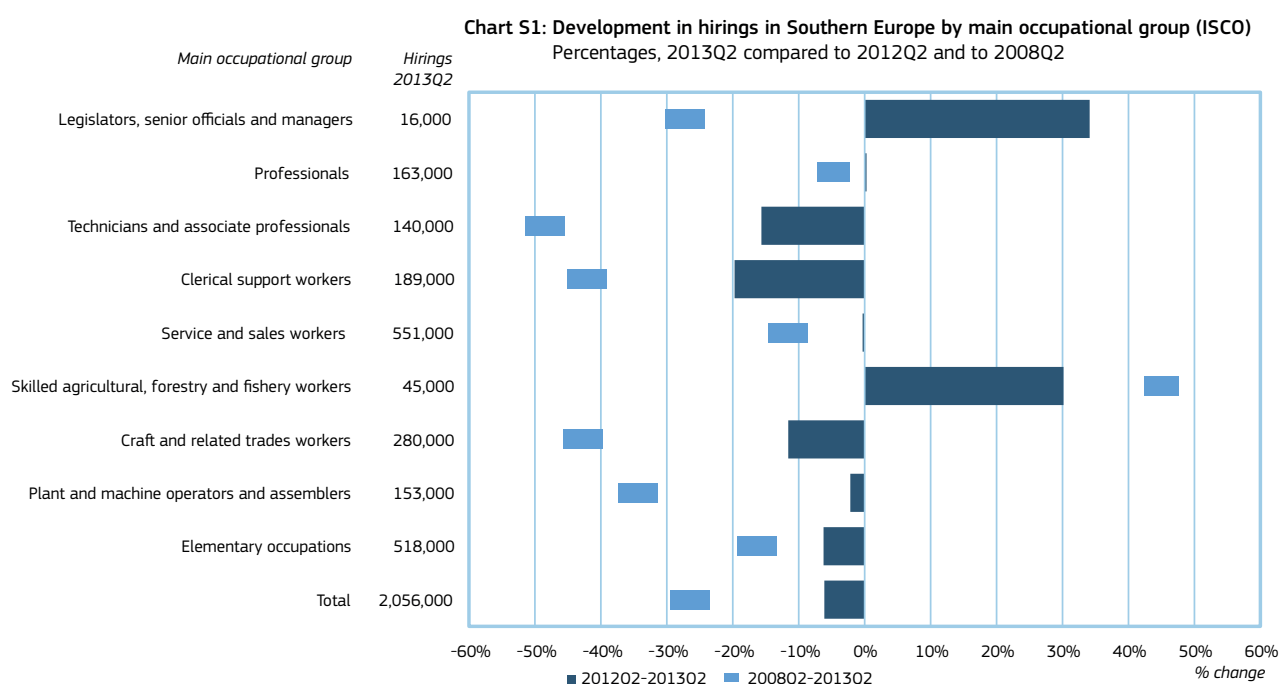
In the EU28 collectively there were some signs of economic growth according to the latest quarterly movements. These show that GDP grew by 0.4 per cent in the second quarter of 2013 compared to the first quarter and this was only slightly lower at 0.3 per cent in the euro-zone. There were also signs that GDP in the Southern countries is more or less stable, after a period of decline. In Italy the change in GDP between the

second and first quarters of 2013 was -0.2 per cent, in Spain -0.1 per cent and in Portugal -0.4 per cent (first quarter of 2013 compared to the fourth quarter of 2012).<sup>10</sup>

The generally weak economic performance over the medium term is reflected in changes in employment which fell by -0.4 per cent in the second quarter of 2013 year-on-year in the EU28, but by much greater amounts in the four Southern European countries. In Greece employment was down by -4.3 per cent, in Portugal by -4.1 per cent, in Spain by -3.6 per cent and in Italy by -1.8 per cent. These falls are reflected in both the employee and hirings figures set out in this special focus, but not all occupations were affected and, as will be demonstrated, even under these circumstances some demonstrated a more upward trajectory.

### Decline in hirings came to a halt for services and professionals whilst increasing in smaller occupations

Between the second quarters of 2012 and 2013 hirings in the four Southern European countries of Greece, Italy, Portugal and Spain combined fell by -6 per cent (Chart S1). Among these four countries, hirings increased in Greece and Portugal but this was insufficient to compensate for the falling hirings in the larger countries Italy and Spain. (Chart S1). The 6 per cent decline in hirings in Southern Europe is only two per cent point lower than the fall of -4 per cent for the EU26 average (see Chart 5), though over a longer period the difference grows



Source: LFS data by ISCO 1 digit level - own calculations (4 countries). Countries included: Greece, Italy, Portugal and Spain.

Total is inclusive armed forces and non-response (together 2,000). From 2011, the ISCO-08 classification is used in the LFS, in 2008 the ISCO-88 classification was used.

Job hirings: employees who were employed in a 'reference week' and had started working for their employer at most three months earlier.

substantially. Between the second quarters of 2008 and 2013, hirings in the combined four Southern European countries fell by 30 per cent which was almost twice the fall (16 per cent) for the EU26. In three of the four countries hirings over the five year period fell (Greece, Italy and Spain), but not in Portugal where hirings increased across a broad range of occupations. Nevertheless, it will take more than a few months of recovering hirings to undo years of increasing unemployment in Portugal.

Looking back to the whole period of the crisis, between the second quarters of 2008 and 2013, in the four Southern European countries combined, only one main occupational group had increased hirings. Hirings of 'skilled agricultural, forestry and fishery workers' went up by 48 per cent over this period, though as already indicated, this forms a very small proportion of all hirings. Otherwise all eight other main occupational groups had falls in hirings over this five year period, with 'technicians and associate professionals' with the strongest decline (-52 per cent), followed by 'clerical and support workers' and 'craft and related workers' (both down by -46 per cent), in each of the four countries. The main occupational group with the least decline in hirings was 'professionals' at -8 per cent, with the next least decline in 'service and sales workers' at -15 per cent. The fall in hirings of 'service and sales workers' can be attributed fully to Spain where hirings fell by -30 per cent, undoing modest increases in the other three Southern European countries compared to the second quarter of 2008.

Between the second quarters of 2012 and 2013 hirings continued to fall for most of the main occupational groups, but positive developments are observed for two main groups. For 'legislators, senior officials and managers' the increase was 34 per cent, while for 'skilled agricultural, forestry and fishery workers' it was slightly less at 30 per cent. However both occupational groups combined accounted for just 3 per cent of the total hirings in the second quarter of 2013. The

largest occupational groups for hirings in this period by far were 'service and sales workers' (27 per cent of the total) and 'elementary occupations' (25 per cent of the total). Hirings in the former group showed no change while they fell by -6 per cent in the latter group.

The negative developments in the first half of 2013 can be largely attributed to Italy and Spain. In both countries hirings fell sharply among the main occupational groups of 'technicians and associate professionals', 'clerical and support workers', 'service and sales workers', and 'craft and related trades worker'. However in the case of Italy the strongest falls in hirings were in 'elementary occupations' which, given their employment throughout most sectors, suggests a fairly widespread decline across the economy rather than concentrated in particular sectors.

On the other hand, hirings increased between the second quarters of 2012 and 2013 in Portugal and Greece, mostly among 'service and sales workers' but also for 'craft and related trades workers'. This suggests that new opportunities in the labour market seem to come mainly from the private sector and not the public sector.

### Employee growth concentrated in selected occupations such as in health and sales

The total number of employees fell in Southern Europe between 2011 and 2012, by over one million workers in the four countries combined. Employment in Southern Europe grew in only a limited number of occupations and they were concentrated in a few fields (Chart S2). Most occupations with increased employee numbers between 2011 and 2012 were related to health care ('personal care workers in health services' and 'other health associate professionals'), sales ('other sales workers' and 'sales, marketing and public relations professionals') and administration ('material-recording and

**Chart S2 Occupations with highest employee growth in Southern Europe**  
Percentages, average of 2012 compared to average of 2011

Employees	2012	Change	Countries with 5% or more growth*
1 Personal care workers in health services	1,124,000	+52,000	GR+, IT+
2 Material-recording and transport clerks	698,000	+48,000	IT+
3 Other health associate professionals	299,000	+35,000	GR+, IT+, PT+
4 Mining, manufacturing and construction supervisors	272,000	+33,000	IT+
5 Other sales workers	251,000	+31,000	ES+, IT+, PT+
6 Other elementary workers	489,000	+28,000	GR+, IT
7 Sales, marketing and public relations professionals	144,000	+22,000	ES, IT+
8 Administration professionals	358,000	+21,000	ES+, GR+
9 Other teaching professionals	323,000	+17,000	IT+
10 Agricultural, forestry and fishery labourers	676,000	+16,000	

Source: LFS data by ISCO 3-digit level - own calculations (4 countries).

Countries included: Greece, Italy, Portugal and Spain.

Analysis of growth occupations for the individual countries of Southern Europe are hampered by small numbers and are therefore based on annual instead of quarterly data.

\* Only countries where employee growth in the occupation has full reliability or limited reliability (indicated with \*) are presented; a "+" indicates fully reliable growth by more than 10%.

Absence of countries with significant growth means limited growth in multiple countries.

transport clerks' and 'administration professionals').

Among the four countries, Italy accounted for almost all the increased employees in 'personal care workers in health services' which was the occupation with the biggest increase between 2011 and 2012 (+14 per cent). The number of employees in 'other health associate professionals' increased in all Southern European countries except Spain where their number was more or less stable. This group consists of a medley of occupations such as for example dental assistants, medical records technicians and ambulance workers. Some increases were also visible in the transport sector, in 2012 in Italy for 'material-recording and transport clerks' and in the first half of 2013 also in Greece for 'heavy truck and bus drivers' (see Part 5.1). In general, among the ten occupations with most employee growth, changes were accounted for by one or two countries rather than being found across all four, as can be seen from Chart S2. A full overview of top growth occupations in numbers of employees is provided in Part 5.1 for all EU countries, including the four Southern European countries.

Although employee growth was largest in the above occupations there is no single sector acting as the focus for job growth and a variety of skills appear to be needed in the labour markets of the four Southern Member States.

### Number of employees continued to fall in many occupations with construction affected the most

Although the number of employees increased for a limited number of occupations between 2011 and 2012, employment decreased in the majority of occupations. The ten occupations with the highest decline in employee numbers between 2012 and 2011 in the four Southern countries combined also showed some concentrations in a few key sectors (Chart S3). A comparison (Chart S2) shows that job losses in particularly

construction jobs were larger than the gain in the few growth occupations. Heading the worst ten affected occupations list was 'building frame and related trades workers' with 181,000 fewer employees spread over the four countries, with falls ranging from -9 per cent in Italy to -26 per cent in Portugal. In addition the occupations of 'mining and construction labourers' (affecting all four countries), 'building finishers and related trades workers' (though not in Italy) and 'mobile plant operators' also featured, underlining the slow progress in any recovery in construction activity, particularly in Italy and Spain where most of these falls in employees were located. In Italy the falls have been more recent, while in Spain the fallout of jobs in the construction sector has been over the longer term.

Among the remaining occupations with significant falls in employees between 2011 and 2012, there is a mix of service-related jobs such as 'shop salespersons' (significant decline in Greece and Portugal), 'domestic, hotel and office cleaners and helpers' (significant in Spain, Greece and Portugal) and 'client information workers' (significant only in Spain) and more specialised occupations such as 'financial and mathematical associate professionals' (Italy and Spain most affected) and 'metal workers'. In the case of the first three occupations, the large falls in all four countries indicate that employers took a more critical look at the need for such services. In the case of the 'metal workers' (which brings together a number of related trades), this and 'machinery mechanics and repairers' saw the biggest falls in employee numbers in Italy and Spain, and slightly more in the latter country.

### Youth hirings in Southern Europe mainly in generalist or lower skilled jobs in the context of high youth unemployment

Increased youth unemployment has been a particular feature of the crisis and has affected most EU Member States and particularly the countries of Southern Europe. For the EU28,

**Chart S3 Occupations with largest employee decline in Southern Europe**  
Percentages, average of 2012 compared to average of 2011

Employees	2012	Change	Countries with 5% or more decline*
1 Building frame and related trades workers	890,000	-181,000	ES-, GR-, IT, PT-
2 Mining and construction labourers	251,000	-96,000	ES-, GR-, IT-, PT-
3 Shop salespersons	1,941,000	-76,000	GR-, PT
4 Building finishers and related trades workers	392,000	-70,000	ES-, GR-, PT-
5 Financial and mathematical associate professionals	713,000	-66,000	ES-, IT
6 Domestic, hotel and office cleaners and helpers	2,493,000	-58,000	ES-, GR-, PT
7 Machinery mechanics and repairers	557,000	-56,000	ES-, GR, IT-, PT-
8 Mobile plant operators	339,000	-53,000	ES-, GR, IT, PT-
9 Metal workers **	420,000	-52,000	ES-, GR-, IT-, PT-
10 Client information workers	1,138,000	-51,000	ES

Source: LFS data by ISCO 3-digit level - own calculations (4 countries).

Countries included: Greece, Italy, Portugal and Spain.

\* Only countries where employee decline in the occupation has full reliability or limited reliability (indicated with \*) are presented; a "-" indicates fully reliable decline by more than 10%.

Absence of countries with significant decline means limited decline in multiple countries.

\*\* Sheet and structural metal workers, moulders and welders, and related workers

the youth unemployment rate (here defined as those aged 15-24) in the second quarter of 2013 was 24 per cent, up from 15 per cent in 2008. In individual Member States, the youth unemployment rate for the second quarter of 2013 ranged from 8 per cent in Germany to a high of 60 per cent in Greece<sup>11</sup>, and with relatively high rates in Spain (56 per cent), Portugal (39 per cent), and Italy (39 per cent). The high levels of youth unemployment in the four Southern European countries were mirrored by lower levels of youth hirings (age 15-29). Youth hirings as a share of all hirings in 2012 were 38 per cent in Southern Europe compared to 49 per cent for the EU28.

Those occupations where youths were most hired were heavily skewed towards lower skilled occupations such as 'agricultural, forestry and fishery labourers', 'domestic, hotel and office cleaners and helpers' and 'transport and storage labourers' (Chart S4). However, most hirings in numerical terms were in the occupations 'waiters and bartenders' and 'shop salespersons', which is consistent with the long-standing pattern of first employment for young people entering the labour market. These jobs are often characterised as relatively easy to enter (often requiring little previous experience or formal qualifications) and to leave, hence a high proportion of the hirings will be due to job churn. Furthermore, in the Southern European countries, with their significant seasonal demand for labour from the agriculture and tourism sectors, these occupations will have a predictable pattern to their numbers.

Many of the other occupations filled by youth in significant numbers tended to be those requiring more specific, though not high-level skills such as 'cooks', 'personal care workers in health services' and 'building frame and related trades workers'. For some other occupations outside the Top 10 for numerical hirings growth, youth did have higher shares compared to adults such as 'sports and fitness workers' (youth

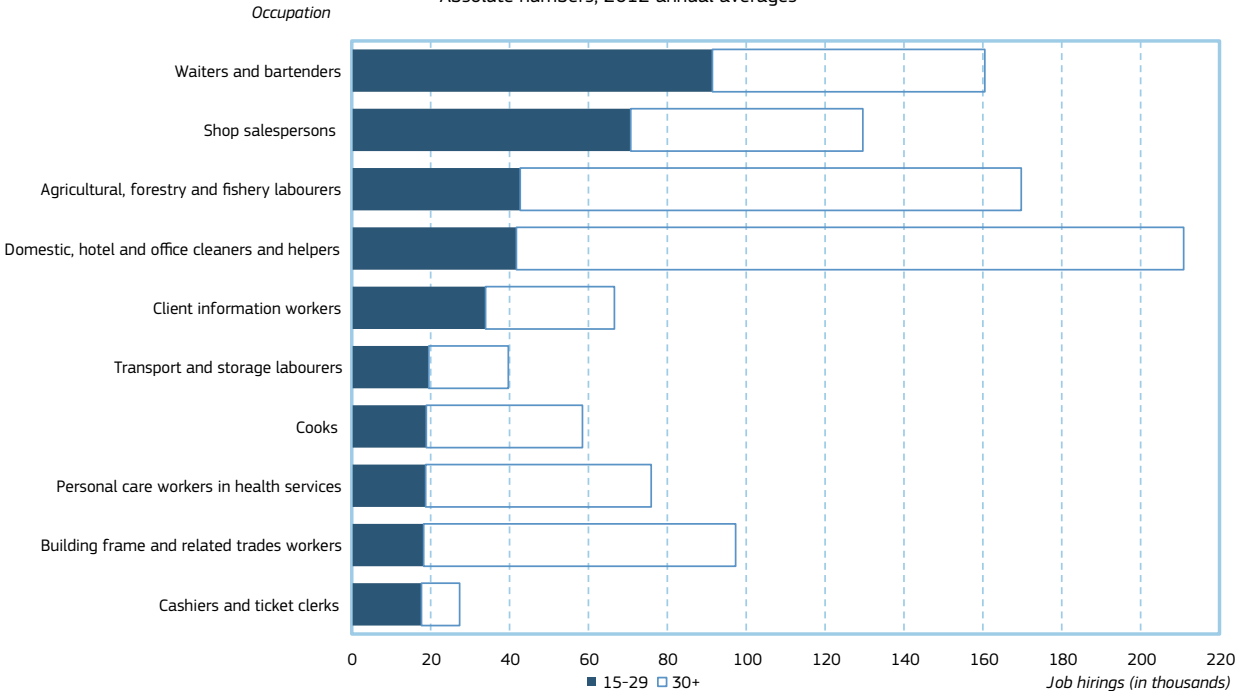
filling 67 per cent of all hirings in 2012), 'hairdressers and beauticians' (66 per cent), 'other sales workers' (60 per cent), 'child care workers and teachers' aides' (56 per cent) and 'protective services workers' (50 per cent). The occupation of 'sports and fitness workers' also has the highest share youth hirings in EU as a whole in 2012 (with 74 per cent), but opposed to Southern Europe a high share of young workers are also recruited into high-skilled jobs such as ICT technicians (64 per cent), 'veterinary technicians and assistants' (67 per cent) and the small group of 'life science technicians and related associate professionals' (70 per cent), consisting for example of agriculture technicians. All in all, it appears that there are fewer opportunities in high-skilled jobs for young workers in Southern Europe compared to the EU average.

The issue of skills and human capital formation in general was set out in an article that saw the high levels of jobless youth in the Southern Member States as a 'ticking time bomb'<sup>12</sup>. The already declining youth population (through demographic change and particularly falling birth rates) was now being denied the opportunity to acquire skills through working and this would eventually feed through to the economic recovery when it comes. Employers will be faced with hiring young recruits with little general and specific work experience and this would then create a low productivity scenario that would hold back development. The article also highlights the need for more labour market reforms that frees up the recruitment process and incentivises job search.

**Temporary hirings were highest in Portugal and Spain, and increased in Italy**

Temporary employees as a proportion of all employees accounted for 13.6 per cent in the EU28 for the last quarter of 2012 (the latest information available for the whole EU). Temporary contracts include both contracts with a terminal

**Chart S4: Top 10 occupations of youth hirings (age 15-29) in Southern Europe compared to adults**  
Absolute numbers, 2012 annual averages



Source: LFS data by ISCO 3 digit level - own calculations (4 countries). Countries included: Greece, Italy, Portugal and Spain. Job hirings: employees who were employed in a 'reference week' and had started working for their employer at most three months earlier.

date and contracts with the intention to conclude permanent contracts if the worker performs his job to satisfaction, and should not be confused with temporary agency jobs. Between Member States the proportion of temporary employees varied from 1.5 per cent in Romania to 26.5 per cent in Poland and in the four Southern European countries the proportions were all relatively high. In Greece and Spain the proportion of temporary employees was 23.0 per cent, in Portugal 20.4 per cent and the lowest in Italy which, at 13.7 per cent was just above the EU28 average.

However, because of the high turnover of employees on temporary contracts, the proportion of hirings on such contracts is much higher than the proportion of all employees at any one time. On average in the EU28, between 50 and 60 per cent of all hirings are on temporary contracts, with the variation mostly accounted for by the seasonality of demand for labour. The share of temporary hirings in Greece reflects the typical pattern evident in the EU average, with 60 per cent of all hirings in the summer, dropping to 50 per cent in the winter. In Portugal and Spain, between 80 and 90 per cent of all hirings are concluded with a temporary contract throughout the year.

In most other EU Member States, temporary hirings are often viewed by employers as a probationary period of employment after which, subject to the employee's satisfactory performance in the job, they will be offered a permanent contract (see EVRR 2012). However, where the proportion of temporary contracts is very high (as in Portugal and Spain), it is likely that many will be intended as pure temporary contracts without the intention of converting them to permanent jobs. Furthermore the crisis has resulted in the increased use of temporary employment contracts in some countries. For example in Italy their share increased from around 60 per cent in 2008 to 70 per cent in 2012 and 2013.

The latest EU Employment and Social Situation quarterly report highlights a concern over the proportion of employees on temporary contracts, since it is estimated that around

60 per cent of them would prefer permanent contracts in EU28.<sup>13</sup> For hirings, the share of temporary contracts that were involuntary (35 per cent) is generally lower than among employees, precisely because the intent is to conclude a permanent contract later for half of the hirings (see EVRR 2012). However the share of involuntary temporary contracts among the newly hired workers was the highest in Southern Europe with around 50 per cent in Greece and Italy, 65 per cent in Portugal and 80 per cent in Spain, which suggests that in these countries temporary contracts are typically concluded without the intent of a later permanent contract.

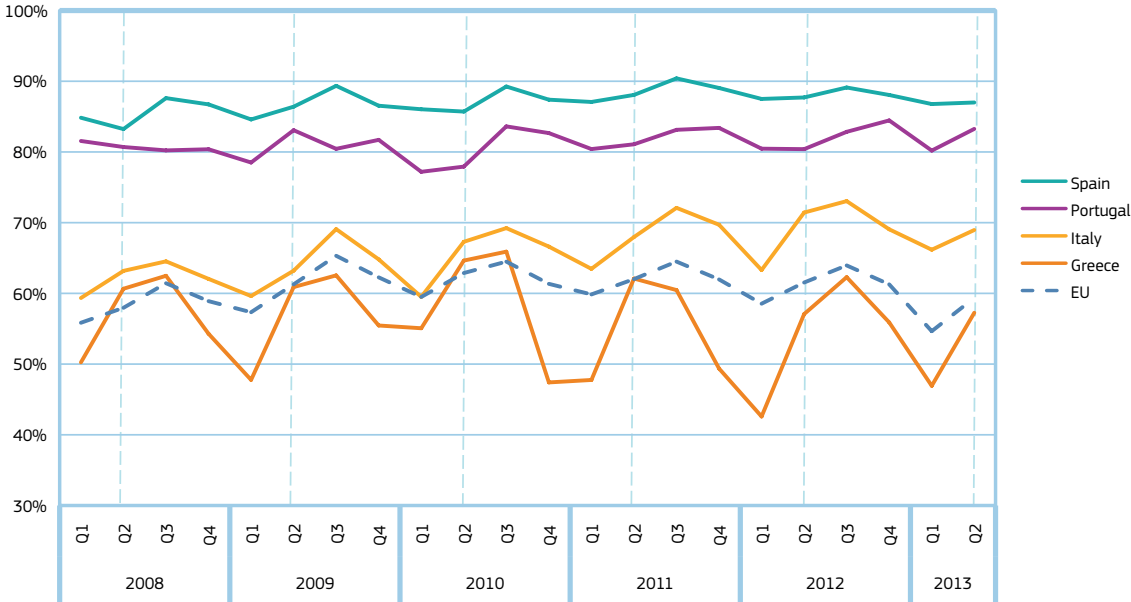
**High shares of low educated workers in job hirings in Southern Europe**

On average, in the EU approximately 24 per cent of the persons hired in the second quarter of 2013 were lower educated, which includes primary education and lower secondary education. The share of the lower educated in hirings is higher than among employees which stood at 16 per cent reflecting a higher degree of job turnover among lower educated workers.

However in Southern Europe much higher proportions apply and 43 per cent of the persons hired and 33 per cent of all employees were lower educated. This lower skills profile of hirings in Southern Europe is consistent with a below average educational level of workers.

A closer look at the individual countries reveals that the share of low educated persons in job hirings is higher than EU average in all four Southern European. In Portugal and Spain around half of those hired in the second quarter of 2013 were lower educated. As indicated earlier in part 3 of this bulletin, hirings of lower educated workers did not increase between the second quarters of 2012 and 2013 despite an increase in total hirings (Greece and Portugal) or job vacancies (Portugal and Spain). This implies that the low educated did not immediately profit from first-time improvements in hirings.

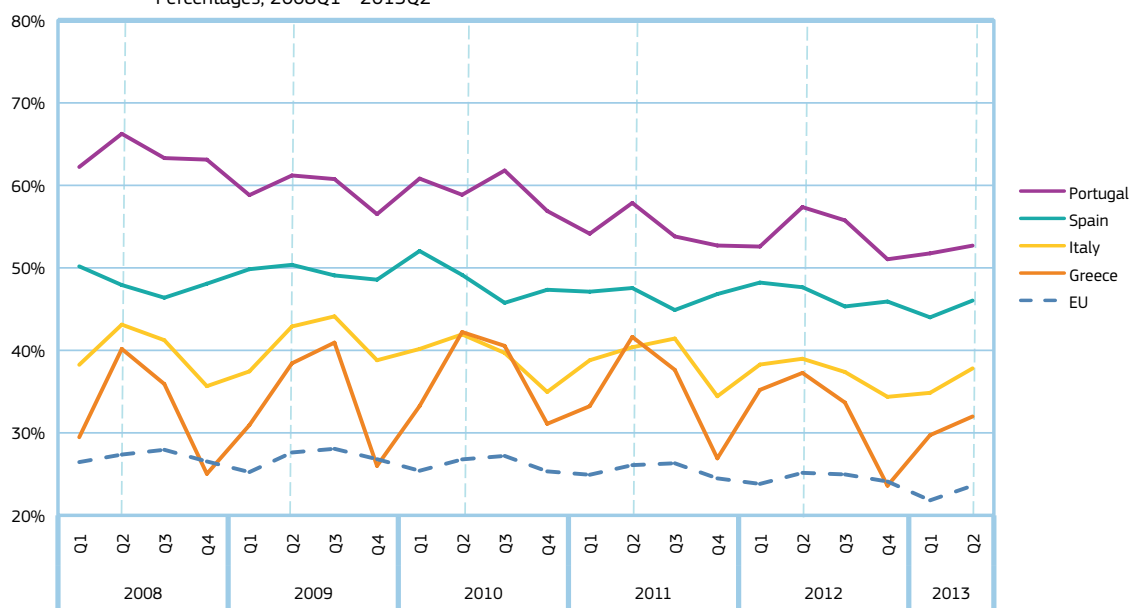
**Chart S5: Development in the share of temporary job hirings in Southern Europe**  
Percentages, 2008Q1 - 2013Q2



Source: Source: LFS - own calculations (4 countries).  
 Number of job hirings 2013Q2 (in thousands): Greece, 101; Portugal, 225; Italy, 713; Spain, 1,017.  
 Number of job hirings with a temporary contract 2013Q2 (in thousands): Greece, 58; Portugal, 187; Italy, 492; Spain, 885.

Examined over a longer period since 2008, the share of lower educated persons hired has declined in each of these four countries. Against a background of a decline in the total numbers of job hirings, this implies that job prospects have deteriorated the most for low educated unemployed workers. At the same time the share of medium educated persons in job hirings increased in all four countries between the second quarters of 2008 and 2013, while the number of medium skilled jobs declined (in particular clerks, craft workers and operators) declined the sharpest. The low skills profile of job hirings in these countries further suggests that medium educated persons were increasingly overqualified for the jobs they found in Southern Europe.

**Chart S6: Development in the share of lower educated persons hired in Southern Europe**  
Percentages, 2008Q1 - 2013Q2



Source: Source: LFS - own calculations (4 countries).

Number of job hirings 2013Q2 (in thousands) : Greece, 101; Portugal, 225; Italy, 713; Spain, 1,017.

Number of lower educated persons hired in 2013Q2 (in thousands): Greece, 32; Portugal, 119; Italy, 270; Spain, 468.

Lower educational level is defined as the total of the classifications: "Primary education / first stage of basic education or lower" and "Lower secondary or second stage of basic education".



# Part 5 TOP OCCUPATIONS PER COUNTRY

## 5.1 TOP 10 GROWTH OCCUPATIONS PER COUNTRY - EMPLOYEES

### How to read the table

The top 10 absolute growth occupations of employees (based on the Eurostat Labour Force Survey, 2012Q2-2013Q2) is presented for 22 countries and the EU26. For each top growth occupation, the number of employees in the second quarter of 2013 is shown together with the change compared to the second quarter of 2012. The occupations are based on the ISCO-08 classification of occupations, at 3-digit level.

Occupations are not presented as a top growth occupation if the growth is an "outlier". An outlier is defined if growth is +60% or higher and in addition (1) if employment is twice as high or low as in neighbouring quarters, or (2) if the number of job hirings is zero or negligible.

Changes with a \* indicate numbers with limited reliability. If less than 10 occupations are presented, this does not necessarily mean that employment has increased in less than 10 occupations, but that no significant increase could be identified for 10 occupations. When employment would expand again in the future, it is to be expected that significant growth can be identified for 10 occupations in all or perhaps nearly all countries.

Germany is excluded due to changes of coding occupations in 2012 and the first quarters of 2013 and France is excluded due high LFS non-response in 2013Q2 job start data. Both countries are not included in the EU26 total either. For Croatia, Estonia, Latvia, Lithuania and Malta no significant growth occupations could be identified, which reflects the negative development in the labour market overall in these countries. These five countries are included in the EU26 but no listing is presented for these individual countries.

### Top 10 growth occupations per country

EU26	Employees	Change
1 Primary school and early childhood teachers	2,871,900	+157,800
2 Software and applications developers and analysts	1,680,100	+156,300
3 Finance professionals	1,521,300	+114,100
4 Personal care workers in health services	3,705,200	+103,900
5 Legal, social and religious associate professionals	1,014,100	+97,700
6 Sales, marketing and public relations professionals	1,345,200	+79,700
7 Business services and administration managers	1,096,600	+76,600
8 Agricultural, forestry and fishery labourers	1,102,800	+73,000
9 ICT operations and user support technicians	917,700	+64,500
10 Sales and purchasing agents and brokers	1,994,900	+62,900

Austria	Employees	Change
1 Administrative and specialised secretaries	141,600	+26,100
2 Other health associate professionals	50,300	+20,800
3 General office clerks	172,400	+10,100
4 Hairdressers, beauticians and related workers	38,700	+10,000
5 Finance professionals	45,500	+10,000
6 Car, van and motorcycle drivers	32,900	+9,300
7 Other teaching professionals	37,000	+8,300
8 Social and religious professionals	32,000	+8,100
9 Protective services workers	44,500	+7,800*
10 Metal workers*	29,500	+6,500*

\* Sheet and structural metal workers, moulders and welders, and related workers

### Top 10 growth occupations per country

Belgium			Bulgaria				
	Employees	Change		Employees	Change		
1	General office clerks	153,100	+42,700	1	Mining and construction labourers	50,700	+13,700
2	Finance professionals	71,200	+25,700	2	Tellers, money collectors and related clerks	31,700	+8,800*
3	Electrical equipment installers and repairers	48,500	+23,100	3	Business services agents	17,300	+7,000*
4	Sales, marketing and development managers	61,900	+18,300	4	Administrative and specialised secretaries	30,700	+6,800*
5	Material-recording and transport clerks	91,100	+17,600	5	Sales and purchasing agents and brokers	40,400	+6,100*
6	Engineering professionals (excluding electrotechnology)	44,600	+16,100	6	Machinery mechanics and repairers	52,500	+5,800*
7	Administrative and specialised secretaries	96,700	+14,800	7	Client information workers	19,700	
8	Physical and engineering science technicians	81,400	+13,800	8	Engineering professionals (excluding electrotechnology)	25,900	
9	Other teaching professionals	58,500	+12,600	9	Agricultural, forestry and fishery labourers	33,600	
10	Transport and storage labourers	59,600	+12,100	10	Cashiers and ticket clerks	27,600	

### Top 10 growth occupations per country

Cyprus			Czech Republic				
	Employees	Change		Employees	Change		
1	Secretaries (general)	12,600	+5,800	1	General office clerks	64,500	+19,300
2	Protective services workers	9,300	+1,300*	2	Physical and engineering science technicians	166,000	+14,200
3	Material-recording and transport clerks	4,000	+1,300*	3	ICT operations and user support technicians	50,100	+12,000
4	Machinery mechanics and repairers	4,000	+1,300*	4	Finance professionals	36,600	+10,600
5	Finance professionals	10,100	+1,200*	5	Professional services managers	33,000	+9,100
6	Manufacturing labourers	4,200	+700*	6	Business services and administration managers	30,900	+8,400
7	Cashiers and ticket clerks	7,900	+600*	7	Sales, marketing and development managers	28,000	+8,300
8	Software and applications developers and analysts	3,400	+500*	8	Software and applications developers and analysts	31,500	+8,200
9	Legal professionals	3,100		9	Administrative and specialised secretaries	65,500	+6,300
10	Electronics and telecommunications installers and repairers	1,900		10	Numerical clerks	123,000	+6,200

### Top 10 growth occupations per country

<b>Denmark</b>		<b>Employees</b>	<b>Change</b>
1	Physical and engineering science technicians	84,300	+12,700
2	Personal care workers in health services	126,200	+10,400
3	Cashiers and ticket clerks	57,300	+10,200
4	Software and applications developers and analysts	51,500	+6,100*
5	Agricultural, forestry and fishery labourers	19,600	+5,600*
6	Machinery mechanics and repairers	33,600	+5,600*
7	University and higher education teachers	35,500	+5,100*
8	Sales and purchasing agents and brokers	76,800	+4,700*
9	Domestic, hotel and office cleaners and helpers	69,600	+4,600*
10	Other stationary plant and machine operators	16,900	

<b>Finland</b>		<b>Employees</b>	<b>Change</b>
1	Sales, marketing and public relations professionals	45,300	+10,300
2	Shop salespersons	108,600	+10,200
3	Software and applications developers and analysts	67,000	+5,400
4	Administration professionals	30,300	+5,100
5	Mining, manufacturing and construction supervisors	24,400	+3,600*
6	Legal professionals	10,900	+3,200*
7	Building finishers and related trades workers	26,700	+3,200*
8	Waiters and bartenders	16,100	+3,200*
9	Mining and mineral processing plant operators	9,000	+3,000*
10	Finance professionals	27,800	+3,000*

### Top 10 growth occupations per country

<b>Greece</b>		<b>Employees</b>	<b>Change</b>
1	Waiters and bartenders	80,500	+8,900
2	Nursing and midwifery professionals	19,300	+7,900
3	Other elementary workers	15,100	+6,500
4	Finance professionals	56,000	+6,000
5	Software and applications developers and analysts	17,000	+5,400
6	Heavy truck and bus drivers	60,900	+5,100
7	Legal professionals	15,200	+4,500*
8	Material-recording and transport clerks	29,700	+4,500*
9	Other clerical support workers	47,900	+4,400*
10	Food and related products machine operators	15,300	+4,000*

<b>Hungary</b>		<b>Employees</b>	<b>Change</b>
1	Agricultural, forestry and fishery labourers	71,600	+31,800
2	Other stationary plant and machine operators	50,000	+15,800
3	Refuse workers	50,000	+12,400
4	Shop salespersons	197,800	+11,700
5	Information and communications technology operations and user support technicians	27,900	+11,000
6	Business services and administration managers	35,800	+8,400
7	Other craft and related workers	20,300	+8,300
8	Material-recording and transport clerks	51,000	+7,700
9	Heavy truck and bus drivers	121,600	+7,400
10	Building finishers and related trades workers	48,500	+6,700

### Top 10 growth occupations per country

<b>Ireland</b>		<b>Employees</b>	<b>Change</b>
1	Other clerical support workers	59,100	+7,800
2	Primary school and early childhood teachers	42,200	+5,300
3	Sales, marketing and public relations professionals	24,200	+4,600
4	Finance professionals	38,700	+4,600
5	Waiters and bartenders	40,700	+3,900*
6	General office clerks	9,800	+3,700*
7	Sales and purchasing agents and brokers	28,800	+3,500*
8	Assemblers	24,200	+3,000*
9	Food preparation assistants	23,100	+2,600*
10	Administration professionals	23,100	

<b>Italy</b>		<b>Employees</b>	<b>Change</b>
1	Personal care workers in health services	551,900	+45,500
2	General office clerks	685,700	+41,700
3	Software and applications developers and analysts	92,000	+28,700
4	Shop salespersons	853,500	+27,500
5	Transport and storage labourers	212,300	+21,500
6	Metal workers*	222,900	+20,700
7	Other elementary workers	317,600	+20,400
8	Sales and purchasing agents and brokers	248,000	+19,100
9	Mining, manufacturing and construction supervisors	144,100	+18,400
10	Finance professionals	84,200	+18,100

\* Sheet and structural metal workers, moulders and welders, and related workers

### Top 10 growth occupations per country

<b>Luxembourg</b>		<b>Employees</b>	<b>Change</b>
1	Administration professionals	12,300	+4,000
2	Financial and mathematical associate professionals	10,100	+2,100
3	Nursing and midwifery associate professionals	4,000	+1,400
4	Legal, social and religious associate professionals	3,500	+1,300
5	Heavy truck and bus drivers	4,800	+900*
6	Sales and purchasing agents and brokers	3,500	+800*
7	Vocational education teachers	4,400	+600*
8	Physical and engineering science technicians	3,100	+600*
9	Business services and administration managers	2,200	+600*
10	Electrotechnology engineers	1,900	+600*

<b>Netherlands</b>		<b>Employees</b>	<b>Change</b>
1	Legal, social and religious associate professionals	216,300	+55,800
2	Nursing and midwifery professionals	110,800	+38,600
3	Material-recording and transport clerks	167,100	+36,900
4	Client information workers	156,400	+32,300
5	Administrative and specialised secretaries	106,700	+26,700
6	Secondary education teachers	96,200	+24,800
7	Other health associate professionals	101,900	+24,100
8	Finance professionals	108,100	+21,300
9	ICT operations and user support technicians	29,600	+20,300
10	Manufacturing labourers	68,300	+18,500

### Top 10 growth occupations per country

Norway		Employees	Change
1	Sales and purchasing agents and brokers	72,700	+14,000
2	Administration professionals	78,500	+12,200
3	Software and applications developers and analysts	48,600	+7,800
4	Engineering professionals (excluding electrotechnology)	28,400	+7,600
5	General office clerks	58,500	+5,900
6	Building finishers and related trades workers	27,000	+5,600
7	Other health associate professionals	28,600	+4,100*
8	Finance professionals	39,100	+3,500*
9	Sports and fitness workers	14,700	+3,300*
10	Metal workers*	20,100	+3,200*

Poland		Employees	Change
1	Physical and engineering science technicians	263,100	+25,300
2	Domestic, hotel and office cleaners and helpers	356,800	+21,600
3	Protective services workers	356,800	+21,000
4	Managing directors and chief executives	88,500	+20,200
5	Social and religious professionals	91,400	+19,600*
6	Mining and mineral processing plant operators	135,300	+18,900*
7	Primary school and early childhood teachers	314,300	+18,500*
8	Business services and administration managers	129,300	+16,900*
9	Mining, manufacturing and construction supervisors	61,800	+15,200*
10	Car, van and motorcycle drivers	173,400	+15,000*

\* Sheet and structural metal workers, moulders and welders, and related workers

### Top 10 growth occupations per country

Portugal		Employees	Change
1	Shop salespersons	162,000	+18,300
2	Textile, fur and leather products machine operators	102,600	+15,500
3	Domestic, hotel and office cleaners and helpers	232,200	+14,800
4	Protective services workers	106,100	+11,700
5	Secondary education teachers	108,000	+10,400
6	Other teaching professionals	28,800	+8,900
7	Manufacturing labourers	33,600	+8,800
8	Manufacturing, mining, construction, and distribution managers	17,800	
9	Food preparation assistants	53,200	
10	Artistic, cultural and culinary associate professionals	23,400	

Romania		Employees	Change
1	Shop salespersons	430,100	+83,700
2	General office clerks	91,400	+40,400
3	Material-recording and transport clerks	106,400	+28,700
4	Personal care workers in health services	97,500	+17,900
5	Building and housekeeping supervisors	64,600	+14,300
6	Car, van and motorcycle drivers	264,000	+13,800
7	Building frame and related trades workers	153,900	+12,200
8	Chemical and photographic products plant and machine operators	25,100	+11,800
9	Hairdressers, beauticians and related workers	48,400	+9,100*
10	Heavy truck and bus drivers	173,300	+9,000*

### Top 10 growth occupations per country

<b>Slovakia</b>			<b>Employees</b>	<b>Change</b>
1	Shop salespersons	137,300	+17,100	
2	Refuse workers	47,600	+15,300	
3	Protective services workers	64,800	+9,700	
4	Waiters and bartenders	43,900	+7,700	
5	Mining, manufacturing and construction supervisors	16,800	+6,600	
6	Primary school and early childhood teachers	60,100	+6,500	
7	Building and housekeeping supervisors	28,900	+6,100	
8	Regulatory government associate professionals	26,800	+6,100	
9	Other clerical support workers	23,200	+6,000	
10	Material-recording and transport clerks	67,800	+5,600	

<b>Slovenia</b>			<b>Employees</b>	<b>Change</b>
1	Mobile plant operators	13,800	+5,400*	
2	Shop salespersons	47,100	+3,400*	
3	Engineering professionals (excluding electrotechnology)	13,100	+3,100*	
4	Domestic, hotel and office cleaners and helpers	19,800	+2,900*	
5	Manufacturing, mining, construction, and distribution managers	13,800	+2,700*	
6	Electrotechnology engineers	7,200	+2,500*	
7	Finance professionals	18,300	+2,400*	
8	Legal professionals	6,600	+2,100*	
9	Software and applications developers and analysts	8,800	+1,700*	
10	Medical and pharmaceutical technicians	4,200	+1,600*	

### Top 10 growth occupations per country

<b>Spain</b>			<b>Employees</b>	<b>Change</b>
1	Agricultural, forestry and fishery labourers	325,200	+32,800	
2	Engineering professionals (excluding electrotechnology)	159,500	+24,000	
3	Physical and earth science professionals	40,600	+11,100	
4	Refuse workers	69,300	+10,200	
5	Finance professionals	68,800	+9,900	
6	Domestic, hotel and office cleaners and helpers	1095,800	+9,800	
7	Creative and performing artists	34,600	+9,200	
8	Primary school and early childhood teachers	370,400	+8,100	
9	Manufacturing labourers	149,500	+8,000	
10	Building and housekeeping supervisors	114,400	+7,400*	

<b>Sweden</b>			<b>Employees</b>	<b>Change</b>
1	Administrative and specialised secretaries	105,600	+10,300	
2	Primary school and early childhood teachers	191,000	+8,800	
3	Administration professionals	102,200	+8,400	
4	Heavy truck and bus drivers	87,500	+6,800	
5	Physical and engineering science technicians	124,600	+6,200	
6	Social and religious professionals	59,700	+4,800	
7	Life science professionals	21,500	+4,700	
8	Car, van and motorcycle drivers	29,300	+4,200	
9	Child care workers and teachers' aides	96,100	+4,100	
10	Finance professionals	53,800	+4,000*	



### Top 10 growth occupations per country

	United Kingdom	Employees	Change
1	Personal care workers in health services	1118,300	+77,000
2	Manufacturing, mining, construction, and distribution managers	685,200	+65,400
3	Retail and wholesale trade managers	322,400	+44,500
4	Business services and administration managers	461,600	+36,700
5	Electrotechnology engineers	168,600	+32,500
6	Other clerical support workers	809,200	+28,600
7	Legal, social and religious associate professionals	323,300	+27,900
8	Nursing and midwifery professionals	632,800	+27,700
9	Finance professionals	343,800	+25,100
10	Architects, planners, surveyors and designers	179,000	+24,800

## 5.2a TOP 5 GROWTH OCCUPATIONS PER COUNTRY – PES INFLOW ISCO 88

<b>Austria</b>		<b>Inflow</b>	<b>change</b>
1	Finance and sales associate professionals	3,566	745
2	Mining and construction labourers	1,506	302
3	Agricultural, fishery and related labourers	1,466	289
4	Metal workers**	1,851	270
5	Protective services workers	545	204

<b>Belgium</b>		<b>Inflow</b>	<b>change</b>
1	Client information clerks	715	86
2	Garbage collectors and related labourers	200	82
3	Police inspectors and detectives*	88	71
4	College, university and higher education teaching professionals	145	55
5	Food processing and related trades workers	661	48

<b>Cyprus</b>		<b>Inflow</b>	<b>change</b>
1	Housekeeping and restaurant services workers	683	214
2	Manufacturing labourers*	134	120
3	Domestic and related helpers, cleaners and launderers	427	94
4	Protective services workers	338	91
5	Business professionals	96	43

<b>Lithuania</b>		<b>Inflow</b>	<b>change</b>
1	Manufacturing labourers	13,218	5,448
2	Motor vehicle drivers	5,972	2,422
3	Domestic and related helpers, cleaners and launderers	4,480	1,947
4	Shop salespersons and demonstrators	6,292	1,809
5	Building frame and related trades workers	4,971	1,391

<b>Luxembourg</b>		<b>Inflow</b>	<b>change</b>
1	Domestic and related helpers, cleaners and launderers	651	263
2	Finance and sales associate professionals	613	193
3	Other office clerks	240	135
4	Personal care and related workers	121	63
5	Nursing and midwifery associate professionals*	61	55

<b>the Netherlands</b>		<b>Inflow</b>	<b>change</b>
1	Other specialist managers	2,350	854
2	Nursing and midwifery professionals	601	235
3	Painters, building structure cleaners and related trades workers	2,317	183
4	Assemblers	748	142
5	Religious professionals*	141	135

<b>Portugal</b>		<b>Inflow</b>	<b>change</b>
1	Housekeeping and restaurant services workers	4,442	1,375
2	Domestic and related helpers, cleaners and launderers	2,318	764
3	Textile, garment and related trades workers	1,742	608
4	Manufacturing labourers	2,549	563
5	Building frame and related trades workers	1,126	512

<b>Sweden</b>		<b>Inflow</b>	<b>change</b>
1	Nursing and midwifery associate professionals	7,831	3,379
2	Primary and pre-primary education teaching professionals	8,934	1,569
3	Personal care and related workers	16,641	1,480
4	Secondary education teaching professionals	5,126	815
5	Other teaching associate professionals	1,504	783

\* the increase is less than +50 or more than +200%, which are indicators that the top growth occupation could be partly determined by incidental recruitment efforts. These occupations are definitely interesting to follow up, but care needs to be taken with regard to their future potential.

\*\* Metal moulders, welders, sheet-metal workers, structural-metal preparers, and related trades workers

## 5.2b TOP 5 GROWTH OCCUPATIONS PER COUNTRY – PES INFLOW ISCO 08

<b>Bulgaria</b>		<b>Inflow</b>	<b>change</b>
1	Personal care workers in health services*	1,482	1,163
2	Waiters and bartenders	2,765	435
3	Shop salespersons	2,107	306
4	Building and housekeeping supervisors	580	291
5	Protective services workers	1,370	255

<b>Croatia</b>		<b>Inflow</b>	<b>change</b>
1	Social and religious professionals	1,522	582
2	Nursing and midwifery professionals	1,092	359
3	Personal care workers in health services	726	333
4	Numerical clerks	721	314
5	Physical and engineering science technicians	829	300

<b>Estonia</b>		<b>Inflow</b>	<b>change</b>
1	Protective services workers	502	186
2	Domestic, hotel and office cleaners and helpers	917	157
3	Manufacturing labourers	398	153
4	Other clerical support workers*	167	148
5	Tellers, money collectors and related clerks	327	81

<b>Hungary</b>		<b>Inflow</b>	<b>change</b>
1	Other elementary workers	39,649	5,837
2	Other craft and related workers*	3,005	2,588
3	Shop salespersons	5,015	2,537
4	Vehicle, window, laundry and other hand cleaning workers	7,680	1,602
5	Manufacturing labourers	2,601	765

<b>Ireland</b>		<b>Inflow</b>	<b>change</b>
1	Creative and performing artists*	5,012	4,502
2	Personal care workers in health services	1,884	692
3	Protective services workers	1,252	595
4	Other elementary workers	424	159
5	Client information workers	552	116

<b>Latvia</b>		<b>Inflow</b>	<b>change</b>
1	Manufacturing labourers	1,158	517
2	Client information workers*	329	267
3	Transport and storage labourers*	325	241
4	Shop salespersons	879	222
5	Agricultural, forestry and fishery labourers	375	189

<b>Norway</b>		<b>Inflow</b>	<b>change</b>
1	Electrical equipment installers and repairers	1,419	691
2	Primary school and early childhood teachers	1,234	292
3	Child care workers and teachers' aides	1,106	224
4	Locomotive engine drivers and related workers*	229	223
5	Other sales workers	446	190

<b>Romania</b>		<b>Inflow</b>	<b>change</b>
1	Sales and purchasing agents and brokers	4,452	1,166
2	Shop salespersons	8,159	773
3	Waiters and bartenders	4,028	528
4	Heavy truck and bus drivers	5,513	523
5	Cashiers and ticket clerks	1,496	509

Slovenia			Spain				
	Inflow	change		Inflow	change		
1	Building frame and related trades workers	3,185	221	1	Mining and construction labourers	23,391	11,368
2	Textile, fur and leather products machine operators	98	63	2	Agricultural, forestry and fishery labourers	9,669	4,228
3	Refuse workers	167	51	3	Market gardeners and crop growers	24,774	2,660
4	Locomotive engine drivers and related workers*	28	24	4	Building frame and related trades workers	7,339	1,678
5	Metal processing and finishing plant operators	125	14	5	Personal care workers in health services	2,934	948

\* the increase is less than +50 or more than +200%, which are indicators that the top growth occupation could be partly determined by incidental recruitment efforts. These occupations are definitely interesting to follow up, but care needs to be taken with regard to their future potential.

### 5.3 TOP 5 EURES JOBS

#### 1) Finance and sales associate professionals - 40,400 posts

Germany	23,120 posts
Finland	3,520 posts
Sweden	2,600 posts

#### 2) Housekeeping and restaurant services workers – 27,500 posts

Germany	12,600 posts
Austria	5,950 posts
Czech Republic	1,560 posts

#### 3) Shop salespersons and demonstrators – 24,640 posts

Germany	9,800 posts
Sweden	2,630 posts
Austria	2,300 posts

#### 4) Machinery mechanics and fitters – 23,940 posts

Germany	14,920 posts
Austria	1,870 posts
The Netherlands	1,440 posts

#### 5) Electrical and electronic equipment mechanics and fitters – 22,360 posts

Germany	20,070 posts
Austria	1,400 posts
The Netherlands	1,040 posts

Based on figures of the EURES Job Mobility portal on 1<sup>st</sup> January 2014

\* The UK is excluded from ranking

# ENDNOTES

- 1 <http://ec.europa.eu/social/main.jsp?catId=955&langId=en>
- 2 Figures from *EU Employment and Social Situation Quarterly Review (September 2013)* available at: <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=1974&furtherNews=yes>
- 3 European Commission (2013) *Employment and Social Situation Quarterly Review – September 2013*, [http://europa.eu/rapid/press-release\\_IP-13-879\\_en.htm](http://europa.eu/rapid/press-release_IP-13-879_en.htm)
- 4 National Institute for Economic and Social Research (NIESR) (2013) *Job creation and destruction in the UK*, <http://niesr.ac.uk/press/job-creation-and-destruction-uk-11503>
- 5 Eurociett (2013) *Enhancing EU cooperation in the prevention and deterrence of undeclared work (Position Paper in response to the EU consultation on the prevention and deterrence of undeclared work)*. [http://www.eurociett.eu/fileadmin/templates/eurociett/docs/position\\_papers/2013\\_Employment\\_Policies/Eurociett\\_Position\\_-\\_Consultation\\_undeclared\\_work.pdf](http://www.eurociett.eu/fileadmin/templates/eurociett/docs/position_papers/2013_Employment_Policies/Eurociett_Position_-_Consultation_undeclared_work.pdf)
- 6 Equipo Economic and ASEMPLERO (2013), *Impacto de las empresas de trabajo temporal en el mercado laboral y las finanzas públicas (Impact of temporary agency work on the labour market and public finance)*, <http://www.aseempleo.com/servicio/informes/web.pdf>.
- 7 Eurostat (2013) *Production in the Construction Sector (Euroindicator 198/2013)* [http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/4-18122013-AP/EN/4-18122013-AP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/4-18122013-AP/EN/4-18122013-AP-EN.PDF)
- 8 Cedefop (2010), *Skills Supply and Demand in Europe, Medium-Term Forecast up to 2020* <http://www.cedefop.europa.eu/EN/publications/15540.aspx>
- 9 Pisani-Ferry J, Sapir A, & Wolff G B (2013) *EU-IMF assistance to euro-area countries: an early assessment (Breugel Blueprint 19)* <http://www.bruegel.org/publications/publication-detail/publication/779-eu-imf-assistance-to-euro-area-countries-an-early-assessment/>
- 10 Information on GDP development in Greece in the second quarter of 2013 was not available at the time of the publication.
- 11 European Commission (2013) *EU Employment and Social Situation Quarterly Review (ESSQR) – Special Edition Annual Review (September 2013)*. Figure for Greece is the first quarter of 2013. <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=1974&furtherNews=yes>
- 12 EU Observer (2012) *Jobless Youth – Southern Europe’s Ticking Time Bomb* <http://euobserver.com/opinion/117746>
- 13 ESSQR op cit page 34.

# ANNEX A1 ABBREVIATIONS

## Country abbreviations

AT	Austria	IT	Italy
BE	Belgium	LV	Latvia
BG	Bulgaria	LT	Lithuania
CY	Cyprus	LU	Luxembourg
CZ	Czech Republic	MT	Malta
DK	Denmark	NL	The Netherlands
EE	Estonia	NO	Norway
ES	Spain	PL	Poland
FI	Finland	PT	Portugal
FR	France	RO	Romania
DE	Germany	SK	Slovakia
GR	Greece	SI	Slovenia
HU	Hungary	SE	Sweden
IE	Ireland	UK	United Kingdom

## Other abbreviations

EJMB	European Job Mobility Bulletin
EVM	European Vacancy Monitor
EVR	European Vacancy and Recruitment Report
EURES	EUropean Employment Services
ISCED	International Standard Classification of Education (1, 2 = primary, lower secondary, 3, 4 = upper, post-secondary, 5 and 6 = tertiary education)
ISCO	International Standard Classification of Occupations
NACE	Classification of Economic Activities in the European Community
JVS	Job Vacancy Statistics (EUROSTAT)
LFS	Labour Force Survey (EUROSTAT)
PES	Public Employment Services
Q1	First quarter of the year
TWA	Temporary Work Agency



# ANNEX A2 DEFINITIONS AND CONCEPTS

## **GDP (National accounts, Eurostat)**

Gross Domestic Product (GDP) in volumes, not seasonally adjusted. Measured in millions of euro, chain-linked volumes, reference year 2005 (at 2005 exchange rates). Source: Eurostat.

## **Job vacancies (JVS, Eurostat)**

The official definition of a job vacancy is included in Article 2 of Regulation (EC) No 453/2008 and is used by EUROSTAT:

*“A job vacancy shall mean a paid post that is newly created, unoccupied, or about to become vacant:*

*a) for which the employer is taking active steps and is prepared to take further steps to find a suitable candidate from outside the enterprise concerned, and*

*b) which the employer intends to fill either immediately or within a specific period of time.*

*A vacant post that is only open to internal candidates is not treated as a ‘job vacancy’.”*

The stock of job vacancies is the number of job vacancies measured at a certain point in time.

## **Job hirings (LFS, Eurostat)**

Job hirings refer to employees who were employed in a ‘reference week’ of that quarter and have started working for their employer job in the month, or, at most, three months earlier than the month of the ‘reference week’. The calculation of job hirings is based on the tenure variable in the quarterly Eurostat Labour Force Survey. Job hirings exclude the self-employed since a job vacancy is defined as a vacant post for an employee (see definition above). The number of job hirings is used as a reliable proxy indicator of the number of hirings and has the following strength:

Job hiring data are flow data that cover all who found a job over a three-months period, while the Eurostat job vacancy data (JVS) only covers the number of vacancies available at a point of time. As a result job hiring data tend to be significantly higher. Besides, job hiring data are available for all EU27 countries.

## **Newly registered job vacancies (national PES)**

The number of newly registered job vacancies (the inflow) is the sum of new job vacancies registered by the PES in a certain period of time and it is a flow figure rather than a point in time estimate (stock). Inflow is used because for the PES, comparisons of stocks would suffer from differences in national policies for closing registered vacancies. For example, the stock will be higher if vacancies are closed after six months compared to one month. The inflow of registered job vacancies depends not only on the demand for labour, but also on the extent to which employers involve the PES in filling job vacancies.

## **Stock, inflow and outflow (concepts)**

A ‘stock’ number is a statistical term measuring a variable at a certain moment in time. For example, the number of job vacancies available in Germany at 1 January 2011. A ‘flow’ number is measured in a period of time. For example, the ‘inflow’ is the number of new vacancies in the first six months of January. If the stock and flow move in opposite directions, this usually indicates a change in the duration. For example if the stock of job vacancies increases and the number of job hirings decreases, this indicates that it takes longer on average to fill vacancies, other things being equal.

## **Unemployed to job hirings ratio (LFS, Eurostat)**

The relationship between the total number of unemployed and the total number of job hirings is used as an indicator of the degree of ‘tightness’ of the labour market. In this case the number of job hirings is used as a proxy for the number of filled vacancies. A relation of the stock or the inflow of job vacancies to unemployment would be theoretically preferable, as this ratio would also include vacancies that are not filled. However, no data on the inflow is available at all, and data on the number of job vacancies is not available for all EU27 countries.

## **Methodological notes on the job vacancy statistics (JVS) of Eurostat**

Data on the stock of job vacancies are collected by the national statistical offices in almost all EU countries. In some countries they are collected by the Ministry of Labour. Most countries collect the data by means of surveys, except Luxembourg, the Czech Republic and Slovenia which collect the data by means of administrative data. Also, the sampling unit is the enterprise in most countries, but the local unit in nine countries: Denmark, France, Finland, Germany, Spain, the Netherlands, Poland, Portugal and Sweden. In those nine countries, enterprises are not approached at the corporate level, but a sample of local branches is approached to fill in the survey. These differences need to be born in mind when comparing stocks of vacancies between countries.

Another major difference between countries is that in some countries data are not collected for certain sectors or small companies. No data are collected for the agriculture sector in ten countries: Austria, Cyprus, Denmark, Spain, France, Greece, Ireland, Italy, Portugal and UK. For the other countries, the number of agriculture vacancies comprises 1% of all vacancies or less in most West European countries, 2% in Germany and between 2% and 3% in new Member States. Agriculture is excluded from the analysis for international comparability and because the impact of agriculture on the total level is small.

For the public administration, data on job vacancies are not collected in five countries: Denmark, France, Greece, Italy, Poland. In Denmark and Italy and data for the public sector including education and healthcare are not collected at all. Portugal collects data on public administration vacancies since 2012Q1, so for public administration in Portugal no historical comparison is yet possible. Because no total numbers of vacancies are published at all for France, Italy and Poland, these three countries are excluded.

To represent vacancy developments as fully as possible, Chart 1 presents all available data inclusive the whole public sector (NACE 0 to S) where possible, exclusive the whole public sector for Denmark and exclusive public administration only for Portugal (and Greece). In Spain, vacancy data for the public administration started to be collected in 2010Q1 creating a break in the series. For this reason, Spain is excluded from any analysis of JVS data preceding 2010Q1.

For small enterprises, defined as having less than 10 employees, no job vacancy data are collected in France, Italy and Malta. France only collects it on an annual basis. For this reason, these three countries are left out of the analysis.

But the most important note is that differences between countries may originate from differences in sampling units (corporate versus local) or sources used (administrative versus survey).