



Galjina Ognjanov
Valli Corbanese

OCCUPATIONAL SKILLS SURVEY 2011

Key findings in South Serbia





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Galjina Ognjanov
Valli Corbanese

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Foreword

The *Occupational Skills Survey* – aimed at identifying the economic sectors, occupations and skills most demanded by enterprises – was carried out by the Republic Statistical Office (RSO) in February 2011 in four districts in the South of Serbia, namely Nisavski, Jablanicki, Pomoravski and Pcinjski. The research was supported by the joint programme on *Youth employment and migration* (YEM) financed by the Millennium Development Goals Fund and by the project *Capacity building for inclusive local development in Southern Serbia* (PBUILD), funded by the Governments of Sweden, Norway and Switzerland.

The Survey enriches the data set on labour demand initially made available by the 2009 *Occupations and Skills Survey* and confirms a number of trends. First, micro-and small-size enterprises, especially in the trade and manufacturing sectors, remain the most dynamic actors in terms of job creation at local level, with good growth prospects also in the short and medium term. The sectors that suffered the most from the negative effects of the recent economic downturn, namely construction and accommodation and food services, are showing signs of recovery. Second, a number of occupational profiles appear to be particularly resilient in the South Serbian labour market (sales, office and accounting clerks, and food production occupations). Third, the demands of employers in terms of the characteristics of new recruits show a consistent preference for prime age workers (25 to 44 years of age) with secondary educational attainment or higher. But the data collected also show positive signs in terms of employers' interest in investing in workforce development, also through the use of external public and private training providers, and improvements in the market penetration of the National Employment Service, especially as regards job mediation services.

The analysis of the data stemming from the Survey is organized in the following paper in six chapters. The first chapter provides an overview of the labour market context in South Serbia and sets the ground for the presentation of labour demand data. The second chapter examines job creation and job destruction patterns and relates them to enterprise characteristics. Chapters three and four scan the trends in workforce recruitment and review the training practices prevailing among enterprises. Chapter five investigates the extent to which local employers cooperate with the National Employment Service and Chapter six concludes with policy implications. A statistical Annex is appended to the paper.

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Executive Summary

1. South Serbia faces a challenging labour market situation with lower employment and higher unemployment rates than the national average. Workers receive wages that are approximately 20 per cent lower than those paid in other regions. The educational structure of the adult population is also biased toward lower skills levels, with higher shares of the population with primary or less than primary educational attainment.

2. The ownership structure of enterprises in South Serbia is largely in line with national figures: the overwhelming majority of businesses are privately owned, with a low presence of state-owned enterprises. Hence, no dramatic changes in workforce levels, occupations and skills, therefore, are expected in the near future due to enterprise restructuring. Approximately 72 per cent of businesses belong to the micro enterprises size class, slightly below the national average of 78.8 per cent. Enterprises operate mostly in the trade and manufacturing sectors and, to a lesser extent, in construction, transport and professional services. The predominance of enterprises with an operation history of five years or more points to the slow pace of business start-ups in the region and, as a consequence, to lower job creation opportunities.

3. In the period preceding the survey, the most dynamic economic sectors in terms of job creation and job destruction were trade – where job creation exceeded destruction – and manufacturing, where more jobs were shed than created. Among South Serbian entrepreneurs, positive growth prevailed in administrative support services, manufacturing and trade, whereas construction, and accommodation and food services were characterized by job shedding. The micro- and small enterprise size classes generated more than two thirds of positive and negative employment growth in the region, with positive growth prevailing over negative in the districts of Jablanicki and Pomoravski.

4. Most occupations simultaneously created and shed jobs in the previous period. On balance, the occupations that created jobs among corporate businesses were accounting and bookkeeping clerks, mechanical engineers, butchers and related food preparers, and mechanics. Among unincorporated enterprises, advertising and marketing, stock clerks, sales demonstrators, food service counter attendants and kitchen helpers had a positive employment balance.

5. In the next twelve months, job creation in the region will be driven by small size class businesses, operating in the trade, manufacturing and construction sector. The occupations most in demand will be in sales (shop sales assistants, sales representatives, sales and marketing managers); office work (general office, accounting and bookkeeping clerks) and production (especially food, metal and wood products).

6. In terms of workforce recruitment, South Serbian establishments rely mostly on the public employment services (PES), advertising and recommendations from relatives and friends. This is particularly the case for businesses operating in the manufacturing, trade and administrative service sectors. Enterprises prefer to hire workers with secondary or tertiary education attainment: such a preference is consistent over a number of economic sectors (wholesale and retail trade, manufacturing and construction). Most enterprises show no particular preference in terms of age group when recruiting workers, but job creating establishments favour prime-age workers (25 to 44 years of age).

7. The economic sectors with the largest number of vacancies were found in the trade and manufacturing sectors. A third of businesses face problems in filling vacancies, especially micro and medium-size enterprises in the finance, trade, manufacturing and accommodation sectors. Workforce training, governmental programmes and expansion of recruitment channels are the means of choice to address this problem.

8. The survey findings point to four major occupational groups more likely to create new jobs in the near future: i) sales (mainly shop sale assistants, but also managers and sales demonstrators), ii) clerical occupations (office, stock, accounting and bookkeeping clerks), iii) food preparation (cooks, butchers, bakers, pastry makers) and iv) machine operators and assemblers in different industries (food preparation, metal and wood). Hence, future skills needs in the South Serbian labour market will mainly revolve around sales skills; office administration, bookkeeping and computer literacy skills; manual skills for food preparation and light manufacturing; engineering and management skills. For the medium term, a moderate shift can be detected towards a higher skills content of occupations, especially among corporate businesses. Conversely, the skills requirements of unincorporated businesses will remain substantially unchanged.

9. The majority of establishments regularly provide short job-related training for the workforce. Most enterprises provide training directly, while entrepreneurs primarily rely on private providers. Prime age workers with secondary or higher educational attainment are more likely to be trained than other groups of workers.

10. The market penetration of the National Employment Service (NES) is higher among micro and small enterprises operating in the trade, manufacturing and construction sectors. The preferred NES services are job mediation and wage subsidies, while training is requested by a mere 6 per cent of companies. Future cooperation between the NES and local enterprises will follow the current pattern: the NES will be approached by micro- and small businesses, operating in the trade, manufacturing, construction and professional activities sectors. The services most demanded will be job mediation and employment subsidies.

11. To improve the occupational outlook in the region, the following policy options may be considered:

- *Promoting micro and small business development through targeted interventions by providing tax incentives, guaranteed loans and other types of subsidies accompanied by well designed and targeted active labour market programmes addressing simultaneously labour demand and labour supply constraints.*
- *Supporting expanding and emerging economic sectors, namely manufacturing and trade, but also finance and insurance, professional services, ICT and processing, trading and marketing of foods with geographic designation of origin.*
- *Improving the scope and relevance of adult vocational training programmes.* A more flexible approach to training, offering a combination of off- and on-the-job programmes of varying duration and supplemented by other employment incentives (such as work experience and internship schemes for younger workers and wage subsidies for older ones) would better serve the needs of local enterprises. Expanding the scope of training programmes will require an increasing reliance on private and public training providers. To this end, the NES is recommended to increase reliance on education institutions renowned in the region.

- *Promoting labour market mobility among the districts in the region.* Timely labour market information provided through a variety of means and incentives to promote the mobility of workers within the region would improve the allocation of resources and contribute to strategies to address depopulation drivers.
- *Strengthening the capacity of the National Employment Service (NES) to respond to employers' and workers' needs.* There has been a noticeable improvement in the market penetration of the NES among local employers. However, given the diversity of the districts in the region, there is a need to decentralize decision-making especially with regard the design and targeting of active labour market programmes. More importantly, local employment offices should play a more active role in identifying and addressing the occupations and skills requirements of local employers on the one hand, and the individual factors most likely to determine poor labour market outcomes, on the other.

1. Overview of the economic and social context in South Serbia

The districts of Nisavski, Jablanicki, Pomoravski and Pcinjski in South Serbia comprise 13.2 per cent of the territory of Serbia, with a total population of just over 1 million individuals (14.4 per cent of the overall population of the country).¹ The larger district is Nisavski (with 5.1 per cent of the population), while the other districts account for approximately 3 per cent each of the overall population (Jablanicki 3.2 per cent, Pomoravski 3 per cent and Pcinjski 3 per cent).

In 2009, approximately 219,580 individuals were registered as employed in the region, with the share of women employed ranging from 38 per cent in Pcinjski to 45.1 per cent in Pomoravski.² The employment-to-population ratios in Southern Serbia are lower than those recorded for the country as a whole, with the only exception found in Pomoravski (Table 1). However, whereas the district of Nisavski presents a slightly lower employment-to-population ratio compared to the national average (37.5 per cent in 2010), the districts of Pcinjski and Jablanicki recorded ratios well below the national average (10.2 and 16.3 percentage points, respectively).

Table 1: Key labour market indicators (South Serbia)

| | Pomoravski | Pcinjski | Nisavski | Jablanicki | Serbia |
|------------------------------------|------------|----------|----------|------------|-----------|
| Persons employed (2009 average) | 55,393 | 40,104 | 90,591 | 33,492 | 1,889,085 |
| Working age population (*) | 145,014 | 146,569 | 253,711 | 157,764 | 5,032,805 |
| Employment-to-population ratio (%) | 38.2 | 27.4 | 35.7 | 21.2 | 37.5 |
| Women employed (%) | 45.1 | 38.0 | 42.9 | 43.8 | 44.3 |
| Number of enterprises | 32,996 | 31,602 | 69,205 | 24,654 | 1,396,792 |
| Number of entrepreneurs | 22,397 | 8,502 | 21,386 | 8,838 | 492,293 |

Source: Republic Statistical Office, *Opštine u Srbiji 2010* (RAD Survey, downloadable at <http://webrzs.stat.gov.rs>)
(*) Figures from the 2002 Population Census

1 South Serbia, for the purposes of this survey, includes the districts of Pomoravski (six municipalities), Nisavski (twelve municipalities), Jablanicki (six municipalities), and Pcinjski (seven municipalities) in the south of the country. According to the administrative divisions of the Republic of Serbia (Law of Territorial Organization, 2007) the district of Pomoravski is a part of Central, Jablanicki and Nisavski are part of South Eastern Serbia and Pcinjski is part of South Serbia. Seventeen of the municipalities of these districts are classified as underdeveloped and fourteen are considered devastated. Official Gazette of the Republic of Serbia, No 51/2010: *Uredba o utvrđivanju jedinstvene liste razvijenosti regiona i jedinica lokalne samouprave za 2010. Godinu*. For population figures see Republic Statistical Office (RSO), at <http://webrzs.stat.gov.rs>.

2 These figures are the average for March-September 2009 as recorded by the RAD Survey, RSO, *Opštine u Srbiji* Belgrade, 2010, op.cit.

The unemployment rates in Nisavski, Pcinjski and Pomoravski – as detected by the 2010 Labour Force Survey (LFS) – are higher than the national average, while in Jablanicki they are lower by 6 percentage points (Table 2).³ All the above-mentioned data point to the lower socio-economic well-being of the population living in South Serbia compared to the rest of the country.

Table 2: Unemployment in South Serbia

| | Total unemployment | Unemployment rate |
|------------|--------------------|-------------------|
| Serbia | 649,155 | 22.9 |
| Jablanicki | 17,064 | 16.8 |
| Nisavski | 38,176 | 26.9 |
| Pcinjski | 22,476 | 24.8 |
| Pomoravski | 21,745 | 24.2 |

Source: Republic Statistical Office (RSO), Labour Force Survey, 2010

The district of Jablanicki has lower employment and unemployment rates compared to the other three districts. This finding, partly due to the different methodological approach used by the RAD and the LFS, indicates higher informality and a prevalence of short-term (seasonal) jobs

Salaries in the region are also lower than the country average, with gross wages ranging from 83.2 per cent of the national average in Nisavski, to 76.1 per cent in Jablanicki (Table 3).

Table 3: Average gross and net salaries in South Serbia (Serbian Dinars, 2010)

| | Gross salaries | Net salaries | Percentage national gross salary |
|------------|----------------|--------------|----------------------------------|
| Serbia | 47,450 | 34,142 | 100 |
| Pomoravski | 38,713 | 28,367 | 81.6 |
| Nisavski | 39,488 | 28,513 | 83.2 |
| Jablanicki | 36,089 | 25,969 | 76.1 |
| Pcinjski | 36,302 | 26,118 | 76.5 |

Source: Republic Statistical Office (RSO), <http://webzrzs.stat.gov.rs>

Based on the above-mentioned figures, the four districts could be grouped in two categories: i) Nisavski and Pomoravski, and ii) Jablanicki and Pcinjski, with the first two districts

³ Data on employment and unemployment in Serbia are collected by two different surveys based on different methodologies (RAD and LFS). The figures of the two surveys are not fully comparable. While the RAD collects data by surveying enterprises and entrepreneurs twice a year (March and September), the LFS surveys individuals in households (also twice a year in April and October) and is fully aligned to international statistical standards for the measurement of employment.

performing slightly better than the second group. The first two districts are geographically closer to Central Serbia and Belgrade, while the last two are bordering the Former Yugoslav Republic (FYR) of Macedonia and Kosovo.

The labour market indicators of South Serbia show that there is little incentive to engage in wage employment with a single employer. Due to the low wage levels, it may actually pay off to work at many, short-term (seasonal) jobs, rather than hold a job with a single employer.

The educational attainment of the population (15 years of age and over) in all districts except Nisavski, is also below the national average (Table 4), with higher shares of the population with primary education or less, and lower shares of secondary and tertiary education graduates. Nisavski is the only district where the educational structure of the population is close to the Serbian average.

Table 4: Educational attainment (population 15+), Serbia and districts, 2010

| | Serbia | Pomoravski | Nisavski | Jablanicki | Pcinjski |
|-------------------------------|--------|------------|----------|------------|----------|
| Without education | 5.6 | 7.2 | 5.9 | 11.5 | 11.1 |
| Uncompleted primary education | 16.2 | 24.1 | 16.4 | 20.1 | 16.0 |
| Primary education | 23.9 | 25.3 | 21.7 | 22.0 | 31.5 |
| Secondary education | 41.1 | 34.9 | 38.5 | 33.7 | 28.1 |
| College | 4.5 | 3.6 | 4.5 | 3.3 | 2.9 |
| University | 6.5 | 3.8 | 7.1 | 3.6 | 3.8 |

Source: RSO, Opštine u Srbiji 2010, op.cit.

2. General characteristics of enterprises and entrepreneurs

The overwhelming majority of businesses in the region are privately owned (95.5 per cent of enterprises and 99.8 per cent of entrepreneurs), in line with the national average of 95.8 per cent (Table A.1 in the annex).⁴ The low presence of state-owned enterprises – detected mainly in the Jablanicki district (6.2 per cent of all enterprises) – suggests that the privatization process in the region has largely been completed. Therefore, no dramatic changes in workforce levels, occupations and skills are to be expected in the near future due to enterprises restructuring.

Approximately 64 per cent of enterprises and 74 per cent of entrepreneurs are in the service sector. Over a third of enterprises (35.6 per cent) and a quarter of entrepreneurs (25.3 per cent) engage in industrial activities. The share of enterprises and entrepreneurs operating in the primary sector is almost negligible. Table 5 below shows that most of the businesses in South Serbia operate in the trade and manufacturing sectors. Wholesale and retail trade accounts for 40.3 per cent of enterprises and 39.9 per cent of entrepreneurs, while manufacturing comprises 22.8 per cent of enterprises and 18.8 per cent of entrepreneurs.

Table 5: Share of enterprises and entrepreneurs by economic sectors (South Serbia)

| Sector of enterprises | Enterprises (% of total) | Entrepreneurs (% of total) |
|--|--------------------------|----------------------------|
| Agriculture, forestry and fishing (*) | 0.4 | 0.7 |
| Mining and quarrying | 0.3 | 0.7 |
| Manufacturing | 22.8 | 18.8 |
| Electricity, gas, steam and air conditioning supply | 0.1 | 0.0 |
| Water supply, sewerage, waste management | 2.9 | 0.0 |
| Construction | 9.5 | 5.8 |
| Wholesale and retail trade; repair of motor vehicles | 40.3 | 39.9 |
| Transportation and storage | 5.3 | 3.6 |
| Accommodation and food service activities | 1.6 | 4.9 |
| Information and communication | 2.7 | 0.0 |
| Financial and insurance activities | 0.8 | 4.7 |
| Real estate activities | 0.0 | 0.5 |
| Professional, scientific and technical activities | 6.9 | 8.2 |
| Administrative and support service activities | 3.6 | 2.2 |
| Education | 1.9 | 0.3 |
| Human health and social work activities | 0.1 | 3.7 |
| Arts, entertainment and recreation | 0.1 | 0.3 |
| Other service activities | 0.7 | 5.8 |

Source: Republic Statistical Office (RSO), *Occupational Skills Survey 2011*, Belgrade, 2011.

(*) For *Agriculture, forestry and fishing* only enterprises with more than 10 employees were surveyed.

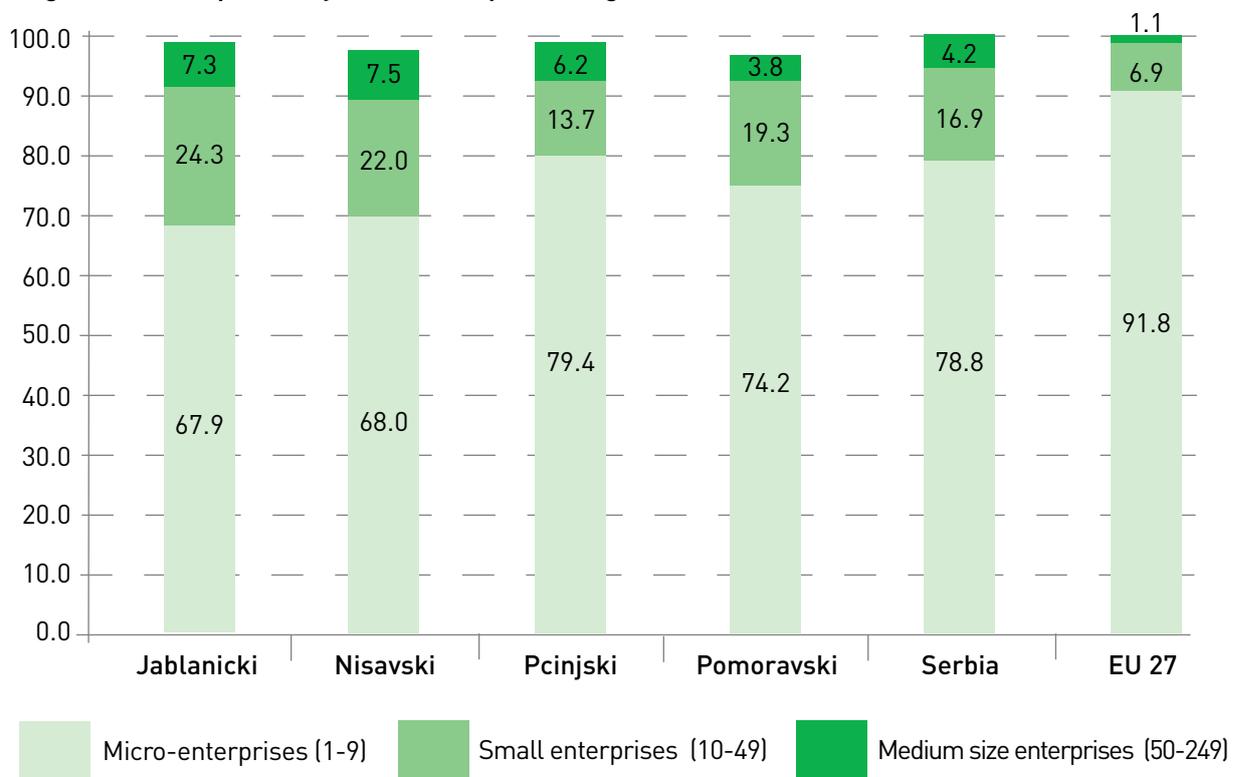
⁴ Bozanic, V., *Occupations and Skills Needs Survey*, ILO Project on Youth Employment Partnership in Serbia, Belgrade, 2009

The data disaggregated by district (Table A.3 in the Statistical Annex) show that Pcinjski has the highest share of businesses operating in the trade sector (50.2 per cent of enterprises and 44.6 per cent of entrepreneurs), while Jablanicki has more enterprises and entrepreneurs involved in manufacturing (27.7 per cent of enterprises and 28.4 per cent of entrepreneurs). These figures are in line with the data gathered by the 2009 *Occupational Skills Survey*, which shows that the trade sector accounted for over 39 per cent and manufacturing for 21.3 per cent of all Serbian enterprises.

The construction sector accounts for a significant share of enterprises in Nisavski and Pomoravski (10.5 per cent and 10.2 per cent respectively), while transport and storage comprise 9.6 per cent of the enterprises operating in Jablanicki. In Nisavski, professional, scientific and technical activities account for 9 per cent of enterprises and 12 per cent of entrepreneurs. Approximately 11 per cent of entrepreneurs in Pcinjski operate in the accommodation and food service industry.

Measured in terms of number of workers employed (Figure 1 below), micro enterprises (e.g. businesses employing from 1 to 9 workers) account for 71.6 per cent of all enterprises in South Serbia, slightly below the national average (78.8 per cent), but much lower than the rate found in the European Union (91.8 per cent).⁵ Pcinjski and Pomoravski have shares of micro-enterprises that are above the regional average (79.4 per cent and 74.2 per cent, respectively), while Jablanicki and Nisavski have lower rates (67.9 per cent and 68 per cent respectively). Over 87 per cent of entrepreneurs belong to the micro size class and over 10 per cent are small size class businesses (Table A.2 in the Statistical Annex).

Figure 1: Enterprises by class size (percentage)



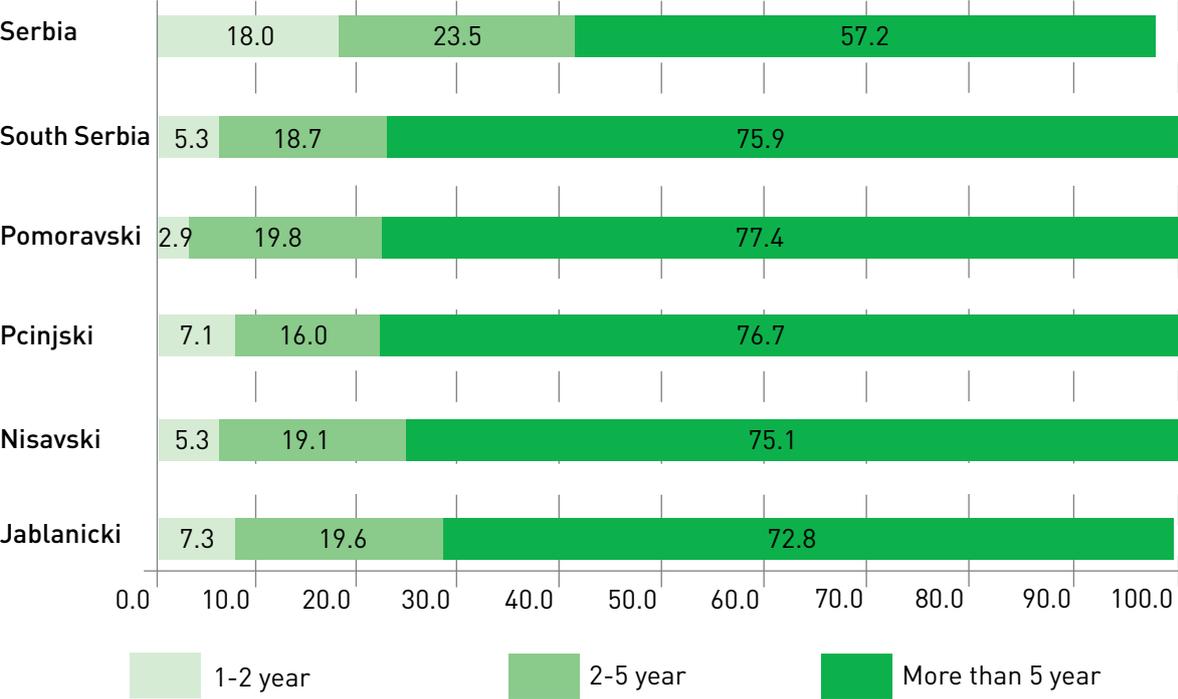
Source: RSO, *Occupational skills survey*, 2011; V. Bozanic, *Occupations and Skills Survey 2009*, op.cit., EUROSTAT *Enterprises by size class: Overview of SMEs in the EU*, Statistics in Focus, 21/2008.

⁵ Bozanic, V. *Occupation and Skills Survey 2009*, op-cit

More than two thirds of businesses in South Serbia have been in operation for more than 5 years (75.9 per cent for enterprises and 73.3 per cent for entrepreneurs), compared to 57.2 per cent for Serbia as a whole (Figure 2).⁶ The predominance of enterprises with a longer history points to a slow pace of business start-ups and, consequently, to lower job creation opportunities. The pattern among the four districts does not differ substantially (see Figure A.1 and A.2 in the Statistical Annex).

Albeit small, the highest concentration of businesses with a shorter history (1-2 years) is found among enterprises in the Jablanicki district (7.3 per cent) and among entrepreneurs in the Pcinjski district (7.1 per cent).

Figure 2: Enterprises by length of operations and geographical areas (percentage)



Source: RSO, Occupational skills survey 2011

2.1 Job creation and job destruction

2.1.1 Job creation and job destruction in the last 12 months

The figures stemming from the survey were aggregated according to whether the balance between newly recruited workers and those who left the business in the same period was positive (job creation) or negative (job destruction). This served to identify patterns in the class size and economic sector of job creating business, as well as the occupations shedding and creating jobs.

Over 7 per cent of the businesses surveyed in the four districts had positive and 4.8 per cent had negative employment growth. The most dynamic economic sectors were wholesale and retail trade, where job creation exceeded job destruction by 6.7 percentage points and manufacturing, where job destruction exceeded job creation by 15.6 percentage points (Table 6 below).

⁶ Bozanic, V., op.cit. p. 11

Table 6: Enterprises with positive/negative employment growth by selected economic sectors

| Economic sectors | Positive employment growth | Negative employment growth |
|---|----------------------------|----------------------------|
| Agriculture, forestry and fishing | 0.4 | 1.6 |
| Manufacturing | 23.7 | 39.3 |
| Electricity, gas, steam and air conditioning supply | 1.0 | 1.1 |
| Water supply, sewerage, waste management and remediation activity | 5.1 | 6.3 |
| Construction | 10.5 | 10.1 |
| Wholesale and retail trade; repair of motor vehicles and motor | 41.2 | 34.5 |
| Transportation and storage | 3.0 | 1.3 |
| Accommodation and food service activities | 0.0 | 1.5 |
| Information and communication | 3.2 | 2.5 |
| Financial and insurance activities | 7.7 | 0.0 |
| Professional, scientific and technical activities | 2.8 | 1.5 |
| Arts, entertainment and recreation | 0.0 | 0.5 |
| Administrative and support service activities | 0.3 | 0.0 |
| Other service activities | 1.1 | 0.0 |

Source: RSO, Occupational skills survey 2011

Note: Positive and negative employment growth was measured by the difference in number of workers newly recruited and those who left the enterprise in the previous 12 months. The figures in the table represent the share of enterprises with positive/negative employment growth by economic sectors.

The positive employment growth pattern in the wholesale and retail trade sector holds for Pcinjski and Pomoravski, where there is a positive balance of 16.1 and 39.2 percentage points, respectively (see Table A5 and A.6 in the Statistical Annex). In Nisavski, positive and negative employment growth balance out, with equal shares (35.5 per cent each), while in Jablanicki negative employment growth prevailed over positive by 13.5 percentage points. Negative employment growth prevailed in the manufacturing sector in all districts, with the highest shares recorded in Pomoravski (22.5 percentage points) and Pcinjski (21.4 percentage points).

The construction sector was also quite dynamic in terms of job creation and job destruction, even though the overall balance was nil (10.5 per cent positive and 10.1 per cent negative growth in the last twelve months). The sector experienced strong growth in Jablanicki (23.8 per cent positive, nil negative), it was stable in Pcinjski, (with negative and positive employment growth nearly equal at around 17 per cent), while in the other two districts, job shedding prevailed over job creation.

Finance and insurance activities had a strong positive employment growth in Nisavski (16.8 percentage points), while Jablanicki saw positive growth in the Information and Communication technology (ICT) and professional and scientific activities sectors (10.7 per cent and 8.7 per cent with no labour shedding).

The figures for unincorporated businesses reveal quite a different situation: positive growth prevails over negative in administrative support activities (22.4 per cent positive, nil negative); in manufacturing (48.8 per cent positive and 31 per cent negative), and in wholesale and retail trade (24.3 positive and 15.5 per cent negative employment growth). Negative growth prevailed in the accommodation and food services (24.8 per cent negative and 2.3 per cent positive) and in the construction sectors (23.7 per cent and 1.4 per cent, respectively). Table 7 below summarizes the figures for entrepreneurs operating in selected economic sectors.

Table 7: Entrepreneurs with positive/negative employment growth by selected economic sectors

| Economic sector | Positive employment growth | Negative employment growth |
|--|----------------------------|----------------------------|
| Mining and quarrying | 0.0 | 4.3 |
| Manufacturing | 48.8 | 31.0 |
| Construction | 1.4 | 23.7 |
| Wholesale and retail trade; repair of motor vehicles and motor | 24.3 | 15.5 |
| Accommodation and food service activities | 2.3 | 24.8 |
| Administrative and support service activities | 22.4 | 0.0 |
| Other service activities | 0.8 | 0.7 |

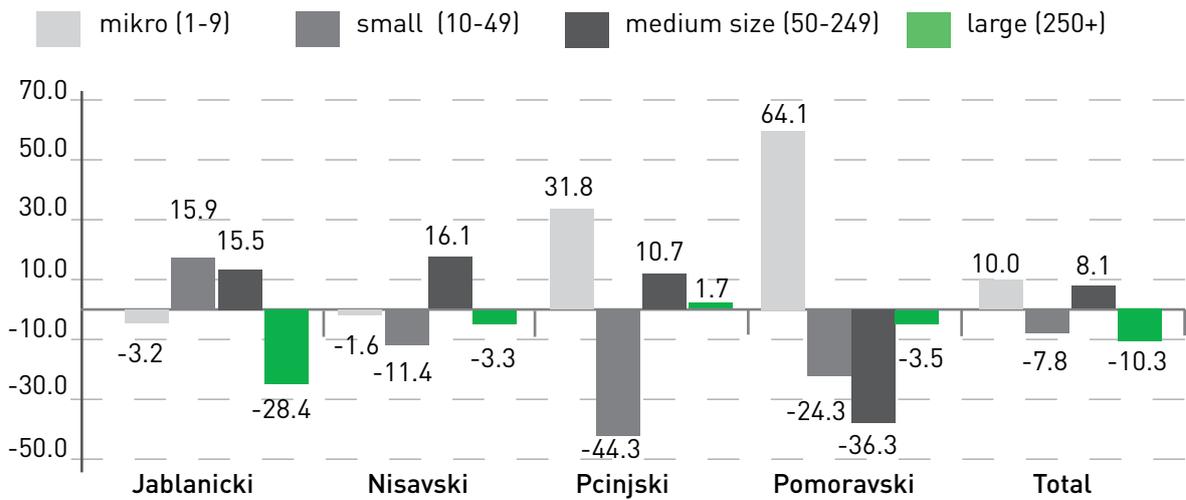
Source: RSO, Occupational skills survey 2011

The figures for entrepreneurs disaggregated by district (see Table A.6 in the Statistical Annex) show that administrative support activities boomed in Pomoravski (69.8 per cent of entrepreneurs recorded positive growth, while none dismissed workers), while in Jablanicki and Nisavski job creation prevailed over job destruction in the manufacturing sector.

Trade recorded positive employment growth in Pcinjski (75 per cent of entrepreneurs created jobs and none shed labour) and in Pomoravski (7.8 per cent created new jobs and none shed labour), whereas nearly half of the trade sector entrepreneurs in Jablanicki shed labour (47.8 per cent) and none recruited new employees. The accommodation and food service sector recorded high negative growth in Pomoravski (100 per cent negative and 4 per cent positive) and in Nisavski (37.5 per cent negative and 3.2 per cent positive), with neither positive or negative growth recorded in the other two districts.

Entrepreneurs in the construction sector experienced negative employment growth particularly in Jablanicki (42.4 per cent negative with no new recruits) and, to a lesser extent, in Nisavski (17 per cent negative and 2.6 per cent positive). Enterprises in the small size class experienced the highest shares of both job creation and job destruction (42 per cent creation and 49.8 per cent destruction), with an overall negative employment growth of nearly 8 percentage points. Small enterprises in all districts have negative signs, except in Jabalanicki where positive growth in small enterprises exceeded negative by 15.9 percentage points. For micro and medium-size enterprises, positive employment growth exceeded job destruction by 10 and 8.1 percentage points, respectively (Figure 3 below).

Figure 3: Job creation by districts and enterprise size class (South Serbia)

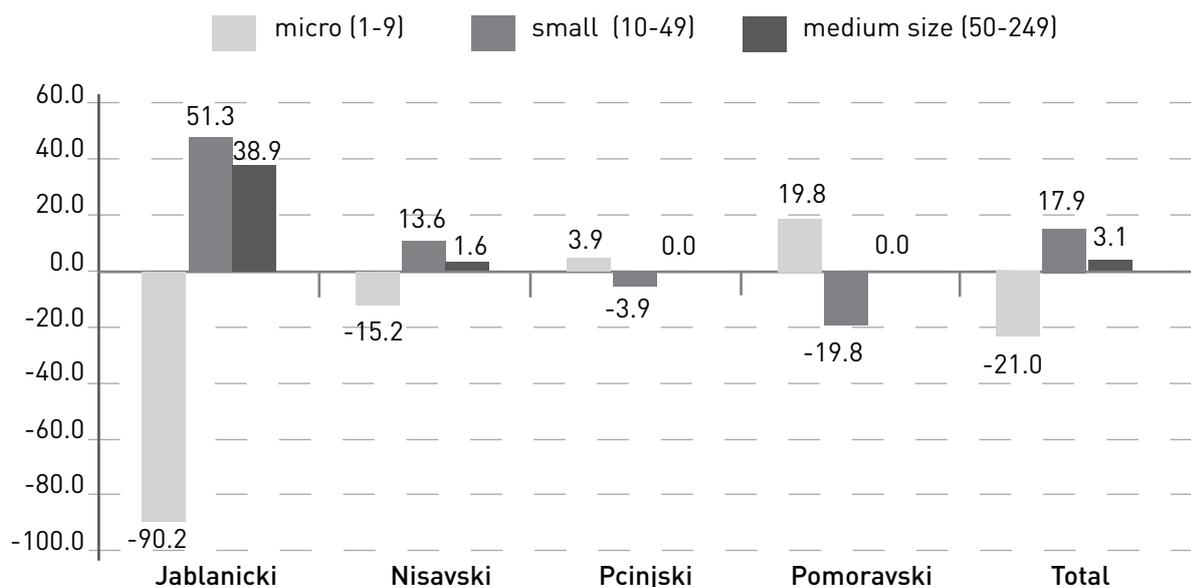


Source: RSO, Occupational skills survey 2011

The data collected clearly show that micro- and small enterprises have generated more than two thirds of both positive and negative employment growth (73.8 per cent and 71.6 per cent, respectively), with positive growth in those size classes largely surpassing negative growth in Jablanicki and Pomoravski. Conversely, negative employment growth was recorded in Nisavski among medium size enterprises, whereas in Pcinjski micro-enterprises experienced only positive growth (31.8 per cent). Among medium-size enterprises in Pcinjski, positive employment growth exceeded job losses by 10.7 percentage points. The job creation balance for large enterprises was negative, with only 2.1 per cent of enterprises experiencing employment growth compared to 12.4 per cent of those that lost jobs. The highest negative growth among these enterprises was found in Jablanicki, with a negative employment balance of 28 percentage points.

Figure 4 shows that among South Serbian entrepreneurs, employment growth was largely positive, except for micro-enterprises, whose performance was affected by the high labour sheddings recorded in Jablanicki district (Figure 4).

Figure 4: Job creation by districts and entrepreneur size class (South Serbia)



Source: RSO, Occupational skills survey 2011

The ten occupations that shed and created most jobs in the twelve months prior to the survey are summarized in Table 8 below.

Six out of the ten occupations simultaneously created and destroyed jobs. Among these, shop sales assistants and stock clerks had a negative workforce balance, i.e. the number of workers who left the business exceeded the number of newly employed. The other four occupations (general office clerks; heavy truck and lorry drivers; car, taxi and van drivers; and civil engineers) had a positive employment balance.

Table 8: Top ten occupations shedding and creating jobs (enterprises, last 12 months)

| Top 10 occupations shedding jobs | Workers | Top 10 occupations creating jobs | Workers |
|----------------------------------|---------|-------------------------------------|---------|
| Shop sales assistant | 302 | Shop sales assistant | 226 |
| General office clerks | 179 | General office clerks | 200 |
| Commercial sales representatives | 145 | Heavy-truck and lorry drivers | 155 |
| Heavy-truck and lorry drivers | 117 | Accounting and book keeping clerks | 109 |
| Stock clerks | 92 | Mechanical engineers | 102 |
| Car, taxi and van drivers | 78 | Car, taxi and van drivers | 92 |
| Odd jobs persons | 74 | Civil engineers | 87 |
| Metal working machine operators | 64 | Butchers and related food preparers | 86 |
| Sales workers (others) | 56 | Stock clerks | 85 |
| Civil engineers | 54 | Motor vehicle mechanics | 69 |

Source: RSO, Occupational skills survey 2011

There were, however, occupations that exclusively shed jobs (namely, commercial sales representatives, odd jobs workers, metal working machine tool setter and other sales workers) and others that only generated jobs (accounting and book keeping clerks; mechanical engineers; butchers, fishmongers and related food preparers; and motor vehicle mechanics and repairers). On balance, the occupations that created most jobs in the observed period among enterprises were accounting and bookkeeping clerks, mechanical engineers, butchers and food preparers and vehicle mechanics.

Among entrepreneurs, the occupations with a negative balance in employment growth were shop sales assistants and waiters. Accounting and bookkeeping clerks, and civil engineering labourers had a net job creation balance (Table 9).

Contrary to what was found among enterprises, among entrepreneurs the occupation car, taxi and van drivers shed jobs, while the occupation general office clerks had a positive employment balance. The occupations creating most jobs among unincorporated enterprises were advertising and marketing professionals, stock clerks, sales demonstrators, food service counter attendants and kitchen helpers.

Table 9: Top ten occupations shedding and creating jobs (entrepreneurs, last 12 months)

| Top 10 occupations shedding jobs | Workers | Top 10 occupations creating jobs | Workers |
|--|---------|-------------------------------------|---------|
| Shop sales assistant | 668 | Shop sales assistant | 120 |
| Waiters | 321 | Advertising/marketing professionals | 156 |
| Other cleaning workers | 120 | Accounting and bookkeeping clerks | 137 |
| Accounting and bookkeeping clerks | 88 | Waiters | 131 |
| Car, taxi and van drivers | 79 | Stock clerks | 94 |
| Electrical/electronic equipment assemblers | 78 | Sales demonstrators | 91 |
| Cooks | 76 | General office clerks | 87 |
| Elementary workers | 64 | Food service counter attendants | 68 |
| Mobile farm and forestry lent operators | 60 | Civil engineering labourers | 65 |
| Civil engineering labourers | 51 | Kitchen helpers | 64 |

Source: RSO, Occupational skills survey 2011

The most common reasons for workers' leaving the enterprise – irrespective of type of enterprise, geographical location and employment performance – is consensual termination (49 per cent of workers) and retirement (16.6 per cent). Restructuring of enterprises was the second most important reason only in Nisavski and among enterprises with negative employment growth. Technological change, restructuring and bankruptcy accounted for smaller percentages (5.4 per cent and 4.7 per cent, respectively). Among entrepreneurs, the primary reason was consensual termination (50.6 per cent), followed by other, unspecified reasons (25.9 per cent) and retirement (13.3 per cent of workers).

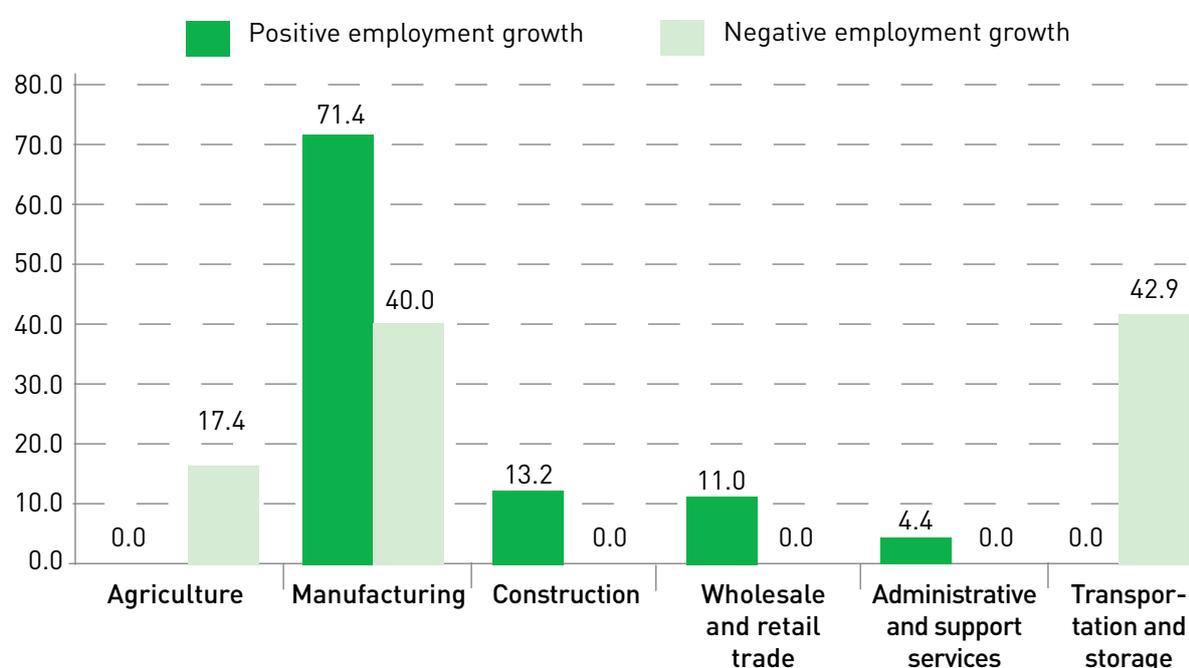
2.1.2. Job creation and job destruction in the next 12 months

Positive employment growth is expected among South Serbian enterprises operating in the construction, wholesale and retail trade. The figures for manufacturing enterprises are mixed, with over 71 per cent of enterprises expecting employment growth and 40 per cent expecting losses. This indicates that some manufacturing enterprises will simultaneously create and destroy jobs. Conversely, enterprises in the agricultural, transport and storage sectors expect mainly to shed labour (Figure 5).

The disaggregation of data by district shows that manufacturing enterprises expect positive employment growth in Jablanicki (100 per cent) and Pomoravski (100 per cent). In Nisavski, 57.3 per cent of manufacturing enterprises expect to recruit workers, while 48.3 per cent expect to shed labour. In the same district, enterprises operating in the construction, trade and administrative services sectors expect to create jobs (19.7 per cent, 16.4 per cent and 6.6 per cent, respectively).

All enterprises in the agricultural sector which expect to shed jobs are found in Pcinjski, while in Nisavski over half of enterprises in the transport and storage sector (51.7 per cent) expect to dismiss workers.

Figure 5: Enterprises with positive/negative employment growth by economic sectors (next 12 months)

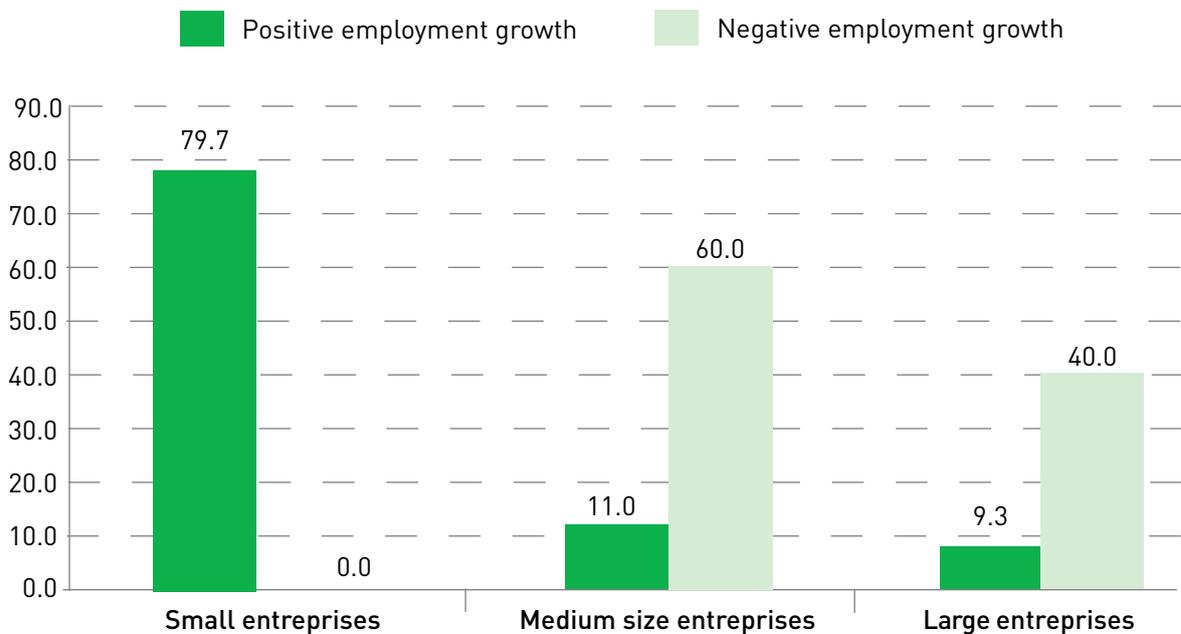


Source: RSO, Occupational skills survey 2011

Entrepreneurs expecting negative employment growth are almost not existent, with all businesses in the accommodation and food service sector in Pomoravski expecting to create new jobs.

In terms of enterprise size class, positive employment growth is predominantly expected among small enterprises, while large shares of medium-size and large enterprises (60 per cent and 40 per cent, respectively) will experience negative employment growth (Figure 6).⁷ Such findings suggest that in the short term small enterprises will be the pillars of job creation in the region.

Figure 6: Enterprises with positive/negative employment growth by class size (next 12 months)



Source: RSO, Occupational skills survey 2011

Positive employment developments are forecasted by small enterprises in Jablanicki (100 per cent), Nisavski (77 per cent) and Pomoravski (79.2 per cent). Among medium-size enterprises, only Nisavski expect some positive employment growth (16.4 per cent), largely offset, however, by the share of medium-size enterprises in the same district that expect to shed jobs (51.7 per cent).

A small share of large enterprises plan to increase their workforce in the forthcoming period (in Nisavski, 6.6 per cent and in Pomoravski, 20.8 per cent). All medium size enterprises in Pcinjski expect employment to decrease (Table A.7 in the Statistical Annex). Only in Pomoravski do small unincorporated businesses forecast positive employment growth (in the accommodation and food service sector).

The occupations that will create and destroy jobs in the next twelve months are shown in Table 10. Only one occupation is expected to both create and destroy jobs (shop sales assistants), but with an overall positive balance. Other trade-related occupations, however, are likely to continue shedding jobs (commercial sales representatives and sales workers). The occupation general office clerks, which also created jobs in the previous period, is the only occupation that will continue its positive trend.

⁷ Micro-enterprises failed to respond to the question related to job creation/destruction in the next period.

Table 10: Top ten occupations shedding and creating jobs (enterprises, next 12 months)

| Top 10 occupations shedding jobs | Workers | Top 10 occupations creating jobs | Workers |
|------------------------------------|---------|----------------------------------|---------|
| Commercial sales representatives | 39 | Shop sales assistants | 164 |
| Elementary workers | 38 | General office clerks | 81 |
| Sales workers (other) | 28 | Car, taxi and van drivers | 75 |
| Heavy trucks and lorry drivers | 15 | Building architects | 58 |
| Shop sales assistants | 12 | Sewing and related workers | 54 |
| Food products machine operators | 7 | Sales and marketing managers | 53 |
| Accounting and book keeping clerks | 6 | Welders and flame cutters | 42 |
| Security guards | 6 | Door to door salespersons | 40 |
| Concrete placers and finishers | 5 | Wood processing plant operators | 40 |
| Manufacturing managers | 5 | Dairy products makers | 39 |

Source: RSO, Occupational skills survey 2011

The figures of the survey indicate that trade-related occupations will maintain their job creation/job destruction dynamism in the next twelve months as well, but with a shift towards a slightly higher skills content. Building architects – for whom there was no requirement in the prior period – are expected to return to demand. However, the lack of other construction-related occupations in the group of occupations that will create jobs in the next period, indicates that this economic sector is still struggling as a consequence of the economic crisis.

Among unincorporated businesses, the occupations shop sales assistants and cooks are expected to both create and destroy jobs, but with a slight positive balance (Table 11 below), while the occupation accounting and bookkeeping clerks will continue to create new jobs.

Table 11: Top ten occupations shedding and creating jobs (entrepreneurs, next 12 months)

| Top 10 occupations shedding jobs | Workers | Top 10 occupations creating jobs | Workers |
|--|---------|---|---------|
| Cooks | 39 | Commercial sales representatives | 164 |
| Retail and wholesale trade managers | 38 | Shop sales assistants | 81 |
| Stationary plant and machine operators | 28 | Accounting and book keeping clerks | 75 |
| Shop sales assistants | 15 | Bakers, pastry and confectionery makers | 58 |
| Civil engineering labourers | 12 | Cooks | 54 |
| Painters and related workers | 7 | Car, taxi and van drivers | 53 |
| Specialist medical practitioners | 6 | Elementary workers | 42 |
| Wood treatment workers | 6 | Sales demonstrators | 40 |
| | | Heavy truck and lorry drivers | 40 |
| | | Hairdressers | 39 |

Source: RSO, Occupational skills survey 2011

To summarize, in the next twelve months, job creation in South Serbia will primarily occur among small size class businesses, operating in the trade, manufacturing and construction sectors. The occupations most demanded will be in sales (shop sales assistants, sales representatives, sales and marketing managers); office work (general office, accounting and bookkeeping clerks) and in production (especially food, metal and wood products).

3. Trends in workforce recruitment

The *Occupational Skills Survey 2011* explored the recruitment approaches used by businesses in South Serbia as well hiring preferences with regard the age and education levels of workers. The same section of the survey enquired about open vacancies, the difficulties faced by enterprises in filling vacancies. Enterprises were also asked to indicate the occupations most likely to be demanded in the medium-term (3-5 years). This information was matched to the data on occupations creating and shedding jobs in the previous and forthcoming period with a view to identifying future skills requirements in the region.

Enterprises, irrespective of their employment performance in the previous year, mostly rely on the public employment services (PES) and advertising to recruit workers (41.4 per cent and 30.4 per cent of enterprises, respectively). This is particularly the case for enterprises operating in the manufacturing and trade sectors. The third most commonly used recruitment method for enterprises is recommendations from relatives and friends (21 per cent of enterprises). As can be expected, among enterprises that had a negative employment balance in the preceding period, the third most used means to recruit workers is internal promotion.

Advertising, public employment services and recommendations from relatives and friends are the methods most used by micro, small and medium size job creating enterprises, especially those operating in manufacturing, construction and trade. Among micro-enterprises that destroyed jobs in the prior period, the primary method of recruitment is the public employment service. Similarly to enterprises, unincorporated businesses – and especially micro and small entrepreneurs operating in the manufacturing, trade and administrative services sectors – use the public employment services, advertising and recommendations from relatives and friends to recruit new workers.

Enterprises – irrespective of their prior employment performance – prefer to hire workers with secondary education attainment, followed by workers with higher educational attainment (college and university degree). Such a preference is consistent over a number of economic sectors (trade, manufacturing and construction) and among enterprises expecting to create new jobs in the next twelve months.

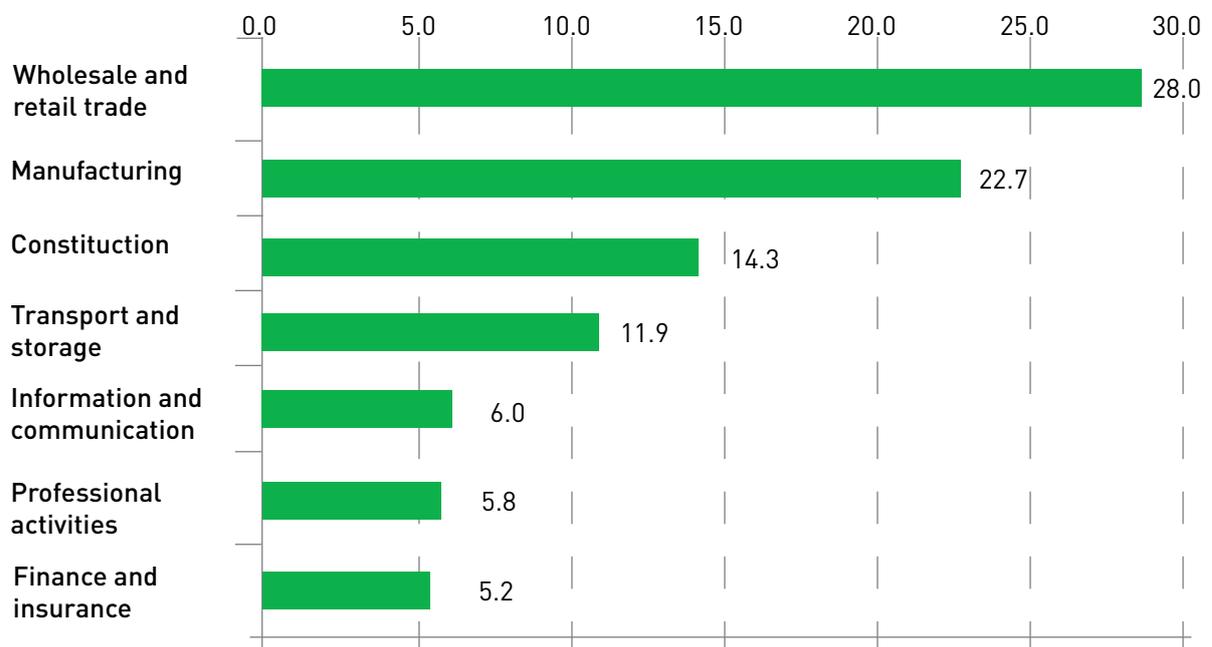
The majority of enterprises expressed no particular preference in terms of the age of the workforce to be recruited. However, the figures show that enterprises that expect to create jobs in the coming period prefer to hire workers in the age group 25 to 44 years of age. The share of enterprises that indicated a preference for younger workers (15 to 24 years of age) is rather small and mostly consists of trade sector enterprises that shed jobs in the prior period (Table A.11 in the Statistical Annex).

Unincorporated businesses predominantly prefer workers with secondary education attainment (especially those in the trade and administrative support sectors). However, in contrast to what occurs with corporate enterprises, only a small number indicated a preference for workers with tertiary educational attainment, pointing to lower skills requirements among these businesses. The situation is similar across all economic sectors, with only businesses in the accommodation and food service sector indicating a preference for college and university educated workers. Only some construction businesses have a preference for unqualified workers and this is most likely related to the typology of vacancies available at the time of the survey.

3.1. Open vacancies

Most respondent enterprises (83.2 per cent of the sample) had open vacancies at the time of the survey (a total of 554 open vacancies were identified among enterprises).⁸ The economic sectors with the largest number of vacancies were trade (28 per cent of the total vacancies detected) and manufacturing (22.7 per cent of the total vacancies). However, whereas the trade sector presents a large dispersion of vacancies across enterprises (e.g. most enterprises had only one vacancy available), over 90 per cent of enterprises in the manufacturing sectors reported more than one vacancy (Figure 7 below).

Figure 7: Open vacancies by economic sectors (enterprises)

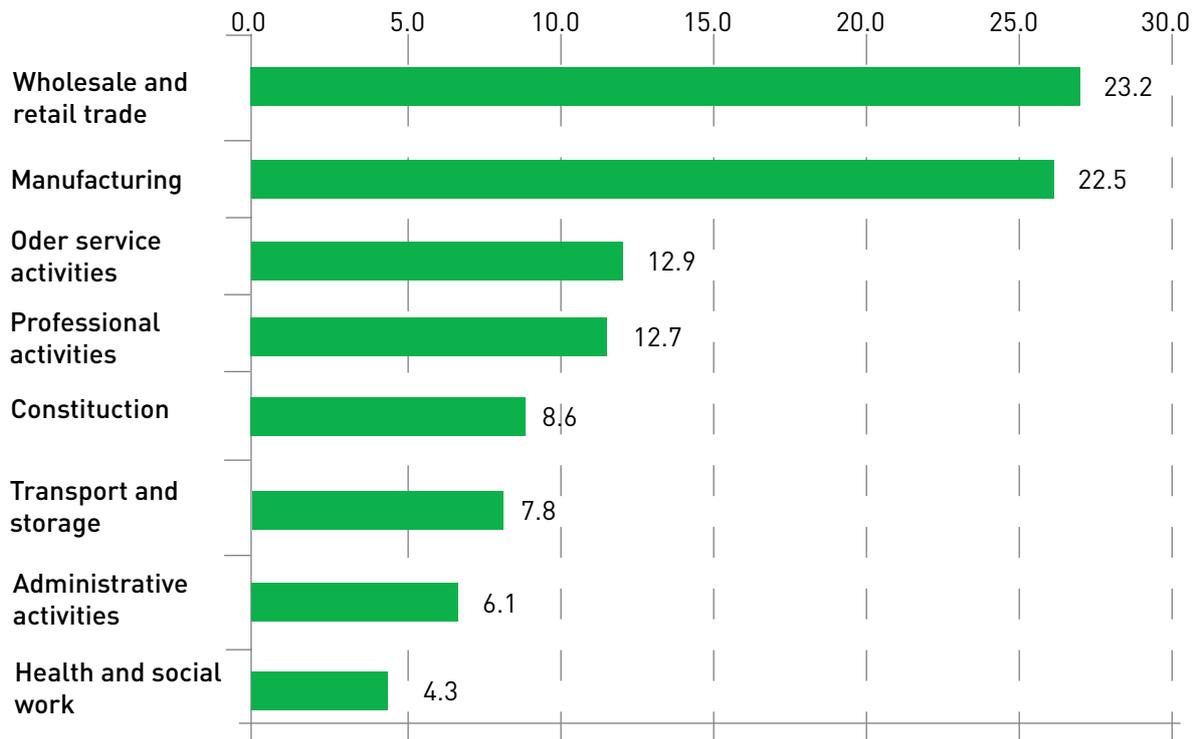


Source: RSO, Occupational skills survey 2011

As expected, enterprises reporting vacancies are mostly those that created jobs in the prior twelve months (14.4 per cent of the overall sample). Among these, the more dynamic sectors are finance and insurance, trade and construction. Among enterprises that shed labour in the prior period, only six enterprises reported having open vacancies (accounting for 3.8 per cent of all vacancies detected). Interestingly, among all enterprises that expect to create jobs in the next twelve months, only enterprises in the manufacturing sectors had open vacancies at the time of the survey. Unincorporated businesses also had quite a number of vacancies open, mostly in the trade (23.2 per cent of the total vacancies posted by entrepreneurs) and manufacturing sectors (22.5 per cent). Most businesses reported between one and four vacancies open at the time of the survey.

⁸ The survey instrument simply asked whether the enterprise had open vacancies, without enquiring whether steps had already been taken to fill the post.

Figure 8: Open vacancies by economic sectors (entrepreneurs)



Source: RSO, Occupational skills survey 2011

Contrary to what occurs for enterprises, there are quite a number of vacancies among entrepreneurs operating in the professional and other service sectors (25.6 per cent of total vacancies). Most job creating entrepreneurs with vacancies available operate in the manufacturing and administrative support sectors. In addition, construction businesses, which mostly destroyed jobs in the previous period, appear to be recovering (8.6 per cent of total vacancies reported).

The most recurring occupations among open vacancies are summarized in Table 12 below. Job creating enterprises are looking above all for general office clerks, finance dealers and food production machine operators. Enterprises that shed jobs in the previous period are primarily searching for ICT and science technicians.

Table 12: Top occupations by number of vacancies (enterprises)

| Job creating enterprises | | Job destroying enterprises | |
|---|-------|---------------------------------------|-------|
| Occupations | Total | Occupations | Total |
| General office clerks | 30 | ICT user support technicians | 4 |
| Finance dealers and brokers | 29 | Chemical/physical science technicians | 2 |
| Food-products machine operators | 23 | Miners and quarries | 2 |
| Telecommunications engineers | 8 | | |
| ICT installers and servicers | 8 | | |
| Civil engineers | 8 | | |
| Bakers, pastry and confectionery makers | 5 | | |
| Hairdressers | 4 | | |
| Veterinarians | 4 | | |

Source: RSO, Occupational skills survey 2011

For unincorporated businesses, the occupational outlook is quite different, with most businesses requiring bakers, pastry and confectionery makers (Pcinjski), cooks (Pomoravski) and welders (Nisavski). As expected, construction-related occupations are also quite in demand (albeit among entrepreneurs that shed labour in the prior period), given the number of vacancies found in this sector.

Table 13: Top occupations by number of vacancies (entrepreneurs)

| Job creating entrepreneurs | | Job destroying entrepreneurs | |
|---|-------|------------------------------|-------|
| Occupations | Total | Occupations | Total |
| Bakers, pastry and confectionery makers | 14 | Civil engineering labourers | 25 |
| Cooks | 5 | | |
| Welders and flame cutters | 4 | | |
| Waiters | 2 | | |

Source: RSO, Occupational skills survey 2011

Overall, 30 per cent of surveyed enterprises—mostly those that created jobs in the previous period – report problems filling vacancies. The economic sectors most affected are finance and insurance, trade and manufacturing among corporate businesses, and manufacturing, construction and accommodation and food services among entrepreneurs. These are also the economic sectors with the highest dynamics in terms of job creation and job destruction.

The problem of hard to fill vacancies affects all enterprise classes, but it appears particularly acute for micro and medium-size enterprises. Interestingly, the strategies to overcome the problem of hard-to-fill vacancies differ between job creating and job destroying enterprises and by economic sector. Job creating enterprises plan to increase the provision of training or apply to a governmental programme (finance and insurance; professional activities sector); or increase salaries to make the job more attractive (trade sector). Job destroying enterprises mostly plan to apply to a governmental scheme or expand recruitment channels (manufacturing sector).

3.2. Occupational outlook (next 3-5 years)

Respondent enterprises were also asked to indicate the occupations most likely to be in demand in the medium term (3 to 5 years). Most of the top ten occupations identified by job creating enterprises belong to the trade (sports, recreation and leisure activities managers, and shop sales assistants); manufacturing (metal working machine tool setters and

Table 14: Occupational forecast (job creating enterprises, next 3-5 years)

| Occupation | Economic sectors |
|---|--|
| Sports and recreation managers | Sales and marketing managers |
| Shop sales assistants | Sales and marketing managers |
| Metal working machine tool operators | Manufacturing |
| Finance dealers and brokers | Finance and insurance |
| Civil engineers | Construction Professional, scientific and technical activities |
| Chemical engineering technicians | Wholesale and retail trade |
| Electronics mechanics and servicers | Wholesale and retail trade Manufacturing |
| Supply, distribution and related managers | Wholesale and retail trade |
| Economists | Wholesale and retail trade Sewerage and waste management |
| Mechanical engineers | Sewerage and waste management Professional, scientific and technical activities |
| Sales and marketing managers | Wholesale and retail trade Manufacturing |

Izvor: RZS, Anketa o poslovnim veštinama 2011.

operators), construction (civil engineers), professional and scientific activities (civil and mechanical engineers), and water and waste management sectors (mechanical engineers).

Job shedding enterprises that expect to recruit workers are found mainly in the manufacturing, trade and construction sectors. However, enterprises in the water and waste management sector also forecast employment increases. Most of the occupations identified by businesses are technical jobs (machine operators, engineers, plumbers).

A simple comparison of the occupations that emerge from current vacancies and those forecasted by enterprises as likely to become most important in the medium term points to a shift in the composition of the workforce, towards higher skills levels.

4. Skills of the workforce and training practices

Enterprise and entrepreneurs consider their current workers as largely competent for the job they are doing (Table 18). Only twenty businesses considered their workers insufficiently skilled, mostly in clerical support occupations (Nisavski), skilled agricultural activities, craft trades, plant machine operations and elementary occupations (Nisavski and Pomoravski). The strategies that businesses plan to implement to overcome such skills deficits are mainly increasing training and recruitment.

Table 15: Share of proficient workforce by economic sectors

| Economic sector | Competent workforce | | | | | | | | |
|--|---------------------|----------------|--------------------------------|---------------------------|---------------------------|-------------------------------|------------------|-----------------------------|-------------------------|
| | Managers: | Professionals: | Technicians and professionals: | Clerical support workers: | Service and sale workers: | Skilled agricultural workers: | Craft and trades | Plant and machine operators | Elementary occupations: |
| Job creating enterprises (last 12 months) | | | | | | | | | |
| Manufacturing | 29.6 | 30.9 | 33.8 | 28.3 | 41.3 | 8.7 | 18.8 | 67.7 | 65.4 |
| Construction | 15.2 | 10.4 | 7.9 | 9.3 | 2.0 | 0.0 | 37.2 | 3.3 | 5.0 |
| Wholesale and retail trade | 25.9 | 17.7 | 18.9 | 28.7 | 30.5 | 67.2 | 12.3 | 4.9 | 12.8 |
| All other sectors | 29.3 | 41.0 | 39.4 | 33.7 | 26.2 | 24.1 | 31.7 | 24.1 | 16.8 |
| Job destroying enterprises (last 12 months) | | | | | | | | | |
| Manufacturing | 28.1 | 48.9 | 48.2 | 36.1 | 35.7 | 0.0 | 42.1 | 42.1 | 33.2 |
| Wholesale and retail trade | 38.0 | 23.2 | 26.1 | 42 | 45 | 55.6 | 22.7 | 33.6 | 37.6 |
| Transport, storage | 1.2 | 1.2 | 2.1 | 0.0 | 0.0 | 44.4 | 3.8 | 0.0 | 2.0 |
| All other sectors | 32.7 | 26.7 | 23.6 | 21.9 | 19.3 | 0.0 | 31.4 | 24.3 | 27.2 |
| Job creating entrepreneurs (last 12 months) | | | | | | | | | |
| Manufacturing | 18.2 | 92.6 | 21.5 | 36.5 | 72.6 | 0.0 | 51.2 | 37.5 | 1.3 |
| Wholesale and retail trade | 69.0 | 0.0 | 17.4 | 22.3 | 23.9 | 0.0 | 37.4 | 0.0 | 37.0 |
| Administrative support | 0.0 | 0.0 | 53.4 | 34.3 | 0.0 | 0.0 | 0.0 | 57.8 | 56.9 |
| All other sectors | 12.8 | 7.4 | 7.7 | 6.9 | 3.5 | 0.0 | 11.4 | 4.7 | 4.8 |
| Job destroying entrepreneurs (last 12 months) | | | | | | | | | |
| Mining and quarrying | 0.0 | 54.6 | 11.8 | 0.0 | 0.0 | 0.0 | 18.0 | 0.0 | 0.0 |
| Manufacturing | 0.0 | 12.7 | 80.7 | 32.8 | 42.5 | 0.0 | 10.9 | 63.5 | 4.3 |
| Construction | 0.0 | 23.2 | 7.5 | 25.1 | 1.3 | 0.0 | 65.3 | 36.5 | 0.0 |
| Construction | 37.7 | 0.0 | 0.0 | 16.4 | 21.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| Accommodation, food service | 60.5 | 0.0 | 0.0 | 24.9 | 33.2 | 0.0 | 5.7 | 0.0 | 95.7 |
| All other sectors | 1.8 | 9.5 | 0.0 | 0.8 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |

Source: RSO, Occupational skills survey 2011

Managers and professionals are the occupational categories that are considered fully competent (mostly in the manufacturing and trade sectors). Professionals and technicians are also found proficient at their job (especially in the manufacturing sector). The highest share of competent clerical support staff and sales workers was found in the manufacturing and trade sectors. Unincorporated businesses present a similar pattern of competency: the most competent workforce is found in manufacturing and trade (nearly all categories of workers, but mostly managers, professionals and technicians).

4.1. Mapping occupational skills needs

The findings of the survey allow us to map, with a certain precision, the occupations that are most likely to create new jobs in the short to medium term in South Serbia. By comparing the figures on occupations that created jobs in the prior twelve months with those of current vacancies and those forecasted (in the next twelve months and for the next 3-5 years), four major occupational groups of interest emerge.

The first category comprise sales occupation (mainly shop sale assistants, but also managers and sales demonstrators). The second category includes clerical occupations (office, stock, accounting and bookkeepers clerks). The third group includes food preparation occupations (cooks, butchers, bakers, pastry makers), while the fourth includes machine operators and assemblers in different typologies of industry (food preparation, metal and wood).

Using the descriptors of the International Standard Classifications of Occupations 2008, the job tasks for each of those job-creating categories of occupations were aggregated into specific vocational skills groups as follows:

1. **Sales skills:** (at basic level) *demonstration of goods and presentation of services, determining clients' requirements and providing explanations, assisting customers' choice-making and taking orders; (at a higher level) commercial selling skills, presentation of offers, soliciting orders, negotiation, presentation of products and services, management of human resources; planning and organizing sales and marketing programmes, retail and wholesale management.*
2. **Administration, accounting and computer literacy skills:** *asic data and information collection, recordkeeping skills, preparing, sorting, classifying data and filling data bases (both financial and stocks of goods data). Compute, classify, and record numerical data to keep financial records. Basic planning skills, use of basic software, data administration, recording, storing, classifying and using data, basic data analysis, writing skills (keeping records, report writing, business correspondence), photocopying and faxing documents.*
3. **Manual skills (food preparation):** *making bread and handmade confectionery; peeling, chopping and other food preparation skills, planning meals, preparing and cooking food; slaughtering animals, cleaning, cutting and dressing meat and fish, removing bones and preparing related food items.*

4. Manual skills (manufacturing): *operating and monitoring machinery in food, metal, wood production and processing, setting and operating machinery; operating, monitoring and maintaining machine tools and equipment, assembling parts, small repairs and replacements of defective items.*

In their occupational forecasting, businesses also indicated the importance of higher skills occupations such as engineering and management. The skills associated with these occupational groups include:

5. Engineering skills: *designing, planning and organizing the testing, construction, installation and maintenance of structures, machines and their components, and production systems and plants; design, and direct construction; manage the operation and maintenance of civil engineering structure, design, and direct production of machines, aircraft, ships, machinery and industrial plant, equipment and systems.*

6. Management skills: *planning, directing, coordinating and evaluating activities of enterprises or organizations, including human resource development and management.*

To a large extent, the findings of the survey indicate that the occupational skills needs of businesses did not change in the prior year nor will they vary substantially in the forthcoming period. A number of occupations show a high degree of dynamism, simultaneously shedding and creating jobs in line with the growth patterns and characteristics of the economic sectors where they prevail. For instance, sales-related occupations, especially in the wholesale and retail trade sector, appear to be highly sensitive to consumer demand fluctuations, shedding jobs quickly when demand contracts, but also quickly recovering when demand picks up. Part of this effect may also be due to the typology of employment contracts prevailing in this industry. As many sales jobs are temporary in nature, it is easier for enterprises to dismiss and recruit workers according to needs.

The pattern of employment creation and destruction in South Serbia appears to be in line with the national trends, with the economic sectors most affected by the 2009 economic crisis being manufacturing, trade and construction. However, the vacancy figures and the forecast of enterprises indicate that there are signs of recovery, more rapid in the manufacturing and trade sectors and somewhat slower in construction.

For the medium term, a moderate shift can be detected towards a higher skills content of occupations, especially among corporate businesses. Conversely, the skills content of occupations prevailing among unincorporated businesses will remain substantially unchanged, with the latter type of businesses likely to absorb part of the labour that will be shed by corporate enterprises.

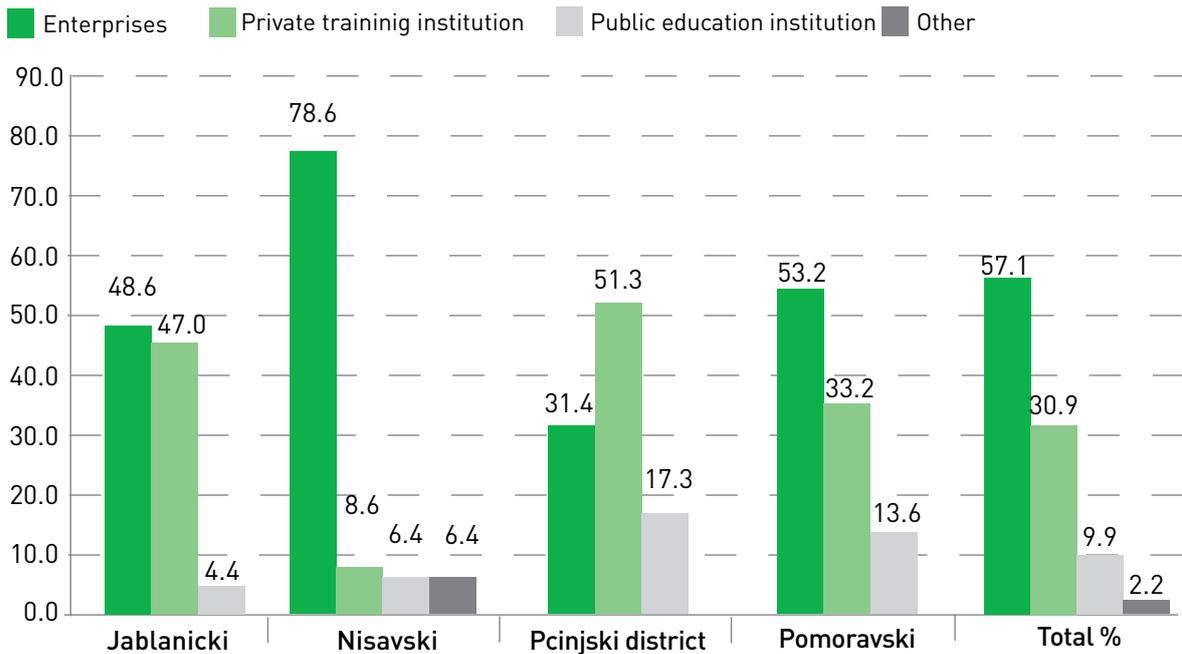
4.2 Training practices of employers

Most enterprises in the region provided training to their workers in the twelve months preceding the survey. Training is generally short (between one and four weeks) and mostly organized and financed by the enterprise itself.

The majority of enterprises that created jobs in the previous period provided training to their workers directly (57 per cent), or relied on private training providers (30.9 per cent of enterprises).

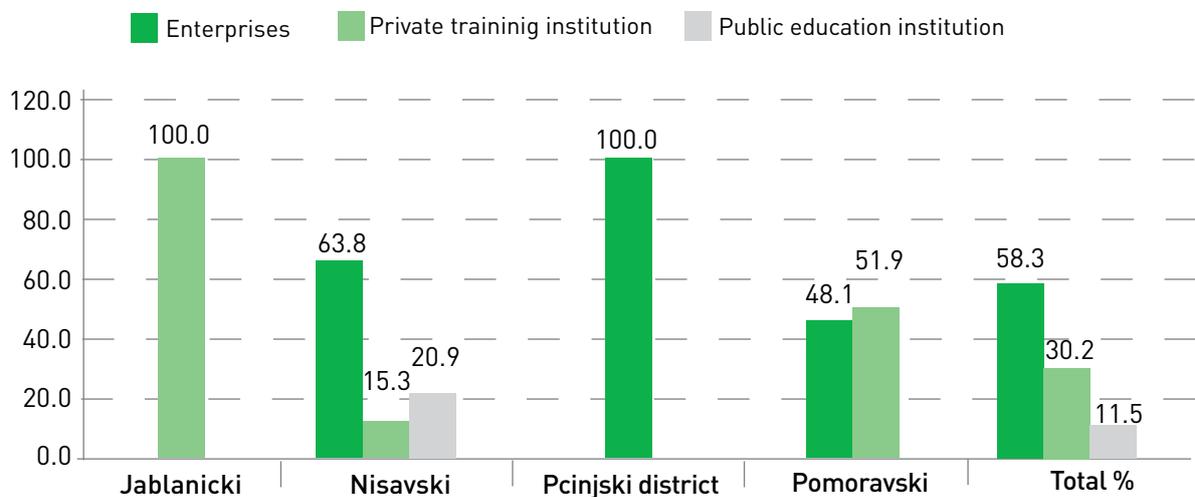
The pattern remains the same across the four districts, with the exception of Pcinjski where private training institutions are more frequently used than other means. The same holds for enterprises that destroyed jobs in the prior twelve months: over 58 per cent of them provided training to the workforce directly, while a third relied on the services of private training institutions. The only exceptions are found in Jablanicki, where training was provided exclusively by private training institutions and Pcinjski, with training solely provided by enterprises (Figures 9 and 10 below).

Figure 9: Training providers (job creating enterprises)



Source: RSO, Occupational skills survey 2011

Figure 10: Training providers (job destroying enterprises)

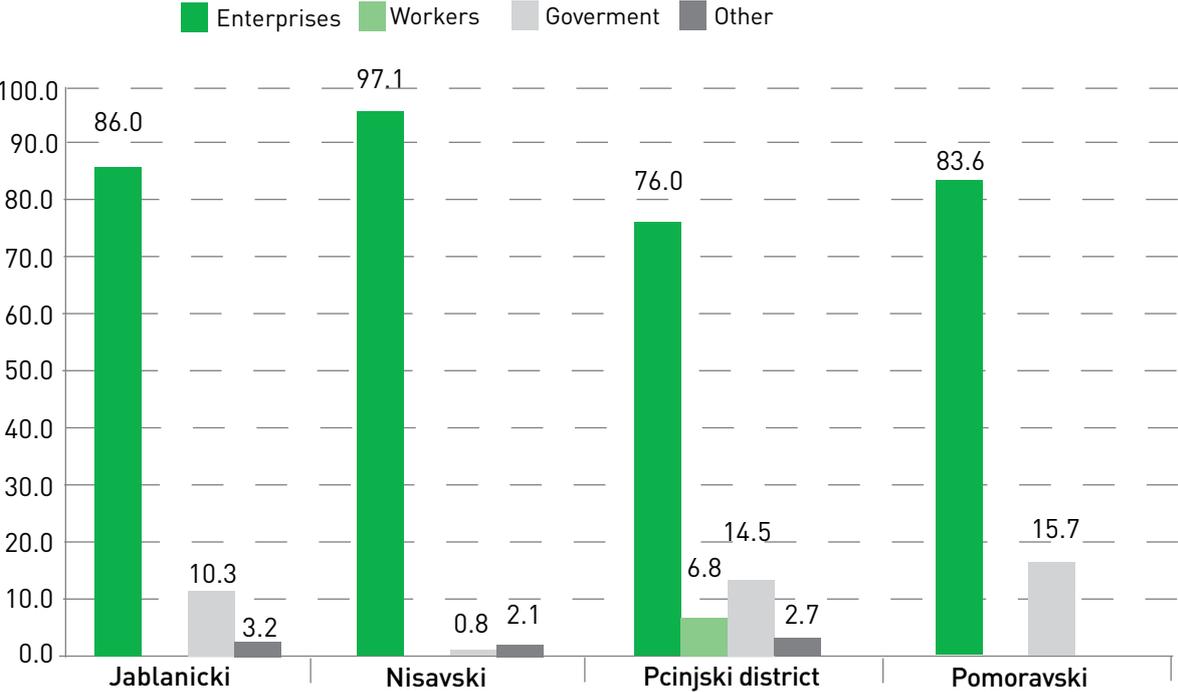


Source: RSO, Occupational skills survey 2011

As mentioned, the duration of training is mostly between one and four weeks, with the only exception found among Jablanicki enterprises, where over 34 per cent of enterprises provided training lasting more than three months.

Training is mostly financed by the businesses themselves, or with the support of governmental programmes. Only a small share of enterprises in the Pcinjski district report training courses financed by workers (Figure 11).

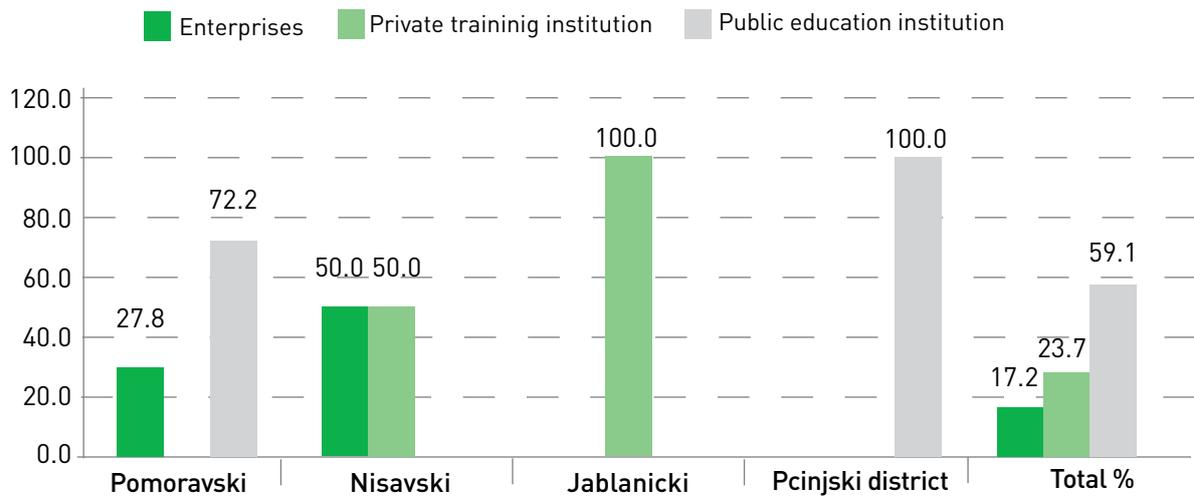
Figure 11: Financing of training for workers (enterprises)



Source: RSO, Occupational skills survey 2011

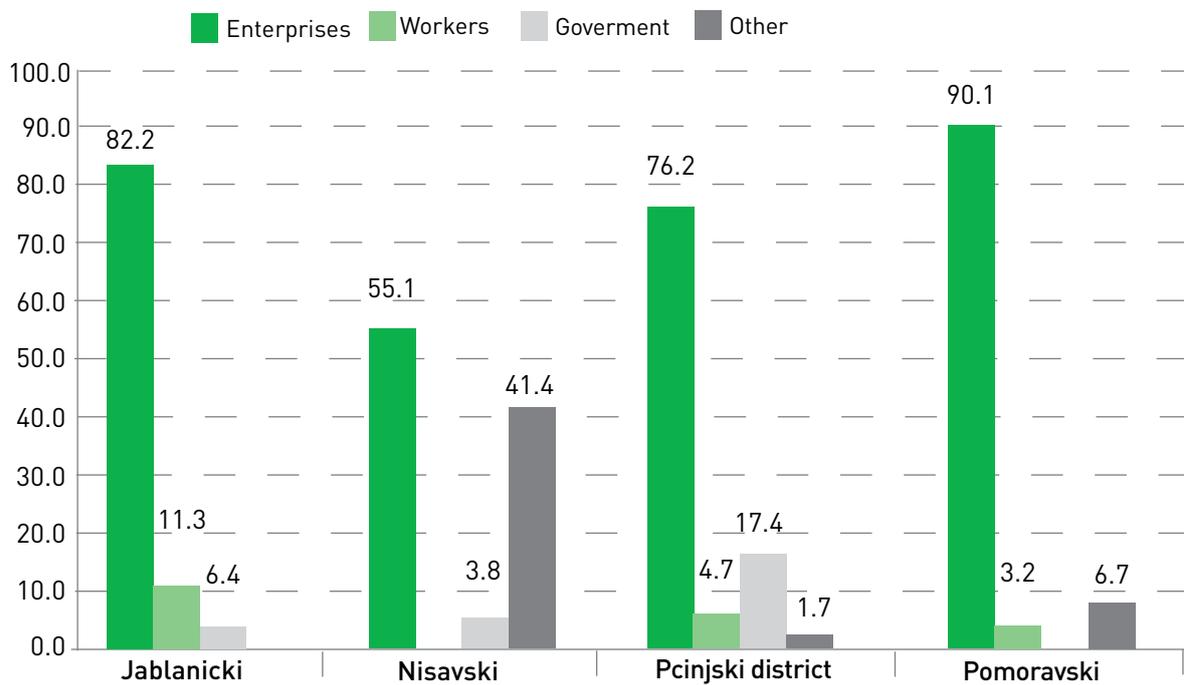
In contrast to enterprises, entrepreneurs mostly organized training by engaging either private or public providers. The choice of public providers prevails in Pcinjski (100 per cent of entrepreneurs) and Pomoravski (72.2 per cent), while entrepreneurs in Jablanicki use only private providers. Similarly to enterprises, training lasts between one and four weeks and it is financed by the employer. The reliance on government programmes is low in all districts, except in Pcinjski. Workers employed by unincorporated business are more likely to fund their own training compared to other workers: this happens in all districts except in Nisavski, where other forms of financing are used by 40 per cent of entrepreneurs (Figures 12 and 13).

Figure 12: Training providers (entrepreneurs)



Source: RSO, Occupational skills survey 2011

Figure 13: Financing of training (entrepreneurs)



Source: RSO, Occupational skills survey 2011

Enterprises in the manufacturing and trade sectors are more likely to provide training to workers employed both in management and production, while the transport and administrative support services are the sectors least likely to invest in human resource development.

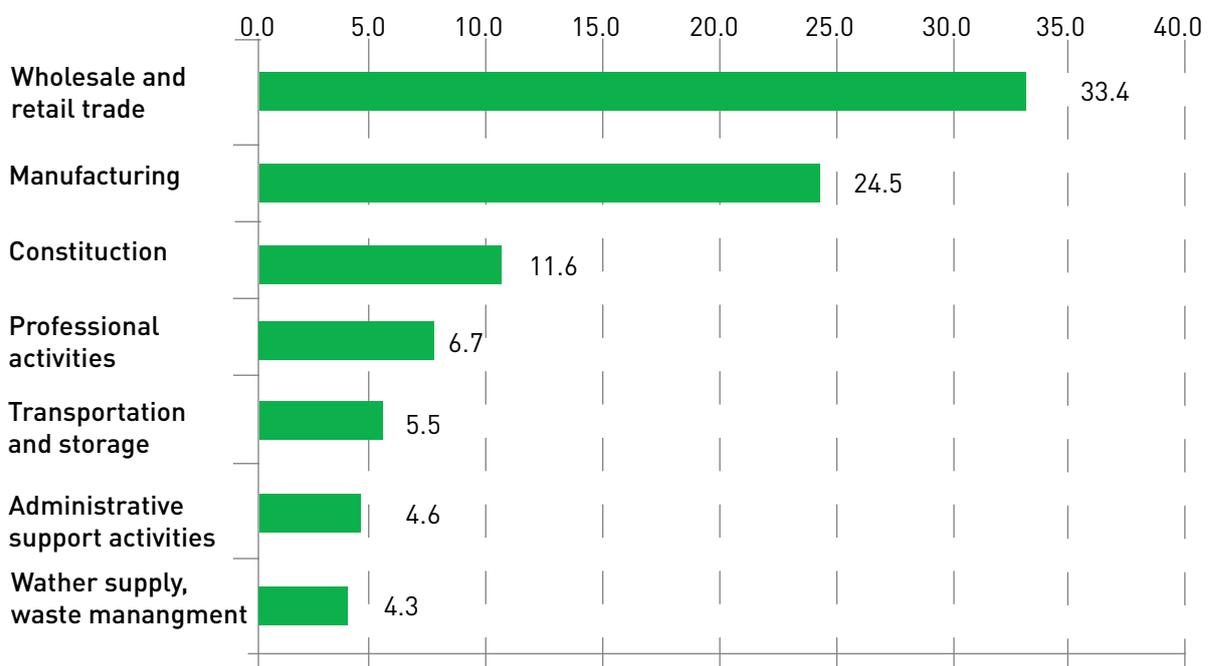
For the managerial category, enterprises tend to train staff with a college or higher level of education, whereas production workers are more likely to receive training when they have a secondary education diploma. This finding conforms to the trends found in other neighbouring countries and in the European Union, whereby enterprises prefer to invest in workers with higher initial skills levels rather than in low-skilled workers.

Most of the workers who received training are in the age group 25 to 44 years old. This confirms the findings of the 2009 *Occupational Skills Survey*, which found that young and older workers are not only less likely to be recruited compared to prime age workers, but are also less likely to be trained.

5. Cooperation with the National Employment Service

Enterprises with an established cooperation with the National Employment Service (NES) of Serbia operate mainly in the trade (33.4 per cent), manufacturing (24.5 per cent) and construction sectors (11.6 per cent). This pattern cut across the four districts and the job creation typology of enterprises. When these figures are compared to the prevailing economic sector structure of surveyed enterprises, the trade sector (comprising over 40 per cent of surveyed enterprises) appears slightly under-represented.

Figure 14: Enterprises cooperating with the NES (prior 12 months, total)



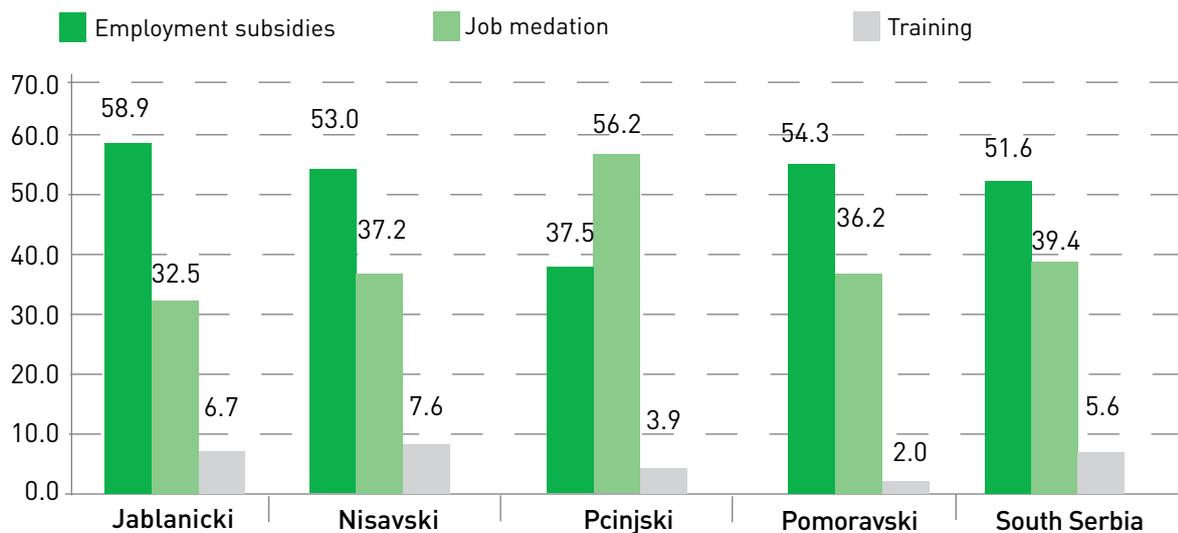
Source: RSO, Occupational skills survey 2011

The micro-enterprise size class has the highest share of cooperation with the employment service (63.5 per cent) followed by small enterprises (24.6 per cent). Only Pcinjski shows an above average share of micro-enterprises cooperating with the employment service (over 73 per cent).⁹

Figure 15 below shows that over half of respondent enterprises cooperate with the NES in the area of employment subsidies, followed by job mediation. The highest peaks in the use of employment subsidies are found among enterprises in the Jablanicki district, while job mediation is most common among enterprises operating in the Pcinjski district.

⁹ Such high shares of micro-enterprises collaborating with the NES is partly due to the structure of the sampling frame, which in turn is driven by the size class composition of enterprises in Serbia.

Figure 15: Areas of cooperation with NES (enterprises)

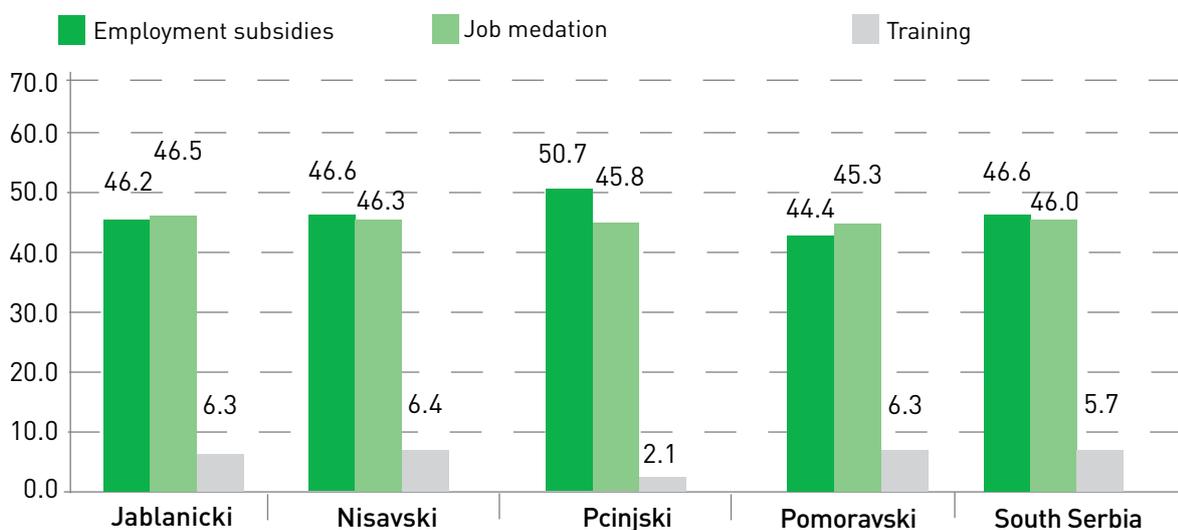


Source: RSO, Occupational skills survey 2011

When only the figures of enterprises that expect to create jobs in the next period are taking into consideration, the economic structure of enterprises cooperating with NES changes, with a prevalence of enterprises operating in manufacturing, followed by enterprises in the construction sector.

The pattern of cooperation between entrepreneurs and the NES follows closely that detected for enterprises. Most entrepreneurs with an established cooperation with NES operate in the manufacturing and trade sectors; the majority belongs to micro and small size class entrepreneurs; and the services used are predominantly job mediation and employment subsidies. The key differences between corporate and unincorporated businesses revolve around the third economic sector most involved with the NES (professional and technical activities for entrepreneurs, construction for enterprises) and the fact that entrepreneurs use equally job mediation services and employment subsidies in all districts, while enterprises primarily approach the NES to gain access to recruitment incentives (see Figure 16 below).

Figure 16: Areas of cooperation with NES (entrepreneurs)



Source: RSO, Occupational skills survey 2011

The figures stemming from the survey show that the cooperation between businesses and the NES in the forthcoming period will follow the existing patterns, also across districts. Hence, the NES will be approached mainly by micro- and small class size enterprises and entrepreneurs, operating in the trade, manufacturing, construction and professional activities sectors. More than half of these businesses will approach the NES to gain access to employment subsidies and over a third will require job mediation services (Table 20 below).

Table 16: Future cooperation between enterprises and NES

| | Pomoravski | Nisavski | Jablanicki | Pcinjski | South Serbia |
|----------------------------------|------------|----------|------------|----------|--------------|
| Size class | | | | | |
| Micro-enterprises | 93.4 | 82.5 | 87.3 | 89.6 | 87.2 |
| Small enterprises | 6.6 | 17.3 | 9.6 | 10.4 | 12.1 |
| Medium-size enterprises | 0.0 | 0.2 | 1.2 | 0.0 | 0.4 |
| Large enterprises | 0.0 | 0.0 | 1.8 | 0.0 | 0.4 |
| Economic sector | | | | | |
| Wholesale and retail trade | 31.6 | 34.4 | 33.4 | 31.6 | 38.7 |
| Manufacturing | 16.6 | 31.1 | 35.4 | 19.7 | 27.3 |
| Finance and insurance activities | 0.0 | 17.3 | 0.0 | 0.0 | 8.9 |
| Construction | 6.0 | 4.6 | 20.9 | 2.1 | 6.9 |
| ICT | 13.5 | 2.3 | 0.0 | 0.0 | 3.7 |
| Transport and storage | 10.4 | 0.0 | 7.7 | 2.6 | 3.5 |
| Professional activities | 11.0 | 2.3 | 0.0 | 0.0 | 3.2 |
| Typology of service | | | | | |
| Employment subsidies | 43.1 | 59.5 | 46.0 | 51.7 | 51.2 |
| Job mediation | 36.0 | 30.5 | 44.3 | 31.1 | 35.0 |
| Training | 16.2 | 10.0 | 9.7 | 10.2 | 11.5 |

Source: RSO, Occupational skills survey 2011

If one considers only enterprises that expect to create jobs in the forthcoming period, the economic structure of enterprises is reversed, with enterprises operating in the manufacturing sector (71.4 per cent) largely prevailing over trade establishments (11 per cent). Entrepreneurs largely follow this latter trend, with manufacturing entrepreneurs more likely to approach the NES in the forthcoming period (52.4 per cent of surveyed entrepreneurs), followed by businesses in the administrative support services (24.7 per cent) and, lastly, by trade establishments (18.8 per cent).

6. Conclusions and policy implications

6.1. Concluding remarks

The key findings of the 2011 *Occupational Skills Needs Survey* suggests that South Serbia is facing a challenging labour market outlook. Two set of problems emerge clearly. On the one hand, the region presents lower than average shares of micro and small business establishments compared to the rest of the country as well as a low number of business start-ups. While this may in part be due to the impact of the 2009 economic crisis – which affected negatively the plans for new investments and business ventures – the figures show that the share of new businesses (1-2 years of operations) is three times lower in South Serbia compared to the country's average. On the other hand, the employment dynamics recorded in the region are driven by only two economic sectors, namely trade and manufacturing, with more innovative sectors (such as information and communication, professional and scientific services) largely under-represented. This affects the distribution of occupations in the local labour markets, with a prevalence of low and medium-skills level jobs.

In light of the above, policy measures targeting the region should primarily address the business constraints affecting the start up of micro- and small businesses (infrastructure development, red tape, tax administration procedures, lack of quality financial and non-financial services) and workforce development challenges.

The improvement of the skills base of the workforce, in particular, should be given priority. The educational structure of the region shows a lower skills base compared to the rest of the country – with high shares of individuals with primary education only. Enterprises in the region, conversely, tend to recruit and train workers with secondary and tertiary educational attainment. This is partly due to the imperfect signalling of the education system: in fact, the preference for higher level of education is often not aligned to the tasks the jobs entail. Such a situation calls for more and better labour market training programmes, as part of the active labour market policy package offered by the National Employment Service in the region. This would also support enterprises and entrepreneurs in improving their human resource development practices. Job-related training provided by enterprises was found to be very short and with little reliance on external providers. Despite the fact that training is considered as the key strategy to overcome the problem of hard-to-fill vacancies, only 6 per cent of businesses used the training services available at the employment service and less than 12 per cent of enterprises are interested in using this service.

The survey findings provide clear indications for the design and targeting of employment programmes in terms of enterprise size class (micro and small enterprises), economic sectors (trade, manufacturing and, to a lesser extent, construction and professional services), occupations (sales assistants; office and bookkeeping clerks; bakers, butchers and food preparers; and machine tools operators) and the skills most likely to create jobs in the short and medium-term. Attention also needs to be paid to those sectors that shed labour in the previous period, but now appear to be recovering (construction; transport and storage; finance and insurance; as well as accommodation and food-related activities) and to the emerging information and communication technology and professional service sectors.

Employers' recruitment preference in terms of workers' age-group confirms the findings of prior research. Businesses tend to recruit individuals aged between 25 to 44 years old, namely workers in their prime, more likely to have updated skills and prior work experience.

Being a young or older worker – especially when combined with other personal characteristics such as educational attainment, prior work experience, sex and ethnic belonging – may represent a risk factor in the labour market. Young people, due to their lack of job-related skills and work experience, are likely to find jobs in enterprises characterized by high worker turnover and insecure job tenure (mainly in the service sector). At the other end of the age spectrum, mature workers have difficulties in getting hired, because employers perceive these workers as having obsolete skills and being less capable of adapting to new organizational and technological practices. Employment programmes targeting young people with vocational training, work experience and job-readiness skills on the one hand, and mature workers with skills re-training and wage incentives, on the other, may prove effective in reducing age-related risk factors.

6.2. Policy implications

Aside from the general policy recommendations listed in the previous paragraphs, the findings of the survey point to a number of specific measures that may be taken into consideration to improve the occupational outlook in the region.

- *Promoting micro and small business development through targeted interventions.* The provision of tax incentives, guaranteed loans and other types of subsidies could improve the entrepreneurship rate in the region.¹⁰ These measures could be supplemented by an expansion of the active labour market programmes implemented by the employment services, namely skills training, and employment subsidies targeting economic sectors and occupations that are found to be most likely to create jobs in the near future.
- *Supporting expanding and emerging economic sectors.* The manufacturing and trade sectors, most likely to create new jobs in the near future, need to be supported especially in the area of human resource development. This could take the form of subsidized on-the-job training to upgrade the skills level of the existing workforce and new recruits. This would supplement the resources currently invested by businesses in workforce training. The same would apply to those economic sectors that are showing signs of recovery (finance and insurance, professional services, ICT) and those that are emerging. The *National program for rural development (2011-2013)* identified the food processing and food marketing industries as key sectors for the development of rural areas. Hence, it may be worth considering measures to strengthen this sector, and especially the production, trading and marketing of foods with geographic designation of origin.
- *Improving the scope and relevance of adult vocational training programmes to local labour market needs.* The survey findings point to an increasing interest of businesses in the training programmes offered by the National Employment Service. However, some of the design features of these programmes may discourage micro and small enterprises and entrepreneurs from taking them up (for example, eligibility requirements regarding size class and occupations, the obligation to employ after the training period, rigid training programmes not suited to the needs of smaller employers, lack of certification mechanisms). This could be overcome by adopting

¹⁰ The entrepreneurship rate refers to the number of new businesses registered in a specific reference period. Although this measurement does not include enterprises and entrepreneurs in the informal economy, it can provide a benchmark against which to measure progress.

a more flexible approach offering a combination of off- and on-the-job programmes of varying duration and supplemented by other employment incentives (such as work experience and internship schemes for younger workers and wage subsidies for older ones). Such an approach would also serve to adapt labour market training programmes to the needs of individuals at risk of labour market exclusion, such as young and older workers and the long term unemployed. Expanding the scope of training programmes for both workers and unemployed individuals means that the employment service will have to rely on an increasing number of private and public training providers. The collaboration established by the NES with the Regional Adult Education and Training Centres (RTCs) by the Ministry of Education, represents a first step forward. In addition, local (public and private) educational institutions, whose services have long been used by local employers, should become part of the NES network of external providers in the region.¹¹ This would offer the employment service further avenues to expand adult training provision.

- *Promoting labour market mobility over the districts in the region.* One of the key challenges facing the region is the loss of working age population, due to scarce employment opportunities. However, the data show that there are indeed vacancies available in all the districts. Two main factors may be at the root of this inconsistency: i) information on vacancies and on workers with suitable skills is not made available in a timely manner throughout the region and/or the information fails to reach the interested parties; and ii) there are constraints that limit the mobility of workers (transport, family responsibilities). Mobility and family care constraints can be addressed by offering incentives to workers who accept jobs away from their residence (such incentives will make work “pay” for many, given the low average wage level). The lack of timely labour market information can be addressed by expanding the IT based self-service system already available at the employment services and by setting up labour market information kiosks in non-traditional locations (shopping malls, bus and train stations, sports and leisure halls and so on).
- *Strengthening the capacity of the National Employment Service to respond to the needs of workers and employers.* The findings of the survey indicate that there has been a noticeable improvement in the market penetration of the NES, with increasing numbers of employers interested in the available services. However, given the diversity of the districts in the region, there is a need to decentralize decision-making especially with regard the design and targeting of employment services and active labour market programmes. More importantly, local employment offices should play a more active role in identifying and addressing the occupations and skills requirements of local employers on the one hand, and the individual factors most likely to determine poor labour market outcomes, on the other. This, in turn may also lead to the implementation of positive discrimination programmes to respond to the specific needs of groups that are most vulnerable in the local labour market (for instance, Roma population groups, refugees, early school leavers and person with disabilities).

¹¹ In Pcinjski, the People’s University of Vranje, the High School of Economics (Vranje), the Chemical-Technology High School, the Technical High School (Vranje), the Medical High School, the Agricultural and Veterinary High School of Vranje and that of Surdulica, the Technical High School, of Bujanovac, the Educational Agency “Milenijum III” and “Omega systems”. In Jablanicki, the Household Economics Center “Danica Vuksanovic”, the Technical High School “Rade Metalac”, the High School for Design and Textile, the Hospitality and Trade High School, the Chemical-Technological High School, the Agricultural High School, the Wood Processing Technical High School of Grdelica and the Civil Engineering High School of Crna Trava.

Statistical annex

Methodological note

The Occupational Skills Needs Survey was conducted by the Republic Statistical Office of Serbia in February 2011. The survey – covering four districts in South Serbia, namely Pcinjski, Jablanicki, Nisavski and Pomoravski – surveyed a total of 666 enterprises and 487 entrepreneurs (i.e. unincorporated businesses). The aim was to identify enterprises, occupations and skills most likely to create jobs in the short to medium term.

Compared to the first occupational survey run by the Statistical Office in 2009, the current research presents a number of improvements.

First, the current survey builds on a sample frame of 5,267 enterprises and 8,073 unincorporated businesses generated at country level by cross-referencing the records of the business register and of the tax administration. The units included in the sample were selected based on a stratified random sampling procedure (by district, enterprise size class and economic sector). Since the initial response rate was relatively low (62 per cent for enterprises and 54 per cent for unincorporated businesses), 400 more units were randomly selected.

Second, the survey instrument was re-designed to overcome the limits identified in the previous survey. The new questionnaire: i) allows the analysis of data within a job creation/job destruction framework; ii) classifies occupations according to the 2008 International Standard Classification of Occupations (ISCO); and iii) derives occupational skills from the international classification, rather than from enterprises' responses. This allows a more precise forecasting of the skills needs of business establishments.

Finally, the instrument was streamlined to allow its administration by phone, rather than on a one-to-one basis, to reduce costs and allow the use of the same data collection means that will be used to run national job vacancy surveys.¹²

¹² Job vacancy surveys aligned to the relevant European Union (EU) regulations and standards (*Regulation No 453/2008 of 23 April 2008; Commission Regulations No 1062/2008 of 28 October 2008 and No 19/2009 of 13 January 2009*) will be conducted in Serbia as of 2011.

Table A.1: Enterprises and entrepreneurs by type of ownership (South Serbia, %)

| Type of ownership | South Serbia | Jablanicki | Nisavski | Pcinjski | Pomoravski |
|--------------------------|--------------|--------------|--------------|--------------|--------------|
| Enterprises | | | | | |
| Privately owned | 95.5 | 93.0 | 95.5 | 93.6 | 95.5 |
| Socially owned | 0.8 | 1.3 | 0.8 | 1.0 | 0.5 |
| Public and state-owned | 2.1 | 4.9 | 1.8 | 2.1 | 1.0 |
| Joint or mixed ownership | 1.4 | 0.9 | 0.6 | 3.3 | 1.7 |
| Other ownership | 0.3 | 0.0 | 0.0 | 0.0 | 1.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Entrepreneurs | | | | | |
| Privately owned | 99.8 | 98.9 | 100.0 | 100.0 | 100.0 |
| Socially owned | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Public and state-owned | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Joint or mixed ownership | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| Other ownership | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: RSO, Occupation and Skills Needs Survey, 2011

Table A.2: Enterprises and entrepreneurs by size class (South Serbia, %)

| Size class | South Serbia | Jablanicki | Nisavski | Pcinjski | Pomoravski |
|---------------------------|--------------|--------------|--------------|--------------|--------------|
| Enterprises | | | | | |
| Micro (1-9 employees) | 67.9 | 68.0 | 79.4 | 74.2 | 71.6 |
| Small (10-49 employees) | 24.3 | 22.0 | 13.7 | 19.3 | 20.1 |
| Medium (50-249 employees) | 7.3 | 7.5 | 6.2 | 3.8 | 6.3 |
| Large (250+ employees) | 0.6 | 2.5 | 0.8 | 2.6 | 2.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Entrepreneurs | | | | | |
| Micro (1-9 employees) | 87.6 | 89.8 | 93.5 | 95.5 | 91.3 |
| Small (10-49 employees) | 10.6 | 10.1 | 6.5 | 4.5 | 8.2 |
| Medium (50-249 employees) | 0.7 | 0.1 | 1.1 | 0.0 | 0.2 |
| Large (250+ employees) | 1.1 | 0.0 | 1.1 | 0.0 | 0.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: RSO, Occupation and Skills Needs Survey, 2011

Table A.3: Enterprises and entrepreneurs by main economic sectors (South Serbia, %)

| Economic sector | Jablanicki | Nisavski | Pcinjski | Pomoravski |
|-----------------------------------|------------|----------|----------|------------|
| Enterprises | | | | |
| Manufacturing | 27.7 | 21.5 | 23.2 | 22.2 |
| Water supply, waste management | 2.5 | 4.2 | 0.8 | 2.3 |
| Construction | 8.5 | 10.5 | 6.7 | 10.2 |
| Wholesale and retail trade | 35.8 | 37.3 | 50.2 | 40.7 |
| Transport and storage | 9.6 | 5.6 | 4.8 | 3.0 |
| Accommodation and food service | 0.3 | 1.6 | 4.0 | 0.6 |
| ICT | 1.9 | 2.4 | 2.6 | 3.9 |
| Finance and insurance | 1.5 | 1.3 | 0.0 | 0.0 |
| Professional activities | 6.5 | 9.0 | 3.6 | 6.0 |
| Administrative support activities | 2.4 | 3.3 | 1.0 | 6.6 |
| Education | 1.3 | 3.0 | 1.2 | 0.8 |
| Entrepreneurs | | | | |
| Manufacturing | 28.4 | 19.4 | 14.6 | 12.9 |
| Construction | 11 | 3.7 | 5.9 | 5.0 |
| Wholesale and retail trade | 37.1 | 36.3 | 44.6 | 45.3 |
| Transport and storage | 2.5 | 1.6 | 3.7 | 8.4 |
| Accommodation and food service | 2.7 | 4.2 | 11.4 | 4.4 |
| Finance and insurance | 3.3 | 7.2 | 1.2 | 3.6 |
| Professional activities | 6.1 | 12.0 | 1.7 | 7.3 |
| Administrative support activities | 3.5 | 2.0 | 1.2 | 2.2 |
| Health and social services | 3.7 | 3.0 | 3.5 | 4.8 |
| Other services | 2.8 | 7.9 | 8.2 | 3.7 |

Figure A.1: Enterprises by length of operations (%)

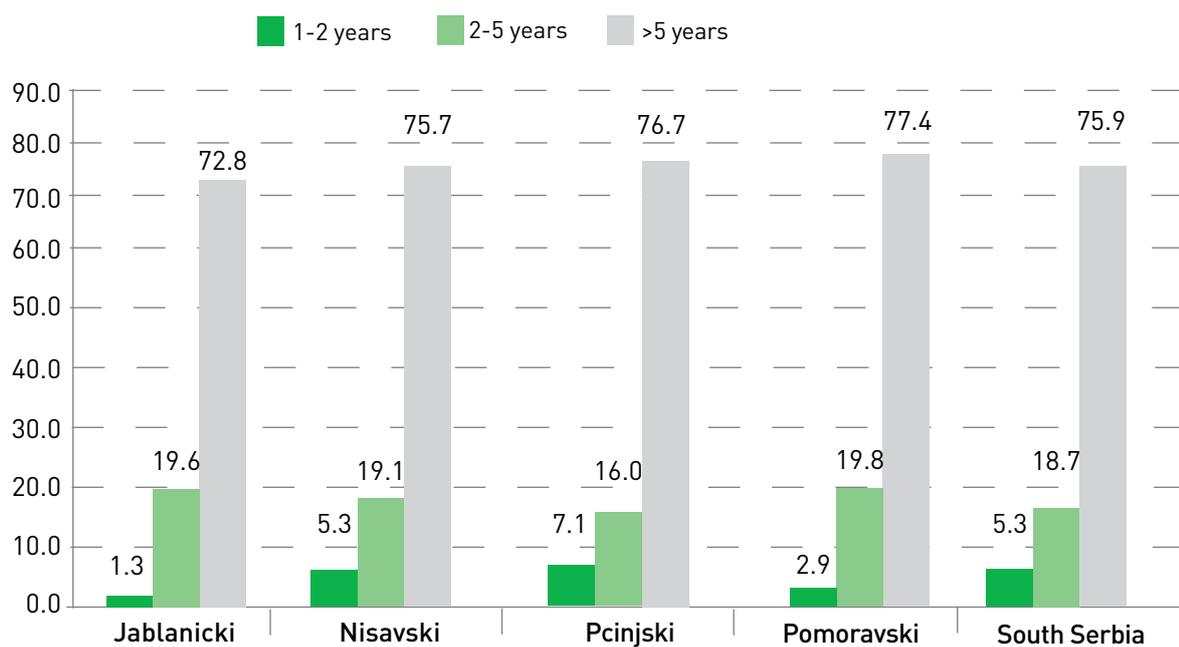


Figure A.2: Entrepreneurs by length of operations (%)

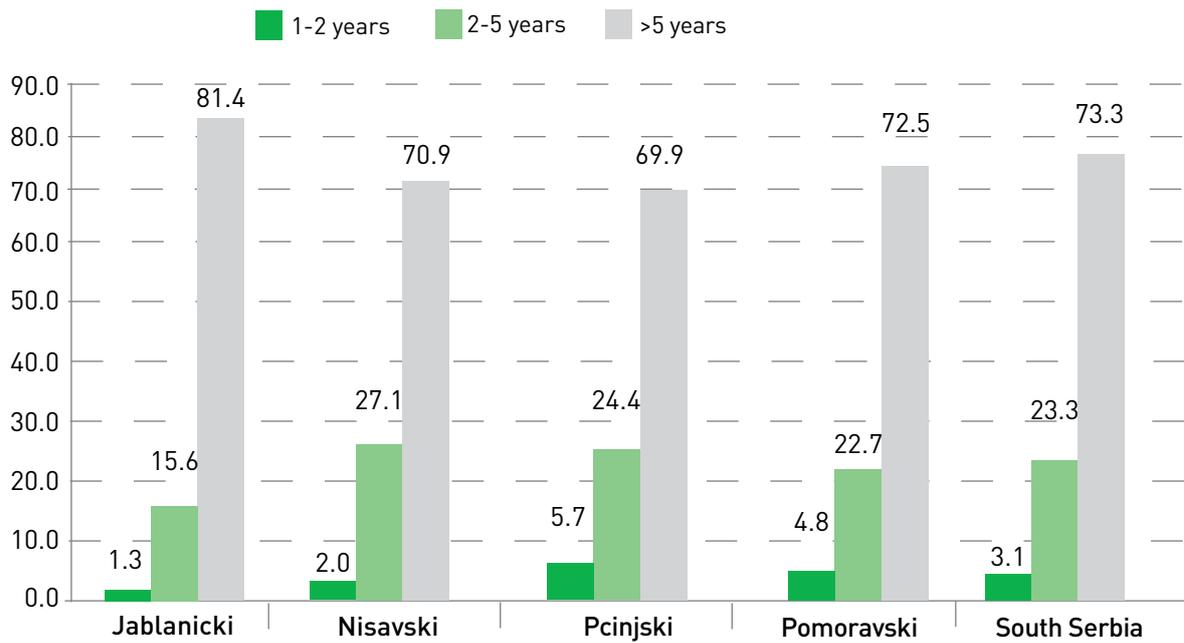


Table A.4: Enterprises and entrepreneurs with positive/negative employment growth by size class

| Size class | Jablanicki | | Nisavski | | Pcinjski | | Pomoravski | | South Serbia | |
|----------------------|------------|------|----------|------|----------|------|------------|------|--------------|------|
| | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. |
| Enterprises | | | | | | | | | | |
| Micro (1-9) | 18.5 | 21.7 | 24.8 | 26.4 | 31.8 | 0.0 | 64.1 | 0.0 | 31.8 | 21.8 |
| Small (10-49) | 54.6 | 38.7 | 41.4 | 52.8 | 43.5 | 87.8 | 28.0 | 52.3 | 42.0 | 49.8 |
| Medium (50-249) | 25.1 | 9.6 | 31.8 | 15.7 | 22.9 | 12.2 | 4.7 | 41.0 | 24.1 | 16.0 |
| Large (250+) | 1.7 | 30.1 | 1.9 | 5.2 | 1.7 | 0.0 | 3.2 | 6.7 | 2.1 | 12.4 |
| Entrepreneurs | | | | | | | | | | |
| Micro (1-9) | 0.0 | 90.2 | 80.2 | 95.4 | 75.0 | 71.1 | 69.8 | 50.0 | 70.0 | 91.0 |
| Small (10-49) | 61.1 | 9.8 | 18.2 | 4.6 | 25.0 | 28.9 | 30.2 | 50.0 | 26.9 | 9.0 |
| Medium (50-249) | 38.9 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 0.0 |

Source: RSO, Occupation and skills survey, 2011

Table A.5: Enterprises with positive/negative employment growth by economic sectors (last 12 months)

| Economic sector | South Serbia | | Jablanicki | | Nisavski | | Pcinjski | | Pomoravski | |
|-----------------------------------|--------------|------|------------|------|----------|------|----------|------|------------|------|
| | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. |
| Agriculture, forestry and fishing | 0.4 | 1.6 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.5 |
| Manufacturing | 23.7 | 39.3 | 13.1 | 20.3 | 30.2 | 39.8 | 30.1 | 51.5 | 14.0 | 36.5 |
| Electricity and gas | 1.0 | 1.1 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 5.7 | 0.0 |
| Water supply, waste management | 5.1 | 6.3 | 6.9 | 39.1 | 7.3 | 7.7 | 2.2 | 5.5 | 0.0 | 0.0 |
| Construction | 10.5 | 10.1 | 23.8 | 0.0 | 5.2 | 9.6 | 17.7 | 17.1 | 2.9 | 10.0 |
| Wholesale and retail trade | 41.2 | 34.5 | 27.1 | 40.6 | 35.5 | 35.5 | 36.4 | 20.3 | 75.5 | 36.3 |
| Transport and storage | 3.0 | 1.3 | 8.2 | 0.0 | 0.0 | 1.3 | 6.6 | 0.0 | 1.8 | 1.7 |
| Finance and insurance activities | 7.7 | 1.5 | 0.0 | 0.0 | 16.8 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 |
| Professional activities | 2.8 | 0.5 | 8.7 | 0.0 | 2.2 | 0.0 | 0.0 | 5.5 | 0.0 | 0.0 |
| Administrative support activities | 0.3 | 1.6 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 5.5 |
| Other service activities | 1.1 | 39.3 | 0.0 | 20.3 | 0.0 | 39.8 | 7.0 | 51.5 | 0.0 | 36.5 |

Table A.6: Entrepreneurs with positive/negative employment growth by economic sectors (last 12 months)

| Economic sector | South Serbia | | Jablanicki | | Nisavski | | Pcinjski | | Pomoravski | |
|-----------------------------------|--------------|------|------------|------|----------|------|----------|------|------------|-------|
| | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. |
| Manufacturing | 48.8 | 31.0 | 100.0 | 9.8 | 91.5 | 45.5 | 25.0 | 16.6 | 16.8 | 0.0 |
| Construction | 1.4 | 23.7 | 0.0 | 42.4 | 2.6 | 17.0 | 0.0 | 0.0 | 1.6 | 0.0 |
| Wholesale and retail trade | 24.3 | 15.5 | 0.0 | 47.8 | 0.0 | 0.0 | 75.0 | 0.0 | 7.8 | 0.0 |
| Accommodation and food services | 2.3 | 24.8 | 0.0 | 0.0 | 3.2 | 37.5 | 0.0 | 0.0 | 4.0 | 100.0 |
| Administrative support activities | 22.4 | ... | 0.0 | ... | 0.0 | ... | 0.0 | ... | 69.8 | ... |
| Other service activities | 0.8 | 0.7 | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 12.3 | 0.0 | 0.0 |

Table A.7: Enterprises expecting positive/negative employment growth by size class (next 12 months)

| Size class | Jablanicki | | Nisavski | | Pcinjski | | Pomoravski | | South Serbia | |
|-----------------|------------|------|----------|------|----------|------|------------|-------|--------------|------|
| | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. |
| Micro (1-9) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Small (10-49) | 100.0 | 0.0 | 77.0 | 0.0 | 79.2 | 0.0 | 0.0 | 0.0 | 79.7 | 0.0 |
| Medium (50-249) | 0.0 | 0.0 | 16.4 | 51.7 | 0.0 | 0.0 | 0.0 | 100.0 | 11.0 | 60.0 |
| Large (250+) | 0.0 | 0.0 | 6.6 | 48.3 | 20.8 | 0.0 | 0.0 | 0.0 | 9.3 | 40.0 |

Table A.8: Enterprises expecting positive/negative employment growth by main economic sectors (next 12 months)

| Economic sector | South Serbia | | Jablanicki | | Nisavski | | Pcinjski | | Pomoravski | |
|-----------------------------------|--------------|------|------------|------|----------|------|----------|-------|------------|------|
| | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. | Pos. | Neg. |
| Agriculture, forestry and fishing | 0.0 | 17.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 |
| Manufacturing | 71.4 | 40.0 | 100.0 | 0.0 | 57.3 | 48.3 | 0.0 | 0.0 | 100.0 | 0.0 |
| Construction | 13.2 | 0.0 | 0.0 | 0.0 | 19.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wholesale and retail trade | 11.0 | 0.0 | 0.0 | 0.0 | 16.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Transport and storage | 0.0 | 42.9 | 0.0 | 0.0 | 0.0 | 51.7 | 0.0 | 0.0 | 0.0 | 0.0 |

Table A.9: Recruitment methods

| | Advertisement | Education/training institutions | Public Employment Service | Relatives, friends | Promoting employees | Other |
|-------------------------------|---------------|---------------------------------|---------------------------|--------------------|---------------------|-------|
| Enterprises | | | | | | |
| Job creating (last 12 months) | 42.5 | 1.7 | 41.6 | 21.0 | 0.6 | 4.7 |
| Job shedding (last 12 months) | 36.2 | 1.31 | 47.2 | 1.6 | 12.9 | 0.8 |
| Job creating (next 12 months) | 32.5 | 7.5 | 45.0 | 0.0 | 10.0 | 5.0 |
| Entrepreneurs | | | | | | |
| Job creating (last 12 months) | 32.4 | 0.0 | 33.1 | 0.0 | 32.4 | 2.0 |
| Job shedding (last 12 months) | 6.1 | 0.0 | 57.1 | 26.9 | 6.1 | 3.8 |

Table A.10: Preferred level of education

| | Primary | Secondary | College | University | Other |
|-------------------------------|---------|-----------|---------|------------|-------|
| Enterprises | | | | | |
| Job creating (last 12 months) | 4.3 | 49.8 | 22.8 | 21.1 | 1.5 |
| Job shedding (last 12 months) | 2.5 | 53.6 | 18.3 | 20.3 | 5.3 |
| Job creating (next 12 months) | 0.0 | 58.5 | 29.3 | 7.3 | 7.3 |
| Entrepreneurs | | | | | |
| Job creating (last 12 months) | 0.0 | 38.3 | 23.4 | 1.7 | 36.6 |
| Job shedding (last 12 months) | 9.1 | 50.9 | 4.7 | 17.8 | 17.4 |

Table A.11: Preferred age-group

| | 15-24 | 24-45 | 45 + | No preference |
|-------------------------------|-------|-------|------|---------------|
| Enterprises | | | | |
| Job creating (last 12 months) | 9.8 | 26.7 | 0.0 | 63.5 |
| Job shedding (last 12 months) | 21.9 | 65.8 | 0.0 | 14.6 |
| Job creating (next 12 months) | | | | |
| Entrepreneurs | | | | |
| Job creating (last 12 months) | 0.0 | 12.6 | 15.1 | 72.3 |
| Job shedding (last 12 months) | 0.0 | 12.5 | 15.1 | 72.3 |

Table A.12: Enterprises and entrepreneurs cooperating with NES by size class (South Serbia, %)

| Size class | South Serbia | Jablanicki | Nisavski | Pcinjski | Pomoravski |
|---------------------------|--------------|------------|----------|----------|------------|
| Enterprises | | | | | |
| Micro (1-9 employees) | 63.5 | 62.4 | 59.8 | 73.3 | 65.3 |
| Small (10-49 employees) | 24.6 | 26.8 | 26.7 | 15.6 | 24.9 |
| Medium (50-249 employees) | 8.9 | 10.0 | 10.0 | 9.8 | 5.3 |
| Large (250+ employees) | 3.0 | 0.8 | 3.5 | 1.2 | 4.5 |
| Entrepreneurs | | | | | |
| Micro (1-9 employees) | 86.6 | 88.2 | 81.1 | 89.6 | 92.7 |
| Small (10-49 employees) | 12.6 | 8.2 | 18.7 | 10.4 | 7.3 |

Table A.13: Enterprises and entrepreneurs cooperating with NES by main economic sector (percentage)

| | Jablanicki | Nisavski | Pcinjski | Pomoravski | South Serbia |
|-----------------------------------|------------|----------|----------|------------|--------------|
| Enterprises | | | | | |
| Manufacturing | 29.4 | 25.2 | 22.2 | 21.3 | 24.5 |
| Water supply, waste management | 3.3 | 5.7 | 1.4 | 3.8 | 4.3 |
| Construction | 8.0 | 11.2 | 9.9 | 15.8 | 11.6 |
| Wholesale and retail trade | 33.0 | 29.9 | 44.3 | 33.8 | 33.4 |
| Transport and storage | 6.0 | 5.7 | 6.3 | 4.2 | 5.5 |
| Professional activities | 8.5 | 9.2 | 3.1 | 2.7 | 6.7 |
| Administrative support activities | 3.4 | 4.3 | 0.0 | 8.9 | 4.6 |
| Entrepreneurs | | | | | |
| Manufacturing | 25.6 | 32.6 | 16.4 | 15.4 | 24.7 |
| Construction | 4.2 | 3.2 | 2.7 | 5.9 | 4.0 |
| Wholesale and retail trade | 31.2 | 24.1 | 39.0 | 44.5 | 32.6 |
| Accommodation and food services | 5.0 | 5.6 | 14.5 | 4.1 | 6.5 |
| Professional activities | 9.8 | 14.1 | 3.2 | 11.4 | 10.9 |
| Administrative support activities | 6.5 | 4.1 | 2.3 | 4.8 | 4.5 |
| Health and social work | 6.5 | 5.0 | 4.2 | 5.3 | 5.3 |
| Other service activities | 2.0 | 7.3 | 8.1 | 7.1 | 6.3 |

Table A.14: Enterprises interested to cooperate with NES by main economic sector (South Serbia, %)

| | Jablanicki | Nisavski | Pcinjski | Pomoravski | South Serbia |
|-----------------------------------|------------|----------|----------|------------|--------------|
| Enterprises | | | | | |
| Manufacturing | 17.7 | 30.1 | 28.1 | 13.7 | 24.4 |
| Construction | 3.7 | 5.5 | 6.4 | 6.4 | 4.3 |
| Wholesale and retail trade | 48.7 | 31.1 | 34.5 | 41.4 | 37.5 |
| Transport and storage | 2.5 | 0.8 | 1.8 | 4.8 | 2.0 |
| Accommodation and food services | 3.7 | 3.1 | 2.4 | 12.1 | 4.3 |
| Professional activities | 12.7 | 15.5 | 8.3 | 2.3 | 11.4 |
| Administrative support activities | 4.3 | 0.2 | 5.8 | 2.3 | 2.7 |
| Health and social work | 3.4 | 4.6 | 5.0 | 4.2 | 4.3 |
| Other service activities | 2.0 | 6.2 | 1.7 | 8.1 | 4.4 |





