# wiiw Research Reports | 319 

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# Regional Employment Patterns and Prospective Developments in the New EU Member States 

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Research for this paper was conducted in the context of the project 'Industrial Restructuring and Implications for Labour Markets in the New EU Member States', commissioned by EU DG Employment, Social Affairs and Equal Opportunities, Contract No. VC/2003/0367.

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## Executive summary

- Grouping NUTS 2 regions into five clusters according to the relative importance of broad sectors of activity reveals marked differences between the NMS (including Bulgaria and Romania) and the EU-15. In particular, all of the NMS regional clusters have a larger share of employment in agriculture than their EU-15 counterparts and all, except the capital cities, have a larger share in industry as well. Nevertheless, the structure of activity in equivalent EU-15 regions may indicate the kind of structural changes which lie ahead in the NMS regions.
- The EU map of regions classified in this way shows that regions with a relative concentration of activity in a given broad sector tend to be contiguous in both the new and old Member States, with both basic service and agricultural regions tending to be located in the peripheral parts of the EU. Even in the EU-15, few regions outside the capital cities have a relative concentration of employment in business services; most of them tend to include large cities or are located close to capitals.
- In capital cities throughout the EU, GDP per head is significantly higher than in other regions - in the NMS, around twice as high on average. Industrial and business service regions also have relatively high GDP. Regional disparities in GDP per head have widened markedly in the NMS in recent years, though not in the EU-15. The concentration of FDI in capital cities and a few other regions has contributed to this.
- There is no close association across regions between GDP per head and the employment rate, though the capital cities have higher employment than the national average in all countries, while the lowest employment rates are in the basic service regions in both the NMS and the EU-15. The highest employment rate in Poland and Romania is in the agricultural regions; this reflects the large numbers unable to find work elsewhere who make a living from subsistence farming.
- Over recent years, however, the employment rate in NMS agricultural regions has fallen more than in other parts; the employment rate in capital cities has fallen less than elsewhere despite the apparent substantial growth in productivity. This contrasts with recent experience in the EU-15 where employment rose in all regional groups - and more in agricultural regions (which in many cases were supported by the EU Structural Funds) than in others.
- The sectoral structure of activity across regions tends to reflect variations in the education levels of their working-age populations. Agricultural regions across the EU, therefore, have the largest proportion of people with low education and the smallest proportion of those with high education. In the NMS the educational structure of the population in basic service regions is similar to that in agricultural regions. Capital cities in both the NMS and EU-15 have the largest proportion of highly educated inhabitants and the smallest proportion of low-educated inhabitants.
- The extent of restructuring which still lies ahead of the NMS agricultural and basic service regions, in particular, is indicated by the fact that the share of employment in services is 17-20 percentage points below that of counterpart EU-15 regions. This difference is particularly marked in business and financial services and public services.
- The share of employment in agriculture declined in all NMS regional groups in the period 1998-2003, but less so in the agricultural regions than elsewhere. Within industry, there was a shift in employment towards the low-skill sectors in all NMS regional groups.
- The share of employment in services increased in all NMS regional groups, but less in the agricultural regions than in others despite the former's particular need for restructuring.
- Since the share of employment in basic services in NMS regions is not much smaller than in their EU-15 counterparts, it might not increase much further in most of the NMS regions. Nevertheless, the number employed in the sector is still likely to expand significantly, if the present low level of employment overall can be increased. The number employed in the NMS regions could increase still more in business and public services; however, in public services growth might be limited by fiscal constraints.
- Comparisons with the EU-15 show, perhaps surprisingly, that scope also seems to exist for employment growth in industry in the NMS industrial and agricultural regions.
- Differences in the sectoral structure of employment across regions bear implications for the kinds of jobs on offer and the skills or education levels required. In the NMS capital cities, over $40 \%$ of those in employment in 2003 were highly skilled non-manual workers (managers, professionals and technicians) as opposed to only $25 \%$ in agricultural regions. Less skilled non-manual workers are also more in demand in the capitals than elsewhere and manual workers correspondingly less so.
- In the NMS agricultural regions, almost $60 \%$ of jobs were for manual workers; in the other NMS regional groups, manual workers made up over half of those in employment, much more than in the EU-15, reflecting the different sectoral composition of employment. Low-skilled manual workers, however, account for a larger share of employment in services in all EU-15 regional groups than in NMS regions; hence, in addition to the growth in low-skill non-manual jobs, the growth in low-skill manual jobs in the NMS might possibly compensate to some degree for jobs losses in agriculture.
- The occupational structure of employment shifted in favour of highly skilled non-manual workers between 1998 and 2003 in all NMS regional groups as well as in the EU-15; both groups also experienced a relative increase in low-skill non-manual jobs. This was paralleled by a decline in manual jobs, especially for unskilled workers.
- Throughout the NMS regional groups, workers in low-skill non-manual jobs have a markedly higher level of education than those in low-skill manual jobs, the difference being much greater than in EU-15 regions. Low-skill non-manual jobs thus fail to
provide employment for those with low levels of education in NMS regions to the same extent as in the EU-15.
- Employment rates for those with tertiary education are much higher than the rates for those with lower levels; they hardly vary at all across regions and are very similar in both the NMS and EU-15 regions. This contrasts with the variation across regions in the employment rates of those with only basic schooling; they are much lower in the NMS than in the EU-15.
- The employment rate of those with low education fell significantly across all NMS regional groups in the period 1998-2003, albeit slightly less so in basic service regions than elsewhere and more so for those with higher levels of education. By contrast, employment rates for the low-educated in all EU-15 regions outstripped those for the better educated.
- The spread of workers with tertiary education across sectors is relatively similar in both the NMS and EU-15 regional groups; however, given the smaller overall numbers involved a disproportionate number of those with tertiary education in all regional groups are employed in public services compared to the EU-15 -- and correspondingly fewer in the business sector.


# Regional employment patterns and prospective developments in the new EU member states 

## 1 Introduction

Previous studies of restructuring in the new Member States (NMS) have mostly focused on developments at the country level and differences between these and those in EU15 countries. There are, however, equally important differences between regions within the NMS both in terms of the situation prevailing today and in the light of the changes that have occurred over the transition period. These regional differences are the focus of the present paper. The main concern is threefold: (a) to examine the differences in terms of economic performance, the structure of economic activity and the skill requirements of the work force stemming therefrom; (b) to examine how those skill requirements tend to change over time; and (c) to consider probable future changes in the light of the structure of activity in regions with similar characteristics in the EU-15.

In order to make the analysis and, more especially, the presentation of its findings more manageable, regions in both the NMS and the EU-15 countries have been divided into groups or clusters, according to the structure of economic activity. (It should be noted that for this purpose, the two candidate countries, Bulgaria and Romania, have been aggregated with the 8 NMS in the heartland of Central and Eastern Europe. Hereinafter, the term NMS is used to refer to these 10 countries) Moreover, this provides insight into general trends regions with particular characteristics and avoids excessive focus on the specific features of any given region. The same division of sectors has also been used to distinguish activities in terms of skill requirements, as reflected in levels of education.

## 2 Outline of the analysis

The analysis starts by examining the regional clusters defined by the relative importance of different sectors of activity in terms of employment and the variance between the NMS and the EU-15 countries. ${ }^{1}$ It then examines differences between the groups so distinguished in terms of their economic performance and goes on to consider inter-regional differences in terms of the education levels of the working-age population who make up the available labour force, which are a significant factor underlying growth potential. This is followed by an analysis of: (i) the changes in the structure of economic activity observed over recent

[^0]years and the likely pattern of change in future years as development takes place; (ii) the occupational composition of employment and recent and prospective shifts in the same; and (iii) the skill or educational requirements of the labour force which those changes imply.

## 3 The regional clusters

For purposes of the analysis, the NUTS 2 regions across the 25 EU Member States plus Bulgaria and Romania are divided into five clusters or groups, in each case according to the relative importance of broad sectors of activity for employment. This, it should be noted, is defined in terms of the share of employment in particular sectors relative to the national average. The sectors in question are agriculture, industry, basic services - here defined as all service activities apart from business and financial services - and business and financial services. A final group of regions includes those in which capital cities are located, since the latter tend to have a specific structure of economic activity compared to other regions, given the greater numbers employed in government, as well as in financial and business services.

Since the national average shares vary markedly between countries, this means that each group contains regions with very different absolute shares of employment in the sector defining the group in question. For example, in the EU-15 countries, the agricultural group includes UK regions with only around $3-4 \%$ of employment in agriculture, as well as regions in Greece with over 30\% in the same sector. In the NMS, the group includes regions in the Czech Republic, Hungary and Slovakia with less than $10 \%$ of employment in agriculture, as well as regions in Poland and Romania, where the figure is $40 \%$ or more (see Map 1 for the location of the regions concerned). The same holds true for the other sectors.

A further point to note is that both agricultural and industrial regions in the NMS tend to have larger shares of employment in those sectors than similarly classified regions in the EU-15 countries. Moreover, both the basic service and business services regions in the NMS have lower shares of employment in those sectors than in the EU-15 countries - and correspondingly larger shares in agriculture and/or industry.

The logic behind this method of classification is to group together regions with broadly similar features, yet perhaps at different stages of economic development. The share of agriculture in those regions classified as belonging to the agricultural group in the more advanced countries may thus tend to indicate the structure of economic activity that similar regions in less advanced countries might ultimately display.

Groups of regions clustered by the sectoral structure of employment


The map of regions so grouped reveals some interesting features (see Map 1). In particular, it indicates that regions with a relative concentration of employment in a given broad sector tend to be contiguous in both the EU-15 countries and the NMS. For example, a band of industrial regions runs up from Slovenia through Hungary, Slovakia and southern Poland, while another band runs straight through from Belgium and northern France via Germany to the Czech Republic. Similarly, a band of agricultural regions runs up through the eastern part of Poland to Lithuania, matching the grouping of similar regions around the EU-15 periphery.

In addition, a band of regions where basic services predominate runs across the north of Poland through to the north of Germany and the Netherlands. Similarly, basic service regions elsewhere are to a large extent located in peripheral areas of the EU. Many of them are tourist regions (the Greek islands, Sicily, Sardinia, southern Spain and the Algarve), but others are not, especially those in the NMS, as well as those in the north of Sweden and Finland and parts of southern Italy. In those regions, the relatively large share of employment in basic services is an outcome of high employment in health, education and public administration - partly reflecting low overall employment which in itself pushes up the percentage - rather than an outcome of high employment in hotels, restaurants, retailing and other services.

Very few regions in the NMS are included in the business and financial service group. Beyond the capital cities where these activities are important, there is relatively little employment in those services. However, in three neighbouring Polish regions to the west of Warsaw - Kujawsko-Pomorskie, Wielkopolskie and Lódzkie - in two of which large cities are located, there are signs, even if tentative, of an emerging business service sector. It should be emphasized that: (a) employment in the business service sector in those regions is still low by EU-15 standards; and (b) the assignment of only three Polish regions to this group via the clustering method does not in itself mean that the development of a relatively important business service sector is unlikely in other parts of the NMS.

At the same time, it is worth noting that there are relatively few business service regions in the EU-15 countries. This underscores the concentration of such activities in capital cities and, outside those regions, the importance of either being located relatively close to a capital city or having a large conurbation situated within the regional boundaries (Greater Manchester, Glasgow and Edinburgh in the UK, Munich in Germany). It is, therefore, hard to envisage many regions in the NMS outside the capital cities becoming business service centres, except perhaps in the very long term.

## Box 1

## Data issues

The data on which this report is based come largely from the EU Labour Force Survey (LFS), which distinguishes the population in NUTS 2 regions in terms of their employment status, the sector of activity and occupation in which they are employed and their educational attainment level. The data for the NMS for the most part are complete for the period 1998-2003, which are the focus of analysis here. Data are also available for Romania for that period, but for Bulgaria, the data only cover the period 2000-2003.

While the data seem to be reasonably consistent from year to year in most cases, there are evident problems in respect of the comparability over time of the figures on educational attainment levels in a number of regions; this might reflect changes between surveys in the way particular qualifications are classified. This applies, in particular, to Lithuania, where there is an obvious break in the data between 2000 and 2001, and to many regions in Poland, in which the data show pronounced fluctuations between years in the relative number of people with different levels of education. Given these problems, the analysis here avoids directly comparing education levels over time.

It does, however, assume that the data for educational attainment levels are both reasonably accurate and comparable across regions. This assumption, it should be noted, seems questionable with regard to some rural regions in Poland, where the proportion of people with high education levels seems unexpectedly large (in Lubelskie, Podlaskie and Swietokrzyskie, which have the largest shares of employment in agriculture in the country, this proportion was in each case above the national average in 2003).

The analysis of change focuses on employment rates rather than on the percentage change in the number recorded as being employed, which are likely to be more prone to error because of the small sample size of the LFS. In other words, any error from this source will tend to affect the estimate of both employment and working-age population in similar, and compensating, ways. Sectoral employment rates, moreover - ie the number employed in each sector relative to working-age population - offer added insight into how the numbers employed in different sectors of activity in a given region compare with those elsewhere, since they automatically adjust for variations in the total employed.

In consequence, differences across regions in the employment rate for particular sectors, particularly between regions in the NMS and in EU-15 countries, give an indication of the possible changes which might occur in the structure of employment in future years, in terms not only of the direction of change but also its scale. High employment rates in agriculture in rural regions in Poland, Romania or elsewhere, therefore, can be expected to decline towards those observed in rural areas in Greece or Portugal, while rates in other sectors are likely to rise. Similarly, low employment rates in service activities in regions in the NMS can be expected to rise towards those in the EU-15 countries.

## 4 Regional disparities in economic performance

### 4.1 GDP per head

These differences in the sectoral structure of regions are associated to some degree with differences in economic prosperity and performance. Moreover, a similar pattern of differences as regards GDP per head is evident in both the NMS and the EU-15 countries.

In both groups of countries, GDP per head in the capital city regions is significantly higher than in other regions, though the gap is much wider in the NMS. In these countries, therefore, GDP per head in capital cities is on average about twice that in other regions according to the latest data (for 2002). In the EU-15 countries, the difference is around 50\% (Figure 1).

Figure 1

## Regional GDP per head in PPS

cluster weighted averages


Source: Eurostat.

Similarly, in both sets of countries, GDP per head is higher in business and financial service regions than the average elsewhere; however, it should be borne in mind that in the NMS only very few regions are to be found in this group (all of them in Poland) and the classification is tentative in nature. The same applies to industrial regions. Although in direct contrast to the EU-15 countries the GDP per head in the NMS is higher in the industrial regions than in the business service regions, this may simply reflect the restricted nature of those regions in the NMS.

In both the NMS and the EU-15, GDP per head is lowest in the agricultural regions; in both instances, slightly below the level in basic service regions. This reflects, to some degree,
the fact that many agricultural regions in the EU-15 countries have developed into basic service regions by diversifying into tourism and thus increasing their GDP per head as a result. A similar trend has yet to be seen in the NMS; given the geophysical features of most agricultural regions in those countries, their tourist potential is open to question. The implication is that economic activity in such regions may not necessarily develop in the same way as in the EU-15 countries.

In the NMS the differences in GDP per head between these regional groups have become more accentuated over recent years - or at least up until 2002; in the EU-15 countries, however, they have remained much the same. In the NMS taken together, including Bulgaria and Romania, the GDP growth per head in the capital city regions in PPS terms was almost twice that in other regions in the period 1995-2002. GDP per head also rose at an above- average rate in the business services regions; this, however, seems to reflect the relatively high growth rate in Poland rather than in those regions per se (Outside the Warsaw region, GDP growth was no higher than in the rest of Poland,).

In the other regions, the increase in GDP per head over this period was much the same in each group, albeit slightly lower in the agricultural regions than elsewhere.

The relatively high growth of GDP per head in the capital city regions in the NMS reflects the much more favourable conditions for economic expansion prevailing there than elsewhere. The infrastructural endowment and the availability of both basic services and skilled labour are all greater than in other regions. As a consequence, foreign direct investment has tended to concentrate on those regions (see Box 2), reinforcing the relatively high growth of domestic investment, as well as adding to and benefiting from the increasing returns from the agglomeration of economic activity (for a theoretical and empirical analysis of this process, see Brülhart and Torstenson, 1996; Fujita and Thisse, 1996; Ottaviano and Puga, 1997; Puga, 2001, Gersbach and Schmutzler, 1999; Aschauer, 1990; Munnel, 1990; Tondl ,1999).

## Box 2

## The regional concentration of FDI

Data on the regional location of FDI flows show that in all the NMS for which data are available flows are mainly directed towards the capital cities. In the Czech Republic, around half of all inward investment over the period 1999-2002 went to Prague, while in Hungary and Slovakia, some twothirds went to the Budapest region and Bratislava, respectively.
These figures, however, can be misleading since a large proportion of enterprise investment tends to be assigned to the region in which the company headquarters are situated, which is much more likely to be the capital city region than any other.
Nevertheless, even leaving aside the capital cities, FDI still seems to go to disproportionately few regions, most of which happen to be located close to EU-15 countries and/or the capital cities. In the Czech Republic, the FDI that went to Stredni Cechy, the region surrounding Prague, over the period 1999-2002 was three times greater than that going to Moravskoslezko in the far east of the country (adjusted for the population of working age), whereas the FDI that went to Severozápad on the north-western border with Germany was more than twice as much (Figure 2).

Figure 2
FDI per person (aged 15-64) in CZ and HU
relative to country average $(\mathrm{HU}, \mathrm{CZ}=100), 1999-2002$ average


Source: Czech National Bank, National Bank of Hungary.
Likewise in Hungary over the same period, the inflows of FDI to Nyugat-Dunántúl, the region bordering on Austria, were more than five times as large as those to Dél-Alföld, once again adjusted for the working-age population, whereas those to Közép-Dunántúl were almost three times as large.

The more detailed data on Hungary, which take account of the company headquarters problem by using information on the location of investment cited in company accounts, show a similar degree of concentration, with the jobs generated by such investment being located disproportionately along the Austrian border (see Fazekas and Ozsvald, 2004). Over the period 1993-2002, it is estimated that foreign-owned enterprises were responsible for an $8 \%$ net increase in jobs among the workingage population in high-employment regions concentrated along the western border, whereas the corresponding increase in low-employment regions was less than $2 \%$.

### 4.2 Employment rates

High GDP per head is not necessarily associated with a high level of employment. For example, at the country level, the proportion of working-age population in employment the employment rate - in Portugal is above the EU-15 average, despite that country's GDP per head being well below the EU average. Similarly in the NMS, the employment rate in Latvia is well above that in Hungary, yet Latvia's GDP per head corresponds to less than two-thirds of that in Hungary. The same holds true across regions, where relative rates of employment are greatly affected by national rates and general labour market characteristics.

In the EU-15 countries on average, the highest employment rate is in the business services regions; these are concentrated in the UK, Denmark, Sweden and the Netherlands, where employment rates are well above the EU average. In the other regional groups, the average employment rate in the capital cities is similar to the EU-15 average and only slightly above the average in agricultural regions - though in all countries, employment in the capital city is higher than elsewhere. The lowest employment rate is to be found in the basic service regions (Figure 3).

This is also the case in the NMS, where the highest average employment rate is in the agricultural regions ( $61 \%$ of working-age population). This reflects the tendency among those unable to find jobs in other activities to make a living from subsistence agriculture (see Box 3).

As in the EU-15, the average employment rate in agricultural regions in the NMS is slightly higher than the average for the capital cities which, in each country except Romania, have higher rates than in most other areas. Again as in the EU-15, the lowest employment rates in the NMS are to be found in the basic service regions which, in many cases, are largely rural in nature but with lower employment in agriculture. In the NMS, to some degree this reflects the failure of other sectors, basic services in particular, to offset fully the job losses in agriculture as the sector goes into decline and there is a move away from subsistence farming.

Over the period 1998-2003, the average employment rate in the NMS declined in all regional groups, more so in the agricultural regions than in others, except for the business service group where the sharp drop reflects the substantial decline in employment in Poland. The employment rate in the capital cities fell less than elsewhere, reflecting the relatively high growth of GDP despite its apparently being channelled mainly into productivity increases.

## Box 3

## Agricultural regions in Poland

Transition and the process of privatization in Poland have led to major increases in unemployment, but with large variations across the country. The regions with the lowest rates of unemployment and correspondingly the highest rates of employment are, with the exception of Mazowieckie, agricultural regions in the east of the country, such as Podlaskie and Lubelskie. By way of contrast, the lowest rates of employment tend to be in regions to the west, Zachodniopomorskie, Lubuskie and Dolnoslaskie, where agriculture is much less important.

These differences in both employment rates and the share of agriculture are rooted in the pattern of farm land ownership prior to 1989. In the northern and western parts of Poland, state-owned farms controlled over $40 \%$ of the farmland and their liquidation was accompanied by a significant reduction in the number of people working in agriculture and the emergence of open unemployment on a substantial scale. In the eastern and central parts of the country, state-owned farms accounted for $10 \%$ or less of the land and the great majority of people worked on small, backward private farmsteads. This is still the case. According to data for the end of the 1990s, Poland had over 2 million farms, $55 \%$ of which had a land area of less than 5 hectares and only $19 \%$ more than 10 hectares. The average farm size was a mere 7 hectares and $70 \%$ of farms produced food solely for their own needs. Of the two million farms, only 600,000 thousand marketed their produce.

As a consequence, most of those employed in agriculture in the eastern regions are doing so solely for want of a job in other activities and they have very low incomes (at the end of the 1990s average household incomes in rural areas were some $30 \%$ lower than in urban areas). In contrast to the open unemployment in the western regions, the east and central parts are characterized by massive over-employment in agriculture and hidden unemployment. The high over-employment is reflected in low levels of agricultural productivity; in 2001, the value-added per person employed in Lubelskie and Podlaskie was only some EUR 1,500 .

Based on comparisons with Spain and Italy, estimates suggest that the over-employment in Polish agriculture over the period 1996-2001 amounted to some 62-65\% of the work force in the sector; in the eastern regions it rose to around $70-75 \%$ or even more. Estimates also suggest that the investment required to create the jobs needed outside agriculture to provide employment for this excess labour amounts to some EUR 55 billion. (See Kwiatkowski, Gajewski and Tokarski, 2004, on which this box is based for details of these estimates and for an account of the policy challenge facing the Polish Government as it seeks to cope with the problems of restructuring in agricultural areas.)

In the EU-15 countries, the employment rate rose in all regional groups over the same period. Differences between groups were less than in the NMS and agricultural regions showed the highest instead of the lowest rate of increase, mostly owing to high employment growth in the Spanish regions.

Figure 3
Employment rates in EU-15 and NMS
\% of population aged 15-64, cluster weighted averages


Source: LFS, own calculations.

## 5 Regional disparities in education levels

As in the EU-15 countries, the sectoral structure of economic activity across regions in the NMS tends to reflect variations in educational attainment levels of those people of workingage who make up the labour force. Agricultural regions thus tend to have a larger proportion of people with only basic schooling than other regions, whereas capital cities and business services regions tend to have a larger proportion of people with university or tertiary level education. This reflects in part a twin tendency for economic activities to develop in places where the work force available has the skills required and, at the same time, for people with those skills to move to - or remain living in - areas where they are in demand.

As at the country level, regions in the NMS tend to have a smaller proportion of people of working-age with both low education - i.e. no qualifications beyond basic schooling - and high or tertiary level education than EU-15 countries. Correspondingly, they also typically have a much larger proportion with upper secondary educational qualifications, most of whom have completed a vocational training programme; however, the relevance of those qualifications in relation to current and likely future labour market needs remains open to question. Accordingly, the degree to which education levels of the potential work force in the NMS can be compared with those in EU-15 countries is a debatable issue, although qualifications are perhaps more likely to be comparable in relation to tertiary education.

In the agricultural regions in the NMS, almost 25\% of people aged 25-64 thus have only basic schooling (again taking the data for 2003): a much smaller proportion than in the agricultural regions in the EU-15, yet a much larger proportion than in the capital city regions in the NMS ( $15 \%$ ). However, the scale of the difference (10 percentage points) is much the same as that between the two groups of regions in the EU-15 countries. Likewise, in the capital cities in the NMS the proportion of people in this age group with tertiary education is over $20 \%$, well below the level in those regions in the EU-15, yet around twice the number in other NMS regions (Figure 4).

Figure 4

## Low- and highly educated population

\% of population aged 25-64, cluster weighted averages


Source: LFS, own calculations.

In the other regional groups, the proportion of low-educated population in the basic service sector regions in the NMS is much the same as in the agricultural regions, as is the proportion of those with tertiary education. The educational composition of the work force in those two regional groups is thus very similar. In both cases, they have a larger proportion of people with upper secondary education than comparable regions in the EU15 , yet fewer with tertiary education. As a consequence, at first sight, those regions seem to have a greater human resource endowment than those in the EU-15; however, as already emphasized, much depends on how well the upper secondary education they have completed correspond to labour market requirements.

## 6 The sectoral structure of employment

### 6.1 The division of employment between sectors in 2003

All the regional groups in the NMS have a larger share of employment in agriculture and industry and a correspondingly smaller share of employment in services than their counterparts in the EU-15. The difference is particularly pronounced in respect of agriculture, where even in the industrial regions in the NMS, the share of employment is some $10 \%$ percentage points greater than in the EU-15 (Table 1). The difference in the share of employment in services is the counterpart of the larger shares in the primary and secondary sectors; it is around 14 percentage points or more for all of the regional groups. In the agricultural regions, the share of employment in services in the NMS is some 20 percentage points below that in the EU-15; in the basic service regions, it is 17 percentages points less. These figures indicate the extent of restructuring that might lie ahead of regions in those countries which have just entered the EU or are currently negotiating their entry (see Box 4 on the problems of specific regions).

## Table 1

Employment by sector, 2003
\% of total employment, cluster weighted averages

|  | Total <br> Employm |  | contribution by sector |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Agricultur | Industry |  |  |  | Services |  |  |  |
|  |  |  | Total | highskill | medium -skill | low-skill | Total | business services | basic services | public services |
| Cluster: |  |  |  |  |  |  |  |  |  |  |
| EU-15 |  |  |  |  |  |  |  |  |  |  |
| Agricultural |  | 100.0 | 11.0 | 27.4 | 6.4 | 16.3 | 4.7 | 61.5 | 8.2 | 24.2 | 29.1 |
| Industrial | 100.0 | 3.2 | 34.4 | 11.8 | 16.6 | 5.9 | 62.4 | 11.1 | 24.0 | 27.4 |
| Basic services | 100.0 | 4.5 | 26.1 | 7.5 | 14.6 | 3.9 | 69.4 | 10.4 | 26.7 | 32.3 |
| Business services | 100.0 | 1.8 | 23.5 | 9.9 | 11.6 | 2.0 | 74.7 | 17.2 | 25.2 | 32.3 |
| Capital cities | 100.0 | 1.3 | 19.8 | 7.2 | 10.2 | 2.4 | 78.9 | 19.7 | 26.9 | 32.3 |
| NMS |  |  |  |  |  |  |  |  |  |  |
| Agricultural | 100.0 | 28.4 | 28.7 | 8.6 | 11.7 | 8.3 | 42.9 | 4.2 | 18.7 | 19.9 |
| Industrial | 100.0 | 10.8 | 39.7 | 11.3 | 16.7 | 11.7 | 49.5 | 5.6 | 22.3 | 21.6 |
| Basic services | 100.0 | 14.4 | 32.3 | 8.5 | 15.0 | 8.8 | 53.3 | 5.2 | 24.2 | 23.9 |
| Business services | 100.0 | 17.8 | 31.7 | . | . | . | 50.6 | 7.2 | 21.3 | 22.1 |
| Capital cities | 100.0 | 6.6 | 25.9 | 8.7 | 11.9 | 5.4 | 67.5 | 12.9 | 27.7 | 26.9 |
| Source: LFS, own calculations. |  |  |  |  |  |  |  |  |  |  |

## Box 4

## The regions with the most serious employment problems

Just as employment opportunities vary across regional clusters, they also differ significantly between regions within the NMS. In the Czech Republic, for example, the employment rate in 2003 in Prague was 13 percentage points higher than in Moravskoslezsko in the east of the county. In Hungary the difference was 12 percentage points between Kozep-Dunantul to the west of Budapest and the Észak-Magyarország region in the north-east. The difference between the regions in Bulgaria with the highest (Yugozapaden where Sofia is situated) and lowest (Severozapaden) employment rates was only slightly less. The widest gap, however, was in Slovakia despite the relatively small size of the country, with the rate in Bratislava being over 14 percentage points higher than in Vychodne Slovensko in the east of the country.

On the other hand, in both Poland and Romania, the two largest countries, employment rate differences were less pronounced (10 percentage points and under 7 percentage points, respectively). This reflects the major importance of agriculture and the over-employment which is endemic to the sector because of the lack of jobs in other parts of the economy (see Box 3 on agricultural regions in Poland). Most of those employed in agriculture are subsistence farmers and as a result, employment rates in the agricultural regions tend to be higher than in those where the sector is less important. In Poland, the highest employment rate is in Lubelskie in the east of the country where in 2003 agriculture employed $21 \%$ of the people of working age (even slightly higher than in the capital city region of Mazowieckie) and the lowest rate is in Lubuskie in the west, where only 5\% of the working-age population were employed at that time in the agricultural sector. In Romania, the importance of agriculture is even more pronounced. The highest rate of employment is in the Nord Vest ( $63 \%$ ), where $30 \%$ of the working-age population - almost half of those in work - were employed in agriculture, while the lowest rate was in Centru and Bucuresti ( $56 \%$ in each), the regions with the lowest employment rates in the sector.

The regions facing the greatest employment problems can be broadly divided into two groups: the agricultural regions and the old industrial regions.

The agricultural regions which appear to have the greatest potential problems as over-employment in the sector declines are Lubelskie, Podkarpackie, Podlaskie and Swietokrzyskie in the east of Poland and the Nord-Est, Sud and Sud-Vest regions in Romania. The Dél-Alföld region in the south of Hungary bordering on Romania also has significant problems in relation to other regions in Hungary, albeit on a smaller scale than in Poland or Romania. The feature they have in common is high employment in agriculture and an absence of alternative job opportunities in industry and services. In the four Polish regions, the latter two sectors employed only $35-37 \%$ of working-age population in 2003 (In Poland the average rate was $42 \%$ and in Mazowieckie $47 \%$ ). In the Czech Republic it stood at 62\%. In the three Romanian regions, the figure was even lower at 32-36\% (as opposed to $55 \%$ in Bucuresti and $42 \%$ in Centru). In Dél-Alföld $47 \%$ of working-age population were employed in non-agricultural sectors, the same proportion as in Mazowieckie in Poland, yet significantly less than in Hungary as a whole (54\%) and much less than in Közép-Magyarország (60\%) where Budapest is situated.

The old industrial regions with the apparently most pressing problems are: Moravskoslezko in the east of the Czech Republic; Észak-Magyarország in the north-east of Hungary; Východné Slovensko in the east of Slovakia; Slaskie in southern Poland; and the Nord-Vest region of Romania. The feature these regions have in common is the importance accorded to heavy industry and mining
which, at the outset of the transition period, were highly inefficient and in desperate need of restructuring. Their subsequent exposure to market forces thus led to a substantial decline in demand for their products, followed by plant closures and large-scale job losses. Restructuring, however, has been hampered by a lack of FDI inflows into either the industries themselves given their limited growth prospects or the regions where they are situated on account of their unattractiveness and geographical location. The resultant job losses have not been offset by the creation of new jobs; furthermore, new industries and services alike have been slow to develop. As a consequence, the regions still depend on the old declining industries, the demise of which has been slowed in many cases by concern over the social consequences of plant or mine closure. (This holds particularly true for Slaskie in Poland - see Kwiatkowski, Kubiak and Kucharski, 2004).

Map 2
Problem regions


A more detailed analysis of the differences in employment structure shows that in both cases, the main differences between industry in the NMS and industry in the EU-15 lie in the share of employment in the lower-skill sectors. In both the industrial and basic service regions in the NMS, the share of employment in low-skill industries was almost 5 percentage points more than in the counterpart regions in the EU-15 in 2003; in the agricultural and capital city regions, however, it was 2-3 percentage points more. (It is not possible to disaggregate industry in Poland and, hence, the business service group.) By way of contrast, in the industrial regions in the NMS, the share of employment in high-skill industries was much the same as in the EU-15; in the agricultural and basic service
regions in the NMS, the share of high and medium-skill industries taken together was slightly less than 2 percentage points above that in comparable regions in the EU-15.

Within services, the difference in employment shares in all regional groups was particularly marked in respect of education, health care and public administration taken together. In agricultural, basic service and business service regions, the share of this sector in the NMS was 9-10 percentage points less than in counterpart regions in the EU-15, while in industrial and capital city regions it was 7 percentage points less. In the capital cities, the difference in the relative numbers employed in business and financial services was equally pronounced; a similar situation obtained in the business service regions. Although the difference was less in the other regional groups, it still amounted to 4-5 percentage points. In contrast, the difference in the share of basic services was relatively small in all the regional groups except the agricultural cluster, although the share of employment in the NMS was still below that in the EU-15, apart from the capital cities where it was marginally higher.

### 6.2 Changes in the structure of employment 1998-2003

For the most part, these differences in the structure of employment narrowed over the period 1998-2003, although the extent of the change was relatively small. In all regional groups in the NMS, with the partial exception of the three business service regions, the share of employment in both agriculture and industry thus declined (Table 2). It also declined over the same period in both sectors in the EU-15 countries; however, in industry the decline in the industrial and two service sector groups was greater in the EU-15 countries than in their NMS counterparts. The gap in the share of employment in industry between the two country groups thus widened further in those cases. Although the share of agriculture in the NMS fell in all regional groups, the extent of reduction was less in the agricultural regions than elsewhere.

Within industry, a general shift towards the low-skill sectors was perceptible in all regional groups in the NMS where the share of employment either increased or remained unchanged in each case, whereas the share in medium and high-skill industries in all groups declined. In the EU-15, the share of employment in both high-skill and low-skill industries declined in all regional groups; the share of employment in medium-skill industries declined in all but the agricultural and capital city regions.

The share of employment in services increased in both the NMS and EU-15; in all the groups except the business service regions, the increase was slightly greater in the NMS countries than in the EU-15. The increase was particularly marked in the capital cities in the NMS (5 percentage points). By contrast, it was relatively small in the agricultural
regions (3 percentage points), where the shift in employment between sectors was correspondingly smaller than elsewhere, despite the greater need for restructuring.

Table 2
Changes in the division of employment by sector, 1998-2003
changes in percentage points, cluster weighted averages

|  | Agriculture | Industry |  |  |  | Services |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | high-skill | mediumskill | low-skill | Total | business services | basic services | public services |
| Cluster: |  |  |  |  |  |  |  |  |  |
| EU-15 |  |  |  |  |  |  |  |  |  |
| Agricultural |  | -1.3 | -0.6 | -0.3 | 0.2 | -0.5 | 1.8 | 0.8 | 0.0 | 1.0 |
| Industrial | -0.6 | -2.3 | -0.6 | -0.5 | -1.2 | 2.9 | 1.2 | 0.6 | 1.1 |
| Basic services | -1.0 | -2.2 | -0.5 | -0.8 | -0.8 | 3.2 | 1.2 | 0.6 | 1.5 |
| Business services | -0.3 | -2.5 | -1.4 | -0.5 | -0.6 | 2.8 | 2.1 | -0.4 | 1.2 |
| Capital cities | -0.3 | -1.9 | -1.4 | 0.1 | -0.5 | 2.2 | 2.5 | -0.4 | 0.1 |
| NMS |  |  |  |  |  |  |  |  |  |
| Agricultural | -1.6 | -1.3 | -10.1 | -11.9 | -8.0 | 2.9 | 0.5 | 0.8 | 1.6 |
| Industrial | -2.2 | -1.3 | -12.3 | -17.2 | -11.5 | 3.5 | 1.0 | 0.5 | 2.0 |
| Basic services | -2.0 | -1.6 | -9.1 | -17.6 | -7.2 | 3.6 | 0.6 | 1.3 | 1.7 |
| Business services | 0.7 | -1.2 |  | . | . | 0.5 | 1.3 | -1.5 | 0.7 |
| Capital cities | -2.1 | -2.9 | -10.0 | -13.4 | -5.4 | 5.0 | 3.2 | 0.3 | 1.6 |
| Source: LFS, own cata | ulations. |  |  |  |  |  |  |  |  |

Within services, the share of employment in public services - education, health and public administration - increased by a similar amount in all regional groups in the period 19982003;in each case, apart from the business service regions, the increase was greater than that in the EU-15 counterpart regions. The employment share in business and financial services also rose in all the groups, albeit at a lower rate than in the EU-15 regions, with the exception of the capital city group, where the share rose by over 3 percentage points in the NMS. Except for the latter regions, the gap in the sector's relative importance between the two sets of countries widened over the above period.

The share of employment in basic services also increased generally across the NMS, albeit not in the business service regions; in the other groups the rise was mostly less than in the other sectors. In the EU-15 countries, the share of employment in basic services only increased in the industrial and basic services regions, whereas in the business service and capital city regions it declined. The difference in this sector's share in employment between the NMS and the EU-15 regions can thus be seen to have generally narrowed over this period, if only slightly. However, in 2003 the difference in employment in basic services between the NMS and the EU-15 was relatively small for most of the regional groups; the main exception were the agricultural regions, where it still stood at over 6 percentage
points. This suggests that over the coming years most NMS regions may not experience any further increase in their share.

### 6.3 Sectoral employment rates in the NM and EU-15 regions

The foregoing statement notwithstanding, this should not be interpreted to mean that largescale increases in the total employed in the sector are unlikely. The level of employment in almost all of the regions in the NMS is substantially below what it should be in order both to: (a) reduce unemployment to acceptable rates; and (b) ensure that people are not deterred by a lack of jobs from actively seeking work. As noted above, the proportion of working-age population in employment was below $60 \%$ in all the regional groups in 2003, even in the capital cities; in the basic service regions, it averaged less than $54 \%$, well below the Lisbon target rate set at $70 \%$ for the EU as a whole (Table 3).

Table 3
Employment rates by sector, 2003
\% of working-age population (15-64 years), cluster weighted averages


Rate

Agriculture
Industry
Total
high- medium
skill -skill low-skill Total services services services

Cluster:

| EU-15 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural | 61.4 | 6.8 | 16.8 | 3.9 | 10.0 | 2.9 | 37.8 | 5.0 | 14.9 | 17.9 |
| Industrial | 65.6 | 2.1 | 22.5 | 7.8 | 10.9 | 3.9 | 41.0 | 7.3 | 15.7 | 18.0 |
| Basic services | 58.7 | 2.6 | 15.3 | 4.4 | 8.6 | 2.3 | 40.7 | 6.1 | 15.6 | 19.0 |
| Business services | 69.2 | 1.2 | 16.2 | 6.8 | 8.0 | 1.4 | 51.7 | 11.9 | 17.4 | 22.3 |
| Capital cities | 63.3 | 0.9 | 12.5 | 4.6 | 6.5 | 1.5 | 49.9 | 12.4 | 17.0 | 20.5 |
| NMS |  |  |  |  |  |  |  |  |  |  |
| Agricultural | 58.1 | 16.5 | 16.7 | 5.0 | 6.8 | 4.8 | 24.9 | 2.4 | 10.9 | 11.6 |
| Industrial | 55.6 | 6.0 | 22.1 | 6.3 | 9.3 | 6.5 | 27.6 | 3.1 | 12.4 | 12.0 |
| Basic services | 53.6 | 7.7 | 17.3 | 4.6 | 8.0 | 4.7 | 28.6 | 2.8 | 13.0 | 12.8 |
| Business services | 53.2 | 9.5 | 16.9 | . | . | . | 26.9 | 3.8 | 11.3 | 11.8 |
| Capital cities | 59.0 | 3.9 | 15.3 | 5.1 | 7.0 | 3.2 | 39.8 | 7.6 | 16.3 | 15.9 |
| Difference, EU-15-NMS, 2003 |  |  |  |  |  |  |  |  |  |  |
| Agricultural | 3.3 | -9.8 | 0.2 | -1.1 | 3.2 | -2.0 | 12.9 | 2.6 | 4.0 | 6.3 |
| Industrial | 10.0 | -3.9 | 0.5 | 1.5 | 1.6 | -2.6 | 13.4 | 4.2 | 3.3 | 5.9 |
| Basic services | 5.1 | -5.1 | -2.0 | -0.1 | 0.6 | -2.4 | 12.2 | 3.3 | 2.7 | 6.2 |
| Business services | 15.9 | -8.2 | -0.6 | - | - | . | 24.8 | 8.1 | 6.1 | 10.6 |
| Capital cities | 4.3 | -3.0 | -2.8 | -0.6 | -0.5 | -1.7 | 10.1 | 4.8 | 0.7 | 4.6 |

Source: LFS, own calculations.

Comparison of the sector employment rates, i.e. the total employed relative to working-age population, in the NMS regions with those in the counterpart EU-15 regional groups, which are higher throughout, even if still below the $70 \%$ target, offers an indication of the prospective pattern of increase in employment as economic development and job growth takes place (Table 3). This shows that in all regional groups in the NMS, employment in services, including basic services, is likely to increase significantly - by 10-13\% of workingage population - if they were to attain the same employment rates as the EU-15 regions (in the business service regions the potential increase is of the order of $25 \%$ ).

At the same time, much of the difference in the employment rate in services between the two sets of countries lies in public services, where the numbers employed in the EU-15 regional groups were 5-6 percentage points higher than in the counterpart NMS regions (and 11 percentage points in business service regions). The scope for substantial job growth in this sector, however, is very much tied to public finances being healthy enough to fund that growth: a difficult undertaking unless GDP growth is relatively high. The difference is also significant in business services, even in the capital city regions where those services tend to be concentrated in the NMS (in 2003 the difference was $5 \%$ of working-age population).

This comparison of the sector employment rates also indicates, perhaps surprisingly, that there may still be scope for increases in the number employed in industry in the NMS, in both the agricultural and industrial region groups. Despite the much larger share of employment in industry in many NMS regions than in EU-15 ones, most especially in those classified as belonging to the industrial group, the relatively low level of total employment means that this share can decline without jobs losses necessarily occurring. In the case of agriculture, however, employment is much higher in relation to working-age population in all NMS regional groups; hence, significant jobs losses can be expected as economic development occurs and the total number of persons in work increases. This, of course, holds particularly true for agricultural regions; however, substantial prospective job losses in this sector are by no means confined to those regions.

## 7 Occupational structure of employment

### 7.1 The division of employment between occupations in 2003

The differences in the division of employment between sectors both across different types of region in the NMS and between the regional groups in the NMS and their EU-15 counterparts bears implications for the kinds of job on offer: in other words, for the occupational structure of employment. This in turn bears implications for the skills and educational qualifications needed to perform the jobs in question. At the same time, it is equally true that the jobs on offer in a given sector vary across different types of region,
reflecting differences in the nature of the activity performed in the sector concerned. For example, within industry, head offices, sales and marketing departments and R\&D centres are more likely to be located in capital cities or close to them than in other regions, while the reverse is the case for production lines or large-scale assembly plants.

In the NMS, therefore, managers, professionals and technicians (or high-skill non-manual staff) account for a much larger proportion of employment in capital cities than in the other regional groups; this reflects both the underlying sectoral structure of economic activity, with higher employment in services and in high-skill services, in particular, and the type of activity performed within each sector. In total, therefore, some $42 \%$ of overall employment was in these types of job in capital cities in 2003 as opposed to $30 \%$ or less in the other regional groups - and only $25 \%$ in the agricultural regions. Equally, within industry, around $29 \%$ of jobs fell into this category in the capital city regions as opposed to $20 \%$ or less in other regions (Table 4). The difference within services was less marked, but still significant (around 6 percentage points or slightly more).

Table 4
Employment by occupation, 1998 and 2003
total employment $=100$, cluster weighted averages

|  | High-skill non-manual |  |  | Medium-skill nonmanual |  |  | Low-skill non-manual |  |  | Skilled manual |  |  | Low-skill manual |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1998 | 2003 | Change | 1998 | 2003 | Change | 1998 | 2003 | Change | 1998 | 2003 | Change | 1998 | 2003 | Change |
| Cluster: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EU-15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Agricultural | 29.3 | 30.8 | 1.4 | 10.8 | 10.6 | -0.1 | 13.4 | 14.5 | 1.1 | 26.5 | 25.1 | -1.5 | 20.0 | 19.0 | -1.0 |
| Industrial | 33.4 | 34.8 | 1.4 | 13.0 | 12.7 | -0.3 | 12.9 | 13.7 | 0.9 | 29.2 | 26.7 | -2.4 | 11.5 | 12.0 | 0.5 |
| Basic services | 33.5 | 35.4 | 2.0 | 12.6 | 12.2 | -0.4 | 14.6 | 15.7 | 1.1 | 25.7 | 23.1 | -2.6 | 13.6 | 13.6 | -0.1 |
| Business services | 42.0 | 44.2 | 2.3 | 15.5 | 14.4 | -1.1 | 13.7 | 13.9 | 0.3 | 19.7 | 17.3 | -2.4 | 9.2 | 10.2 | 1.0 |
| Capital cities | 43.6 | 45.4 | 1.8 | 14.9 | 13.7 | -1.1 | 13.7 | 14.1 | 0.4 | 18.0 | 16.5 | -1.5 | 9.9 | 10.2 | 0.4 |
| NMS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Agricultural | 24.1 | 25.5 | 1.4 | 5.3 | 4.9 | -0.4 | 8.8 | 10.4 | 1.6 | 27.5 | 26.1 | -1.4 | 34.3 | 33.0 | -1.3 |
| Industrial | 27.0 | 30.0 | 2.9 | 7.2 | 7.1 | -0.1 | 11.3 | 12.1 | 0.8 | 35.7 | 34.7 | -0.9 | 18.8 | 16.1 | -2.7 |
| Basic services | 28.2 | 28.9 | 0.7 | 7.0 | 7.0 | -0.1 | 11.5 | 12.9 | 1.4 | 31.9 | 31.2 | -0.7 | 21.4 | 20.0 | -1.3 |
| Business services | 30.4 | 29.6 | -0.9 | 7.1 | 7.1 | 0.0 | 11.3 | 11.5 | 0.2 | 27.0 | 27.7 | 0.7 | 24.2 | 24.2 | -0.1 |
| Capital cities | 38.0 | 41.8 | 3.8 | 9.0 | 9.0 | 0.1 | 12.6 | 12.8 | 0.1 | 25.1 | 23.1 | -2.0 | 15.4 | 13.3 | -2.0 |

Source: LFS, own calculations.

The relatively high demand for managers, professional and technicians in capital cities is accompanied by a higher demand for office staff than in other regions, but a similar demand for low-skill sales and service workers. As a corollary, the proportion of jobs for manual workers is much smaller. The same pattern is evident across the EU-15 regions, the scale of the difference between capital city regions and the rest being very similar. However, the relative number of jobs for managers, professionals and technicians was larger in the EU-15 regions than in the same regions in the NMS, as was that for both office workers and sales and service staff. Altogether, the proportion of employment in non-
manual occupations (i.e. those three occupational groups taken together) was thus some 10 percentage points higher in the EU-15 capitals than in the NM capitals and the proportion in manual jobs correspondingly lower by the same amount.

The reverse pattern applies in agricultural regions in both the NMS and the EU-15. In the NMS, around a third of all jobs in such regions in 2003 were for low-skill manual workers and another quarter for higher-skilled manual workers, while those two broad occupations also accounted for over half of the jobs in the other regional groups. These proportions are much larger than in the counterpart regions in the EU-15, where the share of jobs for manual workers was 10-15 percentage points less in agricultural, industrial and basic services regions and the share for non-manual workers, especially for high and mediumskill workers (i.e. managers, professionals, technicians and office workers), correspondingly higher.

These differences largely reflect differences in the sectoral structure of employment - and the much larger share of jobs in agriculture in particular; they also reflect differences within sectors, such as the higher share of transport and smaller share in business services. As the structure of activity in the NMS regions shifts towards that in the EU-15, a parallel shift occurs in the types of job performed, bearing implications in terms of the skills and education levels required.

Interestingly enough, the share of employment in services in low-skill manual jobs is uniformly larger in all EU-15 regional groups than in their NMS counterparts: very much the reverse of the case in respect of higher-skill jobs. Thus as the structure of economic activity changes, the loss of manual jobs in agriculture can be offset to some, though relatively small, extent by growth in low-skill manual jobs in services, although an equivalent compensation for the loss of higher-skill manual jobs in industry is unlikely.

### 7.2 Changes in the occupational structure of employment 1998-2003

The likely shifts in occupational structure in the NMS are already evident in the changes that have occurred over recent years. All the regional groups, with the exception of the 3region business service cluster, experienced an increase in the share of jobs for managers, professionals and technicians over the five-year period 1998-2003; it amounted to around 4 percentage points in the capital cities and 3 percentage points in the industrial regions. At the same time, there was also a common increase in the share of relatively low-skill sales and service jobs, though less so in the capital cities than in the other regions. The share of employment in those occupational groups, however, also rose in the EU-15 countries over the same period; the difference in shares between the two sets of countries thus changed relatively little.

At the same time, the share of employment in medium-skill service jobs (i.e. those for office workers) declined slightly or remained unchanged in the NMS regional groups, despite the relatively large difference in this share in relation to the EU-15 regions (even though the share also generally declined in the latter).

The increase in the relative number of non-manual jobs was paralleled by a decline in that of both low-skill and higher-skill manual jobs, particularly the former, in all the NM regional groups except the business service regions. This again was matched by a reduction in manual jobs in the EU-15 regions, although in all groups, the drop was concentrated in higher-skill jobs; in three of the groups - in all regions except agricultural and basic service regions - the share of low-skill jobs increased, with a rise occurring in both industry and services.

## 8 Educational structure of employment

### 8.1 The educational requirements of different occupations

The occupational composition of jobs within sectors together with the sectoral structure of economic activity is a major determinant of the educational and skill requirements of the work force. As indicated earlier, however, given the problems of comparing educational levels across countries and in particular between the NMS and the EU-15 countries, there is some difficulty in assessing those needs in the NMS and the likely changes in future years as economic development and restructuring takes place. As noted earlier, the main problem relates to the nature of the upper secondary qualifications acquired by the large majority of people in the NMS who remain in education and training beyond compulsory school leaving age and their relevance in relation to present and prospective labour market needs.

Examination of the educational attainment levels of people in the different broad occupational groups distinguished above indicates some similarity across regions in both the NMS and the EU-15 countries. This, in turn, suggests similarity in the educational requirements of particular occupations, irrespective of where they are performed. The exceptions are the capital city and business service regions, especially in the EU-15. In the case of the business service regions, where the education levels of the people performing different jobs are generally higher than in other regions, this may reflect the more demanding nature of the jobs concerned, although it may also possibly point to the higher level of education among the people living there.

## Table 5

Occupation by educational attainment level, 2003
\% of total employed in each occupation, cluster weighted averages

|  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High | EU-15 |  |
| Medium | Low | High | NMS |
| Medium |  |  |  |$\quad$ Low

Source: LFS, own calculations.

In 2003 in the NMS, therefore, the proportion of those with tertiary education who were employed as managers, professionals and technicians only ranged between 46\% and 50\% in the four regional groups other than the capital cities where the proportion was $58 \%$ (Table 5). In the EU-15 regions, the proportion was similar, if slightly higher - $51-52 \%$ in the agricultural, industrial and basic service groups; however, it rose to $55 \%$ in the business service group and $61 \%$ in the capital cities. (These figures, like those in the rest of the analysis of education levels, only relate to those aged 25-64; they thus exclude for the most part young people still undergoing their initial education or training.)

It should thus be noted that whereas EU-15 regions have a higher proportion of managers, professionals and technicians with tertiary education than the counterpart NMS regions, the difference is generally small - and much less than the difference in the proportion of the overall population aged 25-64 with this level of education.

As is to be expected, the main difference in the education levels of managers, professionals and technicians between the NMS and EU-15 regions lies in the proportion of those with only basic schooling as opposed to those with upper secondary qualifications. In the NMS, it is $1 \%$ or less in all regional groups; in the EU-15, it averages around $10 \%$.

The pattern that emerges for this occupational group also holds true for most other groups. In general, there is comparatively little variation across regions in the relative proportions of those performing particular kinds of job with different levels of education, though the proportion with tertiary education tends to be higher in capital cities and higher in EU-15 regions than their NMS counterparts. Similarly, the proportion of those with low education is also universally higher in the EU-15 regions: the more so, the lower the level of occupational skill.

A feature worth noting concerns the relative numbers of low-skill non-manual workers (i.e. sales and service staff), on the one hand, and those of low-skill manual workers, on the other, with low education in NMS and EU-15 regions. While the proportion is much smaller for both types of worker in the NMS regions as would be expected, the difference in the proportion between the two types is significantly greater in the NMS regions than in the EU-15. Thus, in each of the NMS regional groups $10 \%$ or less of low-skill non-manual workers have low education as opposed to around $45 \%$ of low-skill manual workers in the three regional groups outside the capital cities and business service regions: a difference of 35-38 percentage points. This compares with a difference of 20-25 percentage points in the counterpart regions. Moreover, although the difference between the NMS and the EU15 is less in respect of business service and capital city regions, the NMS regions still have a wider gap between the two groups of worker than their EU-15 counterparts.

This bears two implications. First, low-skill non-manual jobs, which are disproportionately located in basic service sectors, do not provide employment to those with low education in the NMS regions to the same extent as in the EU-15 regions (see below). Secondly, since low-skill non-manual jobs are likely to represent the best opportunity for those employed in low-skill manual jobs to find work in a declining job market those with low education might well face even more serious problems in finding employment in the future.

### 8.2 Employment rates by education level

The educational requirements of different types of job coupled with the structure of economic activity largely determine the demand for labour with different levels of educational attainment in different regions. This demand relative to the supply of people with differing education levels then determines their employment rates or the proportion of working-age population in jobs.

Examination of employment rates by education level shows that in all the regional groups in both the NMS and the EU-15:
i) Those with tertiary education are more likely to be in work than those with lower levels of education and those with low education - or only basic schooling - are least likely to be employed;
ii) The proportion of those with tertiary education varies relatively little between the regional groups and much less than for those with lower education;
iii) The difference in the employment rates of those with tertiary education between the NMS regional groups and their EU-15 counterparts is very small, whereas the difference for those with only basic schooling is in most cases substantial.

In all five regional groups in the NMS in 2003, the proportion of persons employed aged $25-64$ with tertiary education was over $80 \%$; ranging between $81 \%$ and $83 \%$ (Table 6). This was precisely the same variation as in the EU-15 regions, two groups had marginally higher employment rates for people with that level of education than their NMS counterparts, two groups had lower rates and one group had the same rate. People with high education would, therefore, seem to have much the same likelihood of being in work irrespective of the type of region or country grouping (NMS or EU) in which they live.

Table 6
Employment rates by education level, 2003

|  | EU-15 |  |  | NMS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low | Medium | High | Low | Medium | High |
| Cluster: |  |  |  |  |  |  |
| Agricultural | 58.1 | 73.1 | 80.8 | 53.5 | 69.7 | 83.0 |
| Industrial | 58.1 | 75.1 | 83.1 | 41.9 | 67.7 | 82.7 |
| Basic services | 49.0 | 69.4 | 80.1 | 39.8 | 66.1 | 80.6 |
| Business services | 56.7 | 75.6 | 82.8 | 38.8 | 64.7 | 82.8 |
| Capital cities | 57.3 | 71.7 | 82.6 | 40.3 | 69.9 | 81.4 |

Source: LFS, own calculations.

Employment rates for those with upper secondary education were markedly less than the rates for those with tertiary education in all the NMS regional groups in 2003 (by 12 percentage points or more); in all cases they were less than in the EU-15 counterpart groups.

Employment rates for those with only basic schooling were much lower still in all the groups, the rate varying from under $40 \%$ in the basic service and business service regions, $40-42 \%$ in the industrial and capital city regions to $54 \%$ in the agricultural regions; this reflects the tendency for agriculture to provide a living for those with low education who are unable to find work in other sectors. Those with low education face particular problems in finding work in the regions with the most serious problems identified above (see Box 4). In all regional groups, the employment rate of the low-educated was significantly lower in the NMS regions than in the EU-15 counterparts, the difference being as much as 16-17 percentage points in the industrial, business service and capital city regions and 9 percentage points in the basic services regions. Even in the agricultural regions, the proportion of the $25-64$ age group in work was 5 percentage points less in the NMS, despite the relatively large numbers employed in subsistence farming.

### 8.3 Changes in employment rates by education level, 1998-2003

Given the apparent inconsistencies in the LFS data in a number of cases, comparing education levels over time at the regional level poses some problems. This applies, in particular, to regions in Poland. Nevertheless, the results of such a comparison are likely to be indicative of the changes which have occurred over recent years, especially if Polish regions are excluded. They show that in the period 1998-2003, the employment rates of people with different education levels (again taking the 25-64 age group) generally fell in all regional groups in the NMS. The only exception relates to those with tertiary education living in agricultural regions, a larger proportion of whom were in work in 2003 than in 1998 (Table 7).

## Table 7

Employment rate changes by education level, 2003
changes in percentage points, cluster weighted averages*

|  | Low | EU-15 <br> Medium | High | Low | NMS <br> Medium | High |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Cluster: |  |  |  |  |  |  |
| Agricultural | 3.3 | 1.9 | 1.6 | -5.7 | -2.8 | 1.1 |
| Industrial | 3.6 | 1.3 | 1.1 | -4.9 | -3.0 | -0.3 |
| Basic services | 2.3 | 1.5 | 1.6 | -1.5 | -1.3 | -2.9 |
| Business services | 1.7 | 1.0 | -0.1 |  |  |  |
| Capital cities | 2.3 | 1.4 | 1.9 | -3.7 | -1.0 | -1.9 |

* Excluding Polish regions.

Source: LFS, own calculations.

## Box 5

## Few job opportunities for the low-educated or young people in problem regions

The lack of jobs in the agricultural and old industrial regions affect the least well educated people, in particular those who have to compete with those with higher education levels for the limited number of jobs available. In the industrial regions in the Czech Republic, Hungary and Slovakia which were identified above as having especially severe problems, employment rates among the low-educated in 2003 (taking the $25-64$ age group) were 5 to 11 percentage points lower than the country average; this reflects a lack of jobs for them both in industry itself and in other sectors.

In the Nord-Vest region in Romania, less than a quarter of the low-educated were employed in jobs outside agriculture; however, the situation is much the same in other regions in the country. In Slaskie in Poland, the employment rate of the low-educated was more than 11 percentage points below the country average, even though the latter figure is boosted by the large number of people with a low level of education employed in agriculture. A larger proportion of the loweducated in Slaskie are, in fact, employed in non-agricultural activities than elsewhere in Poland; however, a significant number of them (just under $40 \%$ ) work in mining and manufacturing where jobs are likely to be lost in the years to come.

In the agricultural regions, future jobs prospects for the low-educated are even worse because of the limited job opportunities outside agriculture. In the four Polish regions as well as in DélAlföld in Hungary, $70-80 \%$ of the low-educated in work were employed in agriculture in 2003, while in the three Romanian regions, the proportion was even larger: $85-90 \%$.

The shortage of jobs in the problem regions also affects the employment opportunities open to young people. Except in the Nord-Vest region in Romania, employment rates of 15-24 year-olds in the old industrial regions were thus $3-5$ percentage points below those in other parts of the respective countries in 2003. In the agricultural regions, employment rates among young people in the same age group were only around $10-15 \%$ in the Polish and Romanian regions and slightly over $20 \%$ in Dél-Alföld. In both Poland and Romania, therefore, a substantial proportion of young people in rural areas (a third or more in Poland, $60 \%$ or more in Romania) are still finding employment in agriculture rather than in other activities where prospects are likely to be more favourable.

The extent of the fall, however, varies across education levels. In most cases, it was larger for those with a low level of education than for those with higher levels. This held particularly true for the agricultural and industrial regions, where the decline amounted to 56 percentage points. On the other hand, as already noted, the employment rates among the highly educated rose in the agricultural regions and fell only slightly in the industrial regions. The proportion of low-educated in employment also declined significantly in the capital cities (by almost 4 percentage points): once again a larger drop than among those with upper secondary and tertiary education. The only regional group in which the loweducated fared better than the more educated was the basic service cluster, where their employment rate fell; however, at rate slightly less than that for those with tertiary education.

The experience over this period in the NMS regions contrasts sharply with that in the EU15. In all EU-15 regional groups, employment rates rose more among the low-educated than among those with higher education levels. Moreover, this was especially noticeable in agricultural and industrial regions where rates declined very sharply in the NMS.

The EU-15 experience reflects an increasing demand for low-skilled workers relative to supply which generally declines as education levels rise. Although supply is also on the decline across NMS regions as older workers who tend to have lower levels of education retire and although the overall proportion of the work force with low education is much smaller in the NMS, demand has been falling even more markedly and to an even lower level than in the EU-15 countries. In part, this reflects the depressed level of overall demand for labour in those countries. It has the effect of squeezing the low-educated out of the search for jobs, in the sense that employers have the choice of hiring - or retaining better educated workers. It also reflects the related fact that the low-educated in all NMS regions are depend heavily on employment in agriculture; as compared to the EU-15, significantly fewer low-educated workers are employed in both industry and services. This is in line with the finding above that relatively few of the low-educated in the NMS regions have yet to find employment in non-manual low-skill jobs.

### 8.4 Employment rates by education level and sector

In all the NMS regional groups a significant proportion of the low-educated are employed in agriculture. This is particularly the case in the agricultural regions, where in 2003, over $70 \%$ of all those in the 25-64 age group with only basic schooling worked agriculture, while less than $15 \%$ worked in either industry or services (Table 8 ). In the industrial, basic services and business service regions, however, the proportion employed in agriculture was still close to $40 \%$ or more; even in capital cities the figure stood at $25 \%$. This contrasts with the situation in the EU-15 regions where agriculture accounted for $20 \%$ of low-educated employment in the agricultural regions, but for only $10 \%$ in the basic service regions and $6 \%$ or less in the other groups.

The difference between the NMS and EU-15 regions in this respect reflects in part the far greater importance of agriculture as a source of overall employment in the NMS. That, however, is only part of the explanation. Even taking this into account, all the NMS regional groups have a disproportionate number of low-educated workers employed in agriculture. This is borne out by the fact that, despite the similar or larger proportions of working-age population employed in industry in the NMS, the employment of low-educated people in industry is significantly higher in the EU-15 regions than in the NMS groups: around $30 \%$ higher in the capital cities, $40 \%$ higher in basic service regions, $50 \%$ higher in business service regions, $60 \%$ higher in industrial regions and over twice as high in agricultural regions.

The discrepancy with regard to services is even greater, especially in basic services. In the EU-15 regional groups, employment of the low-educated in basic services is $3-4$ times higher than in all the regional groups in the NMS, except capital cities where it is over twice as high. Whereas basic services thus accounted for a quarter to a third of total employment of the low-educated in the EU-15 regional groups, in the NMS regions, outside the capital cities, they accounted for only 10-12\% - and only $6 \%$ in the agricultural regions.

## Table 8

Employment rates by education and sector, 2003
$\%$ of working-age population (25-64 years), cluster weighted averages

Total
Employment

Agriculture
Total

| Cluster: | Low-educated EU-15 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural | 58.1 | 11.8 | 18.8 | 2.7 | 12.1 | 4.0 | 27.5 | 2.3 | 14.0 | 11.1 |
| Industrial | 58.1 | 3.4 | 24.8 | 6.0 | 12.6 | 6.2 | 29.9 | 3.7 | 15.5 | 10.7 |
| Basic services | 49.0 | 4.8 | 15.8 | 2.6 | 9.8 | 3.4 | 28.5 | 2.6 | 15.4 | 10.4 |
| Business services | 56.7 | 1.9 | 16.4 | 4.7 | 9.6 | 2.1 | 38.4 | 6.3 | 18.4 | 13.7 |
| Capital cities | 57.3 | 1.7 | 15.7 | 3.5 | 9.7 | 2.6 | 39.8 | 6.5 | 18.7 | 14.6 |
|  | NMS |  |  |  |  |  |  |  |  |  |
| Agricultural | 53.5 | 38.4 | 7.8 | 1.5 | 3.6 | 2.6 | 7.3 | 0.4 | 3.2 | 3.8 |
| Industrial | 41.9 | 15.7 | 15.3 | 3.9 | 6.2 | 5.2 | 10.9 | 0.9 | 4.8 | 5.2 |
| Basic services | 39.8 | 16.8 | 11.1 | 2.2 | 5.4 | 3.6 | 11.9 | 0.9 | 4.8 | 6.3 |
| Business services | 38.8 | 18.5 | 10.8 |  |  |  | 9.5 | 1.8 | 3.7 | 4.1 |
| Capital cities | 40.3 | 10.2 | 11.9 | 2.9 | 6.3 | 2.7 | 18.1 | 2.1 | 8.1 | 7.9 |
|  | Medium-educated EU-15 |  |  |  |  |  |  |  |  |  |
| Agricultural | 73.1 | 5.9 | 20.3 | 5.9 | 11.5 | 2.9 | 46.9 | 6.2 | 19.9 | 20.8 |
| Industrial | 75.1 | 2.1 | 26.3 | 9.8 | 12.8 | 3.7 | 46.7 | 8.6 | 19.5 | 18.6 |
| Basic services | 69.4 | 2.1 | 18.9 | 6.2 | 10.2 | 2.4 | 48.4 | 7.6 | 19.9 | 21.0 |
| Business services | 75.6 | 1.4 | 20.0 | 8.3 | 10.1 | 1.7 | 54.1 | 12.0 | 20.8 | 21.3 |
| Capital cities | 71.7 | 0.7 | 14.5 | 5.6 | 7.3 | 1.6 | 56.4 | 13.0 | 21.5 | 21.9 |
|  |  |  |  |  | NMS |  |  |  |  |  |
| Agricultural | 69.7 | 15.0 | 24.3 | 7.8 | 9.6 | 7.0 | 30.3 | 2.7 | 15.4 | 12.3 |
| Industrial | 67.7 | 5.0 | 30.3 | 8.8 | 12.8 | 8.7 | 32.3 | 3.1 | 17.1 | 12.1 |
| Basic services | 66.1 | 7.4 | 23.8 | 6.3 | 11.0 | 6.4 | 35.0 | 3.1 | 18.2 | 13.6 |
| Business services | 64.7 | 11.3 | 23.3 |  |  | . | 30.1 | 4.1 | 15.0 | 11.1 |
| Capital cities | 69.9 | 4.4 | 20.6 | 6.6 | 9.3 | 4.7 | 44.8 | 6.6 | 22.6 | 15.7 |


|  | Highly educated EU-15 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural | 80.8 | 2.3 | 12.6 | 5.2 | 5.9 | 1.5 | 65.9 | 12.1 | 11.6 | 42.2 |
| Industrial | 83.1 | 1.1 | 19.2 | 9.8 | 7.3 | 2.0 | 62.8 | 13.7 | 10.2 | 38.9 |
| Basic services | 80.1 | 1.5 | 13.3 | 6.5 | 5.8 | 1.1 | 65.3 | 12.4 | 9.8 | 43.1 |
| Business services | 82.8 | 0.7 | 13.9 | 8.4 | 4.7 | 0.9 | 68.2 | 19.5 | 9.9 | 38.8 |
| Capital cities | 82.6 | 0.3 | 10.7 | 6.5 | 3.4 | 0.8 | 71.6 | 23.7 | 12.4 | 35.5 |
|  |  |  |  |  | NMS |  |  |  |  |  |
| Agricultural | 83.0 | 2.8 | 16.1 | 6.1 | 7.0 | 3.1 | 64.0 | 8.6 | 12.9 | 42.5 |
| Industrial | 82.7 | 2.3 | 17.3 | 6.7 | 7.7 | 2.9 | 63.1 | 10.1 | 12.5 | 40.6 |
| Basic services | 80.6 | 3.0 | 14.4 | 5.9 | 6.6 | 2.0 | 63.2 | 8.2 | 14.2 | 40.8 |
| Business services | 82.8 | 1.3 | 12.2 |  |  |  | 69.3 | 11.3 | 11.2 | 46.7 |
| Capital cities | 81.4 | 0.4 | 13.1 | 6.4 | 5.6 | 1.1 | 67.9 | 18.7 | 13.6 | 35.6 |

Source: LFS, own calculations.

This relative dependence of the low-educated segment on jobs in agriculture in the NMS regions is a particular cause for concern, given the prospects of employment in this sector being reduced in the next few years, most especially in the agricultural regions themselves. The challenge for policy is to ensure that those losing their jobs as agriculture declines can find alternative employment in other sectors. However, unless there is a marked upturn in the rate of new job creation, this is likely to prove difficult given (a) the competition from others with higher education levels and (b) the relatively advanced average age of the people concerned.

At the other end of the scale, for those with tertiary education, the division of employment between sectors of activity offers a distinct contrast: a marked similarity in the NMS and EU-15 regional groups. Although in most NMS regional groups slightly more people are employed in agriculture and industry than in the EU-15, the difference is very small. The main difference lies in the division of employment between sectors within services: this reflects mainly the underdeveloped nature of business services. Even within services, however, the relative number of highly educated people employed in public services in 2003 was much the same in both the NMS regional groups and the EU-15 clusters around half in all regions except the capital cities, where the proportion was lower. The only marked difference between the NMS and EU-15 groups is the business services. Given the significantly smaller proportion of working-age population employed in public services in the NMS, this implies disproportionate employment of people with tertiary education in those services in the NMS as compared to the EU-15. By the same token, it means that in all the NMS regional groups proportionately fewer highly educated people are employed outside the public sector than in the EU-15.

## 9 Conclusions

The above analysis highlights the significant disparities which exist across regions in the NMS in terms of both GDP per head and employment and in terms of future prospects. Capital cities display considerably higher levels of income and economic activity than the other regions and the gap has widened significantly in recent years. This is in no small measure due to the concentration of FDI in such regions. The prospects are that this gap will widen still further, given the greater endowment of these regions in terms of both physical infrastructure and human resources.

The prospects for the agricultural regions in the NMS are particularly unfavourable. Agriculture which is declining and which is likely to decline even more rapidly in the next few years accounts for a substantial proportion of employment, much of which takes the form of subsistence farming. At the same time, the education levels of the working-age population are relatively low, proving comparatively unattractive to potential business investors. The prospects are scarcely brighter in the basic service regions, where
agriculture retains its importance, yet provides fewer jobs and education levels are similar. The scope for restructuring in those regions is substantial; services other than basic services have still to be developed. Problems are also acute in the old industrial regions where both heavy industry and mining are declining. In all those regions, the problems are compounded by the low level of GDP and lack of attraction for investors (see Box 6).

The main casualties are almost certain to be those with no education beyond basic schooling who at present are heavily dependent on agriculture for employment, not only in the agricultural regions, but also in others. Unlike the EU-15, comparatively few of those working are as yet employed in services. For those working in the shrinking agricultural sector, services such as distributive trades, hotels and restaurants in particular offer the best prospects of alternative employment. However, unless the overall level of employment expands, they will find it difficult to get work as they will have to compete for jobs with those who have at least some educational qualifications.

## Box 6

## Regional GDP and market potential

The regions facing the most severe problems in terms of employment also tend to be the least prosperous, with GDP per head being lower than elsewhere. In the old industrial region of Moravskoslezko in the Czech Republic, GDP per head is some $20 \%$ below the national average, in Východné Slovensko in Slovakia, $25 \%$ below the national average, and in ÉszakMagyarország in Hungary, some $35 \%$ below the average. Similarly in the four Polish regions where agriculture is most important, GDP per head is $25-30 \%$ less than the country average.

The low level of GDP per head in these regions is to a large extent a reflection of the sectoral structure of the economies concerned. At the same time, a lower level of GDP per head tends to complicate the task of changing the structure and shifting resources from declining to expanding sectors of activity or, at least, to those which offer prospects of future growth and job creation. In particular, it means, that the market tends to be less attractive to investors, domestic and foreign alike, thus compounding the deterrent effect of their geographical location. In most cases, these regions are situated in the eastern parts of their respective countries, away from the EU-15 and far from the main centres of population and economic activity. It also tends to discourage the development of new service activities, particularly business services, which feed off growth in the rest of the economy.

Business and financial services (NACE J and K), the sector that has registered the highest rate of job creation in the EU over many years, are thus less developed in the problem regions than elsewhere. In 2003, less than $3 \%$ of people of working-age were employed in business and financial services in both Moravskoslezko in the Czech Republic and Észak-Magyarország in Hungary as opposed to over $5 \%$ in the two countries as a whole. In the agricultural region of Dél-Alföld in Hungary, employment in business and financial services is similarly low, while in the four Polish agricultural regions, employment in this sector is also well below the national average. In Romania, these services are particularly under-developed right across the country, but especially in the agricultural regions: only $1 \%$ of working-age population is employed in those services in Nord-Est and even less than that in Sud-Est.

As in the EU-15, occupational shifts in the job structures coupled with the shift towards more advanced sectors of activity, such as business and financial services and health care and education in particular, means a growing demand for highly educated workers. The proportion of such people in employment is already much the same in both the NMS regional groups and the EU-15 clusters, in addition to being very similar across different types of region. A disproportionate number of the highly educated in the NMS, however, are employed in public services in all regional groups. Given their relatively small numbers, this could constrain the growth of business services.

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## Appendix of data

## OMS NUTS 2 regions used

|  |  | cluster |
| :---: | :---: | :---: |
| Agricultural Cl . | Agricultural Cl . | 1 |
| at12 | Niederösterreich | 1 |
| at21 | Kärnten | 1 |
| at22 | Steiermark | 1 |
| be34 | Luxembourg (B) | 1 |
| de94 | Weser-Ems | 1 |
| es11 | Galicia | 1 |
| es41 | Castilla y León | 1 |
| es42 | Castilla-la Mancha | 1 |
| es43 | Extremadura | 1 |
| es62 | Murcia | 1 |
| fi13 | Itä-Suomi | 1 |
| fi14 | Väli-Suomi | 1 |
| fr25 | Basse-Normandie | 1 |
| fr26 | Bourgogne | 1 |
| fr52 | Bretagne | 1 |
| fr53 | Poitou-Charentes | 1 |
| fr62 | Midi-Pyrénées | 1 |
| fr63 | Limousin | 1 |
| fr72 | Auvergne | 1 |
| gr11 | Anatoliki Makedonia, Thraki | 1 |
| gr14 | Thessalia | 1 |
| gr23 | Dytiki Ellada | 1 |
| gr25 | Peloponnisos | 1 |
| gr43 | Kriti | 1 |
| ie01 | Border, Midlands and Western | 1 |
| it31 | Trentino-Alto Adige | 1 |
| it72 | Molise | 1 |
| it92 | Basilicata | 1 |
| it93 | Calabria | 1 |
| nl13 | Drenthe | 1 |
| pt12 | Centro (PT) | 1 |
| uke2 | North Yorkshire | 1 |
| Industry CI. | Industry CI. | 2 |
| at31 | Oberösterreich | 2 |
| at34 | Vorarlberg | 2 |

Table A/1 contd.

Table A/1 (contd.)
be22 Limburg (B) 2
be23 Oost-Vlaanderen 2
be25 West-Vlaanderen 2
de11 Stuttgart 2
de12 Karlsruhe 2
de13 Freiburg 2
de14 Tübingen 2
de22 Niederbayern 2
de23 Oberpfalz 2
de24 Oberfranken 2
de25 Mittelfranken 2
de26 Unterfranken 2
de27 Schwaben 2
de91 Braunschweig 2
dea4 Detmold 2
dea5 Arnsberg 2
ded Sachsen 2
deg Thüringen 2
es13 Cantabria 2
es21 Pais Vasco 2
es22 Comunidad Foral de Navarra 2
es23 La Rioja 2
es24 Aragón 2
es51 Cataluña 2
es52 Comunidad Valenciana 2
fi17
fr21
fr22
fr23
Etelä-Suomi 2
Champagne-Ardenne 2
Picardie 2
Haute-Normandie 2
fr3
fr41
fr42
fr43
Nord - Pas-de-Calais 2
Lorraine 2
Alsace 2
r43 Franche-Comté 2
fr51 Pays de la Loire 2
fr71
gr12 Kentriki Makedonia 2
gr13 Dytiki Makedonia 2
gr24 Sterea Ellada 2
it11 Piemonte 2
it2 Lombardia 2
it32 Veneto 2
it4
Emilia-Romagna

| Table A/1 (contd.) |  |  |
| :---: | :---: | :---: |
| it52 | Umbria | 2 |
| nl12 | Friesland | 2 |
| nı21 | Overijssel | 2 |
| nl34 | Zeeland | 2 |
| nl41 | Noord-Brabant | 2 |
| nl42 | Limburg (NL) | 2 |
| pt11 | Norte | 2 |
| se06 | Norra Mellansverige | 2 |
| se09 | Småland med öarna | 2 |
| ukc1 | Tees Valley and Durham | 2 |
| ukc2 | Northumberland, Tyne and Wear | 2 |
| ukd1 | Cumbria | 2 |
| ukd2 | Cheshire | 2 |
| ukd4 | Lancashire | 2 |
| uke1 | East Riding and North Lincolnshire | 2 |
| uke3 | South Yorkshire | 2 |
| uke4 | West Yorkshire | 2 |
| ukf1 | Derbyshire and Nottinghamshire | 2 |
| ukf2 | Leicestershire, Rutland and Northants | 2 |
| ukf3 | Lincolnshire | 2 |
| ukg1 | Herefordshire, Worcestershire and Warks | 2 |
| ukg2 | Shropshire and Staffordshire | 2 |
| ukg3 | West Midlands | 2 |
| ukl2 | East Wales | 2 |
| Basic Serv. Cl . | Basic Serv. CI. | 3 |
| at11 | Burgenland | 3 |
| at32 | Salzburg | 3 |
| at33 | Tirol | 3 |
| be32 | Hainaut | 3 |
| be33 | Liège | 3 |
| be35 | Namur | 3 |
| de4 | Brandenburg | 3 |
| de5 | Bremen | 3 |
| de72 | Gießen | 3 |
| de73 | Kassel | 3 |
| de8 | Mecklenburg-Vorpommern | 3 |
| de92 | Hannover | 3 |
| de93 | Lüneburg | 3 |
| dea3 | Münster | 3 |
| deb | Rheinland-Pfalz | 3 |
| dec | Saarland | 3 |

Table A/1 contd.

| dee1 | Dessau | 3 |
| :---: | :---: | :---: |
| dee2 | Halle | 3 |
| dee3 | Magdeburg | 3 |
| def | Schleswig-Holstein | 3 |
| es12 | Principado de Asturias | 3 |
| es53 | Illes Balears | 3 |
| es61 | Andalucia | 3 |
| es63 | Ceuta y Melilla (ES) | 3 |
| es7 | Canarias (ES) | 3 |
| fi15 | Pohjois-Suomi | 3 |
| fi20 | Âland | 3 |
| fr61 | Aquitaine | 3 |
| fr81 | Languedoc-Roussillon | 3 |
| fr83 | Corse | 3 |
| gr21 | Ipeiros | 3 |
| gr22 | Ionia Nisia | 3 |
| gr41 | Voreio Aigaio | 3 |
| gr42 | Notio Aigaio | 3 |
| it12 | Valle d'Aosta | 3 |
| it33 | Friuli-Venezia Giulia | 3 |
| it51 | Toscana | 3 |
| it53 | Marche | 3 |
| it71 | Abruzzo | 3 |
| it8 | Campania | 3 |
| it91 | Puglia | 3 |
| ita | Sicilia | 3 |
| itb | Sardegna | 3 |
| nl11 | Groningen | 3 |
| nl22 | Gelderland | 3 |
| pt14 | Alentejo | 3 |
| pt15 | Algarve | 3 |
| pt2 | Açores (PT) | 3 |
| pt3 | Madeira (PT) | 3 |
| se07 | Mellersta Norrland | 3 |
| se08 | Övre Norrland | 3 |
| ukd5 | Merseyside | 3 |
| ukh1 | East Anglia | 3 |
| ukj4 | Kent | 3 |
| ukk2 | Dorset and Somerset | 3 |
| ukk3 | Cornwall and Isles of Scilly | 3 |
| ukk4 | Devon | 3 |
| ukl1 | West Wales and The Valleys | 3 |


| ukm1 | North Eastern Scotland | 3 |
| :---: | :---: | :---: |
| ukm3 | South Western Scotland | 3 |
| ukm4 | Highlands and Islands | 3 |
| ukn | Northern Ireland | 3 |
| Business Serv. Cl . | Business Serv. CI. | 4 |
| be21 | Antwerpen | 4 |
| be24 | Vlaams Brabant | 4 |
| be31 | Brabant Wallon | 4 |
| de21 | Oberbayern | 4 |
| de6 | Hamburg | 4 |
| de71 | Darmstadt | 4 |
| dea1 | Düsseldorf | 4 |
| dea2 | Köln | 4 |
| dk | Denmark | 4 |
| fr24 | Centre | 4 |
| fr82 | Provence-Alpes-Côte d'Azur | 4 |
| it13 | Liguria | 4 |
| lu | Luxembourg | 4 |
| n123 | Flevoland | 4 |
| nl31 | Utrecht | 4 |
| nl33 | Zuid-Holland | 4 |
| se02 | Östra Mellansverige | 4 |
| se04 | Sydsverige | 4 |
| se0a | Västsverige | 4 |
| ukd3 | Greater Manchester | 4 |
| ukh2 | Bedfordshire, Hertfordshire | 4 |
| ukh3 | Essex | 4 |
| uki2 | Outer London | 4 |
| ukj1 | Berkshire, Bucks and Oxfordshire | 4 |
| ukj2 | Surrey, East and West Sussex | 4 |
| ukj3 | Hampshire and Isle of Wight | 4 |
| ukk1 | Gloucestershire, Wiltshire and N. Somerset | 4 |
| ukm2 | Eastern Scotland | 4 |
| Capitals | Capitals | 5 |
| at13 | Vienna | 5 |
| be1 | Région Bruxelles-capitale | 5 |
| de3 | Berlin | 5 |
| es3 | Comunidad de Madrid | 5 |
| fi16 | Uusimaa (suralue) | 5 |
| fr1 | Île de France | 5 |


| Table A1 (contd.) |  |  |
| :--- | :--- | :--- |
| gr3 | Attiki | 5 |
| ie02 | Southern and Eastern | 5 |
| it6 | Lazio | 5 |
| nl32 | Noord-Holland | 5 |
| pt13 | Lisboa e Vale do Tejo | 5 |
| se01 | Stockholm | 5 |
| uki1 | Inner London | 5 |

NMS NUTS 2 regions used

|  |  | cluster |
| :---: | :---: | :---: |
| Agricultural Cl . | Agricultural Cl . | 1 |
| bg06 | Yugoiztochen | 1 |
| cz03 | Jihozápad | 1 |
| cz06 | Jihovýchod | 1 |
| hu04 | Dél-Dunántúl | 1 |
| hu07 | Dél-Alföld | 1 |
| It | Lithuania | 1 |
| pl03 | Lubelskie | 1 |
| pl06 | Malopolskie | 1 |
| pl09 | Podkarpackie | 1 |
| pl0a | Podlaskie | 1 |
| pl0d | Swietokrzyskie | 1 |
| ro01 | Nord-Est | 1 |
| ro03 | Sud | 1 |
| ro04 | Sud-Vest | 1 |
| Industry CI. | Industry CI. | 2 |
| bg02 | Severen Tsentralen | 2 |
| bg05 | Yuzhen Tsentralen | 2 |
| cz05 | Severovýchod | 2 |
| cz07 | Strední Morava | 2 |
| cz08 | Moravskoslezko | 2 |
| ee | Estonia | 2 |
| hu02 | Közép-Dunántúl | 2 |
| hu03 | Nyugat-Dunántúl | 2 |
| pl01 | Dolnoslaskie | 2 |
| pl0c | Slaskie | 2 |
| ro06 | Nord-Vest | 2 |
| ro07 | Centru | 2 |
| si | Slovenia | 2 |
| sk02 | Západné Slovensko | 2 |
| Basic Serv. CI. | Basic Serv. CI. | 3 |
| bg01 | Severozapaden | 3 |
| bg03 | Severoiztochen | 3 |
| cz02 | Strední Cechy | 3 |
| cz04 | Severozápad | 3 |
| hu05 | Észak-Magyarország | 3 |
| hu06 | Észak-Alföld | 3 |

## Table A/2 (contd.)

| Iv | Latvia | 3 |
| :--- | :--- | :--- |
| pl04 | Lubuskie | 3 |
| pl08 | Opolskie | 3 |
| pl0b | Pomorskie | 3 |
| pl0e | Warminsko-Mazurskie | 3 |
| pl0g | Zachodniopomorskie | 3 |
| ro02 | Sud-Est | 3 |
| ro05 | Vest | 3 |
| sk03 | Stredné Slovensko | 3 |
| sk04 | Východné Slovensko | 3 |
| Business Serv. Cl. | Business Serv. Cl. | 4 |
| pl02 | Kujawsko-Pomorskie | 4 |
| pl05 | Lódzkie | 4 |
| pl0f | Wielkopolskie | 4 |
| Capitals | Capitals | 5 |
| bg04 | Yugozapaden | 5 |
| cz01 | Praha | 5 |
| hu01 | Közép-Magyarország | 5 |
| pl07 | Mazowieckie | 5 |
| ro08 | Bucuresti | 5 |
| sk01 | Bratislavský | 5 | total and by sector, OMS



Table A/3 contd.

| fr3 | 2 | 19166.1 | 14615.9 | 49.7 | 56.1 | 1.5 | 16.5 | 3.9 | 9.0 | 3.6 | 38.1 | 6.3 | 11.8 | 20.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| fr41 | 2 | 19550.0 | 15893.6 | 57.9 | 59.1 | 1.3 | 20.2 | 6.3 | 11.5 | 2.4 | 37.6 | 4.4 | 13.9 | 19.3 |
| fr42 | 2 | 24054.9 | 19299.7 | 64.9 | 64.3 | 1.4 | 21.2 | 9.1 | 9.6 | 2.5 | 41.7 | 8.0 | 17.3 | 16.4 |
| fr43 | 2 | 21094.3 | 16339.4 | 60.7 | 65.5 | 1.0 | 23.3 | 11.6 | 9.1 | 2.6 | 41.1 | 4.1 | 13.6 | 23.5 |
| fr51 | 2 | 21497.0 | 16180.7 | 61.0 | 64.5 | 4.2 | 18.8 | 5.4 | 11.2 | 2.2 | 41.5 | 7.1 | 14.2 | 20.2 |
| fr71 | 2 | 24175.9 | 18555.5 | 61.8 | 63.1 | 1.7 | 19.4 | 6.2 | 10.7 | 2.6 | 41.9 | 7.4 | 15.2 | 19.4 |
| gr12 | 2 | 16748.6 | 11250.2 | 53.7 | 56.3 | 9.2 | 14.2 | 2.4 | 7.1 | 4.7 | 32.9 | 4.2 | 16.5 | 12.1 |
| gr13 | 2 | 17082.0 | 11006.8 | 54.6 | 52.9 | 11.0 | 18.5 | 4.9 | 10.2 | 3.4 | 23.5 | 2.5 | 10.3 | 10.6 |
| gr24 | 2 | 23027.0 | 14456.0 | 52.8 | 57.4 | 12.8 | 16.1 | 1.7 | 11.4 | 3.1 | 28.5 | 1.5 | 17.4 | 9.5 |
| it11 | 2 | 26462.2 | 21666.0 | 56.8 | 63.2 | 2.3 | 23.2 | 9.1 | 10.3 | 3.9 | 37.6 | 7.9 | 15.8 | 14.0 |
| it2 | 2 | 30015.5 | 24520.8 | 59.1 | 63.8 | 1.3 | 26.0 | 8.9 | 11.7 | 5.5 | 36.5 | 8.9 | 14.9 | 12.8 |
| it32 | 2 | 26097.5 | 21713.2 | 59.1 | 63.2 | 2.4 | 26.8 | 7.8 | 10.9 | 8.2 | 33.9 | 6.7 | 14.5 | 12.7 |
| it4 | 2 | 28857.9 | 23617.2 | 62.8 | 67.6 | 3.1 | 24.9 | 8.7 | 11.0 | 5.2 | 39.7 | 7.7 | 17.1 | 15.0 |
| it52 | 2 | 22271.2 | 18101.7 | 54.0 | 59.6 | 2.6 | 20.4 | 4.6 | 9.8 | 6.0 | 36.6 | 6.0 | 15.1 | 15.5 |
| n112 | 2 | 21183.0 | 16019.8 | 64.3 | 72.5 | 3.1 | 18.7 | 6.0 | 9.4 | 3.3 | 50.7 | 9.4 | 16.2 | 25.1 |
| n 21 | 2 | 21884.1 | 16494.5 | 66.2 | 72.8 | 2.8 | 18.8 | 5.4 | 9.9 | 3.5 | 51.2 | 8.9 | 18.0 | 24.3 |
| nl34 | 2 | 22382.7 | 18587.3 | 68.0 | 72.5 | 3.1 | 19.3 | 7.3 | 9.9 | 2.2 | 50.0 | 8.5 | 18.3 | 23.2 |
| n141 | 2 | 25571.6 | 18715.7 | 69.7 | 75.4 | 2.4 | 21.0 | 7.3 | 10.3 | 3.4 | 52.0 | 10.8 | 19.0 | 22.2 |
| nl42 | 2 | 22598.8 | 16809.9 | 66.8 | 71.6 | 2.6 | 19.5 | 7.1 | 8.8 | 3.7 | 49.4 | 9.3 | 18.0 | 22.0 |
| pt11 | 2 | 13013.5 | 9882.8 | 67.4 | 66.4 | 5.9 | 29.8 | 3.3 | 12.0 | 14.6 | 30.7 | 3.1 | 14.7 | 12.9 |
| se06 | 2 | 20729.6 | 17533.5 | 66.2 | 69.7 | 2.2 | 19.8 | 5.8 | 12.0 | 2.0 | 47.7 | 7.3 | 12.2 | 28.3 |
| se09 | 2 | 21810.8 | 17380.1 | 72.8 | 75.4 | 3.1 | 22.4 | 7.5 | 10.7 | 4.3 | 50.0 | 6.7 | 15.5 | 27.7 |
| ukc1 | 2 | 17224.6 | 14668.1 | 63.7 | 62.3 | 0.4 | 18.9 | 6.4 | 11.0 | 1.5 | 43.0 | 6.7 | 15.4 | 21.0 |
| ukc2 | 2 | 20905.9 | 14701.5 | 62.9 | 67.1 | 0.9 | 17.6 | 7.2 | 8.9 | 1.5 | 48.6 | 7.5 | 17.2 | 24.0 |
| ukd1 | 2 | 17962.9 | 16547.6 | 68.0 | 70.6 | 1.7 | 22.2 | 9.3 | 10.8 | 2.0 | 46.7 | 6.2 | 18.7 | 21.8 |
| ukd2 | 2 | 28029.6 | 19940.0 | 70.8 | 75.3 | 0.7 | 19.7 | 8.6 | 9.7 | 1.5 | 54.8 | 11.4 | 20.9 | 22.5 |
| ukd4 | 2 | 20170.4 | 15963.3 | 69.3 | 73.2 | 0.7 | 19.9 | 7.5 | 9.7 | 2.7 | 52.6 | 8.8 | 18.2 | 25.6 |
| uke1 | 2 | 20391.1 | 16602.7 | 66.6 | 68.8 | 0.6 | 19.9 | 4.9 | 13.3 | 1.7 | 48.4 | 6.8 | 19.9 | 21.7 |
| uke3 | 2 | 19004.5 | 13220.8 | 63.2 | 68.5 | 0.4 | 18.8 | 4.4 | 11.8 | 2.6 | 49.3 | 7.8 | 18.8 | 22.7 |
| uke4 | 2 | 23811.7 | 16675.9 | 70.2 | 70.8 | 0.2 | 17.9 | 5.5 | 9.1 | 3.3 | 52.7 | 10.1 | 20.1 | 22.4 |
| ukf1 | 2 | 21528.3 | 16305.5 | 70.7 | 70.4 | 0.7 | 21.2 | 7.3 | 10.6 | 3.4 | 48.5 | 6.9 | 19.1 | 22.5 |
| ukf2 | 2 | 23896.2 | 17846.1 | 75.7 | 75.3 | 1.3 | 23.5 | 8.5 | 11.0 | 4.1 | 50.4 | 10.4 | 19.6 | 20.4 |
| ukf3 | 2 | 18165.0 | 15473.8 | 70.3 | 72.5 | 2.5 | 19.4 | 6.4 | 11.6 | 1.4 | 50.6 | 7.4 | 21.2 | 22.1 |
| ukg1 | 2 | 21652.9 | 16167.7 | 76.7 | 75.3 | 1.1 | 22.9 | 9.5 | 10.5 | 2.9 | 51.3 | 9.3 | 19.7 | 22.2 |
| ukg2 | 2 | 19264.0 | 14703.9 | 71.8 | 75.0 | 1.2 | 22.9 | 9.0 | 10.6 | 3.4 | 50.9 | 8.3 | 19.6 | 23.0 |
| ukg3 | 2 | 24013.6 | 17497.9 | 67.2 | 66.1 | 0.6 | 19.5 | 8.5 | 9.6 | 1.4 | 46.0 | 8.7 | 17.3 | 20.1 |
| ukl2 | 2 | 24543.2 | 17854.8 | 66.4 | 74.2 | 1.3 | 19.1 | 7.1 | 10.2 | 1.8 | 53.8 | 8.9 | 18.2 | 26.7 |
| Basic Serv. Cl. | 3 | 18905.5 | 14799.4 | 55.4 | 58.7 | 2.6 | 15.3 | 4.4 | 8.6 | 2.3 | 40.7 | 6.1 | 15.6 | 19.0 |
| at11 | 3 | 17630.6 | 13109.3 | 67.0 | 67.2 | 3.5 | 20.6 | 4.4 | 12.3 | 3.8 | 43.1 | 6.6 | 18.1 | 18.4 |
| at32 | 3 | 28784.6 | 22962.2 | 69.2 | 71.5 | 3.1 | 17.5 | 5.3 | 8.7 | 3.5 | 50.9 | 8.8 | 24.7 | 17.4 |
| at33 | 3 | 26824.3 | 20182.8 | 67.0 | 68.5 | 2.9 | 17.9 | 4.5 | 9.5 | 3.8 | 47.7 | 6.5 | 24.8 | 16.3 |
| be32 | 3 | 15857.4 | 12942.2 | 49.4 | 52.0 | 1.1 | 13.3 | 4.4 | 6.5 | 2.4 | 37.6 | 4.3 | 11.7 | 21.6 |
| be33 | 3 | 18373.1 | 15134.9 | 52.6 | 55.0 | 1.0 | 12.9 | 3.2 | 8.5 | 1.1 | 41.1 | 5.7 | 13.3 | 22.0 |
| be35 | 3 | 17419.4 | 13542.1 | 54.2 | 56.4 | 1.4 | 11.5 | 3.6 | 6.0 | 1.8 | 43.5 | 4.4 | 14.1 | 25.1 |
| de4 | 3 | 15533.4 | 12470.1 | 60.8 | 61.2 | 2.5 | 16.5 | 4.8 | 10.5 | 1.1 | 42.2 | 6.3 | 15.0 | 20.9 |
| de5 | 3 | 31663.9 | 25090.1 | 58.4 | 61.5 | 0.4 | 15.9 | 7.3 | 7.8 | 0.9 | 45.1 | 8.5 | 17.7 | 19.0 |
| de72 | 3 | 20923.6 | 17138.5 | 62.9 | 66.1 | 1.2 | 21.4 | 8.2 | 11.5 | 1.7 | 43.5 | 7.3 | 14.9 | 21.3 |
| de73 | 3 | 22503.0 | 18347.7 | 62.6 | 63.5 | 1.6 | 20.8 | 8.3 | 9.9 | 2.7 | 41.1 | 6.1 | 15.0 | 19.9 |
| de8 | 3 | 15232.7 | 12330.6 | 59.1 | 57.6 | 3.3 | 13.5 | 3.0 | 9.3 | 1.2 | 40.8 | 5.2 | 15.0 | 20.5 |
| de92 | 3 | 21765.4 | 19780.6 | 62.2 | 64.3 | 1.9 | 19.1 | 8.3 | 8.6 | 2.1 | 43.3 | 8.0 | 14.9 | 20.5 |
| de93 | 3 | 17022.7 | 15237.1 | 65.3 | 64.0 | 2.5 | 17.3 | 7.0 | 8.9 | 1.4 | 44.2 | 7.6 | 17.7 | 18.9 |
| dea3 | 3 | 18989.4 | 16577.4 | 60.4 | 61.0 | 1.3 | 19.5 | 7.2 | 9.2 | 3.0 | 40.2 | 6.1 | 14.6 | 19.5 |
| deb | 3 | 20362.4 | 17656.0 | 63.5 | 66.2 | 1.5 | 20.9 | 9.1 | 9.2 | 2.5 | 43.9 | 8.1 | 15.1 | 20.7 |
| dec | 3 | 21867.8 | 18103.9 | 59.0 | 60.3 | 1.0 | 18.4 | 6.9 | 10.2 | 1.3 | 40.8 | 7.9 | 15.3 | 17.6 |
| dee1 | 3 | 14081.3 | 11140.4 | 57.4 | 57.7 | 2.0 | 18.7 | 5.7 | 11.6 | 1.4 | 37.0 | 4.3 | 14.1 | 18.6 |
| dee2 | 3 | 15914.9 | 12271.3 | 57.6 | 57.1 | 1.7 | 17.3 | 5.2 | 11.0 | 1.1 | 38.1 | 4.7 | 14.1 | 19.3 |
| dee3 | 3 | 15214.9 | 11488.4 | 60.8 | 61.7 | 2.7 | 18.4 | 4.9 | 12.0 | 1.5 | 40.6 | 5.2 | 14.4 | 21.0 |
| def | 3 | 20943.7 | 18211.9 | 63.8 | 66.4 | 2.2 | 15.6 | 6.9 | 8.0 | 0.7 | 48.6 | 9.0 | 17.8 | 21.7 |
| es12 | 3 | 16909.1 | 12318.8 | 43.8 | 52.6 | 3.5 | 16.8 | 2.0 | 12.8 | 2.1 | 32.3 | 4.1 | 15.0 | 13.2 |
| es53 | 3 | 23273.0 | 17358.2 | 59.8 | 66.7 | 1.2 | 15.6 | 1.9 | 10.8 | 2.9 | 49.8 | 6.2 | 28.5 | 15.2 |
| es61 | 3 | 15009.7 | 10369.9 | 41.1 | 50.5 | 4.8 | 13.4 | 1.9 | 9.6 | 1.9 | 32.3 | 4.2 | 14.4 | 13.7 |
| es63 | 3 | 17324.3 |  | 40.7 | 44.6 | 0.0 | 4.5 | 0.7 | 3.7 | 0.1 | 40.1 | 4.3 | 14.0 | 21.8 |
| es7 | 3 | 18872.0 | 13437.6 | 49.2 | 58.1 | 2.7 | 12.0 | 1.0 | 10.1 | 1.0 | 43.4 | 5.3 | 23.4 | 14.7 |
| fi15 | 3 |  |  | 56.5 | 62.9 | 4.5 | 18.3 | 6.3 | 10.4 | 1.6 | 40.1 | 6.2 | 13.6 | 20.3 |
| fi20 | 3 | 32673.6 | 21616.7 | 79.1 | 81.7 | 3.1 | 12.3 | 1.9 | 9.0 | 1.3 | 66.3 | 9.3 | 22.2 | 34.8 |
| fr61 | 3 | 21568.4 | 16354.6 | 57.2 | 60.7 | 4.4 | 14.1 | 4.2 | 8.3 | 1.5 | 42.3 | 5.9 | 13.7 | 22.6 |
| fr81 | 3 | 18586.2 | 14146.3 | 51.3 | 55.6 | 3.3 | 9.7 | 2.5 | 6.2 | 1.0 | 42.6 | 7.0 | 14.5 | 21.1 |
| fr83 | 3 | 18338.6 | 13334.2 | 34.5 | 48.1 | 1.1 | 6.9 | 0.4 | 6.1 | 0.4 | 40.1 | 3.0 | 8.8 | 28.3 |
| gr21 | 3 | 13147.9 | 7517.3 | 50.9 | 56.5 | 13.4 | 12.3 | 0.9 | 9.6 | 1.8 | 30.8 | 2.5 | 14.3 | 14.0 |
| gr22 | 3 | 14369.5 | 9815.3 | 62.9 | 59.0 | 9.7 | 7.3 | 0.5 | 5.9 | 0.9 | 42.0 | 3.4 | 26.2 | 12.3 |
| gr41 | 3 | 16799.8 | 10285.6 | 50.1 | 51.9 | 10.1 | 9.6 | 0.5 | 8.1 | 1.0 | 32.2 | 2.7 | 19.0 | 10.5 |
| gr42 | 3 | 193 | 12917.5 | 57.6 | 58.1 | 5.1 | 12.5 | 1.8 | 8.9 | 1.8 | 40.5 | 3.7 | 25.6 | 11.2 |

[^1]

## total and by sector, NMS

|  | GDP |  |  | Employment rates |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\left\lvert\, \begin{aligned} & 1998 \\ & \text { Total } \end{aligned}\right.$ | Total | Agriculture Total |  | 2003 |  |  |  |  |  |  |
|  | cluster | 2002 | 1995 |  |  |  |  | high skill | Industry medium skill | low skill | Total | Serv <br> Business | ces <br> Basic | Public |
| Agricultural Cl . | 1 | 7024.3 | 5450.8 | 63.4 | 58.1 | 16.5 | 16.7 | 5.0 | 6.8 | 4.8 | 24.9 | 2.4 | 10.9 | 11.6 |
| bg06 | 1 | 4984.5 | 4223.6 | 44.3 | 50.6 | 6.3 | 15.7 | 4.8 | 7.3 | 3.6 | 28.6 | 1.5 | 15.0 | 12.1 |
| cz03 | 1 | 12935.7 | 10574.1 | 68.2 | 66.5 | 4.2 | 27.5 | 8.7 | 12.6 | 6.2 | 34.8 | 4.0 | 15.4 | 15.4 |
| cz06 | 1 | 12662.9 | 9920.8 | 67.2 | 63.9 | 4.1 | 26.5 | 7.4 | 13.5 | 5.6 | 33.2 | 4.7 | 14.2 | 14.3 |
| hu04 | 1 | 9060.8 | 6465.4 | 51.0 | 53.4 | 5.0 | 16.6 | 4.9 | 7.6 | 4.2 | 31.8 | 3.0 | 13.0 | 15.7 |
| hu07 | 1 | 8546.6 | 6590.7 | 52.7 | 53.1 | 6.1 | 18.3 | 4.2 | 9.5 | 4.5 | 28.7 | 2.7 | 12.4 | 13.6 |
| It | 1 | 8974.9 | 5497.5 | 62.0 | 62.7 | 11.5 | 17.3 | 3.5 | 7.6 | 6.3 | 33.9 | 3.2 | 15.0 | 15.7 |
| pl03 | 1 | 6762.4 | 4761.5 | 63.3 | 55.4 | 20.5 | 10.9 | . | . | . | 24.1 | 2.3 | 9.7 | 12.0 |
| pl06 | 1 | 8350.7 | 5467.7 | 61.5 | 53.7 | 10.6 | 15.1 | . | . | . | 28.0 | 3.3 | 13.1 | 11.6 |
| pl09 | 1 | 6889.3 | 4782.1 | 60.5 | 51.0 | 13.7 | 14.7 | . | . |  | 22.6 | 2.5 | 9.2 | 10.9 |
| pl0a | 1 | 7433.1 | 4681.4 | 60.9 | 54.1 | 17.3 | 11.2 | . | . | . | 25.6 | 2.5 | 10.6 | 12.5 |
| pl0d | 1 | 7555.2 | 4906.2 | 59.1 | 50.9 | 16.1 | 13.0 | . | . | . | 21.8 | 3.0 | 8.7 | 10.2 |
| ro01 | 1 | 3627.8 | 3893.8 | 68.3 | 62.7 | 30.3 | 15.5 | 3.9 | 5.3 | 6.3 | 17.0 | 0.9 | 7.1 | 8.9 |
| ro03 | 1 | 4014.1 | 4641.3 | 68.3 | 59.8 | 24.0 | 18.1 | 7.3 | 5.6 | 5.2 | 17.7 | 1.8 | 8.6 | 7.3 |
| ro04 | 1 | 4271.9 | 4670.2 | 71.3 | 62.3 | 28.1 | 16.6 | 7.0 | 6.0 | 3.6 | 17.6 | 0.8 | 7.4 | 9.4 |
| Industry Cl. | 2 | 9343.9 | 6909.4 | 60.0 | 55.6 | 6.0 | 22.1 | 6.3 | 9.3 | 6.5 | 27.6 | 3.1 | 12.4 | 12.0 |
| bg02 | 2 | 5051.2 | 4235.5 | 49.6 | 51.2 | 4.6 | 19.3 | 5.2 | 7.0 | 7.0 | 27.3 | 1.4 | 12.5 | 13.4 |
| bg05 | 2 | 4896.2 | 4559.0 | 52.1 | 52.8 | 7.6 | 18.8 | 5.2 | 7.5 | 6.1 | 26.4 | 1.5 | 13.8 | 11.2 |
| cz05 | 2 | 12004.0 | 9688.4 | 68.0 | 66.0 | 3.5 | 29.7 | 8.5 | 12.8 | 8.4 | 32.8 | 4.4 | 14.6 | 13.9 |
| cz07 | 2 | 11094.5 | 9471.9 | 65.7 | 63.5 | 3.2 | 29.4 | 7.9 | 15.4 | 6.2 | 30.9 | 3.7 | 13.9 | 13.3 |
| cz08 | 2 | 11952.3 | 10511.4 | 63.3 | 57.9 | 1.9 | 26.6 | 6.1 | 17.2 | 3.3 | 29.5 | 3.0 | 13.4 | 13.1 |
| ee | 2 | 9868.3 | 5498.6 | 64.9 | 62.1 | 3.8 | 19.8 | 4.0 | 8.6 | 7.2 | 38.5 | 5.8 | 16.8 | 15.9 |
| hu02 | 2 | 10963.8 | 7168.9 | 54.9 | 62.5 | 2.9 | 27.0 | 10.1 | 12.9 | 4.0 | 32.6 | 4.4 | 14.4 | 13.8 |
| hu03 | 2 | 12866.7 | 8153.7 | 60.7 | 61.4 | 2.8 | 25.6 | 9.7 | 9.6 | 6.2 | 33.0 | 3.8 | 15.3 | 13.9 |
| pl01 | 2 | 10021.9 | 6420.5 | 56.6 | 46.7 | 4.7 | 15.8 | . | . | . | 26.2 | 3.8 | 11.4 | 11.0 |
| pl0c | 2 | 10700.0 | 7599.9 | 55.6 | 47.3 | 1.3 | 19.7 | . | . | . | 26.3 | 3.4 | 11.5 | 11.4 |
| ro06 | 2 | 4693.2 | 4572.7 | 66.9 | 56.8 | 17.4 | 19.8 | 3.8 | 6.2 | 9.9 | 19.6 | 1.3 | 9.0 | 9.3 |
| ro07 | 2 | 5302.1 | 5238.1 | 62.3 | 56.1 | 14.2 | 23.5 | 8.0 | 7.0 | 8.5 | 18.4 | 1.0 | 8.5 | 9.0 |
| si | 2 | 15936.9 | 10237.9 | 63.5 | 62.2 | 4.2 | 23.6 | 7.1 | 10.4 | 6.1 | 34.4 | 5.4 | 15.3 | 13.7 |
| sk02 | 2 | 9774.6 | 6668.0 | 61.3 | 58.5 | 4.1 | 25.0 | 7.9 | 11.4 | 5.7 | 29.5 | 2.9 | 12.9 | 13.6 |
| Basic Serv. CI. | 3 | 7766.8 | 5774.6 | 57.3 | 53.6 | 7.7 | 17.3 | 4.6 | 8.0 | 4.7 | 28.6 | 2.8 | 13.0 | 12.8 |
| bg01 | 3 | 5342.3 | 4206.4 | 41.4 | 46.9 | 3.5 | 15.5 | 5.0 | 4.4 | 6.2 | 27.8 | 1.2 | 10.8 | 15.8 |
| bg03 | 3 | 5118.5 | 4372.9 | 47.8 | 49.6 | 6.4 | 14.6 | 3.6 | 6.7 | 4.3 | 28.7 | 1.6 | 14.9 | 12.1 |
| cz02 | 3 | 11710.4 | 8656.3 | 68.6 | 67.8 | 3.7 | 25.6 | 8.8 | 12.6 | 4.2 | 38.5 | 5.4 | 17.7 | 15.4 |
| cz04 | 3 | 11412.0 | 10426.5 | 64.5 | 61.2 | 2.1 | 25.6 | 6.0 | 13.6 | 5.9 | 33.4 | 4.0 | 16.6 | 12.8 |
| hu05 | 3 | 7899.4 | 5766.3 | 45.8 | 50.9 | 2.4 | 18.3 | 6.4 | 8.9 | 3.1 | 30.2 | 2.7 | 12.4 | 15.1 |
| hu06 | 3 | 7988.0 | 5649.1 | 45.3 | 51.7 | 3.9 | 18.0 | 4.9 | 8.7 | 4.3 | 29.8 | 3.2 | 11.9 | 14.7 |
| Iv | 3 | 8246.3 | 4578.8 | 59.8 | 61.6 | 8.7 | 16.8 | 3.1 | 8.0 | 5.7 | 36.1 | 3.6 | 16.6 | 15.9 |
| pl04 | 3 | 8441.0 | 6073.9 | 58.6 | 45.5 | 5.0 | 12.3 | . | . | . | 28.2 | 3.1 | 13.0 | 12.1 |
| pl08 | 3 | 7915.1 | 6092.4 | 60.0 | 47.8 | 7.9 | 14.8 |  | . | . | 25.1 | 2.4 | 11.1 | 11.6 |
| plOb | 3 | 9621.2 | 6198.7 | 56.5 | 48.7 | 4.8 | 14.8 | . | . |  | 29.2 | 3.2 | 13.4 | 12.6 |
| pl0e | 3 | 7215.5 | 4924.9 | 54.9 | 45.6 | 7.9 | 11.4 | . | . | . | 26.3 | 2.2 | 11.1 | 13.0 |
| plOg | 3 | 9550.3 | 6355.4 | 56.1 | 45.9 | 5.4 | 13.4 | . | . | . | 27.2 | 3.9 | 13.1 | 10.2 |
| ro02 | 3 | 4347.0 | 4790.2 | 63.6 | 57.2 | 20.3 | 15.3 | 3.9 | 7.0 | 4.4 | 21.6 | 1.6 | 11.0 | 9.0 |
| ro05 | 3 | 5393.2 | 5289.4 | 62.8 | 56.7 | 14.7 | 20.3 | 5.7 | 7.3 | 7.2 | 21.8 | 1.6 | 9.3 | 10.8 |
| sk03 | 3 | 8990.5 | 6123.2 | 60.7 | 55.1 | 4.0 | 21.8 | 4.7 | 10.7 | 6.3 | 29.4 | 2.9 | 12.1 | 14.4 |
| sk04 | 3 | 8198.2 | 5634.2 | 54.9 | 54.1 | 3.2 | 21.1 | 5.7 | 10.2 | 5.1 | 29.8 | 2.7 | 12.8 | 14.3 |
| Business Serv. CI. | 4 | 9270.9 | 5951.8 | 59.4 | 53.2 | 9.5 | 16.9 | - | . | . | 26.9 | 3.8 | 11.3 | 11.8 |
| pl02 | 4 | 8812.0 | 6151.1 | 58.4 | 51.5 | 9.2 | 15.5 | . | . | . | 26.7 | 3.9 | 10.5 | 12.4 |
| pl05 | 4 | 8744.5 | 5638.2 | 60.2 | 53.0 | 9.4 | 16.6 | . | . | . | 27.0 | 3.9 | 11.2 | 11.9 |
| plOf | 4 | 9964.3 | 6080.0 | 59.4 | 54.5 | 9.7 | 17.9 | . | . |  | 26.9 | 3.7 | 11.9 | 11.3 |
| Capitals | 5 | 16776.0 | 9501.5 | 61.9 | 59.0 | 3.9 | 15.3 | 5.1 | 7.0 | 3.2 | 39.8 | 7.6 | 16.3 | 15.9 |
| bg04 | 5 | 8191.4 | 6763.5 | 57.6 | 57.6 | 2.8 | 17.6 | 3.9 | 7.7 | 6.0 | 37.1 | 5.5 | 17.2 | 14.5 |
| cz01 | 5 | 32348.4 | 20433.6 | 73.3 | 70.9 | 0.3 | 15.7 | 5.5 | 9.1 | 1.1 | 54.9 | 13.3 | 22.1 | 19.4 |
| hu01 | 5 | 20323.2 | 11434.6 | 56.4 | 61.3 | 1.0 | 16.0 | 6.1 | 7.8 | 2.1 | 44.3 | 9.0 | 18.4 | 16.9 |
| pl07 | 5 | 14713.7 | 7690.1 | 63.1 | 55.3 | 8.9 | 11.8 | . | . |  | 34.7 | 7.2 | 13.3 | 14.1 |
| ro08 | 5 | 14733.5 | 6645.5 | 61.6 | 56.2 | 1.0 | 18.8 | 6.8 | 7.3 | 4.8 | 36.4 | 4.4 | 15.3 | 16.7 |
| sk01 | 5 | 25343.9 | 14153.3 | 70.8 | 68.4 | 1.1 | 16.8 | 6.6 | 8.0 | 2.2 | 50.5 | 12.1 | 19.2 | 19.2 |

Table A/5 Employment by occupation and educational attainment level, 2003, OMS

|  | cluster | High sk <br> Shares <br> In total employ -ment |  | Mediu <br> In total employ -ment | um skill non-educational <br> groups <br> high <br> med <br> -ium${ }^{\text {low }}$ | Low s <br> In total employ -ment | skill non-ma $\left\lvert\, \begin{array}{r}\text { educatio } \\ \text { group } \\ \text { high } \\ \text { med } \\ \text {-ium }\end{array}\right.$ | nual <br> nal <br> low | In total employ -ment | illed manu <br> educati group hig $\underset{\text {-ium }}{\substack{\text { med }}}$ |  | Low <br> In total employ -ment | skill manual <br> educational groups <br> high ${\underset{\text {-ium }}{\text { med }} \text { low }}^{\text {lin }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural Cl . | 1 | 30.8 | 52.234 .513 .2 | 10.6 | 18.261 .120 .7 | 14.5 | 8.151 .3 | 40.6 | 25.1 | 5.243 .2 | 51.6 | 19.0 | 4.329 .466 .2 |
| at12 | 1 | 32.5 | 38.658 .33 .1 | 15.6 | 2.786 .910 .4 | 14.4 | 1.880 .1 | 18.2 | 23.2 | 5.175 .3 | . 6 | 14.3 | 7.157 .535 .4 |
| at21 | 1 | 30.4 | 42.156 .61 .3 | 13.8 | 4.293 .22 .6 | 16.8 | 5.384 .7 | 10.0 | 26.1 | 7.881 .6 | 10.6 | 12.8 | 4.166 .329 .6 |
| at22 | 1 | 29.8 | 46.951 .31 .8 | 11.8 | 2.990 .36 .8 | 15.4 | 3.282 .4 | 14.4 | 26.8 | 6.779 .5 | 13.8 | 16.2 | 4.654 .241 .2 |
| be34 | 1 | 38.0 | 64.425 .410 .2 | 15.0 | 29.450 .320 .4 | 11.9 | 4.754 .5 | 40.8 | 19.9 | 3.446 .9 | 49.7 | 15.1 | 5.433 .461 .2 |
| de94 | 1 | 35.4 | 45.651 .52 .9 | 12.3 | 9.185 .65 .3 | 14.2 | 6.778 .7 | 14.5 | 25.6 | 11.574 .9 | 13.5 | 12.5 | 9.258 .332 .4 |
| es11 | 1 | 29.2 | 57.416 .825 .8 | 8.1 | 44.237 .718 .1 | 13.3 | 17.329 .6 | 53.1 | 27.8 | 9.013 .4 | 77.7 | 21.6 | 6.19 .284 .7 |
| es41 | 1 | 30.3 | 65.616 .118 .3 | 6.6 | 48.930 .220 .9 | 13.4 | 22.634 .6 | 42.7 | 29.0 | 13.916 .4 | 69.7 | 20.6 | 7.715 .476 .9 |
| es42 | 1 | 26.1 | 56.217 .126 .7 | 7.1 | 33.238 .528 .3 | 13.7 | 11.630 .6 | 57.9 | 32.4 | 6.812 .5 | 80.7 | 20.6 | 4.313 .382 .4 |
| es43 | 1 | 30.7 | 62.214 .323 .5 | 5.6 | 34.242 .323 .5 | 14.8 | 10.230 .0 | 59.8 | 24.1 | 6.910 .3 | 82.8 | 24.9 | 3.27 .689 .2 |
| es62 | 1 | 27.4 | 60.216 .123 .8 | 9.7 | 47.036 .216 .8 | 12.6 | 14.332 .3 | 53.4 | 25.9 | 8.016 .5 | 75.5 | 24.3 | 6.413 .480 .2 |
| fi13 | 1 | 35.3 | 65.025 .39 .6 | 6.4 | 39.936 .723 .4 | 16.8 | 13.870 .7 | 15.4 | 23.0 | 3.770 .6 | 25.7 | 18.5 | 6.961 .731 .4 |
| fi14 | 1 | 33.9 | 71.219 .59 .3 | 6.9 | 41.636 .621 .8 | 15.9 | 9.469 .3 | 21.3 | 23.7 | 4.564 .2 | 31.3 | 19.7 | 6.955 .837 .3 |
| fr25 | 1 | 31.6 | 41.540 .518 .0 | 12.9 | 12.164 .823 .1 | 16.0 | 2.058 .7 | 39.2 | 23.1 | 1.648 .1 | 50.3 | 16.4 | 2.839 .257 .9 |
| fr26 | 1 | 30.5 | 52.636 .411 .1 | 12.2 | 14.357 .528 .2 | 14.0 | 2.754 .1 | 43.2 | 27.3 | 2.953 .4 | 43.7 | 15.9 | 3.649 .347 .1 |
| fr52 | 1 | 34.1 | 52.737 .69 .8 | 12.0 | 16.558 .525 .0 | 15.9 | 4.362 .6 | 33.0 | 22.9 | 3.464 .3 | 32.3 | 15.2 | 6.053 .240 .8 |
| fr53 | 1 | 31.7 | 53.734 .012 .3 | 13.4 | 14.358 .727 .1 | 12.9 | 5.454 .5 | 40.1 | 26.0 | 2.562 .5 | 35.0 | 16.0 | 3.549 .946 .7 |
| fr62 | 1 | 34.9 | 62.030 .87 .2 | 14.2 | 22.858 .618 .6 | 13.3 | 9.650 .8 | 39.6 | 20.7 | 2.763 .7 | 33.6 | 16.9 | 9.046 .344 .7 |
| fr63 | 1 | 30.2 | 50.737 .811 .6 | 13.4 | 15.262 .622 .2 | 13.1 | 1.251 .8 | 46.9 | 24.4 | 3.165 .7 | 31.2 | 18.9 | 3.052 .244 .8 |
| fr72 | 1 | 29.7 | 55.131 .513 .4 | 12.3 | 12.956 .530 .6 | 14.0 | 2.061 .7 | 36.3 | 27.1 | 1.259 .2 | 39.6 | 16.8 | 6.044 .549 .5 |
| gr11 | 1 | 23.4 | 52.230 .816 .9 | 6.1 | 9.275 .815 .0 | 10.9 | 10.738 .5 | 50.8 | 22.4 | 1.932 .8 | 65.3 | 37.2 | 1.49 .189 .5 |
| gr14 | 1 | 26.4 | 60.023 .216 .8 | 6.3 | 15.366 .718 .0 | 11.8 | 8.047 .9 | 44.1 | 19.6 | 5.138 .8 | 56.1 | 35.9 | 0.615 .583 .9 |
| gr23 | 1 | 24.6 | 48.929 .821 .3 | 7.5 | 16.868 .714 .4 | 13.7 | 7.255 .5 | 37.3 | 20.2 | 2.735 .5 | 61.8 | 34.1 | 1.211 .787 .2 |
| gr25 | 1 | 23.1 | 38.949 .012 .0 | 6.9 | 12.374 .113 .6 | 15.8 | 29.938 .9 | 31.1 | 16.8 | 0.537 .4 | 62.1 | 37.3 | 1.015 .483 .7 |
| gr43 | 1 | 21.9 | 56.128 .815 .1 | 7.0 | 18.069 .812 .2 | 15.6 | 8.949 .3 | 41.8 | 18.5 | 4.135 .0 | 60.9 | 37.0 | 0.812 .586 .7 |
| ie01 | 1 | 36.4 | 48.427 .424 .1 | 12.3 | 21.160 .718 .3 | 16.4 | 15.143 .7 | 41.2 | 25.8 | 7.944 .1 | 48.1 | 9.0 | 5.422 .871 .8 |
| it31 | 1 | 30.3 | 33.654 .811 .5 | 12.2 | 5.167 .827 .1 | 18.9 | 2.437 .1 | 60.5 | 25.5 | 0.428 .1 | 71.5 | 13.2 | 2.318 .379 .4 |
| it72 | 1 | 30.4 | 37.550 .212 .3 | 9.0 | 5.170 .224 .7 | 16.5 | 5.336 .2 | 58.5 | 26.9 | 1.427 .5 | 71.1 | 17.2 | 19.180 .9 |
| it92 | 1 | 26.0 | 36.653 .310 .1 | 9.9 | 9.972 .317 .7 | 16.9 | 3.644 .6 | 51.9 | 31.6 | 0.429 .6 | 70.0 | 15.6 | 1.914 .983 .2 |
| it93 | 1 | 32.2 | 39.452 .87 .8 | 8.6 | 9.468 .522 .1 | 16.9 | 4.350 .0 | 45.7 | 21.3 | 1.524 .9 | 73.5 | 21.0 | 1.015 .183 .9 |
| nl13 | 1 | 42.8 | 35.549 .714 .8 | 11.0 | 8.370 .920 .9 | 11.5 | 8.459 .4 | 32.3 | 20.4 | 1.045 .8 | 53.2 | 14.3 | 2.138 .659 .3 |
| pt12 | 1 | 17.7 | 51.415 .433 .1 | 8.9 | 8.336 .854 .9 | 13.5 | 0.311 .3 | 88.4 | 31.8 | 0.13 .7 | 96.2 | 28.2 | 0.13 .096 .8 |
| uke2 | 1 | 40.9 | 59.138 .22 .7 | 12.7 | 21.470 .48 .1 | 18.3 | 13.362 .3 | 24.5 | 16.4 | 6.877 .7 | 15.5 | 11.6 | 2.555 .941 .6 |
| IndustryC | 2 | 34.8 | 51.439 .2 | 12 | 15.265 .419 .3 | 13.7 | 55.3 | 35.6 | 26 | . 848.3 |  | . | . 4 |
| at31 | 2 | 30.1 | 46.549 .34 .2 | 14.7 | 4.984 .310 .8 | 14.0 | 2.875 .3 | 21.9 | 27.5 | 7.271 .9 | 20.9 | 13.6 | 5.145 .249 .7 |
| at34 | 2 | 30.4 | 50.346 .92 .9 | 15.5 | 8.580 .710 .8 | 14.8 | 3.470 .2 | 26.3 | 30.5 | 7.354 .5 | 38.1 | 8.8 | 2.941 .156 .0 |
| be22 | 2 | 35.8 | 61.727 .710 .5 | 14.4 | 37.247 .415 .4 | 11.3 | 9.157 .8 | 33.1 | 27.5 | 3.548 .4 | 48.1 | 11.0 | 2.740 .357 .0 |
| be23 | 2 | 43.2 | 61.827 .510 .7 | 13.9 | 31.948 .619 .5 | 9.7 | 7.851 .2 | 41.0 | 21.4 | 3.840 .2 | 56.1 | 11.8 | 4.027 .168 .9 |
| be25 | 2 | 39.9 | 58.031 .310 .7 | 11.9 | 35.646 .418 .1 | 12.3 | 10.559 .1 | 30.4 | 21.7 | 3.643 .3 | 53.1 | 14.2 | 2.535 .561 .9 |
| de11 | 2 | 42.0 | 50.944 .34 .8 | 13.1 | 11.876 .711 .4 | 10.5 | 9.572 .3 | 18.1 | 25.1 | 12.565 .6 | 21.8 | 9.2 | 10.048 .741 .3 |
| de12 | 2 | 43.0 | 52.842 .54 .7 | 13.2 | 12.276 .611 .2 | 11.1 | 15.166 .8 | 18.1 | 22.8 | 15.664 .6 | 19.7 | 10.0 | 10.447 .742 .0 |
| de13 | 2 | 39.5 | 52.543 .44 .1 | 12.8 | 8.479 .312 .3 | 12.4 | 11.069 .8 | 19.2 | 25.8 | 15.758 .7 | 25.6 | 9.6 | 4.148 .247 .7 |
| de14 | 2 | 40.6 | 55.839 .54 .8 | 12.7 | 15.272 .412 .4 | 11.2 | 12.168 .3 | 19.6 | 25.4 | 13.965 .7 | 20.4 | 10.1 | 10.354 .135 .6 |
| de22 | 2 | 33.3 | 40.852 .86 .4 | 11.7 | 10.080 .59 .5 | 13.8 | 6.280 .6 | 13.2 | 29.0 | 11.276 .7 | 12.2 | 12.3 | 6.759 .334 .1 |
| de23 | 2 | 34.6 | 43.152 .34 .5 | 12.9 | 6.383 .610 .1 | 12.6 | 7.277 .6 | 15.2 | 26.3 | 9.277 .9 | 13.0 | 13.6 | 7.454 .738 .0 |
| de24 | 2 | 34.2 | 42.052 .45 .6 | 12.9 | 9.280 .310 .5 | 12.1 | 7.075 .5 | 17.6 | 29.5 | 8.772 .9 | 18.3 | 11.2 | 6.658 .335 .1 |
| de25 | 2 | 38.3 | 46.547 .56 .0 | 14.5 | 10.875 .214 .0 | 10.9 | 10.270 .3 | 19.5 | 25.1 | 14.067 .6 | 18.4 | 11.2 | 9.351 .938 .8 |
| de26 | 2 | 36.4 | 45.549 .35 .2 | 13.4 | 5.881 .013 .1 | 12.6 | 6.280 .2 | 13.6 | 25.7 | 10.772 .1 | 17.2 | 11.9 | 6.159 .334 .6 |
| de27 | 2 | 37.4 | 48.447 .04 .5 | 14.2 | 10.682 .17 .3 | 12.4 | 9.774 .5 | 15.8 | 25.1 | 15.368 .4 | 16.3 | 10.9 | 4.959 .935 .2 |
| de91 | 2 | 42.1 | 46.650 .52 .9 | 12.5 | 12.578 .78 .8 | 10.4 | 7.679 .5 | 12.9 | 24.0 | 10.377 .5 | 12.3 | 11.1 | 3.267 .929 .0 |
| dea4 | 2 | 38.9 | 42.454 .82 .9 | 14.2 | 8.085 .86 .2 | 11.7 | 8.977 .2 | 13.9 | 25.2 | 11.070 .4 | 18.6 | 9.9 | 6.952 .041 .1 |
| dea5 | 2 | 38.0 | 45.449 .94 .7 | 13.1 | 13.678 .87 .6 | 12.8 | 8.975 .4 | 15.7 | 26.0 | 10.669 .9 | 19.5 | 10.1 | 5.056 .039 .0 |
| ded | 2 | 38.5 | 68.930 .40 .7 | 8.8 | 21.676 .32 .2 | 13.1 | 17.679 .5 | 2.9 | 30.3 | 12.984 .6 | 2.5 | 9.2 | 7.884 .77 .6 |
| deg | 2 | 37.8 | 64.133 .62 .3 | 9.9 | 27.368 .64 .1 | 11.7 | 20.876 .3 | 2.9 | 32.2 | 12.583 .6 | 3.9 | 8.5 | 12.480 .07 .7 |
| es13 | 2 | 27.3 | 66.718 .614 .8 | 6.5 | 40.241 .718 .1 | 16.7 | 24.334 .3 | 41.4 | 29.3 | 18.116 .8 | 65.0 | 20.2 | 9.414 .875 .7 |
| es21 | 2 | 34.8 | 73.012 .714 .3 | 8.2 | 43.429 .926 .7 | 14.0 | 30.024 .5 | 45.5 | 31.7 | 24.219 .1 | 56.7 | 11.4 | 13.920 .066 .0 |
| es22 | 2 | 32.1 | 74.212 .313 .5 | 6.0 | 50.920 .428 .7 | 13.3 | 25.429 .6 | 45.0 | 35.2 | 17.319 .0 | 63.7 | 13.4 | 15.113 .171 .8 |
| es23 | 2 | 30.0 | 65.016 .218 .8 | 7.1 | 60.526 .413 .2 | 11.3 | 20.935 .7 | 43.4 | 37.9 | 11.814 .5 | 73.7 | 13.7 | 6.914 .778 .4 |
| es24 | 2 | 33.6 | 65.416 .018 .6 | 5.4 | 39.732 .727 .6 | 13.4 | 22.530 .1 | 47.4 | 31.0 | 13.821 .7 | 64.5 | 16.6 | 9.417 .273 .4 |
| es51 | 2 | 29.4 | 61.618 .919 .6 | 13.8 | 33.036 .530 .5 | 13.7 | 14.424 .6 | 61.0 | 29.8 | 14.514 .4 | 71.1 | 13.3 | 7.513 .179 .4 |
| es52 | 2 | 28.0 | 62.117 .920 .0 | 7.9 | 31.437 .930 .6 | 13.9 | 14.728 .8 | 56.5 | 31.4 | 8.413 .3 | 78.3 | 18.7 | 5.812 .981 .4 |

Table A/5 contd.


Table A/5 contd.


Table A/5 contd.

Table A/5 (contd.)

| be1 | 5 | 50.5 | 74.417 .48 .1 | 20.2 | 48.634 .616 .8 | 9.4 | 10.847 .7 | 41.6 | 7.8 | 6.436 .1 | 57.4 | 12.1 | 6.326 .167 .6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 5 | 52.1 | 61.235 .63 .2 | 10.7 | 21.071 .97 .1 | 14.1 | 17.465 .2 | 17.4 | 15.9 | 12.871 .8 | 15.4 | 7.2 | 8.855 .036 .2 |
| 3 | 5 | 37.2 | 72.517 .310 .2 | 13.3 | 38.137 .824 .1 | 15.0 | 16.827 .7 | 55.5 | 21.4 | 11.818 .4 | 69.8 | 13.2 | 9.219 .970 .9 |
| 16 | 5 | 52.3 | 66.324 .88 .9 | 10.6 | 35.437 .627 .0 | 14.3 | 14.461 .4 | 24.2 | 13.5 | 4.157 .7 | 38.2 | 9.3 | 7.548 .344 .2 |
| fr1 | 5 | 51.6 | 64.225 .210 .6 | 14.6 | 20.948 .630 .4 | 10.8 | 8.646 .2 | 45.2 | 13.9 | 5.747 .2 | 47.2 | 9.1 | 5.227 .367 .6 |
| gr3 | 5 | 36.0 | 62.930 .46 .7 | 15.9 | 15.576 .87 .7 | 14.5 | 11.159 .2 | 29.6 | 24.4 | 5.542 .8 | 51.6 | 9.3 | 6.232 .361 .5 |
| ie02 | 5 | 40.3 | 59.128 .712 .2 | 13.3 | 22.460 .517 .1 | 16.3 | 18.042 .4 | 39.6 | 21.4 | 10.043 .9 | 46.1 | 8.6 | 7.324 .268 .5 |
| it6 | 5 | 36.9 | 40.549 .99 .5 | 15.0 | 8.672 .518 .9 | 18.2 | 3.346 .8 | 49.9 | 18.4 | 1.831 .0 | 67.3 | 11.5 | 2.625 .272 .3 |
| 32 | 5 | 53.2 | 52.839 .28 .1 | 13.3 | 15.452 .132 .6 | 13.5 | 13.450 .2 | 36.4 | 11.7 | 3.550 .1 | 46.3 | 8.2 | 2.831 .965 .3 |
| 13 | 5 | 30.8 | 45.319 .635 .1 | 14.0 | 10.943 .945 .3 | 15.6 | 3.415 .7 | 81.0 | 22.5 | 0.78 .7 | 90.6 | 17.0 | 1.46 .492 .2 |
| 01 | 5 | 54.7 | 57.338 .54 .2 | 10.5 | 12.670 .516 .9 | 17.1 | 12.472 .4 | 15.2 | 12.1 | 7.066 .3 | 26.7 | 5.6 | 11.154 .634 .3 |
| ki1 | 5 | 58.1 | 77.620 .61 .8 | 12.1 | 34.358 .77 .0 | 13.4 | 28.945 .6 | 25.5 | 7.7 | 12.054 .8 | 33.2 | 8.7 | 8.936 .055. |

Table A/6 Employment by occupation and educational attainment level, 2003, NMS

|  | cluster | High skill non-manual <br> Shares <br> In total employ <br> educational -ment groups <br> high $\begin{gathered}\text { med } \\ \text {-ium } \\ \text { low }\end{gathered}$ |  |  | Medium skill nonmanual <br> Shares <br> In total employ <br> educational -ment groups <br> high ${ }_{\text {-ium }}^{\text {med }}$ low |  |  |  | Low skill non-manual <br> Shares <br> In total employ <br> educational -ment <br> groups <br> high <br> $\underset{\text {-ium }}{\text { med }}$ low |  |  |  | Shares In total employ -ment |  |  |  | Low skill manual <br> Shares <br> In total <br> employ <br> educational <br> -ment <br> groups <br> high <br> med -ium low |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural Cl . | 1 | 25.5 | 49.949 .4 | 0.6 | 4.9 | 10.4 | 87.0 | 2.6 | 10.4 | 6.7 | 86.4 | 6.9 | 26.1 | 1.9 | 88.4 | 9.7 | 33.0 | 1.2 | 53.445 .4 |
| 06 | 1 | 29.9 | 57.640 .7 | 1.7 | 6.3 | 20.8 | 74.6 | 4.6 | 3.8 | 10.3 | 78.1 | . 6 | 29.0 | 5.9 | 68.9 | 5.2 | 21.0 | 4.5 | 0.9 |
| cz03 | 1 | 34.8 | 29.669 .7 | 0.7 | . 8 | . 5 | 92.5 | 3.1 | 12.5 | 1.2 | 94.4 | 4.5 | 37. | 0.4 | 89. | 0.6 | 8.5 | 0.3 | 69.630 .1 |
| cz06 | 1 | 35.7 | 39.160 .0 | 0.9 | 7.6 | 3.8 | 93.8 | 2.3 | 11.6 | 1.8 | 87.5 | 10.7 | 38.0 | 0.6 | 90.9 | 8.5 | 6.9 | 1.3 | 73.725 .0 |
| 04 | 1 | 29.8 | 45.752 .1 | 2.1 | 9.1 | 4.2 | 87.0 | 8.8 | 14.7 | 4.5 | 82.9 | 12.6 | 31.6 | 0.7 | 80.6 | 18.7 | 14.7 | 1.8 | 44.054 .2 |
| hu07 | 1 | 26.4 | 46.951 .7 | 1.4 | 8.4 | 6.8 | 85.0 | 8.2 | 14.7 | 4.2 | 84.8 | 11.0 | 34.8 | 0.7 | 77.2 | 22.1 | 15.8 | 1.8 | 50.048 .2 |
| It | 1 | 30.8 | 64.634 .8 | 0.5 | 3.5 | 26.8 | 69.5 | 3.6 | 12.6 | 17.4 | 77.3 | 5.3 | 27.0 | 8.0 | 84. | 8.0 | 26.2 | 5.1 | 70.924 .0 |
| pl03 | 1 | 27.9 | 53.346 .1 | 0.5 | 6.2 | 15.7 | 81.4 | 2.9 | 9.1 | 5.5 | 85.5 | 9.0 | 16.1 | 1.5 | 89.7 | 8.8 | 40.6 | 0.9 | 59.539 .6 |
| pl06 | 1 | 31.5 | 50.948 .7 | 0.4 | 7.0 | 15.2 | 84.8 |  | 13.6 | 5.5 | 92.5 | 2.0 | 23.0 | 0.9 | 92.2 | 6.8 | 25.0 | 0.3 | 67.732 .0 |
| pl09 | 1 | 27.9 | 48.451 .4 | 0.2 | 5.6 | 8.8 | 91.2 |  | 10.6 | 6.9 | 86.0 | 7.1 | 24.9 | 0.4 | 91.4 | 8.2 | 30.9 | 1.3 | 64.334 .4 |
| pl0a | 1 | 29.3 | 53.345 .6 | 1.1 | 4.3 | 16.1 | 80.5 | 3.4 | 10.4 | 8.9 | 88.4 | 2.7 | 18.3 | 1.5 | 88.1 | 10.4 | 37.6 | 1.2 | 61.837 .0 |
| pl0d | 1 | 27.7 | 51.648 .1 | 0.4 | 5.9 | 13.2 | 83.4 | 3.4 | 9.8 | 10.3 | 87.6 | 2.1 | 20.5 | 3.0 | 89.5 | 7.5 | 36.2 | 1.1 | 61.637 .2 |
| ro01 | 1 | 15.6 | 50.249 .3 | 0.5 | 2.4 | 2.3 | 97.7 |  | 7.0 | 4.7 | 86.9 | 8.4 | 22.1 | 0.9 | 89.1 | 10.0 | 52.9 | 0.3 | 41.158 .6 |
| ro03 | 1 | 17.0 | 44.755 .3 |  | 3.1 | 4.6 | 94.0 | 1.4 | 7.4 | 2.7 | 89.4 | 7.9 | 29.1 | 0.5 | 93.0 | 6.5 | 43.5 | 0.3 | 43.855 .8 |
| ro04 | 1 | 16.0 | 50.049 .3 | 0.7 | 2.9 | 1.1 | 98.9 |  | 7.2 | 1.8 | 91.1 | 7.1 | 24.7 | 0.9 | 93. | 5.6 | 49.2 | 1.2 | 44.654 .2 |
| dustry | 2 | 30.0 | 46.452 .8 | 0.9 | 7.1 | 10 |  | 5.3 | 12.1 | 5.0 | 86.2 | 8.8 | 34.7 | 1.8 | 85. | . 8 | 16.1 | 1.9 | . 2 |
| bg02 | 2 | 32.0 | 66.032 .8 | 1.2 | 7.0 |  | 0.3 | 1.5 | 13.4 | 11.6 | 左 | 10.3 | 31. | 7.7 | 76. | 5.3 | 15.6 | 2.9 | 51.745 .4 |
| bg05 | 2 | 26.4 | 61.337 .3 | 1.4 | 6.5 | 13.9 | 79.2 | 6.9 | 13.5 | 7.9 | 78.2 | 13.9 | 30.9 | 3.8 | 71.7 | 24.4 | 22.7 | 3.1 | 36.860 .0 |
| cz05 | 2 | 33.8 | 30.868 .0 | 1.2 | 8.1 | 4.4 | 91.8 | 3.8 | 11.8 | 1.8 | 91.7 | 6.5 | 38.7 | 0.6 | 91. | 8.3 | 7.7 | 1.9 | 74.823 .3 |
| cz07 | 2 | 34.1 | 32.266 .7 | 1.0 | 6.8 | 2.4 | 92.6 | 5.0 | 12.1 | 1.4 | 91.9 | 6.7 | 38.8 | 0.6 | 91.4 | 8.0 | 8.1 | 1.3 | 73.125 .6 |
| cz08 | 2 | 36.2 | 33.166 .1 | 0.8 | 6.6 | 0.6 | 94.7 | 4.7 | 12.4 | 1.2 | 93. | 5.4 | 37.9 | 0.9 | 91. | . 0 | 6.9 | 2.3 | 67.430 .3 |
| ee | 2 | 37.4 | 62.736 .3 | 0.9 | 5.3 | 26.0 | 69.1 | 5.0 | 14.1 | 24.4 | 70.8 | 4.8 | 29.7 | 10.2 | 75.6 | 14.2 | 13.5 | 14.1 | 63.922 .0 |
| hu02 | 2 | 29.0 | 49.548 .8 | 1.7 | 8.2 | 5.2 | 84.6 | 10.2 | 13.8 | 3.1 | 83.8 | 13.0 | 39.2 | 0.8 | 76. | 23.0 | 9.8 | 0.6 | 40.558 .9 |
| hu03 | 2 | 27.9 | 49.348 .1 | 2.6 | 8.9 | 4.9 | 86.6 | 8.5 | 13.6 | 2.8 | 87.4 | 9.8 | 38.1 | 1.5 | 77.2 | 21.3 | 11.5 | 2.4 | 41.156 .5 |
| pl01 | 2 | 31.2 | 50.349 .7 |  | 8.0 | 12.3 | 86.2 | 1.6 | 13.9 | 8.3 | 84.8 | 6.9 | 31.2 | 0.9 | 87.6 | 11.5 | 15.7 | 1.2 | 74.024 .8 |
| ploc | 2 | 33.9 | 45.454 .6 |  | 8.8 | 13.1 | 81.0 | 5.9 | 11.7 | 1.3 | 91.7 | 6.9 | 35.3 | 1.1 | 92.3 | 6.6 | 10.3 | 0.7 | 71.527 .9 |
| ro06 | 2 | 18.7 | 48.850 .8 | 0.4 | 3.2 | 18.1 | 81.1 | 0.8 | 10.0 | 4.0 | 82.1 | 13.9 | 31.9 | 1.8 | 85.8 | 12.3 | 36. | 0.4 | 33.666 .0 |
| ro07 | 2 | 19.1 | 41.156 .1 | 2.8 | 5.0 | 5.5 | 87.8 | 6.7 | 7.9 | 2.1 | 84.5 | 13.5 | 38.5 | 1.2 | 89.5 | 9.4 | 29.4 | 0.8 | 45.353 .8 |
| si | 2 | 36.4 | 52.347 .0 | 0.7 | 10.6 | 6.6 | 84.6 | 8.8 | 11.9 | 2.7 | 90.9 | 6.4 | 30.4 | 0.4 | 73.3 | 26.3 | 10.7 | 1.5 | 37.760 .8 |
| sk02 | 2 | 31.3 | 33.5 | 0.5 | 6.6 | 11.3 | 8 | 1.0 | 14 | 2.4 | 90 | 6.9 | 37.2 | 0.5 | 92.4 | 7.1 | 10 | 1.8 | 24.9 |
| Basic Serv. CI. | 3 | 28.9 | 45.653 .4 | 1.0 | 7.0 | 8.3 | 87.5 | 4.2 | 12.9 | 4.9 | 85.0 | 10.1 | 31.2 | 1.5 | 85.8 | 12.6 | 20.0 | 1.5 | 53.145 .4 |
| bg01 | 3 | 33.9 | 65.433 .0 | 1.6 | 7.5 | 14.2 | 84.3 | 1.5 | 11.9 | 4.3 |  | 10.6 | 28.0 | 6.8 | 75.4 | 17.8 | 18.7 | 4.1 | 46.849 .1 |
| bg03 | 3 | 26.9 | 62.236 .1 | 1.7 | 6.2 | 13.3 | 79.5 | 7.1 | 16.2 | 13.9 | 68.6 | 17.5 | 28.6 | 3.0 | 72.9 | 24.1 | 22.1 | 5.0 | 37.757 .3 |
| cz02 | 3 | 31.8 | 30.368 .5 | 1.1 | 9.4 | 3.5 | 89.7 | 6.8 | 13.5 | 0.8 | 89.8 | 9.4 | 35.7 | 0.3 | 90.0 | 9.7 | 9.5 |  | 64.835 .2 |
| cz04 | 3 | 28.2 | 25.473 .1 | 1.5 | 10.1 | 3.4 | 94.6 | 2.0 | 15.7 | 0.8 | 86.7 | 12.4 | 37.2 | 0.4 | 85.9 | 13.7 | 8.8 |  | 62.437 .6 |
| hu05 | 3 | 28.2 | 46.652 .6 | 0.8 | 8.7 | 6.1 | 85.0 | 8.9 | 16.2 | 3.4 | 85.3 | 11.3 | 35.0 | 0.8 | 82.0 | 7.1 | 11.9 | 0.6 | 48.750 .7 |
| hu06 | 3 | 30.9 | 50.047 .7 | 2.3 | 7.7 | 6.8 | 82.1 | 11.1 | 14.1 | 2.2 | 82.4 | 15.4 | 32.8 | 0.5 | 78.9 | 20.7 | 14.5 | 2.0 | 45.352 .8 |
| Iv | 3 | 32.1 | 48.549 .0 | 2.6 | 6.2 | 20.6 | 75.3 | 4.1 | 14.0 | 11.7 | 82.5 | 5.8 | 25.1 | 4.0 | 79.3 | 16.7 | 22.6 | 4.8 | 65.030 .1 |
| pl04 | 3 | 30.9 | 49.749 .6 | 0.7 | 6.9 | 13.8 | 84.6 | 1.6 | 17.3 | 3.2 | 91.5 | 5.3 | 26.7 |  | 89.7 | 10.3 | 18. | 1.3 | 65.832 .8 |
| pl08 | 3 | 29.0 | 47.152 .9 |  | 7.4 | 14.8 | 85.2 |  | 12.9 | 8.6 | 85.1 | 6.3 | 29.5 | 0.6 | 90.9 | 8.5 | 21.2 | 2.0 | 66.032 .0 |
| plob | 3 | 31.7 | 51.548 .2 | 0.3 | 8.8 | 16.7 | 80.9 | 2.4 | 13.2 | 3.9 | 89.4 | 6.7 | 29.6 | 2.5 | 86.9 | 10.6 | 16.7 | 1.7 | 64.633 .8 |
| pl0e | 3 | 32.2 | 50.049 .7 | 0.3 | 6.3 | 11.8 | 83.9 | 4.3 | 13.3 | 3.1 | 79.4 | 17.5 | 24.8 | 1.2 | 82.5 | 16.3 | 23.4 |  | 60.939 .1 |
| plOg | 3 | 34.3 | 49.749 .9 | 0.3 | 8.9 | 1.3 | 97.2 | 1.5 | 12.7 | 6.7 | 83.7 | 9.7 | 27.5 | 1.8 | 84.2 | 14.0 | 16.6 | 1.5 | 57.840 .7 |
| ro02 | 3 | 19.9 | 45.753 .6 | 0.7 | 4.7 | 1.9 | 96.5 | 1.6 | 7.9 | 0.6 | 83.0 | 16.4 | 31.0 | 2.2 | 88.4 | 9.4 | 36.5 |  | 39.260 .8 |
| ro05 | 3 | 23.5 | 47.352 .2 | 0.5 | 4.9 |  | 93.2 | 6.8 | 7.5 | 5.7 | 81.2 | 13.1 | 34.3 | 1.5 | 86.5 | 12.0 | 29.8 | 0.7 | 40.758 .6 |
| sk03 | 3 | 33.4 | 34.665 .0 | 0.4 | 5.4 | 4.7 | 92.2 | 3.1 | 13.6 | 2.8 | 92.6 | 4.5 | 35.7 | 0.3 | 93.3 | 6.4 | 11.9 | 0.9 | 77.821 .3 |
| sk04 | 3 | 29.1 | 37.762 .2 | 0.1 | 6.8 | 3.5 | 94. | 1.6 | 15.9 | 3.4 | 92.9 | 3.7 | 36.3 | 0.4 | 95.1 | 4.4 | 11.9 | 1.2 | 77.920 .9 |
| Business Serv. Cl. | 4 | 29.6 | 50.449 .5 | 0.1 | 7.1 | 14.7 | 83.4 | 1.9 | 11.5 | 3.9 | 88.0 | 8.1 | 27.7 | 0.3 | 89.0 | 10.7 | 24.2 | 0.8 | 66.832 .4 |
| pl02 | 4 | 28.7 | 50.949 .1 |  | 8.3 | 14.7 | 85.3 |  | 12.1 | 5.8 | 87.1 | 7.1 | 27.5 | 0.4 | 91.0 | 8.6 | 23.4 |  | 68.531 .5 |
| pl05 | 4 | 30.2 | 52.946 .9 | 0.2 | 7.2 | 20.0 | 76.5 | 3.5 | 10.6 | 4.9 | 84.3 | 10.8 | 26.7 | 0.6 | 86.8 | 12.6 | 25.2 | 1.4 | 59.738 .8 |
| plOf | 4 | 29.5 | 48.251 .8 |  | 6.3 |  | 88.2 | 1.9 | 11.8 | 2.0 | 91.4 | 6.7 | 28.6 |  | 89.5 |  | 23. | . 8 | 71.927 .3 |
| Capitals | 5 | 41.8 | 57.541 .9 | 0.6 | 9.0 | 13.4 | 82.4 | 4.1 | 12.8 | 7.3 | 82.8 | 9.9 | 23.1 | 2.1 | 85.9 | 2.0 | 13.3 | 1.0 | 61.837 .2 |
| bg04 | 5 | 39.0 | 71.627 .9 | 0.5 | 7.5 | 29.7 | 68.7 | 1.5 | 14.4 | 13.3 | 79.8 | 6.8 | 26.1 | 4.5 |  | 17.0 | 13.0 | 2.6 | 47.949 .5 |
| cz01 | 5 | 56.1 | 46.353 .4 | 0.4 | 9.9 | 4.0 | 88.0 | 8.0 | 11.7 | 5.8 | 89.0 | 5.2 | 17.1 | 1.2 | 93.3 | 5.6 | 5.1 | 1.0 | 73.925 .1 |
| hu01 | 5 | 42.2 | 57.341 .0 | 1.6 | 11.3 | 8.8 | 84.0 | 7.2 | 14.2 | 6.6 | 79.9 | 13.5 | 25.4 | 1.9 | 81.7 | 16.4 | 6.9 | 2.2 | 51.246 .6 |
| pl07 |  | 37.2 | 55.644 .4 |  | 8.5 | 14.5 | 83.6 | 1.9 | 12.3 | 6.4 | 88.1 | 5.5 | 18.5 | 0.8 | 90.9 | 8.3 | 23.5 | 0.3 | 68.631 .1 |
| ro08 | 5 | 39.2 | 62.037 .3 | 0.6 | 8.9 | 14.6 | 84.6 | 0.8 | 10.7 | 6.4 | 72.6 | 21.1 | 31.1 | 2.4 |  | 10.7 | 10.1 | 1.0 | 52.746 .3 |
| sk01 | 5 | 54.8 | 50.149 .4 | 0.5 | 6.7 | 10.3 | 81.0 | 8.7 | 13.2 | 2.6 | 88.4 | 8.9 | 20.4 | 1.1 | 89.4 | 9.5 | 4.9 | 1.7 | 61.936 .4 |

Table A/7 Low-educated employment rates (\% of population aged 25-64) - total and by sector, OMS

|  |  | Total | Agriculture |  |  | Industry |  |  | Servi |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | cluster |  | Total | Total | high skill | medium skill | low skill | Total | Business | Basic | Public |
| Agricultural Cl . | 1 | 58.1 | 11.8 | 18.8 | 2.7 | 12.1 | 4.0 | 27.5 | 2.3 | 14.0 | 11.1 |
| at12 | 1 | 54.4 | 8.8 | 16.6 | 5.0 | 7.4 | 4.2 | 29.0 | 4.3 | 14.9 | 9.8 |
| at21 | 1 | 43.4 | 6.2 | 14.3 | 3.4 | 5.0 | 5.8 | 22.9 | 4.1 | 12.8 | 6.1 |
| at22 | 1 | 46.9 | 11.7 | 13.1 | 3.3 | 7.7 | 2.1 | 22.1 | 4.3 | 9.9 | 8.0 |
| be34 | 1 | 50.0 | 4.6 | 16.0 | 1.6 | 13.1 | 1.3 | 29.4 | 1.7 | 14.1 | 13.6 |
| de94 | 1 | 43.9 | 3.6 | 14.4 | 3.3 | 8.5 | 2.6 | 26.0 | 2.0 | 13.5 | 10.5 |
| es11 | 1 | 59.8 | 12.1 | 22.1 | 2.8 | 13.8 | 5.5 | 25.5 | 2.1 | 15.5 | 7.9 |
| es41 | 1 | 56.0 | 9.0 | 22.0 | 3.1 | 15.5 | 3.4 | 25.0 | 2.4 | 15.1 | 7.5 |
| es42 | 1 | 57.0 | 8.2 | 22.9 | 1.3 | 15.4 | 6.1 | 25.9 | 2.5 | 16.2 | 7.3 |
| es43 | 1 | 50.9 | 10.6 | 15.4 | 0.6 | 12.1 | 2.6 | 24.9 | 2.1 | 15.3 | 7.5 |
| es62 | 1 | 57.2 | 9.1 | 20.3 | 2.0 | 13.5 | 4.8 | 27.8 | 2.8 | 17.5 | 7.5 |
| fi13 | 1 | 49.7 | 8.5 | 14.1 | 2.3 | 7.8 | 3.9 | 27.1 | 2.6 | 14.3 | 10.2 |
| fi14 | 1 | 58.7 | 9.7 | 20.4 | 4.8 | 12.1 | 3.5 | 28.5 | 4.2 | 14.0 | 10.4 |
| fr25 | 1 | 59.9 | 5.4 | 18.1 | 4.8 | 9.7 | 3.7 | 36.3 | 4.9 | 12.4 | 19.0 |
| fr26 | 1 | 60.0 | 6.6 | 21.0 | 4.7 | 11.8 | 4.5 | 32.4 | 3.0 | 12.4 | 17.0 |
| fr52 | 1 | 58.3 | 6.8 | 14.8 | 3.2 | 10.9 | 0.7 | 36.6 | 3.2 | 12.9 | 20.5 |
| fr53 | 1 | 57.9 | 6.5 | 14.0 | 3.7 | 8.0 | 2.3 | 37.3 | 3.5 | 12.8 | 21.1 |
| fr62 | 1 | 55.4 | 8.2 | 12.1 | 3.0 | 7.5 | 1.6 | 35.2 | 2.9 | 12.2 | 20.0 |
| fr63 | 1 | 59.4 | 10.3 | 16.3 | 3.0 | 8.8 | 4.6 | 32.7 | 2.5 | 13.9 | 16.3 |
| fr72 | 1 | 60.1 | 9.3 | 22.7 | 3.0 | 14.8 | 4.8 | 28.1 | 1.1 | 11.3 | 15.6 |
| gr11 | 1 | 61.9 | 33.0 | 13.4 | 1.0 | 7.0 | 5.3 | 15.5 | 0.5 | 11.4 | 3.6 |
| gr14 | 1 | 59.2 | 30.6 | 11.6 | 0.6 | 8.0 | 3.0 | 17.0 | 0.2 | 12.3 | 4.5 |
| gr23 | 1 | 61.7 | 32.2 | 11.1 | 0.7 | 8.4 | 2.0 | 18.4 | 0.4 | 13.7 | 4.3 |
| gr25 | 1 | 66.6 | 37.9 | 11.0 | 1.3 | 8.7 | 1.0 | 17.7 | 0.3 | 12.3 | 5.1 |
| gr43 | 1 | 70.7 | 35.3 | 13.3 | 0.6 | 10.7 | 2.0 | 22.1 | 0.5 | 17.6 | 4.1 |
| ie01 | 1 | 55.4 | 10.6 | 19.5 | 2.8 | 13.4 | 3.3 | 25.3 | 1.8 | 14.0 | 9.4 |
| it31 | 1 | 61.9 | 8.6 | 20.8 | 2.7 | 14.4 | 3.7 | 32.5 | 1.9 | 19.4 | 11.2 |
| it72 | 1 | 53.5 | 8.4 | 19.7 | 3.1 | 13.5 | 3.1 | 25.4 | 1.2 | 13.5 | 10.8 |
| it92 | 1 | 46.0 | 6.9 | 19.0 | 5.2 | 10.9 | 2.9 | 20.0 | 2.1 | 9.6 | 8.3 |
| it93 | 1 | 39.8 | 8.9 | 12.1 | 0.8 | 9.7 | 1.6 | 18.8 | 0.9 | 9.8 | 8.1 |
| nl13 | 1 | 59.4 | 5.3 | 24.8 | 5.9 | 12.9 | 6.1 | 29.3 | 5.8 | 11.2 | 12.3 |
| pt12 | 1 | 81.6 | 19.0 | 31.5 | 3.6 | 17.3 | 10.6 | 31.1 | 1.7 | 15.7 | 13.7 |
| uke2 | 1 | 69.6 | 7.7 | 16.7 | 3.2 | 13.5 | 0.0 | 45.2 | 6.2 | 20.3 | 18.6 |
| Industry Cl . | 2 | 58.1 | 3.4 | 24.8 | 6.0 | 12.6 | 6.2 | 29.9 | 3.7 | 15.5 | 10.7 |
| at31 | 2 | 55.7 | 9.0 | 20.0 | 4.2 | 11.0 | 4.8 | 26.7 | 3.7 | 11.7 | 11.3 |
| at34 | 2 | 55.1 | 2.7 | 29.4 | 5.5 | 14.0 | 9.8 | 23.0 | 2.3 | 15.8 | 4.9 |
| be22 | 2 | 45.5 | 1.0 | 20.6 | 6.8 | 10.8 | 2.9 | 24.0 | 2.3 | 12.2 | 9.4 |
| be23 | 2 | 53.4 | 2.5 | 22.2 | 4.3 | 12.8 | 5.1 | 28.7 | 2.6 | 14.7 | 11.4 |
| be25 | 2 | 53.9 | 2.9 | 20.8 | 3.4 | 11.0 | 6.4 | 30.2 | 3.4 | 15.3 | 11.4 |
| de11 | 2 | 59.2 | 1.2 | 27.7 | 13.9 | 10.9 | 2.9 | 30.3 | 6.2 | 12.7 | 11.4 |
| de12 | 2 | 58.7 | 0.8 | 24.6 | 11.7 | 9.8 | 3.1 | 33.3 | 6.6 | 16.3 | 10.3 |
| de13 | 2 | 65.0 | 1.5 | 35.8 | 14.1 | 17.1 | 4.6 | 27.7 | 3.5 | 12.5 | 11.7 |
| de14 | 2 | 56.0 | 1.3 | 22.6 | 8.7 | 11.1 | 2.8 | 32.1 | 4.9 | 13.0 | 14.3 |
| de22 | 2 | 51.7 | 4.2 | 19.2 | 8.3 | 6.7 | 4.2 | 28.4 | 3.3 | 13.2 | 11.9 |
| de23 | 2 | 53.7 | 5.6 | 19.2 | 5.2 | 9.1 | 5.0 | 28.9 | 5.3 | 12.6 | 11.0 |
| de24 | 2 | 54.6 | 0.6 | 26.8 | 9.1 | 9.1 | 8.7 | 27.1 | 3.4 | 13.3 | 10.5 |
| de25 | 2 | 54.7 | 1.8 | 19.3 | 8.1 | 8.2 | 3.0 | 33.5 | 6.3 | 15.7 | 11.6 |
| de26 | 2 | 57.5 | 3.4 | 25.6 | 11.9 | 9.7 | 4.0 | 28.5 | 3.8 | 13.9 | 10.8 |
| de27 | 2 | 53.3 | 4.8 | 22.3 | 7.8 | 11.5 | 3.0 | 26.2 | 3.7 | 11.1 | 11.4 |
| de91 | 2 | 42.2 | 1.2 | 16.4 | 9.5 | 5.3 | 1.6 | 24.6 | 2.8 | 12.3 | 9.6 |
| dea4 | 2 | 52.1 | 1.5 | 25.0 | 6.6 | 13.1 | 5.3 | 25.6 | 5.2 | 11.4 | 9.0 |
| dea5 | 2 | 44.8 | 0.8 | 17.5 | 4.8 | 11.0 | 1.7 | 26.5 | 4.0 | 13.2 | 9.3 |
| ded | 2 | 35.4 | 2.1 | 9.5 | 2.9 | 5.2 | 1.4 | 23.9 | 3.0 | 9.7 | 11.2 |
| deg | 2 | 44.3 | 0.4 | 15.2 | 4.4 | 9.1 | 1.7 | 28.7 | 3.7 | 13.3 | 11.6 |
| es13 | 2 | 56.6 | 6.7 | 23.2 | 5.2 | 15.1 | 3.0 | 26.6 | 3.1 | 14.9 | 8.6 |
| es21 | 2 | 56.7 | 1.6 | 24.9 | 5.2 | 17.2 | 2.5 | 30.2 | 4.5 | 17.3 | 8.4 |
| es22 | 2 | 62.1 | 6.4 | 29.7 | 7.4 | 17.2 | 5.1 | 26.0 | 2.8 | 15.3 | 7.9 |
| es23 | 2 | 58.9 | 5.8 | 29.2 | 3.3 | 16.5 | 9.3 | 23.9 | 1.9 | 16.1 | 6.0 |
| es24 | 2 | 59.7 | 6.5 | 24.8 | 5.6 | 13.8 | 5.3 | 28.5 | 4.1 | 16.6 | 7.8 |
| es51 | 2 | 63.7 | 2.3 | 28.4 | 7.0 | 15.5 | 6.0 | 33.0 | 4.4 | 20.4 | 8.2 |
| es52 | 2 | 58.6 | 3.3 | 25.6 | 2.5 | 13.9 | 9.2 | 29.6 | 3.3 | 18.7 | 7.7 |
| fi17 | 2 | 57.0 | 4.5 | 23.4 | 5.7 | 13.0 | 4.6 | 29.2 | 4.3 | 15.9 | 8.9 |
| fr21 | 2 | 58.7 | 4.4 | 17.9 | 3.1 | 11.5 | 3.4 | 36.5 | 3.9 | 14.2 | 18.4 |
| fr22 | 2 | 60.2 | 2.4 | 21.8 | 5.0 | 12.8 | 4.0 | 36.0 | 5.5 | 13.3 | 17.2 |
| fr23 | 2 | 57.2 | 1.9 | 21.4 | 7.5 | 11.5 | 2.4 | 33.9 | 4.0 | 12.9 | 17.1 |
| fr3 | 2 | 50.2 | 2.2 | 16.0 | 2.9 | 8.2 | 5.0 | 32.0 | 4.2 | 10.9 | 17.0 |


| Table A/7 (con |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| fr41 | 2 | 55.1 | 1.2 | 18.1 | 4.5 | 10.8 | 2.7 | 35.8 | 3.7 | 14.5 | 17.6 |
| fr42 | 2 | 61.1 | 1.9 | 21.4 | 9.5 | 8.5 | 3.4 | 37.8 | 5.9 | 15.8 | 16.1 |
| fr43 | 2 | 59.0 | 1.6 | 21.8 | 9.8 | 8.2 | 3.8 | 35.6 | 3.2 | 12.7 | 19.7 |
| fr51 | 2 | 59.9 | 4.8 | 17.8 | 4.0 | 11.8 | 2.0 | 37.4 | 4.8 | 13.0 | 19.6 |
| fr71 | 2 | 59.7 | 1.9 | 20.5 | 5.2 | 12.1 | 3.2 | 37.3 | 5.1 | 15.2 | 17.0 |
| gr12 | 2 | 54.7 | 18.6 | 17.5 | 1.7 | 9.8 | 6.0 | 18.6 | 0.6 | 13.5 | 4.5 |
| gr13 | 2 | 51.9 | 20.8 | 20.2 | 3.2 | 11.0 | 5.9 | 10.9 | 0.4 | 7.6 | 2.8 |
| gr24 | 2 | 57.8 | 19.3 | 18.7 | 1.7 | 13.6 | 3.4 | 19.8 | 0.4 | 15.4 | 4.1 |
| it11 | 2 | 57.3 | 3.2 | 26.6 | 8.9 | 12.9 | 4.8 | 27.5 | 3.1 | 16.1 | 8.3 |
| it2 | 2 | 56.2 | 1.5 | 29.5 | 7.1 | 15.1 | 7.3 | 25.1 | 3.0 | 14.1 | 8.0 |
| it32 | 2 | 57.4 | 3.6 | 30.6 | 6.8 | 13.3 | 10.6 | 23.2 | 2.7 | 13.7 | 6.8 |
| it4 | 2 | 62.0 | 4.2 | 29.2 | 8.2 | 14.0 | 7.0 | 28.6 | 2.4 | 17.9 | 8.3 |
| it52 | 2 | 54.0 | 3.5 | 23.9 | 3.4 | 12.5 | 8.1 | 26.6 | 2.7 | 14.7 | 9.2 |
| nl12 | 2 | 62.5 | 4.2 | 24.9 | 7.0 | 12.8 | 5.0 | 33.5 | 5.5 | 14.4 | 13.6 |
| n 21 | 2 | 59.9 | 3.7 | 22.0 | 4.5 | 11.5 | 6.1 | 34.1 | 6.2 | 16.3 | 11.6 |
| nl34 | 2 | 60.2 | 3.5 | 19.0 | 3.4 | 11.2 | 4.4 | 37.7 | 5.8 | 17.8 | 14.2 |
| n141 | 2 | 62.0 | 2.5 | 24.6 | 5.7 | 13.2 | 5.8 | 34.9 | 5.7 | 17.8 | 11.4 |
| n142 | 2 | 56.7 | 3.1 | 22.5 | 5.7 | 11.2 | 5.7 | 31.1 | 5.4 | 14.3 | 11.4 |
| pt11 | 2 | 70.8 | 8.4 | 34.7 | 3.1 | 14.1 | 17.5 | 27.6 | 1.6 | 15.4 | 10.6 |
| se06 | 2 | 63.0 | 3.8 | 27.1 | 6.8 | 16.3 | 4.0 | 32.1 | 5.1 | 12.9 | 14.1 |
| se09 | 2 | 71.4 | 5.0 | 31.3 | 8.4 | 16.1 | 6.8 | 35.1 | 5.0 | 16.6 | 13.4 |
| ukc1 | 2 | 44.3 | 0.0 | 10.9 | 2.8 | 6.5 | 1.6 | 33.4 | 5.3 | 17.1 | 11.0 |
| ukc2 | 2 | 44.8 | 0.6 | 11.1 | 4.6 | 4.6 | 2.0 | 33.0 | 3.1 | 17.0 | 13.0 |
| ukd1 | 2 | 51.4 | 1.3 | 9.8 | 5.4 | 4.4 | 0.0 | 40.3 | 4.8 | 21.5 | 14.0 |
| ukd2 | 2 | 57.0 | 0.9 | 15.9 | 6.0 | 9.3 | 0.6 | 40.2 | 6.1 | 20.0 | 14.1 |
| ukd4 | 2 | 60.2 | 0.0 | 23.4 | 7.5 | 11.0 | 4.9 | 36.8 | 2.8 | 17.0 | 17.0 |
| uke1 | 2 | 47.3 | 1.6 | 14.0 | 2.4 | 9.3 | 2.3 | 31.7 | 4.2 | 17.4 | 10.2 |
| uke3 | 2 | 49.1 | 0.0 | 17.0 | 3.0 | 9.3 | 4.7 | 32.2 | 4.2 | 16.9 | 11.1 |
| uke4 | 2 | 59.3 | 0.2 | 19.4 | 6.4 | 7.0 | 6.0 | 39.8 | 4.6 | 22.3 | 12.9 |
| ukf1 | 2 | 52.7 | 0.9 | 20.7 | 4.6 | 12.0 | 4.1 | 31.1 | 2.7 | 15.8 | 12.6 |
| ukf2 | 2 | 63.9 | 1.6 | 25.2 | 7.4 | 10.3 | 7.5 | 37.1 | 3.2 | 21.3 | 12.6 |
| ukf3 | 2 | 57.6 | 4.4 | 9.7 | 4.0 | 5.7 | 0.0 | 43.5 | 5.0 | 26.3 | 12.2 |
| ukg1 | 2 | 70.1 | 1.8 | 27.7 | 12.7 | 10.0 | 5.0 | 40.6 | 6.1 | 19.2 | 15.3 |
| ukg2 | 2 | 61.7 | 1.6 | 22.4 | 7.0 | 8.6 | 6.7 | 37.6 | 2.1 | 19.9 | 15.7 |
| ukg3 | 2 | 48.3 | 0.6 | 19.5 | 7.0 | 10.0 | 2.5 | 28.2 | 4.3 | 15.5 | 8.4 |
| ukl2 | 2 | 59.8 | 3.7 | 17.4 | 3.5 | 10.1 | 3.8 | 38.7 | 3.4 | 24.2 | 11.0 |
| Basic Serv. Cl . | 3 | 49.0 | 4.8 | 15.8 | 2.6 | 9.8 | 3.4 | 28.5 | 2.6 | 15.4 | 10.4 |
| at11 | 3 | 48.2 | 8.1 | 13.6 | 2.5 | 7.9 | 3.2 | 26.5 | 2.9 | 14.6 | 9.1 |
| at32 | 3 | 56.9 | 5.7 | 16.8 | 2.9 | 9.6 | 4.3 | 34.5 | 6.5 | 18.6 | 9.3 |
| at33 | 3 | 52.2 | 4.3 | 13.9 | 3.2 | 6.8 | 3.9 | 34.0 | 3.5 | 23.9 | 6.6 |
| be32 | 3 | 42.3 | 1.1 | 14.3 | 3.5 | 7.8 | 3.0 | 26.8 | 1.3 | 12.0 | 13.5 |
| be33 | 3 | 45.4 | 1.7 | 13.5 | 2.4 | 10.0 | 1.1 | 30.1 | 3.1 | 13.7 | 13.4 |
| be35 | 3 | 47.3 | 1.9 | 12.5 | 2.4 | 7.8 | 2.3 | 32.9 | 1.0 | 15.9 | 16.0 |
| de4 | 3 | 40.4 | 1.9 | 6.5 | 1.4 | 3.2 | 1.8 | 32.1 | 6.9 | 9.4 | 15.8 |
| de5 | 3 | 48.9 | 0.3 | 15.3 | 6.7 | 7.9 | 0.7 | 33.2 | 7.2 | 16.7 | 9.4 |
| de72 | 3 | 52.5 | 0.4 | 21.0 | 7.2 | 12.2 | 1.6 | 31.2 | 5.1 | 13.3 | 12.8 |
| de73 | 3 | 48.3 | 2.2 | 12.6 | 5.3 | 5.6 | 1.7 | 33.5 | 4.8 | 15.4 | 13.2 |
| de8 | 3 | 38.4 | 3.8 | 8.7 | 0.4 | 7.1 | 1.2 | 25.9 | 4.8 | 12.6 | 8.4 |
| de92 | 3 | 42.8 | 2.6 | 12.8 | 4.1 | 6.5 | 2.2 | 27.4 | 5.2 | 10.9 | 11.3 |
| de93 | 3 | 51.6 | 2.9 | 12.9 | 2.7 | 8.6 | 1.6 | 35.8 | 5.8 | 18.9 | 11.0 |
| dea3 | 3 | 44.0 | 1.4 | 15.6 | 4.5 | 7.4 | 3.8 | 27.0 | 3.0 | 13.9 | 10.1 |
| deb | 3 | 47.6 | 1.7 | 16.4 | 4.8 | 9.0 | 2.6 | 29.5 | 5.3 | 12.3 | 11.9 |
| dec | 3 | 42.4 | 1.2 | 15.9 | 6.1 | 8.9 | 0.8 | 25.4 | 3.2 | 10.8 | 11.4 |
| dee1 | 3 | 29.3 | 3.1 | 5.1 | 1.9 | 3.2 | 0.0 | 21.1 | 2.0 | 9.7 | 9.4 |
| dee2 | 3 | 33.8 | 1.4 | 7.5 | 1.8 | 4.3 | 1.4 | 24.9 | 2.4 | 10.3 | 12.2 |
| dee3 | 3 | 35.5 | 2.9 | 8.1 | 1.7 | 6.0 | 0.4 | 24.4 | 4.2 | 9.1 | 11.1 |
| def | 3 | 53.6 | 2.1 | 10.2 | 4.0 | 5.6 | 0.6 | 41.2 | 9.0 | 18.1 | 14.1 |
| es12 | 3 | 49.1 | 5.8 | 17.7 | 1.5 | 13.7 | 2.5 | 25.6 | 2.0 | 15.2 | 8.5 |
| es53 | 3 | 66.1 | 2.0 | 20.1 | 1.5 | 15.2 | 3.4 | 44.0 | 3.0 | 32.2 | 8.8 |
| es61 | 3 | 48.2 | 7.1 | 15.8 | 1.3 | 12.2 | 2.3 | 25.3 | 2.3 | 15.0 | 8.0 |
| es63 | 3 | 36.8 | 0.0 | 5.8 | 0.2 | 5.5 | 0.0 | 31.0 | 2.9 | 19.7 | 8.5 |
| es7 | 3 | 56.0 | 4.2 | 14.6 | 0.6 | 13.0 | 1.0 | 37.2 | 3.2 | 25.1 | 8.8 |
| fi15 | 3 | 51.5 | 6.1 | 17.6 | 5.1 | 10.9 | 1.6 | 27.8 | 4.3 | 12.6 | 10.8 |
| fi20 | 3 | 84.8 | 7.2 | 13.7 | 1.1 | 10.3 | 2.3 | 63.9 | 7.3 | 30.9 | 25.7 |
| fr61 | 3 | 55.4 | 5.1 | 12.4 | 3.0 | 7.4 | 2.0 | 38.0 | 2.4 | 13.9 | 21.6 |
| fr81 | 3 | 48.4 | 4.6 | 10.2 | 2.1 | 6.4 | 1.7 | 33.6 | 3.4 | 15.9 | 14.3 |
| fr83 | 3 | 50.6 | 0.9 | 8.2 | 0.0 | 8.2 | 0.0 | 41.5 | 2.2 | 7.4 | 31.9 |
| gr21 | 3 | 58.0 | 25.1 | 15.8 | 0.5 | 13.3 | 2.1 | 17.1 | 0.5 | 12.7 | 3.9 |
| gr22 | 3 | 62.6 | 17.0 | 10.0 | 0.3 | 8.5 | 1.3 | 35.6 | 1.0 | 27.2 | 7.4 |
| gr41 | 3 | 49.5 | 17.9 | 13.3 | 0.0 | 11.5 | 1.7 | 18.4 | 0.9 | 14.6 | 2.8 |
| gr42 | 3 | 55.9 | 9.0 | 13.2 | 0.9 | 10.1 | 2.2 | 33.8 | 0.8 | 25.3 | 7.7 |

Table A/7 contd.

| Table A/7 (contd.) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| it12 | 3 | 60.9 | 4.9 | 18.1 | 3.5 | 13.0 | 1.6 | 38.0 | 2.5 | 21.1 | 14.3 |
| it33 | 3 | 52.9 | 2.1 | 21.1 | 5.9 | 9.9 | 5.3 | 29.8 | 2.7 | 16.6 | 10.4 |
| it51 | 3 | 56.8 | 3.4 | 24.4 | 3.5 | 10.0 | 10.8 | 29.1 | 2.1 | 18.3 | 8.6 |
| it53 | 3 | 59.5 | 3.3 | 30.8 | 5.6 | 10.3 | 14.9 | 25.4 | 1.9 | 14.6 | 8.9 |
| it71 | 3 | 54.1 | 4.5 | 22.8 | 3.9 | 11.9 | 7.1 | 26.8 | 1.9 | 15.1 | 9.8 |
| it8 | 3 | 39.7 | 4.7 | 13.7 | 2.7 | 7.7 | 3.2 | 21.3 | 1.4 | 11.9 | 8.1 |
| it91 | 3 | 43.0 | 6.5 | 15.3 | 1.9 | 9.5 | 3.9 | 21.3 | 1.3 | 12.5 | 7.5 |
| ita | 3 | 37.6 | 5.2 | 11.1 | 1.5 | 8.0 | 1.7 | 21.3 | 1.0 | 11.6 | 8.6 |
| itb | 3 | 42.8 | 6.4 | 14.8 | 2.4 | 10.0 | 2.4 | 21.7 | 2.0 | 11.3 | 8.4 |
| nl11 | 3 | 57.3 | 2.9 | 21.2 | 3.6 | 11.1 | 6.5 | 33.3 | 6.3 | 12.9 | 14.0 |
| nı22 | 3 | 62.7 | 2.6 | 21.0 | 4.5 | 11.3 | 5.2 | 39.1 | 6.5 | 20.4 | 12.2 |
| pt14 | 3 | 71.2 | 11.3 | 19.6 | 2.9 | 13.9 | 2.8 | 40.3 | 2.1 | 18.5 | 19.8 |
| pt15 | 3 | 72.6 | 7.6 | 18.5 | 0.6 | 15.3 | 2.6 | 46.5 | 2.6 | 28.9 | 15.0 |
| pt2 | 3 | 64.4 | 9.3 | 20.1 | 1.5 | 16.0 | 2.5 | 35.0 | 1.9 | 13.4 | 19.7 |
| pt3 | 3 | 72.8 | 9.0 | 22.3 | 1.3 | 16.0 | 5.0 | 41.6 | 1.5 | 21.1 | 19.0 |
| se07 | 3 | 59.3 | 3.2 | 17.7 | 3.4 | 10.7 | 3.6 | 38.4 | 6.2 | 16.1 | 16.1 |
| se08 | 3 | 59.5 | 3.8 | 19.6 | 5.1 | 11.6 | 2.9 | 36.1 | 5.4 | 17.6 | 13.2 |
| ukd5 | 3 | 49.1 | 0.0 | 12.1 | 4.5 | 6.0 | 1.6 | 37.0 | 3.5 | 20.4 | 13.1 |
| ukh1 | 3 | 67.0 | 1.9 | 20.6 | 4.7 | 13.6 | 2.3 | 44.6 | 5.2 | 23.9 | 15.5 |
| ukj4 | 3 | 51.7 | 1.5 | 12.7 | 4.5 | 6.3 | 1.8 | 37.6 | 5.9 | 18.3 | 13.3 |
| ukk2 | 3 | 68.4 | 2.4 | 21.1 | 6.0 | 9.4 | 5.7 | 44.9 | 6.1 | 27.7 | 11.1 |
| ukk3 | 3 | 50.6 | 1.3 | 19.6 | 1.6 | 15.0 | 3.1 | 29.7 | 4.5 | 17.8 | 7.5 |
| ukk4 | 3 | 51.2 | 2.1 | 12.7 | 4.3 | 6.5 | 1.9 | 36.4 | 4.9 | 16.0 | 15.6 |
| ukl1 | 3 | 46.8 | 2.8 | 12.0 | 2.7 | 7.5 | 1.8 | 32.0 | 2.7 | 16.7 | 12.6 |
| ukm1 | 3 | 58.4 | 11.0 | 8.9 | 1.3 | 7.6 | 0.0 | 38.5 | 6.9 | 18.1 | 13.5 |
| ukm3 | 3 | 48.8 | 0.7 | 9.8 | 2.6 | 5.2 | 2.0 | 38.2 | 5.0 | 17.5 | 15.7 |
| ukm4 | 3 | 58.3 | 3.3 | 11.3 | 2.0 | 8.6 | 0.6 | 43.8 | 3.4 | 19.5 | 20.9 |
| ukn | 3 | 48.9 | 4.4 | 13.7 | 2.7 | 8.2 | 2.8 | 30.8 | 1.8 | 13.4 | 15.6 |
| Business Serv. Cl. | 4 | 56.7 | 1.9 | 16.4 | 4.7 | 9.6 | 2.1 | 38.4 | 6.3 | 18.4 | 13.7 |
| be21 | 4 | 49.5 | 0.6 | 18.4 | 5.7 | 9.8 | 2.9 | 30.4 | 3.1 | 18.0 | 9.3 |
| be24 | 4 | 55.6 | 1.2 | 15.2 | 5.2 | 8.8 | 1.2 | 39.2 | 5.2 | 20.0 | 14.0 |
| be31 | 4 | 50.4 | 1.3 | 12.8 | 3.9 | 7.9 | 1.0 | 36.3 | 4.9 | 14.7 | 16.7 |
| de21 | 4 | 59.1 | 2.0 | 17.7 | 8.2 | 6.9 | 2.6 | 39.5 | 9.0 | 17.6 | 12.8 |
| de6 | 4 | 52.6 | 1.0 | 8.2 | 3.3 | 4.3 | 0.6 | 43.4 | 8.7 | 22.4 | 12.2 |
| de71 | 4 | 51.6 | 0.3 | 16.2 | 6.3 | 8.5 | 1.4 | 35.1 | 7.0 | 17.0 | 11.2 |
| dea1 | 4 | 48.1 | 0.9 | 17.2 | 4.8 | 10.7 | 1.8 | 30.0 | 5.5 | 14.8 | 9.7 |
| dea2 | 4 | 47.2 | 0.7 | 15.7 | 6.0 | 8.8 | 0.9 | 30.8 | 5.9 | 12.8 | 12.0 |
| dk | 4 | 61.5 | 3.2 | 19.9 | 5.2 | 10.7 | 4.0 | 38.3 | 4.5 | 18.3 | 15.5 |
| fr24 | 4 | 61.5 | 3.6 | 19.6 | 5.7 | 12.1 | 1.9 | 38.3 | 5.4 | 11.8 | 21.1 |
| fr82 | 4 | 52.8 | 3.0 | 10.3 | 1.8 | 7.3 | 1.2 | 39.5 | 6.7 | 15.7 | 17.0 |
| it13 | 4 | 51.0 | 3.4 | 14.7 | 3.6 | 8.9 | 2.1 | 32.9 | 2.7 | 19.8 | 10.3 |
| lu | 4 | 60.2 | 1.6 | 19.4 | 2.1 | 16.3 | 1.0 | 39.2 | 6.2 | 17.3 | 15.8 |
| nı23 | 4 | 62.1 | 2.4 | 16.8 | 5.3 | 8.6 | 3.0 | 42.8 | 10.8 | 21.3 | 10.8 |
| nl31 | 4 | 61.8 | 0.7 | 16.1 | 3.0 | 9.4 | 3.7 | 44.9 | 10.8 | 21.5 | 12.7 |
| n133 | 4 | 59.7 | 2.6 | 15.0 | 3.3 | 9.2 | 2.5 | 42.1 | 7.5 | 20.4 | 14.3 |
| se02 | 4 | 65.8 | 2.8 | 23.5 | 8.7 | 12.9 | 1.8 | 39.5 | 7.8 | 17.0 | 14.7 |
| se04 | 4 | 67.0 | 3.3 | 22.1 | 6.9 | 12.7 | 2.5 | 41.6 | 7.9 | 18.5 | 15.2 |
| se0a | 4 | 71.9 | 3.3 | 26.5 | 8.5 | 13.9 | 4.1 | 42.1 | 6.7 | 19.4 | 16.0 |
| ukd3 | 4 | 51.6 | 0.3 | 15.1 | 4.2 | 7.0 | 3.9 | 36.2 | 3.1 | 21.6 | 11.5 |
| ukh2 | 4 | 68.1 | 1.4 | 21.8 | 8.1 | 11.9 | 1.8 | 44.9 | 4.9 | 25.8 | 14.2 |
| ukh3 | 4 | 62.8 | 1.1 | 22.4 | 4.1 | 15.7 | 2.6 | 39.3 | 7.8 | 20.2 | 11.4 |
| uki2 | 4 | 56.4 | 0.1 | 11.5 | 2.1 | 8.4 | 1.0 | 44.7 | 8.0 | 24.7 | 12.0 |
| ukj1 | 4 | 69.9 | 0.7 | 20.7 | 8.0 | 9.4 | 3.3 | 48.4 | 8.2 | 28.5 | 11.7 |
| ukj2 | 4 | 68.6 | 2.8 | 20.3 | 4.5 | 15.2 | 0.6 | 45.5 | 6.9 | 22.3 | 16.4 |
| ukj3 | 4 | 63.8 | 0.4 | 18.4 | 6.3 | 10.6 | 1.5 | 45.0 | 7.9 | 22.8 | 14.2 |
| ukk1 | 4 | 59.7 | 1.2 | 18.2 | 4.7 | 12.1 | 1.4 | 40.2 | 6.4 | 20.9 | 12.9 |
| ukm2 | 4 | 58.6 | 2.7 | 9.4 | 1.9 | 5.4 | 2.1 | 46.6 | 6.5 | 22.6 | 17.5 |
| Capitals | 5 | 57.3 | 1.7 | 15.7 | 3.5 | 9.7 | 2.6 | 39.8 | 6.5 | 18.7 | 14.6 |
| at13 | 5 | 57.3 | 0.6 | 10.5 | 2.3 | 7.5 | 0.6 | 46.2 | 13.4 | 21.0 | 11.8 |
| be1 | 5 | 41.1 | 0.0 | 7.3 | 1.1 | 5.2 | 1.0 | 33.8 | 7.6 | 14.7 | 11.5 |
| de3 | 5 | 38.5 | 0.1 | 7.8 | 3.2 | 4.0 | 0.6 | 30.6 | 6.5 | 14.7 | 9.3 |
| es3 | 5 | 57.8 | 0.9 | 18.1 | 4.0 | 10.8 | 3.3 | 38.8 | 6.6 | 19.7 | 12.5 |
| fi16 | 5 | 67.5 | 1.0 | 17.6 | 5.5 | 10.0 | 2.0 | 49.0 | 10.8 | 23.9 | 14.3 |
| fr1 | 5 | 62.3 | 0.3 | 11.8 | 3.9 | 6.5 | 1.4 | 50.2 | 11.3 | 17.6 | 21.3 |
| gr3 | 5 | 51.6 | 1.5 | 21.6 | 3.1 | 13.8 | 4.8 | 28.5 | 2.2 | 17.6 | 8.7 |
| ie02 | 5 | 56.1 | 5.3 | 19.2 | 3.8 | 12.8 | 2.5 | 31.7 | 3.0 | 17.7 | 11.0 |
| it6 | 5 | 48.8 | 2.6 | 14.0 | 2.7 | 9.1 | 2.2 | 32.2 | 3.2 | 16.6 | 12.4 |
| nl32 | 5 | 60.4 | 1.8 | 13.2 | 2.8 | 8.8 | 1.6 | 45.3 | 8.9 | 22.5 | 13.9 |
| pt13 | 5 | 68.6 | 3.6 | 22.5 | 4.2 | 14.0 | 4.3 | 42.5 | 3.8 | 21.6 | 17.1 |
| se01 | 5 | 69.9 | 0.8 | 15.5 | 4.8 | 10.1 | 0.5 | 53.7 | 13.5 | 22.2 | 18.0 |
| uki1 | 5 | 40.8 | 0.0 | 8.0 | 1.2 | 4.6 | 2.2 | 32.8 | 5.8 | 17.2 | 9.9 |

Table A/8 Low-educated employment rates (\% of population aged 25-64) - total and by sector, NMS

|  | cluster ${ }^{\text {Total }}$ |  | Agriculture Total | Industry |  |  |  | Services |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | high skill | medium skill | low skill | Total | Business | Basic | Public |
| Agricultural Cl . | 1 | 53.5 |  | 38.4 | 7.8 | 1.5 | 3.6 | 2.6 | 7.3 | 0.4 | 3.2 | 3.8 |
| bg06 | 1 | 34.2 | 10.6 | 12.9 | 4.1 | 5.7 | 3.1 | 10.8 | 0.2 | 4.6 | 5.9 |
| cz03 | 1 | 51.2 | 6.3 | 30.0 | 9.2 | 12.8 | 8.0 | 15.0 | 1.1 | 7.6 | 6.4 |
| cz06 | 1 | 45.2 | 6.5 | 21.5 | 4.8 | 10.2 | 6.5 | 17.2 | 0.8 | 6.7 | 9.7 |
| hu04 | 1 | 33.6 | 6.4 | 13.0 | 3.1 | 5.9 | 4.0 | 14.2 | 1.2 | 4.7 | 8.3 |
| hu07 | 1 | 35.8 | 7.7 | 14.4 | 2.4 | 7.6 | 4.5 | 13.7 | 0.8 | 6.7 | 6.3 |
| It | 1 | 49.5 | 25.9 | 9.2 | 0.8 | 4.6 | 3.8 | 14.4 | 0.1 | 5.8 | 8.4 |
| pl03 | 1 | 52.5 | 42.0 | 4.7 | . | . | . | 5.8 | 0.2 | 3.8 | 1.8 |
| pl06 | 1 | 42.7 | 29.2 | 7.5 | . | . | . | 6.1 | 0.3 | 3.0 | 2.9 |
| pl09 | 1 | 45.9 | 32.2 | 7.5 | . | . | . | 6.2 | 0.6 | 3.1 | 2.6 |
| pl0a | 1 | 48.9 | 35.3 | 7.3 |  |  |  | 6.2 | 0.6 | 3.4 | 2.1 |
| plOd | 1 | 45.9 | 37.0 | 4.3 | . |  |  | 4.7 | 0.3 | 1.8 | 2.5 |
| ro01 | 1 | 69.3 | 60.0 | 5.8 | 0.5 | 2.7 | 2.6 | 3.4 | 0.3 | 1.2 | 1.9 |
| ro03 | 1 | 57.5 | 48.5 | 4.5 | 0.9 | 2.0 | 1.5 | 4.5 | 0.2 | 1.7 | 2.6 |
| ro04 | 1 | 70.4 | 62.5 | 3.0 | 0.9 | 1.1 | 1.0 | 4.9 | 0.0 | 2.0 | 3.0 |
| Industry Cl . | 2 | 41.9 | 15.7 | 15.3 | 3.9 | 6.2 | 5.2 | 10.9 | 0.9 | 4.8 | 5.2 |
| bg02 | 2 | 29.9 | 8.1 | 11.8 | 1.9 | 5.3 | 4.6 | 9.9 | 0.1 | 3.4 | 6.5 |
| bg05 | 2 | 40.5 | 13.8 | 15.8 | 3.1 | 6.5 | 6.2 | 10.8 | 0.4 | 5.6 | 4.9 |
| cz05 | 2 | 46.0 | 4.1 | 24.4 | 6.0 | 7.8 | 10.7 | 17.5 | 1.3 | 7.0 | 9.2 |
| cz07 | 2 | 42.5 | 4.8 | 23.2 | 4.6 | 11.9 | 6.7 | 14.5 | 0.7 | 7.5 | 6.4 |
| cz08 | 2 | 33.6 | 2.3 | 17.4 | 2.8 | 12.0 | 2.7 | 13.9 | 0.7 | 6.0 | 7.2 |
| ee | 2 | 51.2 | 8.1 | 24.7 | 3.4 | 12.0 | 9.2 | 18.5 | 2.0 | 8.8 | 7.7 |
| hu02 | 2 | 48.5 | 5.1 | 25.5 | 10.2 | 11.7 | 3.7 | 17.9 | 1.9 | 8.8 | 7.2 |
| hu03 | 2 | 46.3 | 3.6 | 25.5 | 8.1 | 9.6 | 7.8 | 17.2 | 1.5 | 7.5 | 8.2 |
| pl01 | 2 | 26.0 | 6.1 | 10.1 | . | . | . | 9.7 | 2.0 | 4.4 | 3.3 |
| ploc | 2 | 26.1 | 3.2 | 11.9 | . |  |  | 11.0 | 1.4 | 5.2 | 4.4 |
| ro06 | 2 | 55.1 | 41.4 | 7.8 | 1.5 | 1.6 | 4.7 | 5.8 | 0.2 | 1.8 | 3.9 |
| ro07 | 2 | 48.2 | 30.0 | 10.7 | 2.6 | 4.7 | 3.4 | 7.6 | 0.0 | 3.5 | 4.0 |
| si | 2 | 53.4 | 11.7 | 29.3 | 8.9 | 11.2 | 9.2 | 12.4 | 2.1 | 5.4 | 4.9 |
| sk02 | 2 | 31.1 | 6.6 | 12.6 | 3.7 | 5.0 | 3.9 | 11.9 | 0.2 | 4.8 | 6.9 |
| Basic Serv. CI. | 3 | 39.8 | 16.8 | 11.1 | 2.2 | 5.4 | 3.6 | 11.9 | 0.9 | 4.8 | 6.3 |
| bg01 | 3 | 30.8 | 6.3 | 9.2 | 1.8 | 2.1 | 5.3 | 15.3 | 0.0 | 3.6 | 11.8 |
| bg03 | 3 | 35.7 | 11.0 | 10.8 | 1.8 | 5.5 | 3.5 | 13.9 | 0.4 | 5.2 | 8.3 |
| cz02 | 3 | 50.0 | 4.0 | 22.7 | 7.3 | 10.9 | 4.5 | 23.4 | 0.6 | 12.3 | 10.5 |
| cz04 | 3 | 41.0 | 1.8 | 21.4 | 6.2 | 8.2 | 6.9 | 17.8 | 0.8 | 9.4 | 7.6 |
| hu05 | 3 | 29.8 | 2.2 | 12.1 | 3.6 | 5.6 | 2.9 | 15.4 | 1.3 | 4.3 | 9.8 |
| hu06 | 3 | 34.3 | 5.0 | 14.0 | 2.6 | 7.1 | 4.4 | 15.3 | 1.9 | 5.1 | 8.4 |
| Iv | 3 | 50.4 | 18.3 | 16.3 | 2.7 | 8.5 | 5.0 | 15.9 | 1.7 | 7.2 | 6.9 |
| pl04 | 3 | 30.4 | 10.6 | 7.2 | . | . | . | 12.5 | 2.1 | 4.4 | 6.0 |
| pl08 | 3 | 31.4 | 14.9 | 7.0 | . | . | . | 9.6 | 1.0 | 3.3 | 5.3 |
| pl0b | 3 | 31.8 | 9.5 | 11.5 |  |  | . | 10.8 | 2.1 | 3.1 | 5.5 |
| plO | 3 | 35.0 | 14.1 | 9.1 |  | . | . | 11.8 | 0.6 | 4.1 | 7.0 |
| pl0g | 3 | 31.4 | 8.9 | 9.8 |  |  |  | 12.7 | 1.4 | 6.1 | 5.1 |
| ro02 | 3 | 54.8 | 41.9 | 6.5 | 0.9 | 3.6 | 2.0 | 6.5 | 0.1 | 3.4 | 2.9 |
| ro05 | 3 | 50.3 | 32.7 | 10.3 | 1.4 | 4.6 | 4.3 | 7.2 | 0.2 | 3.1 | 3.9 |
| sk03 | 3 | 25.8 | 4.8 | 11.8 | 2.0 | 5.2 | 4.5 | 9.2 | 0.2 | 3.7 | 5.4 |
| sk04 | 3 | 23.2 | 5.0 | 8.9 | 1.1 | 5.4 | 2.5 | 9.3 | 0.0 | 3.3 | 6.0 |
| Business Serv. CI. | 4 | 38.8 | 18.5 | 10.8 | . | . | . | 9.5 | 1.8 | 3.7 | 4.1 |
| pl02 | 4 | 33.2 | 16.2 | 7.5 | . | . | . | 9.5 | 2.3 | 2.4 | 4.8 |
| pl05 | 4 | 41.3 | 21.8 | 9.7 | , |  | . | 9.7 | 1.7 | 4.1 | 3.8 |
| plOf | 4 | 40.2 | 16.5 | 14.3 | . | . | . | 9.4 | 1.5 | 4.2 | 3.8 |
| Capitals | 5 | 40.3 | 10.2 | 11.9 | 2.9 | 6.3 | 2.7 | 18.1 | 2.1 | 8.1 | 7.9 |
| bg04 | 5 | 43.1 | 10.3 | 18.2 | 2.3 | 9.8 | 6.1 | 14.7 | 0.7 | 7.6 | 6.4 |
| cz01 | 5 | 54.1 | 0.0 | 17.1 | 7.6 | 8.7 | 0.8 | 36.9 | 9.0 | 18.0 | 9.9 |
| hu01 | 5 | 38.8 | 2.2 | 13.6 | 4.5 | 7.1 | 2.0 | 22.9 | 3.0 | 11.5 | 8.5 |
| pl07 | 5 | 39.2 | 22.0 | 6.0 |  |  |  | 11.2 | 1.8 | 3.0 | 6.4 |
| ro08 | 5 | 38.1 | 2.8 | 13.0 | 2.6 | 7.2 | 3.2 | 22.3 | 1.3 | 10.4 | 10.6 |
| sk01 | 5 | 48.1 | 4.4 | 14.8 | 4.7 | 6.4 | 3.7 | 28.9 | 4.0 | 15.8 | 9.1 |

Table A/9 Medium-educated employment rates (\% of population aged 25-64) total and by sector; OMS


Table A/9 contd.

| Table A/9 (con |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| gr12 | 2 | 67.0 | 5.8 | 17.3 | 4.3 | 7.4 | 5.6 | 43.9 | 4.8 | 27.6 | 11.6 |
| gr13 | 2 | 65.9 | 4.1 | 26.8 | 11.1 | 13.8 | 1.9 | 35.0 | 3.5 | 20.0 | 11.4 |
| gr24 | 2 | 63.1 | 6.3 | 17.6 | 2.7 | 10.6 | 4.3 | 39.2 | 1.6 | 24.6 | 13.0 |
| it11 | 2 | 78.4 | 2.1 | 24.8 | 11.7 | 9.1 | 4.0 | 51.4 | 13.6 | 19.3 | 18.5 |
| it2 | 2 | 78.5 | 1.2 | 27.6 | 12.3 | 10.6 | 4.7 | 49.8 | 13.8 | 19.6 | 16.3 |
| it32 | 2 | 79.8 | 2.0 | 27.9 | 10.6 | 10.3 | 6.9 | 49.9 | 10.9 | 19.8 | 19.2 |
| it4 | 2 | 81.9 | 3.0 | 25.5 | 10.8 | 10.2 | 4.6 | 53.4 | 12.0 | 21.9 | 19.4 |
| it52 | 2 | 73.6 | 2.6 | 22.9 | 6.3 | 10.6 | 6.0 | 48.1 | 8.3 | 20.2 | 19.7 |
| nl12 | 2 | 77.8 | 3.6 | 20.4 | 6.0 | 10.7 | 3.7 | 53.8 | 9.7 | 16.0 | 28.1 |
| n 21 | 2 | 79.0 | 3.1 | 21.7 | 7.0 | 11.8 | 3.0 | 54.2 | 8.9 | 17.5 | 27.8 |
| nl34 | 2 | 75.6 | 3.6 | 24.2 | 11.0 | 12.6 | 0.6 | 47.8 | 10.6 | 15.2 | 22.0 |
| nl41 | 2 | 81.1 | 2.9 | 23.2 | 8.4 | 11.4 | 3.5 | 55.0 | 10.6 | 20.1 | 24.2 |
| nl42 | 2 | 77.9 | 2.8 | 22.6 | 9.0 | 10.3 | 3.3 | 52.6 | 8.7 | 19.4 | 24.4 |
| pt11 | 2 | 78.3 | 1.2 | 18.4 | 5.0 | 7.2 | 6.2 | 58.7 | 12.4 | 24.0 | 22.3 |
| se06 | 2 | 77.2 | 2.4 | 25.8 | 7.9 | 15.7 | 2.3 | 49.0 | 8.3 | 13.9 | 26.8 |
| se09 | 2 | 84.9 | 3.3 | 28.1 | 9.5 | 13.3 | 5.3 | 53.6 | 7.5 | 18.0 | 28.1 |
| ukc1 | 2 | 71.6 | 0.5 | 27.6 | 8.3 | 17.0 | 2.3 | 43.5 | 8.1 | 17.2 | 18.2 |
| ukc2 | 2 | 77.2 | 1.6 | 24.0 | 9.0 | 13.4 | 1.5 | 51.6 | 7.9 | 21.8 | 21.9 |
| ukd1 | 2 | 75.0 | 1.7 | 28.9 | 10.2 | 15.4 | 3.3 | 44.4 | 6.2 | 20.5 | 17.7 |
| ukd2 | 2 | 80.6 | 0.5 | 23.0 | 9.0 | 12.0 | 2.0 | 57.1 | 10.6 | 25.9 | 20.6 |
| ukd4 | 2 | 80.5 | 0.9 | 23.5 | 9.4 | 11.8 | 2.3 | 56.2 | 10.2 | 20.5 | 25.4 |
| uke1 | 2 | 75.6 | 0.3 | 27.0 | 5.3 | 19.2 | 2.5 | 48.3 | 6.7 | 19.8 | 21.8 |
| uke3 | 2 | 77.9 | 0.4 | 23.8 | 4.5 | 16.9 | 2.4 | 53.7 | 8.3 | 23.5 | 21.9 |
| uke4 | 2 | 78.6 | 0.4 | 23.8 | 6.9 | 13.2 | 3.7 | 54.3 | 11.0 | 23.3 | 20.1 |
| ukf1 | 2 | 78.8 | 0.8 | 26.9 | 8.5 | 14.0 | 4.3 | 51.1 | 8.1 | 22.5 | 20.6 |
| ukf2 | 2 | 82.9 | 1.4 | 28.7 | 9.4 | 15.2 | 4.1 | 52.8 | 13.4 | 20.7 | 18.7 |
| ukf3 | 2 | 81.7 | 2.5 | 26.6 | 8.3 | 16.0 | 2.3 | 52.5 | 6.5 | 24.4 | 21.6 |
| ukg1 | 2 | 80.0 | 1.0 | 26.7 | 10.3 | 12.9 | 3.5 | 52.2 | 9.9 | 23.2 | 19.1 |
| ukg2 | 2 | 80.9 | 0.8 | 26.4 | 9.5 | 13.7 | 3.3 | 53.6 | 10.0 | 22.9 | 20.8 |
| ukg3 | 2 | 77.6 | 0.7 | 27.0 | 11.5 | 13.9 | 1.6 | 49.9 | 10.0 | 20.1 | 19.8 |
| ukl2 | 2 | 82.2 | 1.3 | 25.9 | 8.8 | 14.7 | 2.4 | 54.9 | 9.1 | 21.1 | 24.8 |
| Basic Serv. Cl . | 3 | 69.4 | 2.1 | 18.9 | 6.2 | 10.2 | 2.4 | 48.4 | 7.6 | 19.9 | 21.0 |
| at11 | 3 | 77.3 | 2.8 | 24.3 | 6.0 | 14.3 | 3.9 | 50.2 | 7.6 | 22.5 | 20.2 |
| at32 | 3 | 77.2 | 3.6 | 18.8 | 5.7 | 8.9 | 4.1 | 54.9 | 9.8 | 29.7 | 15.3 |
| at33 | 3 | 75.7 | 3.6 | 19.8 | 5.1 | 10.9 | 3.8 | 52.3 | 7.4 | 30.5 | 14.4 |
| be32 | 3 | 66.8 | 1.7 | 20.1 | 6.5 | 10.0 | 3.6 | 44.9 | 4.3 | 17.3 | 23.4 |
| be33 | 3 | 67.6 | 1.3 | 18.9 | 4.9 | 11.9 | 2.1 | 47.4 | 6.5 | 19.1 | 21.9 |
| be35 | 3 | 69.4 | 1.9 | 14.5 | 5.0 | 7.1 | 2.4 | 52.9 | 4.4 | 20.0 | 28.5 |
| de4 | 3 | 63.6 | 3.0 | 19.5 | 4.7 | 13.4 | 1.3 | 41.2 | 5.8 | 18.9 | 16.5 |
| de5 | 3 | 66.9 | 0.5 | 17.5 | 7.7 | 8.6 | 1.2 | 49.0 | 8.5 | 21.3 | 19.2 |
| de72 | 3 | 70.3 | 1.5 | 23.8 | 8.1 | 13.6 | 2.1 | 45.0 | 6.6 | 18.8 | 19.6 |
| de73 | 3 | 69.0 | 1.4 | 25.5 | 9.9 | 12.0 | 3.6 | 42.1 | 6.2 | 17.5 | 18.4 |
| de8 | 3 | 60.4 | 4.2 | 16.3 | 3.6 | 11.4 | 1.3 | 39.8 | 5.0 | 18.6 | 16.3 |
| de92 | 3 | 69.3 | 2.0 | 22.0 | 9.2 | 10.3 | 2.5 | 45.4 | 8.4 | 17.8 | 19.3 |
| de93 | 3 | 68.8 | 2.3 | 19.4 | 8.3 | 9.7 | 1.4 | 47.1 | 8.1 | 21.0 | 18.0 |
| dea3 | 3 | 66.9 | 1.4 | 22.5 | 8.1 | 11.0 | 3.4 | 42.9 | 6.5 | 17.9 | 18.5 |
| deb | 3 | 72.2 | 1.3 | 23.0 | 9.8 | 10.3 | 2.9 | 47.8 | 8.6 | 18.8 | 20.5 |
| dec | 3 | 65.8 | 1.0 | 20.2 | 7.3 | 11.2 | 1.7 | 44.6 | 8.6 | 18.6 | 17.4 |
| dee1 | 3 | 60.1 | 2.0 | 22.5 | 6.3 | 14.5 | 1.7 | 35.6 | 4.3 | 16.3 | 15.1 |
| dee2 | 3 | 57.8 | 1.7 | 20.0 | 5.1 | 13.8 | 1.1 | 36.1 | 3.9 | 17.0 | 15.1 |
| dee3 | 3 | 63.6 | 2.9 | 22.5 | 5.4 | 15.3 | 1.8 | 38.3 | 5.0 | 17.4 | 15.9 |
| def | 3 | 69.6 | 2.4 | 17.5 | 7.7 | 8.9 | 0.9 | 49.7 | 8.5 | 20.5 | 20.7 |
| es12 | 3 | 67.4 | 2.5 | 20.7 | 3.2 | 14.8 | 2.7 | 44.2 | 6.3 | 21.4 | 16.6 |
| es53 | 3 | 79.2 | 0.7 | 13.2 | 2.4 | 7.4 | 3.4 | 65.3 | 8.8 | 35.0 | 21.5 |
| es61 | 3 | 64.6 | 2.5 | 12.7 | 3.1 | 7.7 | 1.9 | 49.4 | 8.2 | 22.7 | 18.5 |
| es63 | 3 | 58.1 | 0.0 | 6.1 | 0.9 | 4.5 | 0.7 | 52.1 | 3.6 | 17.8 | 30.7 |
| es7 | 3 | 72.4 | 1.7 | 11.9 | 1.1 | 9.8 | 1.1 | 58.8 | 8.0 | 33.6 | 17.2 |
| fi15 | 3 | 69.8 | 6.4 | 22.4 | 6.5 | 13.9 | 2.0 | 41.0 | 5.6 | 15.6 | 19.8 |
| fi20 | 3 | 91.2 | 4.1 | 17.3 | 3.7 | 11.3 | 2.3 | 69.7 | 8.6 | 20.4 | 40.8 |
| fr61 | 3 | 71.5 | 5.2 | 20.1 | 5.1 | 12.5 | 2.5 | 46.2 | 5.8 | 17.8 | 22.6 |
| fr81 | 3 | 67.5 | 5.3 | 13.9 | 3.4 | 9.6 | 0.9 | 48.4 | 6.8 | 20.0 | 21.6 |
| fr83 | 3 | 59.1 | 0.0 | 4.8 | 0.0 | 0.0 | 4.8 | 54.3 | 9.1 | 14.5 | 30.7 |
| gr21 | 3 | 65.9 | 5.6 | 13.9 | 2.6 | 8.3 | 3.0 | 46.4 | 4.0 | 22.4 | 20.0 |
| gr22 | 3 | 72.9 | 3.7 | 7.5 | 1.8 | 4.8 | 1.0 | 61.7 | 6.1 | 35.3 | 20.2 |
| gr41 | 3 | 62.2 | 4.3 | 7.3 | 1.7 | 5.2 | 0.4 | 50.6 | 3.4 | 33.3 | 13.9 |
| gr42 | 3 | 68.9 | 2.0 | 15.6 | 4.2 | 9.5 | 1.9 | 51.3 | 5.3 | 33.3 | 12.6 |
| it12 | 3 | 79.0 | 1.2 | 13.9 | 3.7 | 8.1 | 2.1 | 63.9 | 9.9 | 20.0 | 34.0 |
| it33 | 3 | 78.8 | 2.2 | 25.9 | 10.0 | 10.1 | 5.8 | 50.6 | 10.5 | 19.4 | 20.7 |
| it51 | 3 | 75.2 | 1.8 | 20.0 | 6.1 | 8.5 | 5.4 | 53.3 | 11.8 | 20.7 | 20.8 |
| it53 | 3 | 78.4 | 0.9 | 26.9 | 7.8 | 7.7 | 11.4 | 50.6 | 9.4 | 21.2 | 20.0 |
| it71 | 3 | 69.7 | 2.4 | 19.0 | 5.5 | 8.8 | 4.7 | 48.3 | 6.9 | 19.1 | 22.3 |
| it8 | 3 | 57.4 | 1.4 | 10.8 | 3.3 | 5.5 | 2.0 | 45.2 | 6.0 | 15.0 | 24.2 |
| it91 | 3 | 59.1 | 1.9 | 12.5 | 3.7 | 5.5 | 3.3 | 44.7 | 6.7 | 15.7 | 22.3 |
| ita | 3 | 60.0 | 1.8 | 9.0 | 3.4 | 4.5 | 1.2 | 49.1 | 5.9 | 16.1 | 27.2 |
| itb | 3 | 61.7 | 2.1 | 11.0 | 4.1 | 4.7 | 2.1 | 48.6 | 6.4 | 18.3 | 24.0 |
| nl11 | 3 | 79.4 | 2.7 | 20.5 | 7.6 | 10.4 | 2.6 | 56.1 | 10.0 | 14.8 | 31.3 |
| $\mathrm{nl22}$ | 3 | 80.2 | 1.9 | 19.7 | 6.6 | 10.4 | 2.7 | 58.6 | 11.5 | 19.8 | 27.3 |

Table A/9 contd.

| Table A/9 (contd.) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| pt14 | 3 | 76.6 | 3.6 | 9.4 | 3.8 | 4.8 | 0.8 | 63.5 | 5.9 | 22.6 | 35.1 |
| pt15 | 3 | 82.3 | 0.9 | 11.8 | 2.1 | 8.2 | 1.5 | 69.7 | 10.8 | 34.6 | 24.2 |
| pt2 | 3 | 85.2 | 1.7 | 8.8 | 3.3 | 4.1 | 1.5 | 74.8 | 12.3 | 22.0 | 40.5 |
| pt3 | 3 | 81.4 | 0.0 | 8.4 | 1.8 | 5.7 | 0.9 | 73.0 | 11.9 | 19.8 | 41.3 |
| se07 | 3 | 77.4 | 1.8 | 18.7 | 6.1 | 10.7 | 1.9 | 56.9 | 11.4 | 17.8 | 27.6 |
| se08 | 3 | 75.7 | 2.0 | 21.8 | 5.7 | 13.8 | 2.2 | 51.9 | 7.5 | 16.4 | 28.0 |
| ukd5 | 3 | 73.5 | 0.0 | 16.6 | 5.7 | 10.0 | 1.0 | 56.9 | 9.4 | 22.2 | 25.2 |
| ukh1 | 3 | 80.3 | 2.0 | 20.9 | 7.1 | 11.8 | 2.0 | 57.4 | 11.6 | 25.4 | 20.4 |
| ukj4 | 3 | 76.0 | 1.1 | 19.9 | 6.8 | 11.5 | 1.5 | 55.0 | 11.1 | 22.4 | 21.5 |
| ukk2 | 3 | 80.5 | 1.1 | 21.2 | 6.7 | 12.3 | 2.2 | 58.2 | 9.5 | 24.7 | 24.0 |
| ukk3 | 3 | 72.7 | 1.4 | 22.6 | 4.5 | 16.1 | 2.0 | 48.8 | 4.2 | 22.5 | 22.1 |
| ukk4 | 3 | 78.2 | 1.0 | 19.3 | 8.1 | 8.6 | 2.6 | 57.9 | 9.8 | 23.4 | 24.7 |
| ukl1 | 3 | 73.0 | 2.0 | 21.5 | 7.4 | 12.2 | 1.8 | 49.5 | 5.3 | 19.0 | 25.1 |
| ukm1 | 3 | 79.3 | 3.5 | 24.9 | 10.4 | 12.8 | 1.7 | 50.9 | 8.9 | 23.5 | 18.4 |
| ukm3 | 3 | 74.4 | 1.1 | 20.4 | 5.9 | 12.8 | 1.7 | 52.9 | 8.0 | 23.7 | 21.3 |
| ukm4 | 3 | 77.7 | 2.4 | 18.5 | 7.7 | 9.7 | 1.1 | 56.8 | 6.2 | 25.8 | 24.9 |
| ukn | 3 | 75.0 | 1.8 | 25.7 | 6.2 | 15.7 | 3.9 | 47.5 | 5.8 | 18.0 | 23.6 |
| Business Serv. Cl. | 4 | 75.6 | 1.4 | 20.0 | 8.3 | 10.1 | 1.7 | 54.1 | 12.0 | 20.8 | 21.3 |
| be21 | 4 | 73.6 | 0.6 | 22.9 | 9.9 | 10.7 | 2.3 | 50.1 | 8.1 | 23.2 | 18.8 |
| be24 | 4 | 75.6 | 1.2 | 17.0 | 8.3 | 8.1 | 0.6 | 57.4 | 11.0 | 24.4 | 22.1 |
| be31 | 4 | 70.0 | 1.6 | 15.8 | 7.1 | 7.3 | 1.4 | 52.7 | 10.5 | 19.6 | 22.6 |
| de21 | 4 | 73.9 | 2.0 | 22.4 | 12.0 | 8.6 | 1.8 | 49.5 | 12.7 | 19.0 | 17.8 |
| de6 | 4 | 66.2 | 0.5 | 13.5 | 6.9 | 5.6 | 1.0 | 52.2 | 13.1 | 20.9 | 18.3 |
| de71 | 4 | 71.4 | 0.6 | 21.4 | 11.8 | 8.5 | 1.2 | 49.4 | 13.6 | 19.4 | 16.5 |
| dea1 | 4 | 67.5 | 0.9 | 20.7 | 7.7 | 11.5 | 1.6 | 45.8 | 9.4 | 18.7 | 17.7 |
| dea2 | 4 | 67.5 | 0.8 | 19.8 | 9.6 | 8.6 | 1.5 | 46.9 | 9.0 | 17.3 | 20.6 |
| dk | 4 | 79.6 | 3.3 | 22.2 | 7.4 | 12.7 | 2.0 | 54.2 | 9.0 | 21.3 | 24.0 |
| fr24 | 4 | 77.2 | 4.3 | 21.0 | 7.4 | 12.1 | 1.5 | 51.9 | 8.5 | 19.9 | 23.6 |
| fr82 | 4 | 67.0 | 2.9 | 14.0 | 4.9 | 7.7 | 1.4 | 50.1 | 8.2 | 20.5 | 21.4 |
| it13 | 4 | 74.4 | 1.3 | 14.0 | 6.7 | 5.8 | 1.5 | 59.1 | 14.4 | 20.4 | 24.3 |
| lu | 4 | 73.9 | 1.7 | 12.6 | 2.9 | 9.1 | 0.6 | 59.5 | 15.8 | 19.2 | 24.5 |
| nl 23 | 4 | 77.4 | 3.5 | 12.3 | 4.8 | 6.7 | 0.8 | 61.6 | 13.9 | 20.3 | 27.4 |
| nl31 | 4 | 79.6 | 0.9 | 14.6 | 5.0 | 8.2 | 1.5 | 64.0 | 17.8 | 20.6 | 25.6 |
| nl33 | 4 | 80.1 | 2.4 | 15.1 | 5.6 | 7.9 | 1.6 | 62.6 | 14.4 | 19.9 | 28.3 |
| se02 | 4 | 80.7 | 1.8 | 25.1 | 10.2 | 13.2 | 1.6 | 53.8 | 10.2 | 17.8 | 25.8 |
| se04 | 4 | 78.0 | 1.8 | 22.9 | 8.7 | 11.7 | 2.5 | 53.3 | 10.5 | 18.4 | 24.4 |
| se0a | 4 | 83.7 | 2.0 | 25.5 | 11.3 | 11.2 | 2.9 | 56.2 | 10.2 | 20.1 | 25.8 |
| ukd3 | 4 | 77.8 | 0.0 | 22.3 | 7.6 | 12.7 | 2.0 | 55.5 | 12.3 | 22.6 | 20.6 |
| ukh2 | 4 | 82.6 | 0.6 | 21.0 | 9.5 | 10.0 | 1.4 | 61.0 | 15.3 | 24.8 | 21.0 |
| ukh3 | 4 | 79.5 | 0.8 | 21.0 | 9.2 | 9.4 | 2.4 | 57.7 | 17.5 | 20.9 | 19.4 |
| uki2 | 4 | 77.1 | 0.2 | 15.6 | 5.0 | 9.4 | 1.2 | 61.3 | 14.5 | 24.8 | 21.9 |
| ukj1 | 4 | 84.1 | 1.4 | 22.5 | 8.4 | 12.5 | 1.5 | 60.3 | 15.7 | 25.0 | 19.6 |
| ukj2 | 4 | 83.1 | 0.9 | 16.8 | 6.6 | 9.1 | 1.1 | 65.4 | 17.8 | 23.7 | 23.9 |
| ukj3 | 4 | 80.4 | 0.6 | 22.8 | 9.9 | 11.0 | 1.9 | 57.0 | 11.5 | 22.6 | 22.9 |
| ukk1 | 4 | 81.4 | 1.2 | 23.7 | 8.9 | 12.8 | 1.9 | 56.5 | 13.4 | 21.4 | 21.7 |
| ukm2 | 4 | 78.6 | 1.1 | 23.4 | 8.4 | 12.5 | 2.5 | 54.2 | 11.3 | 21.3 | 21.5 |
| Capitals | 5 | 71.7 | 0.7 | 14.5 | 5.6 | 7.3 | 1.6 | 56.4 | 13.0 | 21.5 | 21.9 |
| at13 | 5 | 68.6 | 0.6 | 14.6 | 6.0 | 7.6 | 0.9 | 53.4 | 12.7 | 22.7 | 18.0 |
| be1 | 5 | 59.3 | 0.2 | 7.7 | 1.8 | 5.1 | 0.8 | 51.4 | 12.4 | 19.6 | 19.4 |
| de3 | 5 | 60.8 | 0.5 | 13.1 | 5.4 | 6.6 | 1.1 | 47.2 | 11.0 | 17.0 | 19.2 |
| es3 | 5 | 73.7 | 0.1 | 14.5 | 6.0 | 6.8 | 1.8 | 59.0 | 14.4 | 22.7 | 21.9 |
| fi16 | 5 | 80.9 | 0.9 | 18.9 | 8.3 | 9.1 | 1.5 | 61.1 | 12.9 | 23.3 | 24.9 |
| fr1 | 5 | 74.2 | 0.4 | 14.9 | 6.4 | 6.8 | 1.7 | 58.9 | 14.3 | 20.5 | 24.1 |
| gr3 | 5 | 65.5 | 0.2 | 14.9 | 4.8 | 7.0 | 3.1 | 50.5 | 7.7 | 28.1 | 14.7 |
| ie02 | 5 | 75.4 | 4.0 | 22.2 | 7.5 | 12.3 | 2.4 | 49.2 | 9.9 | 22.5 | 16.8 |
| it6 | 5 | 69.6 | 0.9 | 12.4 | 4.6 | 6.7 | 1.1 | 56.4 | 11.1 | 20.1 | 25.2 |
| nl32 | 5 | 78.5 | 1.8 | 15.3 | 6.0 | 8.3 | 1.0 | 61.4 | 15.0 | 19.5 | 26.9 |
| pt13 | 5 | 80.5 | 0.5 | 18.3 | 6.9 | 9.8 | 1.6 | 61.7 | 17.9 | 25.2 | 18.7 |
| se01 | 5 | 84.2 | 0.4 | 13.2 | 5.2 | 7.4 | 0.6 | 70.6 | 20.7 | 24.1 | 25.7 |
| uki1 | 5 | 69.9 | 0.0 | 10.6 | 3.3 | 5.5 | 1.7 | 59.3 | 15.9 | 19.0 | 24.4 |



|  | cluster | Total | Agriculture <br> Total | Total | high skill | Industry medium skill | low skill | Total | Serv Business | Basic | Public |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural Cl . | 1 | 80.8 | 2.3 | 12.6 | 5.2 | 5.9 | 1.5 | 65.9 | 12.1 | 11.6 | 42.2 |
| at12 | 1 | 83.7 | 5.2 | 18.7 | 6.0 | 10.8 | 1.9 | 59.8 | 9.8 | 8.3 | 41.7 |
| at21 | 1 | 83.1 | 2.5 | 15.4 | 7.0 | 4.7 | 3.7 | 65.2 | 9.9 | 12.4 | 42.9 |
| at22 | 1 | 83.7 | 2.9 | 20.8 | 9.0 | 9.3 | 2.5 | 60.1 | 9.0 | 7.9 | 43.2 |
| be34 | 1 | 83.4 | 1.7 | 9.0 | 2.4 | 5.3 | 1.3 | 72.7 | 20.2 | 7.3 | 45.2 |
| de94 | 1 | 83.6 | 4.0 | 21.3 | 7.9 | 11.2 | 2.2 | 58.3 | 9.2 | 10.6 | 38.6 |
| es11 | 1 | 77.1 | 2.1 | 15.1 | 5.9 | 7.4 | 1.9 | 59.9 | 12.2 | 13.8 | 33.8 |
| es41 | 1 | 78.7 | 1.5 | 17.0 | 5.6 | 9.7 | 1.8 | 60.1 | 10.3 | 13.8 | 35.9 |
| es42 | 1 | 78.5 | 1.0 | 11.4 | 4.4 | 4.5 | 2.4 | 66.1 | 10.6 | 11.6 | 43.9 |
| es43 | 1 | 80.3 | 2.0 | 8.8 | 1.5 | 5.4 | 1.9 | 69.6 | 11.1 | 11.9 | 46.6 |
| es62 | 1 | 81.0 | 2.2 | 12.8 | 4.8 | 6.8 | 1.2 | 66.0 | 15.4 | 14.9 | 35.7 |
| fi13 | 1 | 79.7 | 3.0 | 12.6 | 4.2 | 5.5 | 2.9 | 64.1 | 10.3 | 10.3 | 43.5 |
| fi14 | 1 | 81.6 | 3.5 | 17.6 | 9.0 | 7.1 | 1.4 | 60.6 | 8.7 | 10.1 | 41.8 |
| fr25 | 1 | 80.1 | 2.5 | 11.4 | 6.5 | 4.6 | 0.3 | 66.3 | 16.6 | 9.7 | 39.9 |
| fr26 | 1 | 82.6 | 2.2 | 13.9 | 7.5 | 4.6 | 1.8 | 66.5 | 9.0 | 13.7 | 43.8 |
| fr52 | 1 | 77.8 | 3.2 | 9.3 | 4.6 | 3.9 | 0.8 | 65.3 | 9.8 | 14.5 | 41.0 |
| fr53 | 1 | 82.7 | 2.0 | 8.1 | 4.9 | 2.6 | 0.7 | 72.6 | 12.1 | 10.4 | 50.0 |
| fr62 | 1 | 82.4 | 3.3 | 8.4 | 5.2 | 3.2 | 0.0 | 70.7 | 20.0 | 13.2 | 37.5 |
| fr63 | 1 | 81.7 | 1.2 | 10.1 | 4.6 | 1.9 | 3.7 | 70.3 | 9.5 | 11.6 | 49.3 |
| fr72 | 1 | 82.3 | 2.0 | 13.6 | 7.9 | 4.8 | 0.9 | 66.7 | 12.2 | 11.6 | 42.9 |
| gr11 | 1 | 76.2 | 2.3 | 5.3 | 1.7 | 2.2 | 1.4 | 68.5 | 9.7 | 9.0 | 49.8 |
| gr14 | 1 | 82.3 | 0.2 | 7.1 | 1.1 | 5.0 | 1.1 | 75.0 | 12.3 | 10.6 | 52.0 |
| gr23 | 1 | 80.7 | 1.0 | 4.9 | 0.8 | 3.0 | 1.0 | 74.8 | 9.1 | 10.5 | 55.2 |
| gr25 | 1 | 86.2 | 1.4 | 3.3 | 1.6 | 1.7 | 0.0 | 81.5 | 11.8 | 6.4 | 63.2 |
| gr43 | 1 | 77.8 | 0.0 | 4.6 | 0.7 | 3.5 | 0.5 | 73.2 | 8.1 | 15.0 | 50.1 |
| ie01 | 1 | 86.7 | 1.6 | 16.5 | 8.0 | 7.1 | 1.5 | 68.5 | 12.7 | 12.5 | 43.3 |
| it31 | 1 | 88.6 | 2.9 | 9.1 | 3.1 | 4.5 | 1.5 | 76.6 | 17.0 | 6.2 | 53.4 |
| it72 | 1 | 73.7 | 0.3 | 7.3 | 3.2 | 3.8 | 0.3 | 66.1 | 15.8 | 5.3 | 45.0 |
| it92 | 1 | 69.7 | 1.2 | 4.8 | 1.3 | 3.1 | 0.5 | 63.7 | 11.1 | 5.6 | 47.0 |
| it93 | 1 | 73.4 | 0.6 | 4.7 | 1.3 | 2.5 | 0.9 | 68.1 | 13.2 | 6.3 | 48.6 |
| nl13 | 1 | 84.2 | 1.8 | 11.6 | 4.3 | 5.8 | 1.5 | 70.8 | 13.9 | 5.8 | 51.1 |
| pt12 | 1 | 91.6 | 0.7 | 10.4 | 3.4 | 2.6 | 4.4 | 80.5 | 9.2 | 8.2 | 63.1 |
| uke2 | 1 | 79.1 | 0.6 | 11.3 | 3.1 | 7.0 | 1.1 | 67.2 | 17.4 | 11.1 | 38.8 |
| Industry Cl. | 2 | 83.1 | 1.1 | 19.2 | 9.8 | 7.3 | 2.0 | 62.8 | 13.7 | 10.2 | 38.9 |
| at31 | 2 | 87.7 | 3.5 | 21.9 | 10.0 | 9.2 | 2.8 | 62.2 | 9.7 | 6.0 | 46.5 |
| at34 | 2 | 85.9 | 0.4 | 19.4 | 7.2 | 8.2 | 4.0 | 66.1 | 14.5 | 8.0 | 43.7 |
| be22 | 2 | 85.9 | 0.2 | 14.4 | 7.1 | 5.8 | 1.5 | 71.4 | 15.9 | 12.6 | 42.9 |
| be23 | 2 | 87.0 | 0.7 | 14.8 | 7.1 | 5.6 | 2.1 | 71.5 | 18.3 | 10.7 | 42.6 |
| be25 | 2 | 84.1 | 0.6 | 15.3 | 6.8 | 5.6 | 3.0 | 68.1 | 14.3 | 11.8 | 42.0 |
| de11 | 2 | 85.2 | 1.9 | 33.6 | 23.0 | 9.0 | 1.6 | 49.7 | 13.3 | 7.6 | 28.7 |
| de12 | 2 | 82.1 | 1.2 | 24.8 | 16.3 | 7.0 | 1.5 | 56.0 | 15.4 | 8.1 | 32.5 |
| de13 | 2 | 84.5 | 1.1 | 28.4 | 15.5 | 10.7 | 2.3 | 55.0 | 11.0 | 8.2 | 35.9 |
| de14 | 2 | 83.6 | 1.5 | 31.4 | 18.8 | 10.2 | 2.4 | 50.7 | 11.1 | 7.5 | 32.1 |
| de22 | 2 | 84.2 | 2.9 | 24.8 | 12.6 | 10.1 | 2.1 | 56.4 | 10.0 | 11.6 | 34.8 |
| de23 | 2 | 84.2 | 3.7 | 25.4 | 12.4 | 9.6 | 3.4 | 55.2 | 9.1 | 7.5 | 38.6 |
| de24 | 2 | 81.6 | 1.5 | 24.3 | 11.6 | 9.7 | 3.0 | 55.8 | 8.9 | 8.6 | 38.2 |
| de25 | 2 | 82.9 | 2.0 | 28.9 | 17.8 | 8.6 | 2.5 | 52.0 | 12.1 | 11.3 | 28.6 |
| de26 | 2 | 83.0 | 2.1 | 23.8 | 12.5 | 9.5 | 1.7 | 57.2 | 12.5 | 8.3 | 36.3 |
| de27 | 2 | 83.1 | 1.5 | 27.3 | 16.0 | 8.9 | 2.4 | 54.3 | 10.4 | 8.2 | 35.7 |
| de91 | 2 | 83.6 | 1.1 | 24.7 | 16.3 | 7.5 | 0.9 | 57.8 | 10.7 | 7.7 | 39.4 |
| dea4 | 2 | 83.8 | 1.8 | 26.8 | 10.9 | 12.0 | 3.9 | 55.2 | 10.1 | 9.6 | 35.5 |
| dea5 | 2 | 80.7 | 0.5 | 20.4 | 8.2 | 10.9 | 1.3 | 59.8 | 11.5 | 7.9 | 40.4 |
| ded | 2 | 76.9 | 1.3 | 17.6 | 6.8 | 8.7 | 2.1 | 58.1 | 11.4 | 9.4 | 37.3 |
| deg | 2 | 79.5 | 2.3 | 19.0 | 8.6 | 8.5 | 1.9 | 58.2 | 8.1 | 9.9 | 40.2 |
| es13 | 2 | 79.7 | 0.4 | 19.8 | 7.5 | 10.6 | 1.6 | 59.5 | 11.1 | 16.2 | 32.2 |
| es21 | 2 | 82.2 | 0.6 | 26.4 | 10.9 | 13.6 | 1.9 | 55.2 | 11.6 | 14.5 | 29.0 |
| es22 | 2 | 84.5 | 2.0 | 24.5 | 11.6 | 10.6 | 2.3 | 58.0 | 12.2 | 13.3 | 32.5 |
| es23 | 2 | 84.7 | 1.7 | 23.6 | 4.4 | 13.0 | 6.2 | 59.4 | 11.5 | 10.4 | 37.4 |
| es24 | 2 | 83.0 | 1.3 | 17.4 | 7.8 | 7.1 | 2.5 | 64.3 | 14.7 | 15.4 | 34.1 |
| es51 | 2 | 85.9 | 0.8 | 24.8 | 12.7 | 9.0 | 3.0 | 60.4 | 14.8 | 14.7 | 30.8 |
| es52 | 2 | 82.3 | 1.2 | 17.0 | 5.0 | 7.9 | 4.1 | 64.1 | 13.9 | 14.6 | 35.6 |
| fi17 | 2 | 85.2 | 2.6 | 21.0 | 9.7 | 8.3 | 3.0 | 61.5 | 13.7 | 11.3 | 36.5 |
| fr21 | 2 | 86.4 | 1.2 | 19.4 | 11.3 | 6.0 | 2.1 | 65.7 | 10.9 | 8.6 | 46.2 |
| fr22 | 2 | 85.3 | 1.9 | 12.0 | 8.1 | 3.6 | 0.3 | 71.3 | 10.8 | 15.7 | 44.9 |
| fr23 | 2 | 83.8 | 0.9 | 12.5 | 8.8 | 3.7 | 0.0 | 70.4 | 9.4 | 14.1 | 46.9 |
| fr3 | 2 | 84.4 | 0.4 | 12.7 | 5.0 | 5.4 | 2.2 | 71.4 | 12.5 | 11.3 | 47.6 |

Table A/11 contd.

| Table A/11 (co |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| fr41 | 2 | 80.8 | 2.0 | 14.4 | 3.8 | 8.7 | 2.0 | 64.4 | 8.1 | 14.2 | 42.1 |
| fr42 | 2 | 83.5 | 0.8 | 17.8 | 9.8 | 5.2 | 2.8 | 64.9 | 17.8 | 16.6 | 30.5 |
| fr43 | 2 | 84.5 | 0.3 | 22.7 | 13.1 | 7.7 | 1.9 | 61.5 | 8.3 | 8.1 | 45.1 |
| fr51 | 2 | 84.3 | 1.4 | 14.1 | 5.9 | 7.6 | 0.6 | 68.8 | 14.0 | 10.9 | 43.9 |
| fr71 | 2 | 81.0 | 1.1 | 14.9 | 7.9 | 5.8 | 1.3 | 65.0 | 15.5 | 12.3 | 37.2 |
| gr12 | 2 | 80.5 | 0.6 | 8.6 | 2.6 | 3.1 | 2.9 | 71.3 | 15.9 | 12.4 | 42.9 |
| gr13 | 2 | 83.4 | 0.7 | 7.9 | 3.7 | 3.0 | 1.2 | 74.8 | 9.4 | 8.6 | 56.8 |
| gr24 | 2 | 81.6 | 2.1 | 3.9 | 0.8 | 2.5 | 0.6 | 75.6 | 10.1 | 17.3 | 48.2 |
| it11 | 2 | 86.5 | 0.9 | 15.1 | 7.6 | 6.5 | 1.0 | 70.5 | 17.1 | 9.9 | 43.6 |
| it2 | 2 | 85.5 | 0.8 | 15.3 | 8.9 | 4.2 | 2.2 | 69.4 | 24.8 | 9.5 | 35.1 |
| it32 | 2 | 82.5 | 0.2 | 14.5 | 6.3 | 4.2 | 4.0 | 67.8 | 19.6 | 9.6 | 38.7 |
| it4 | 2 | 82.7 | 0.8 | 13.9 | 8.6 | 3.2 | 2.1 | 68.0 | 20.2 | 7.9 | 39.9 |
| it52 | 2 | 79.6 | 1.6 | 9.5 | 4.5 | 1.9 | 3.1 | 68.5 | 16.9 | 7.3 | 44.3 |
| nl12 | 2 | 85.0 | 1.6 | 8.1 | 4.6 | 2.6 | 0.9 | 75.3 | 16.8 | 6.1 | 52.5 |
| n 21 | 2 | 85.6 | 1.0 | 10.8 | 4.7 | 3.6 | 2.4 | 73.8 | 15.5 | 6.5 | 51.8 |
| ni34 | 2 | 84.9 | 1.0 | 12.4 | 6.6 | 3.5 | 2.3 | 71.5 | 10.8 | 9.0 | 51.7 |
| nl41 | 2 | 86.5 | 1.0 | 16.1 | 10.3 | 4.2 | 1.6 | 69.4 | 20.6 | 8.2 | 40.6 |
| nl42 | 2 | 86.5 | 0.5 | 14.3 | 8.7 | 3.8 | 1.7 | 71.7 | 18.1 | 9.5 | 44.2 |
| pt11 | 2 | 89.3 | 1.1 | 13.4 | 5.4 | 3.3 | 4.7 | 74.8 | 13.1 | 7.4 | 54.3 |
| se06 | 2 | 85.6 | 1.0 | 9.0 | 3.9 | 4.4 | 0.7 | 75.6 | 9.6 | 5.3 | 60.7 |
| se09 | 2 | 87.5 | 1.2 | 9.1 | 5.2 | 2.8 | 1.2 | 77.1 | 9.6 | 6.8 | 60.6 |
| ukc1 | 2 | 77.2 | 0.4 | 15.8 | 9.2 | 5.9 | 0.7 | 61.1 | 7.9 | 6.7 | 46.4 |
| ukc2 | 2 | 80.3 | 0.6 | 14.7 | 8.1 | 5.2 | 1.4 | 65.0 | 9.8 | 5.8 | 49.5 |
| ukd1 | 2 | 78.2 | 1.0 | 19.8 | 14.1 | 5.7 | 0.0 | 57.4 | 8.3 | 7.9 | 41.2 |
| ukd2 | 2 | 85.2 | 0.3 | 20.1 | 9.9 | 8.7 | 1.5 | 64.8 | 18.3 | 9.4 | 37.1 |
| ukd4 | 2 | 81.7 | 0.6 | 19.1 | 8.8 | 7.0 | 3.3 | 62.0 | 11.4 | 8.4 | 42.2 |
| uke1 | 2 | 79.5 | 0.0 | 14.5 | 6.4 | 7.0 | 1.1 | 65.0 | 10.9 | 12.1 | 42.1 |
| uke3 | 2 | 78.9 | 0.3 | 15.7 | 6.9 | 6.1 | 2.6 | 62.9 | 11.5 | 5.8 | 45.7 |
| uke4 | 2 | 82.6 | 0.1 | 13.4 | 5.6 | 6.0 | 1.9 | 69.0 | 14.8 | 8.9 | 45.3 |
| ukf1 | 2 | 84.4 | 0.6 | 17.8 | 9.7 | 6.0 | 2.0 | 66.0 | 9.3 | 10.0 | 46.6 |
| ukf2 | 2 | 81.5 | 0.7 | 18.6 | 11.4 | 6.1 | 1.1 | 62.2 | 14.5 | 12.4 | 35.3 |
| ukf3 | 2 | 83.8 | 3.5 | 15.9 | 7.5 | 7.5 | 0.9 | 64.4 | 13.1 | 8.4 | 42.9 |
| ukg1 | 2 | 81.1 | 1.2 | 19.2 | 10.1 | 7.9 | 1.3 | 60.7 | 14.7 | 9.7 | 36.3 |
| ukg2 | 2 | 80.9 | 0.9 | 22.5 | 12.2 | 8.2 | 2.0 | 57.6 | 12.2 | 7.2 | 38.1 |
| ukg3 | 2 | 80.5 | 0.5 | 14.8 | 9.1 | 5.0 | 0.8 | 65.1 | 12.3 | 8.0 | 44.8 |
| ukl2 | 2 | 84.7 | 1.1 | 16.7 | 9.3 | 7.0 | 0.5 | 66.9 | 13.7 | 6.2 | 47.0 |
| Basic Serv. Cl. | 3 | 80.1 | 1.5 | 13.3 | 6.5 | 5.8 | 1.1 | 65.3 | 12.4 | 9.8 | 43.1 |
| at11 | 3 | 87.6 | 1.7 | 16.1 | 2.4 | 10.4 | 3.3 | 69.8 | 12.1 | 12.2 | 45.5 |
| at32 | 3 | 83.8 | 1.9 | 13.0 | 6.8 | 4.7 | 1.5 | 68.9 | 9.5 | 15.3 | 44.2 |
| at33 | 3 | 86.5 | 1.1 | 14.6 | 5.2 | 6.6 | 2.8 | 70.8 | 10.1 | 12.3 | 48.4 |
| be32 | 3 | 82.7 | 0.7 | 10.1 | 5.9 | 2.6 | 1.5 | 71.9 | 12.8 | 9.5 | 49.6 |
| be33 | 3 | 82.1 | 0.3 | 10.6 | 4.5 | 5.1 | 1.0 | 71.1 | 12.3 | 10.3 | 48.5 |
| be35 | 3 | 83.2 | 0.7 | 10.0 | 5.5 | 3.6 | 0.9 | 72.5 | 12.2 | 9.5 | 50.8 |
| de4 | 3 | 76.8 | 2.1 | 15.9 | 6.9 | 8.2 | 0.8 | 58.8 | 9.5 | 9.8 | 39.5 |
| de5 | 3 | 82.5 | 0.4 | 19.2 | 11.3 | 7.1 | 0.7 | 63.0 | 12.8 | 11.1 | 39.1 |
| de72 | 3 | 84.1 | 1.6 | 23.0 | 11.8 | 10.0 | 1.3 | 59.5 | 12.6 | 7.3 | 39.5 |
| de73 | 3 | 79.9 | 2.1 | 20.3 | 9.3 | 9.3 | 1.7 | 57.5 | 9.5 | 10.0 | 37.9 |
| de8 | 3 | 71.3 | 3.3 | 12.5 | 4.0 | 7.7 | 0.8 | 55.4 | 6.6 | 10.3 | 38.5 |
| de92 | 3 | 80.8 | 1.9 | 20.5 | 11.4 | 7.1 | 2.1 | 58.4 | 11.2 | 10.2 | 37.0 |
| de93 | 3 | 79.8 | 3.5 | 19.5 | 9.5 | 8.8 | 1.2 | 56.8 | 10.1 | 10.8 | 35.9 |
| dea3 | 3 | 81.3 | 1.7 | 22.4 | 11.4 | 8.8 | 2.2 | 57.3 | 9.5 | 8.6 | 39.2 |
| deb | 3 | 84.0 | 2.3 | 24.0 | 14.6 | 7.5 | 1.9 | 57.7 | 11.7 | 9.2 | 36.8 |
| dec | 3 | 80.8 | 0.5 | 22.0 | 9.9 | 10.6 | 1.6 | 58.3 | 13.0 | 12.6 | 32.7 |
| dee1 | 3 | 74.4 | 2.4 | 17.9 | 5.9 | 10.8 | 1.2 | 54.1 | 6.6 | 9.5 | 38.0 |
| dee2 | 3 | 73.2 | 2.4 | 15.3 | 6.3 | 7.4 | 1.6 | 55.5 | 8.3 | 9.7 | 37.5 |
| dee3 | 3 | 80.7 | 2.7 | 15.6 | 6.0 | 8.3 | 1.3 | 62.4 | 7.9 | 10.4 | 44.1 |
| def | 3 | 80.4 | 2.6 | 16.2 | 8.9 | 6.9 | 0.4 | 61.7 | 12.5 | 11.4 | 37.8 |
| es12 | 3 | 71.7 | 0.9 | 17.8 | 3.1 | 13.3 | 1.4 | 52.9 | 9.6 | 13.9 | 29.4 |
| es53 | 3 | 86.5 | 0.0 | 9.1 | 3.8 | 4.0 | 1.4 | 77.4 | 15.4 | 23.0 | 39.0 |
| es61 | 3 | 75.7 | 1.4 | 10.6 | 3.7 | 5.8 | 1.0 | 63.7 | 10.7 | 12.2 | 40.8 |
| es63 | 3 | 83.5 | 0.0 | 2.0 | 0.9 | 1.2 | 0.0 | 81.5 | 9.7 | 9.1 | 62.8 |
| es7 | 3 | 83.5 | 1.4 | 9.3 | 2.3 | 5.9 | 1.1 | 72.8 | 12.4 | 20.6 | 39.8 |
| fi15 | 3 | 83.8 | 2.6 | 18.4 | 10.1 | 7.3 | 1.0 | 62.9 | 10.8 | 10.6 | 41.5 |
| fi20 | 3 | 88.1 | 0.0 | 6.9 | 1.9 | 5.0 | 0.0 | 81.2 | 18.2 | 16.4 | 46.6 |
| fr61 | 3 | 79.6 | 4.7 | 13.3 | 7.2 | 5.6 | 0.5 | 61.6 | 13.4 | 10.7 | 37.4 |
| fr81 | 3 | 79.6 | 0.6 | 7.6 | 3.4 | 3.3 | 0.8 | 71.4 | 16.8 | 8.6 | 46.0 |
| fr83 | 3 | 72.2 | 5.8 | 4.1 | 4.1 | 0.0 | 0.0 | 62.3 | 7.6 | 8.4 | 46.3 |
| gr21 | 3 | 79.1 | 0.8 | 4.0 | 1.0 | 2.5 | 0.5 | 74.3 | 9.9 | 10.7 | 53.7 |
| gr22 | 3 | 77.1 | 1.3 | 1.0 | 0.0 | 1.0 | 0.0 | 74.9 | 18.0 | 9.3 | 47.5 |
| gr41 | 3 | 79.0 | 0.8 | 1.4 | 0.0 | 1.4 | 0.0 | 76.8 | 12.5 | 14.4 | 49.9 |
| gr42 | 3 | 80.5 | 2.0 | 5.1 | 2.3 | 2.8 | 0.0 | 73.4 | 15.1 | 15.5 | 42.8 |

Table A/11 contd.

| Table A/11 (contd.) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| it12 | 3 | 93.7 | 0.8 | 5.9 | 0.0 | 3.6 | 2.4 | 87.0 | 17.2 | 9.2 | 60.6 |
| it33 | 3 | 84.4 | 0.5 | 9.8 | 4.5 | 3.6 | 1.7 | 74.0 | 14.4 | 8.0 | 51.6 |
| it51 | 3 | 82.8 | 0.6 | 9.6 | 4.2 | 2.9 | 2.5 | 72.7 | 18.3 | 9.7 | 44.7 |
| it53 | 3 | 83.9 | 0.7 | 12.6 | 5.9 | 3.2 | 3.6 | 70.6 | 19.3 | 10.1 | 41.1 |
| it71 | 3 | 76.6 | 0.9 | 8.5 | 6.0 | 1.6 | 0.9 | 67.1 | 17.2 | 4.6 | 45.3 |
| it8 | 3 | 76.8 | 0.7 | 7.2 | 3.4 | 3.4 | 0.4 | 68.9 | 16.8 | 5.0 | 47.1 |
| it91 | 3 | 75.8 | 1.0 | 5.1 | 2.0 | 2.5 | 0.6 | 69.8 | 19.6 | 5.2 | 45.0 |
| ita | 3 | 79.1 | 0.5 | 3.1 | 1.7 | 0.7 | 0.7 | 75.5 | 12.1 | 5.5 | 58.0 |
| itb | 3 | 74.0 | 0.8 | 1.9 | 0.6 | 1.3 | 0.0 | 71.3 | 14.9 | 6.5 | 49.9 |
| nl11 | 3 | 87.2 | 0.8 | 7.4 | 3.6 | 3.1 | 0.7 | 79.1 | 20.7 | 5.8 | 52.6 |
| n 22 | 3 | 85.2 | 0.7 | 9.0 | 4.4 | 3.6 | 1.0 | 75.6 | 19.4 | 6.9 | 49.2 |
| pt14 | 3 | 88.2 | 0.6 | 5.6 | 3.2 | 2.4 | 0.0 | 82.0 | 4.6 | 5.8 | 71.6 |
| pt15 | 3 | 87.3 | 1.7 | 4.6 | 0.3 | 3.6 | 0.7 | 81.0 | 11.3 | 12.2 | 57.6 |
| pt2 | 3 | 93.9 | 2.2 | 4.9 | 1.2 | 3.1 | 0.5 | 86.9 | 5.2 | 7.9 | 73.8 |
| pt3 | 3 | 93.4 | 1.2 | 2.1 | 2.1 | 0.0 | 0.0 | 90.1 | 9.4 | 7.7 | 73.0 |
| se07 | 3 | 86.7 | 1.3 | 7.2 | 4.9 | 1.6 | 0.7 | 78.2 | 9.9 | 4.7 | 63.6 |
| se08 | 3 | 81.7 | 0.8 | 6.2 | 3.1 | 3.0 | 0.1 | 74.6 | 9.2 | 4.8 | 60.5 |
| ukd5 | 3 | 81.6 | 0.0 | 14.5 | 6.4 | 7.0 | 1.1 | 67.0 | 12.7 | 7.3 | 47.1 |
| ukh1 | 3 | 79.7 | 1.1 | 11.5 | 6.1 | 5.1 | 0.3 | 67.1 | 15.6 | 9.4 | 42.2 |
| ukj4 | 3 | 81.0 | 0.5 | 12.5 | 7.0 | 4.9 | 0.6 | 68.0 | 16.7 | 9.0 | 42.2 |
| ukk2 | 3 | 79.6 | 0.9 | 10.2 | 5.7 | 3.9 | 0.6 | 68.5 | 15.1 | 10.4 | 43.0 |
| ukk3 | 3 | 73.6 | 0.5 | 14.4 | 8.0 | 4.1 | 2.3 | 58.8 | 7.0 | 9.8 | 42.0 |
| ukk4 | 3 | 77.9 | 1.4 | 11.0 | 4.3 | 5.5 | 1.2 | 65.5 | 10.8 | 8.7 | 46.0 |
| ukl1 | 3 | 81.4 | 2.8 | 13.8 | 5.9 | 7.5 | 0.4 | 64.7 | 7.6 | 6.2 | 50.9 |
| ukm1 | 3 | 85.2 | 0.5 | 25.3 | 19.9 | 5.4 | 0.0 | 59.3 | 12.3 | 10.4 | 36.7 |
| ukm3 | 3 | 83.2 | 0.4 | 13.6 | 8.2 | 5.0 | 0.5 | 69.2 | 13.8 | 11.5 | 43.9 |
| ukm4 | 3 | 83.7 | 0.6 | 14.9 | 9.5 | 4.6 | 0.8 | 68.2 | 10.0 | 9.7 | 48.5 |
| ukn | 3 | 84.3 | 1.2 | 12.5 | 6.5 | 5.2 | 0.8 | 70.6 | 7.8 | 9.5 | 53.3 |
| Business Serv. CI. | 4 | 82.8 | 0.7 | 13.9 | 8.4 | 4.7 | 0.9 | 68.2 | 19.5 | 9.9 | 38.8 |
| be21 | 4 | 83.3 | 0.2 | 13.4 | 8.0 | 4.3 | 1.1 | 69.8 | 18.6 | 12.5 | 38.7 |
| be24 | 4 | 84.3 | 0.5 | 11.1 | 6.7 | 3.7 | 0.7 | 72.8 | 23.9 | 12.8 | 36.1 |
| be31 | 4 | 79.9 | 0.4 | 11.5 | 7.5 | 2.9 | 1.0 | 68.0 | 21.7 | 11.0 | 35.3 |
| de21 | 4 | 82.5 | 1.0 | 23.8 | 15.2 | 7.0 | 1.6 | 57.6 | 20.4 | 8.2 | 29.0 |
| de6 | 4 | 82.5 | 0.5 | 16.3 | 10.1 | 5.4 | 0.8 | 65.7 | 19.9 | 8.4 | 37.5 |
| de71 | 4 | 84.5 | 0.8 | 19.3 | 13.5 | 5.0 | 0.9 | 64.4 | 24.3 | 10.1 | 30.0 |
| dea1 | 4 | 81.1 | 1.1 | 20.9 | 11.1 | 8.2 | 1.6 | 59.1 | 14.2 | 9.6 | 35.3 |
| dea2 | 4 | 81.2 | 0.6 | 16.0 | 9.2 | 5.4 | 1.5 | 64.6 | 15.8 | 7.9 | 40.9 |
| dk | 4 | 84.9 | 0.7 | 12.2 | 6.6 | 4.4 | 1.2 | 72.0 | 13.7 | 10.4 | 47.9 |
| fr24 | 4 | 83.2 | 1.6 | 18.2 | 8.7 | 7.2 | 2.2 | 63.5 | 13.8 | 10.8 | 38.9 |
| fr82 | 4 | 77.1 | 1.0 | 9.5 | 6.2 | 2.7 | 0.7 | 66.5 | 17.5 | 9.8 | 39.2 |
| it13 | 4 | 83.3 | 0.0 | 11.7 | 6.2 | 4.3 | 1.2 | 71.6 | 19.9 | 9.2 | 42.5 |
| lu | 4 | 84.5 | 0.1 | 7.1 | 2.0 | 4.9 | 0.2 | 77.3 | 24.5 | 7.2 | 45.6 |
| nı23 | 4 | 84.2 | 1.3 | 4.1 | 2.8 | 0.8 | 0.5 | 78.9 | 19.2 | 12.7 | 46.9 |
| nl31 | 4 | 86.5 | 0.1 | 7.1 | 4.0 | 2.4 | 0.7 | 79.3 | 25.9 | 8.4 | 45.0 |
| n133 | 4 | 87.1 | 0.5 | 7.0 | 3.4 | 2.8 | 0.8 | 79.6 | 21.6 | 10.8 | 47.1 |
| se02 | 4 | 86.8 | 1.0 | 9.9 | 7.6 | 2.0 | 0.2 | 75.8 | 13.9 | 5.9 | 56.0 |
| se04 | 4 | 83.3 | 0.7 | 7.6 | 4.5 | 2.6 | 0.5 | 75.0 | 14.9 | 7.3 | 52.8 |
| seOa | 4 | 87.4 | 0.7 | 9.0 | 6.0 | 2.3 | 0.7 | 77.7 | 16.1 | 8.0 | 53.6 |
| ukd3 | 4 | 82.3 | 0.0 | 12.4 | 6.4 | 5.1 | 1.0 | 69.8 | 17.9 | 10.7 | 41.3 |
| ukh2 | 4 | 84.9 | 0.5 | 13.7 | 8.8 | 4.5 | 0.5 | 70.7 | 24.7 | 11.1 | 34.9 |
| ukh3 | 4 | 81.4 | 0.2 | 15.0 | 10.0 | 4.5 | 0.5 | 66.2 | 19.5 | 8.6 | 38.1 |
| uki2 | 4 | 80.1 | 0.1 | 9.2 | 5.3 | 3.6 | 0.3 | 70.8 | 24.4 | 12.9 | 33.4 |
| ukj1 | 4 | 84.8 | 0.5 | 15.8 | 10.5 | 4.6 | 0.8 | 68.5 | 25.1 | 11.3 | 32.1 |
| ukj2 | 4 | 81.0 | 0.6 | 13.2 | 8.4 | 4.3 | 0.5 | 67.2 | 22.2 | 9.8 | 35.3 |
| ukj3 | 4 | 81.6 | 0.3 | 16.8 | 11.4 | 5.3 | 0.1 | 64.6 | 17.9 | 9.7 | 37.0 |
| ukk1 | 4 | 82.6 | 1.0 | 15.3 | 9.2 | 5.4 | 0.8 | 66.3 | 18.0 | 10.0 | 38.2 |
| ukm2 | 4 | 82.0 | 1.6 | 12.2 | 6.7 | 5.1 | 0.3 | 68.3 | 19.8 | 8.0 | 40.5 |
| Capitals | 5 | 82.6 | 0.3 | 10.7 | 6.5 | 3.4 | 0.8 | 71.6 | 23.7 | 12.4 | 35.5 |
| at13 | 5 | 83.8 | 0.6 | 11.5 | 6.3 | 4.7 | 0.5 | 71.8 | 19.3 | 10.5 | 42.0 |
| be1 | 5 | 79.5 | 0.0 | 6.0 | 3.5 | 1.9 | 0.6 | 73.4 | 24.0 | 11.1 | 38.3 |
| de3 | 5 | 76.1 | 0.3 | 11.4 | 6.6 | 4.2 | 0.6 | 64.4 | 15.3 | 9.0 | 40.1 |
| es3 | 5 | 83.6 | 0.2 | 16.3 | 8.5 | 6.1 | 1.6 | 67.1 | 22.3 | 16.3 | 28.5 |
| fi16 | 5 | 87.4 | 0.4 | 13.7 | 9.2 | 3.9 | 0.6 | 73.3 | 21.6 | 16.4 | 35.4 |
| fr1 | 5 | 81.9 | 0.2 | 10.7 | 7.8 | 2.3 | 0.6 | 71.1 | 26.6 | 13.4 | 31.1 |
| gr3 | 5 | 79.6 | 0.2 | 9.5 | 4.4 | 4.0 | 1.2 | 69.8 | 19.4 | 13.7 | 36.8 |
| ie02 | 5 | 86.8 | 1.1 | 15.9 | 8.7 | 6.3 | 0.9 | 69.7 | 21.4 | 12.8 | 35.5 |
| it6 | 5 | 80.7 | 0.8 | 7.4 | 4.0 | 2.9 | 0.5 | 72.5 | 20.6 | 8.4 | 43.5 |
| n132 | 5 | 87.1 | 0.2 | 6.8 | 2.9 | 3.3 | 0.6 | 80.1 | 24.6 | 12.7 | 42.8 |
| pt13 | 5 | 84.7 | 1.1 | 9.3 | 4.6 | 3.8 | 0.8 | 74.3 | 21.0 | 10.1 | 43.1 |
| se01 | 5 | 86.8 | 0.3 | 6.9 | 5.4 | 1.5 | 0.1 | 79.6 | 24.9 | 10.5 | 44.2 |
| uki1 | 5 | 82.4 | 0.1 | 7.0 | 5.1 | 1.1 | 0.9 | 75.3 | 32.2 | 9.8 | 33.3 |


|  | cluster | Total | Agriculture Total | Industry |  |  |  | Services |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Total | high skill | medium skill | low skill | Total | Business | Basic | Public |
| Agricultural Cl . | 1 | 83.0 | 2.8 | 16.1 | 6.1 | 7.0 | 3.1 | 64.0 | 8.6 | 12.9 | 42.5 |
| bg06 | 1 | 75.1 | 2.8 | 11.2 | 5.1 | 4.6 | 1.5 | 61.1 | 5.9 | 15.8 | 39.4 |
| cz03 | 1 | 83.4 | 3.3 | 16.1 | 6.8 | 6.4 | 2.9 | 64.0 | 10.6 | 10.8 | 42.7 |
| cz06 | 1 | 84.6 | 3.3 | 15.4 | 6.2 | 7.5 | 1.7 | 65.9 | 13.8 | 9.1 | 43.0 |
| hu04 | 1 | 82.9 | 3.9 | 10.0 | 4.6 | 3.8 | 1.5 | 69.0 | 6.4 | 11.9 | 50.8 |
| hu07 | 1 | 79.2 | 4.0 | 9.4 | 3.0 | 4.3 | 2.1 | 65.8 | 7.5 | 8.0 | 50.3 |
| It | 1 | 85.4 | 3.4 | 16.3 | 4.1 | 6.8 | 5.3 | 65.8 | 9.4 | 20.1 | 36.3 |
| pl03 | 1 | 80.4 | 1.5 | 11.7 | . | . | . | 67.2 | 5.8 | 8.4 | 52.9 |
| pl06 | 1 | 83.6 | 0.8 | 13.9 | . | . | . | 68.8 | 11.9 | 12.7 | 44.2 |
| pl09 | 1 | 82.3 | 2.3 | 14.5 | . | . | . | 65.5 | 9.5 | 12.6 | 43.4 |
| plOa | 1 | 83.1 | 3.6 | 11.1 | . | . | . | 68.4 | 6.2 | 12.2 | 50.0 |
| pl0d | 1 | 75.3 | 1.8 | 16.3 | . | . | . | 57.2 | 8.8 | 9.1 | 39.3 |
| ro01 | 1 | 86.5 | 4.2 | 22.5 | 7.7 | 11.5 | 3.3 | 59.8 | 7.2 | 9.6 | 43.0 |
| ro03 | 1 | 86.1 | 1.9 | 28.8 | 14.3 | 11.1 | 3.4 | 55.4 | 7.0 | 13.6 | 34.8 |
| ro04 | 1 | 81.9 | 5.2 | 22.8 | 11.8 | 9.5 | 1.5 | 53.9 | 3.3 | 9.2 | 41.4 |
| Industry Cl . | 2 | 82.7 | 2.3 | 17.3 | 6.7 | 7.7 | 2.9 | 63.1 | 10.1 | 12.5 | 40.6 |
| bg02 | 2 | 79.2 | 1.7 | 17.5 | 6.4 | 6.9 | 4.2 | 60.1 | 4.6 | 16.0 | 39.5 |
| bg05 | 2 | 77.0 | 1.8 | 14.8 | 6.2 | 6.9 | 1.7 | 60.4 | 4.1 | 16.3 | 40.0 |
| cz05 | 2 | 85.8 | 1.9 | 16.8 | 7.2 | 6.9 | 2.8 | 67.0 | 14.3 | 8.6 | 44.1 |
| cz07 | 2 | 86.3 | 1.7 | 20.3 | 8.5 | 9.1 | 2.6 | 64.3 | 15.8 | 7.7 | 40.8 |
| cz08 | 2 | 86.0 | 2.1 | 25.6 | 6.8 | 17.6 | 1.1 | 58.3 | 10.3 | 7.5 | 40.6 |
| ee | 2 | 80.0 | 2.8 | 17.5 | 5.3 | 7.3 | 5.0 | 59.7 | 11.4 | 16.8 | 31.5 |
| hu02 | 2 | 82.0 | 1.4 | 15.8 | 5.2 | 8.9 | 1.7 | 64.9 | 13.4 | 7.6 | 43.9 |
| hu03 | 2 | 84.4 | 4.2 | 17.3 | 9.6 | 6.4 | 1.2 | 62.9 | 10.0 | 8.0 | 45.0 |
| pl01 | 2 | 83.2 | 2.8 | 15.8 | . | . | . | 64.7 | 11.3 | 14.7 | 38.6 |
| pl0c | 2 | 81.8 | 0.7 | 16.9 | . | . | . | 64.2 | 10.4 | 8.9 | 44.8 |
| ro06 | 2 | 86.2 | 1.8 | 18.6 | 5.6 | 7.8 | 5.2 | 65.8 | 7.9 | 17.1 | 40.8 |
| ro07 | 2 | 82.8 | 6.9 | 20.4 | 9.1 | 8.9 | 2.4 | 55.5 | 5.9 | 13.0 | 36.6 |
| si | 2 | 84.9 | 1.3 | 16.9 | 7.9 | 6.4 | 2.6 | 66.7 | 13.0 | 11.9 | 41.8 |
| sk02 | 2 | 87.8 | 4.8 | 14.8 | 6.3 | 6.6 | 1.8 | 68.3 | 11.6 | 10.4 | 46.3 |
| Basic Serv. CI. | 3 | 80.6 | 3.0 | 14.4 | 5.9 | 6.6 | 2.0 | 63.2 | 8.2 | 14.2 | 40.8 |
| bg01 | 3 | 75.7 | 2.2 | 14.0 | 9.9 | 3.6 | 0.4 | 59.4 | 3.6 | 10.9 | 45.0 |
| bg03 | 3 | 74.8 | 1.6 | 10.7 | 4.6 | 3.4 | 2.7 | 62.5 | 3.6 | 20.6 | 38.3 |
| cz02 | 3 | 83.6 | 3.1 | 13.7 | 7.1 | 5.5 | 1.1 | 66.7 | 14.1 | 11.8 | 40.9 |
| cz04 | 3 | 84.3 | 1.6 | 21.8 | 5.3 | 13.6 | 3.0 | 60.8 | 14.4 | 6.7 | 39.8 |
| hu05 | 3 | 77.1 | 2.9 | 9.2 | 4.1 | 3.9 | 1.2 | 65.1 | 5.5 | 11.3 | 48.3 |
| hu06 | 3 | 80.9 | 2.8 | 10.2 | 5.3 | 4.2 | 0.7 | 67.9 | 10.3 | 6.6 | 51.0 |
| Iv | 3 | 81.1 | 3.9 | 15.1 | 4.6 | 7.4 | 3.2 | 62.1 | 7.3 | 19.1 | 35.7 |
| pl04 | 3 | 77.6 | 1.6 | 12.9 | . | . | . | 63.2 | 6.6 | 8.5 | 48.1 |
| pl08 | 3 | 82.5 | 3.5 | 15.9 | . | . | . | 63.1 | 9.0 | 11.6 | 42.5 |
| pl0b | 3 | 82.0 | 2.0 | 11.0 | . | . | . | 68.9 | 8.9 | 16.1 | 44.0 |
| pl0e | 3 | 78.6 | 1.0 | 13.3 | . | . | . | 64.3 | 7.5 | 10.9 | 45.8 |
| pl0g | 3 | 79.5 | 2.8 | 13.9 | . | . | . | 62.9 | 12.7 | 18.8 | 31.4 |
| ro02 | 3 | 81.2 | 5.3 | 19.4 | 7.5 | 10.7 | 1.2 | 56.5 | 5.2 | 20.0 | 31.2 |
| ro05 | 3 | 82.4 | 4.3 | 21.5 | 9.8 | 8.5 | 3.2 | 56.7 | 6.6 | 11.4 | 38.7 |
| sk03 | 3 | 87.1 | 2.7 | 15.8 | 5.0 | 8.4 | 2.5 | 68.6 | 11.3 | 10.3 | 47.0 |
| sk04 | 3 | 83.0 | 3.3 | 16.3 | 7.5 | 7.4 | 1.3 | 63.4 | 10.8 | 8.7 | 43.9 |
| Business Serv. Cl . | 4 | 82.8 | 1.3 | 12.2 | . | . | . | 69.3 | 11.3 | 11.2 | 46.7 |
| pl02 | 4 | 81.9 | 0.0 | 12.5 | . | . | . | 69.4 | 8.8 | 9.1 | 51.5 |
| pl05 | 4 | 81.3 | 1.6 | 12.3 | . |  | . | 67.5 | 12.7 | 11.6 | 43.2 |
| plOf | 4 | 84.9 | 1.9 | 12.0 | . | . | . | 70.9 | 11.6 | 12.2 | 47.1 |
| Capitals | 5 | 81.4 | 0.4 | 13.1 | 6.4 | 5.6 | 1.1 | 67.9 | 18.7 | 13.6 | 35.6 |
| bg04 | 5 | 77.8 | 0.6 | 12.2 | 4.0 | 6.3 | 2.0 | 65.0 | 13.6 | 16.0 | 35.5 |
| cz01 | 5 | 87.4 | 0.3 | 14.2 | 5.4 | 8.4 | 0.3 | 72.9 | 26.8 | 13.7 | 32.5 |
| hu01 | 5 | 82.2 | 0.7 | 12.4 | 7.5 | 4.6 | 0.4 | 69.1 | 19.9 | 14.2 | 35.0 |
| pl07 | 5 | 83.1 | 0.2 | 10.9 | . | . | . | 72.0 | 21.2 | 11.9 | 38.9 |
| ro08 | 5 | 76.2 | 0.2 | 17.6 | 9.9 | 5.6 | 2.1 | 58.4 | 13.0 | 12.5 | 32.9 |
| sk01 | 5 | 89.1 | 0.2 | 13.7 | 6.9 | 6.8 | 0.0 | 75.1 | 24.0 | 14.4 | 36.6 |

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Internet Homepage: www.wiiw.ac.at
Nachdruck nur auszugsweise und mit genauer Quellenangabe gestattet.
P.b.b. Verlagspostamt 1010 Wien


[^0]:    1 Unlike the country-level analysis (see Landesmann, Vidovic and Ward, 2004 and Havlik, 2005), no attempt is made here for want of data at the regional level to examine the value-added generated by these different activities and possible differences in productivity across regions, which are of relevance since they are likely to affect future employment developments.

[^1]:    Table A/3 contd.

