## **EU SKILLS PANORAMA** 2015

April 2015

### ANALYTICAL HIGHLIGHT





- Sweden's employment rate was 79.8% in 2013 in line with the national 2020 target of 80% and above the EU-28 2020 target of 75%.<sup>1</sup>
- The number of gainfully employed persons aged 16–74 is expected to increase by more than half a million people, amounting to roughly 5.04 million in 2035.<sup>2</sup>
- Employment growth is anticipated in high-skilled occupations such as the technical area and IT.
- While skills shortages are increasing in some areas, Sweden is experiencing under-utilisation
  of skills at the same time.

# Rising employment, skills-mismatch and skills-underutilisation

In the 1990's, Sweden went through a serious economic crisis. However, in the past 20 years, the country has enjoyed stable economic growth, even though the country was affected by the financial and economic crisis like most other European countries. Hence, in 2009, the employment rates of most countries dropped due to the crisis and the subsequent recession. For Sweden, the employment rate was 80.4% in 2008 for the population aged 20-64, dropping back to 78.1% in 2010. Since 2010, the employment rate has been increasing again reaching 79.8% in 2013 – very close to the national target of 80%. This leaves Sweden as the top performer in the EU-28 and well above the EU2020 target of 75%. Until 2018, employment is expected to grow by 1.0-1.2% a year.<sup>3</sup>

A relatively large share of the labour force is employed part-time. For the age group 15-64, 25% were part-time employed in 2012 in Sweden compared to 19.2% in the EU-27. Significantly more women than men are part-time employed – 38.6% in Sweden compared to 12.5% in the EU-27 in 2012.4

1 Eurostat (2014)

4 Nordic Council of Ministers (2014)

Employment growth is broadly based on several occupations. Powered by strong activity among companies that sell services to other businesses, 2014 has witnessed a steep growth in the professional areas of technical work – an area that primarily includes engineers and computing/ICT. Supported by strong growth in domestic demand, employment is also rising in the hotel, restaurant and catering industry. A continued strong development is also expected in the healthcare and nursing industry. On the other hand, the weak demand from abroad is having a negative impact on employment in industrial manufacturing.<sup>5</sup>

Regional variations in Sweden are not as evident as in some other European countries. Nevertheless, there are still some significant ones. The three metropolitan functional regions (Stockholm, Gothenburg and Malmö) account for just under half of the Swedish population, and represent 55% of gross domestic product. Following decades of increasing population and income concentration, it seems unlikely that this trend could be halted or reversed in the future. Thus, from 2011-2020, the main growth in the economy and in employment is

Statistics Sweden (2014), Trends and Forecasts 2014 http://www.scb.se/Statistik/\_Publikationer/UF0515\_2014I35\_BR\_AM85BR1401.pdf

<sup>3</sup> National Institute for Economic Research (2014), Swedish Economy – August 2014 http://www.konj.se/download/18.2dd8660114785ab5f7b6ff/Konjunkturlaget-augusti-2014.pdf

s National Labour Agency (2014), Where are the jobs? Assessment through the first half of 2015 and a long-term outlook <a href="http://www.arbetsformedlingen.se/">http://www.arbetsformedlingen.se/</a> <a href="http://www.arbetsformedlingen.se

Growth Analysis (2013), Regional Growth 2013 http://www.tillvaxtanalys.se/download/18.2cfe903f142e67167a18ab/1387371581679/rapport\_2013\_06\_ver3.pdf

expected to be concentrated in these three big metropolitan areas – whereas the regions in the North and North-West of the country are facing a decrease in employment (between 0.5-1.5% on average per year as depicted in Figure 1).<sup>7</sup>

#### ▼ Figure 1 – Employment forecast: Yearly average change 2011-2020

- 0.50% to 1.43%
- 0% to 1.49%■ -0.49 to 0%
- -1.55 to -0.5%

Source: Growth Analysis (2013), Regional Growth 2013.



Even though the employment rate is growing at a national level, the unemployment rate has only dropped marginally in the last three years from 8% in 2012 to 7.9% in 2014 due to a rapidly expanding labour force. The expansion of the labour force is expected to slow in the coming years, partly due to previous initiatives to stimulate the labour supply are no longer contributing to the same degree. The unemployment rate is therefore expected to drop to around 6.5% in 2017 and 2018.<sup>8</sup>

Foreign-born immigrants are highly over-represented in the group of unemployed. In the third quarter of 2014, 379,200 Swedes between 15-74 years were registered as unemployed – 39% were foreign born<sup>9</sup>.

Turning to trends in levels of education, educational requirements are increasing for many occupations in Sweden. For the same reason, the country is experiencing increasing skills mismatches in its labour force. A closely related tendency is the fact that an increasing proportion of the workforce has an education at post-secondary level; hence, employers are raising their skill requirements when recruiting, leading to skills under-utilisation in some industries.<sup>10</sup>

## Continuing employment growth and labour force shortage towards 2035

According to national forecasts, the number of gainfully employed persons aged 16–74 is expected to increase by more than half a million people, amounting to roughly 5.04 million in 2035. Table 1 shows the expected development by sector<sup>11</sup>.

▼ Table 1 – Employment forecast for the population aged 16-74 by sector

| Sector/Number of employed   | 2013      | 2035      | % change |
|-----------------------------|-----------|-----------|----------|
| Agriculture and forestry    | 75,000    | 54,000    | -28%     |
| Manufacturing               | 636,000   | 593,000   | -7%      |
| Construction                | 316,000   | 372,000   | 18%      |
| Private services            | 1,985,000 | 2,132,000 | 7%       |
| Public services             | 1,471,000 | 1,842,000 | 25%      |
| No information about sector | 43,000    | 43,000    | 0%       |
| Total                       | 4,527,000 | 5,036,000 | 11%      |

Source: Statistics Sweden (2014)

Increasing demand in the public sector is expected – especially workers taking care of the elderly as well as workers working within the healthcare sector. The demand for workers in the construction sector is also expected to increase significantly. At the same time, there is a decreasing demand for workers in the agricultural, forestry and fishery sector as well as manufacturing workers.<sup>12</sup>

The increasing demand for workers towards 2035 is expected to lead to labour force shortage in some areas. The most critical shortage of educated labour is to be found within healthcare (upper secondary school), where the labour shortage is expected to be approx. 160,000. Figure 2 shows the largest shortage of educated labour by 2035 in numbers<sup>13</sup>.

At the same time, the forecast foresees an increasing surplus in the humanities and the arts and also an imbalance in the social sciences area.<sup>14</sup> Currently, there is no indication that this surplus and imbalance will change when looking at the student uptake (see section about skills supply).

Looking at the average shortage index across occupation areas, the short-term forecast towards 2015 is depicted in Figure 3. Index 4-5 is indicating a very low competition for jobs whereas index 1-2 is indicating very high competition for jobs. The balance interval is marked as a blue shaded box<sup>15</sup>.

The shortage of qualified workers is especially apparent within technical work, educational work, computer and IT, healthcare, building and construction. At the same time, there is a surplus of workers within culture, media and design, social work, transport and sales, purchasing and marketing resulting in a high competition for jobs.

<sup>7</sup> Ibid

<sup>8</sup> National Institut of Economic Research (2014), The Swedish Economy – August 2014 http://www.konj.se/download/18.2dd8660114785ab5f7b1000/Swedish-Economy-August-2014.pdf

<sup>9</sup> Statistics Sweden 2014

<sup>10</sup> Ibid.5

<sup>11</sup> lbid.2

<sup>12</sup> Ibid.

<sup>13</sup> Statistics Sweden (2014), Groups where the greatest shortage of educated workers are expected by 2035.

<sup>14</sup> Ibid.2

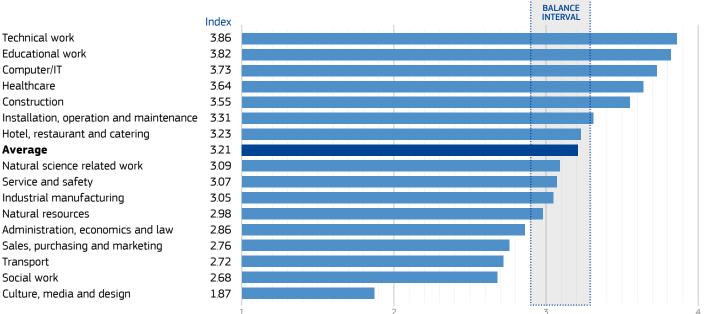
<sup>15</sup> Ibid.5

#### ▼ Figure 2 - Expected labour force shortage by 2035



Source: Statistics Sweden (2014)





Source: National Labour Agency (2014), Where are the jobs? Assessment through the first half of 2015 and a long-term outlook  $\frac{1}{1000} \frac{1}{1000} \frac{1}$ 

### Strong proficiency in skills and high participation rate in life-long learning activities

According to the 2012 PIAAC Survey, Swedish adults (aged 16-65) have above-average proficiency in literacy, numeracy and problem solving in technology-rich environments compared to adults in other countries. Only three countries perform better than Sweden in literary proficiency; two countries perform better in numeracy proficiency while Sweden is number one among all participating countries, when it comes to proficiency in problem solving in technology-rich environments.

Overall, there is a high level of match between the literacy skills of workers and the literacy demands of their jobs in Sweden. Around 6% of the Swedish workers' proficiency in literacy is estimated to be above the maximum required by their job (over-skilling). This is the smallest proportion observed among the participating countries in the PIAAC Survey. Around 5% of workers have a level of proficiency that is below the minimum required by their job (under-skilling).16

The educational level of the adult population (15-74) has increased significantly in the past 15 years. In 1998, 31% of the adult population had primary and lower secondary education as their highest educational attainment. In 2013, this share dropped to 19.9%. In the same period, the share of the adult population with tertiary educational attainment increased from 17% to 27.6%. 17 This development reflects a steady focus on educational attainment for many years and a political willingness to keep education free of charge. From 2008-2012, the costs of the educational system increased by 7%.

Focusing only on the 30-39 age group, 42% of this age group had an educational attainment at tertiary level in 2013 - well above the EU-28 average.18 In the four years from 2007 to 2011, the largest overall increase in the number of students enrolled at tertiary level was in social science, business and law followed by engineering, manufacturing & construction and arts, humanities & religion. It is worth noting that the number of students enrolled in teacher training and education science decreased during the same period.

Sweden has the highest proportion of adults participating in some form of education or training in the EU-28. In 2011-2012, 3.5 million adults (aged 25-64) participated in education or training during a 12-month period, corresponding to 72% of the age group. In particular, employed persons with at least post-secondary education participate in education or training; women participate significantly more than men.19

### High demand for upper secondary skills

Despite the increasing education level in the population, the high participation rate in adult education and training, and relatively high score in the PIAAC Survey, Sweden remains faced with some critical skills challenges. Looking towards the year 2030, the demand for staff with secondary and tertiary education will increase during the forecast period. At the same time, the forecast states that while the availability of people with tertiary education will continue to increase, the availability of people with no more than secondary education will drop. In virtually all areas, the demand for post upper secondary skills is expected to increase up to 2030 leading to a major skills challenge.20

In Sweden, there is increasing acknowledgement of the important role that production and manufacturing still play in the economy. Commodity production including manufacturing makes up 70% of the country's exports. However, the skills requirements for this sector are increasing due to a continuing process of specialisation as a consequence of global value chains. Looking just a few years ahead, the skills supply to this sector is not sufficient in Sweden. Hence, there is a need and a political focus on increasing the technical skill supply - primarily through an improvement of the Yrkeshögskolan<sup>21</sup> and by increasing the student uptake on tertiary VET<sup>22</sup>.

Another major challenge is the increasing number of foreign-language immigrants entering the Swedish labour force lacking basic skills. The Swedish National PIAAC Survey revealed that foreign-language immigrants have very low levels of literacy proficiency, and score much lower than native-born and native-language Swedes. Also for numeracy and problem-solving proficiency, the foreign-language immigrants achieved much lower than Swedes in the PIAAC test. This gap will have to be reduced in order to ensure a qualified labour force in the future. 23

<sup>23</sup> Statistics Sweden (2013), Programme for the International Assessment of Adult Competencies http://www.scb.se/statistik/\_publikationer/UF0546\_2013A01\_BR\_00\_



Please quote this Analytical Highlight as:

EU Skills Panorama (2014) Sweden Analytical Highlight, prepared by ICF and Cedefop for the European Commission

16 OECD (2013), Survey of Adult Skills - First Results: Sweden http://www.oecd.org/site/piaac/Country%20note%20-%20Sweden.pdf

<sup>20</sup> Cedefop (2012), VET in Europe - Country report: Sweden, http://www.cedefop.europa.eu/ en/publications- and -resources/country-reports/sweden-vet-europe-country-report-2012

<sup>21</sup> Higher Vocational Education (Yrkeshögskolan) is a post-secondary form of education that combines theoretical and practical studies in close cooperation with employers and industry. Programmes are offered in specific fields where there is an explicit demand for competence, www.yrkeshogskolan.se

<sup>22</sup> Region Skåne (2014), Future Higher Vocational Education within technology and manufacturing http://utveckling.skane.se/siteassets/publikationer\_dokument/framtidindustri-och-teknik www.pdf

<sup>17</sup> Ibid.4

<sup>18</sup> Ibid.

<sup>19</sup> Statistics Sweden (2014), Adult participation in education 2011/2012 http://www.scb.se/Statistik/\_Publikationer/UF0538\_2012A01\_BR\_A40BR1403.pdf