

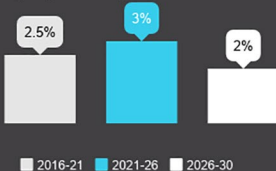
Key facts: Sweden

5 259 000

Employment in 2030

7.5%
Increase from
2016 to 2030

% Employment growth 2016-2030



FASTEST GROWING SECTORS

Growth per year 2016-30

Non-marketed services

1%



Construction

0.8%



HIGHEST DEMAND OCCUPATIONS

Total job openings 2016-30

422 400

Business and administration
associate professionals

415 500

Personal service workers

246 000

Drivers and mobile plant
operators

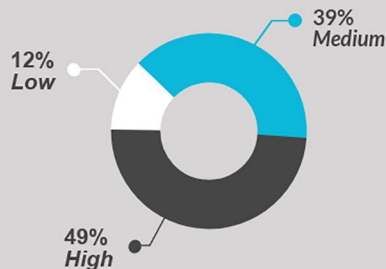
3 650 000

Total job openings, 2016-30



■ Replacement needs (90%) ■ New job openings (10%)

Total job openings by qualification level:



EU

Overview



Top growing sector

Business & other services



Top demand occupation

Business & administration associate
professionals

6%

Increase in
employment since
2016

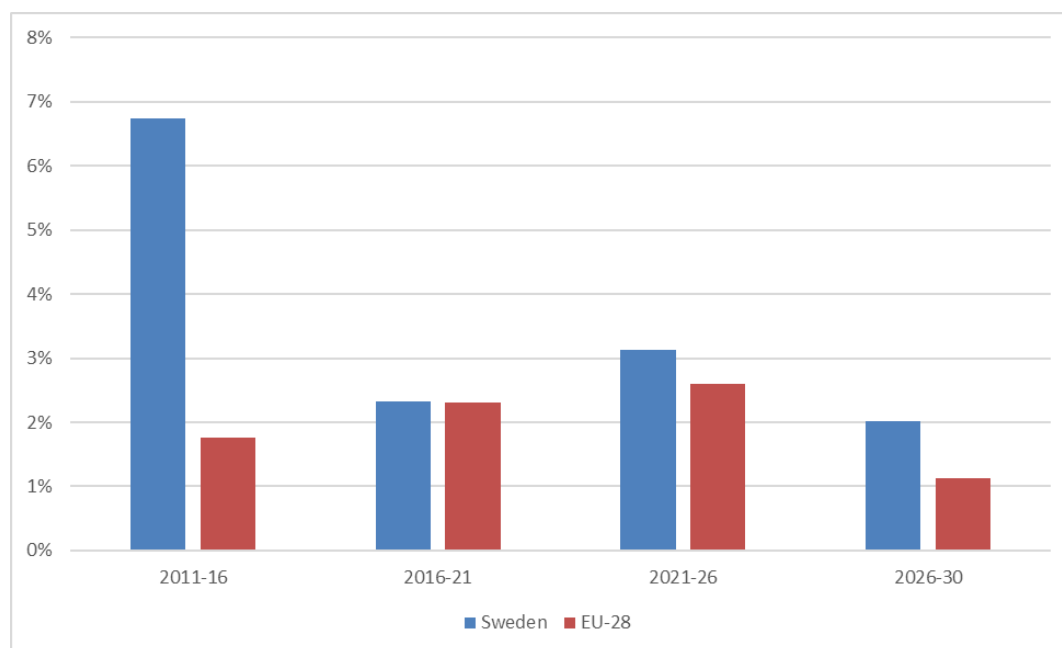
About 4 in 5 new job openings

will relate to high-skilled occupations

1. Employment outlook

Following strong employment growth in 2011-16, the employment growth in Sweden is expected to decrease while remaining slightly above the EU-28 average (Figure 1). The total employment growth for 2016-30 is expected to be 8%, above the EU-28 average (6%).

Figure 1 Percentage employment growth in Sweden and the EU-28, 2011-30



Source: Cedefop (2018 Skills Forecast)

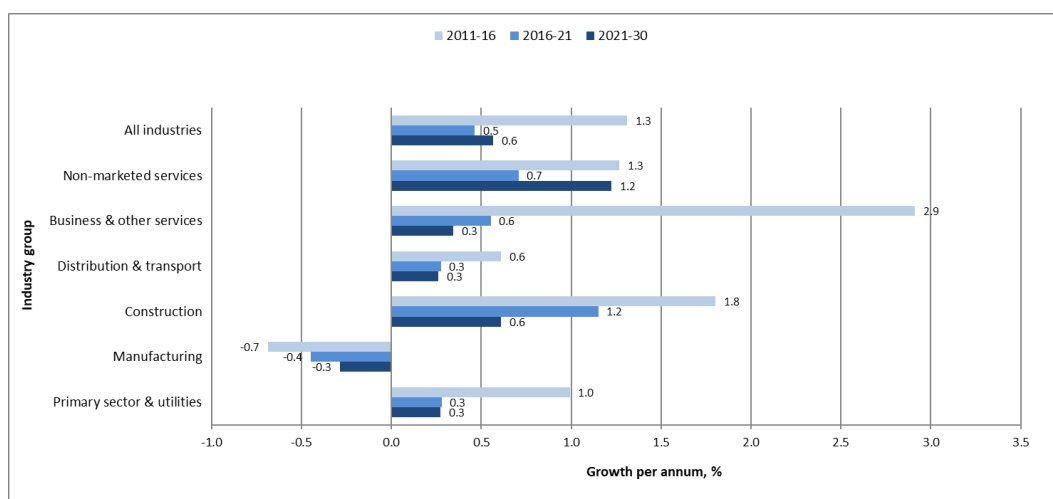
2. Labour force overview

Sweden's labour supply is expected to increase (10%) up to 2030. The working age population is also expected to increase substantially (14%) over the same period, while the participation rate is expected to decline somewhat (- 1.8 pp). This decrease may be attributed to the changing composition of the labour force. Although most of the age groups are projected to grow, the number of workers in older age cohorts (e.g. 60+), with traditionally low participation rates, is expected to show higher growth per year than those of the younger cohorts, with generally higher participation rates, thus explaining the overall decline in the participation rate.

3. Sectoral employment trends

The increasing trend in employment over the period 2011-16 is forecast to continue in most broad sectors of economic activity (Figure 2). *Manufacturing* is the only sector projected to decline throughout the forecast period. *Business and other services* are expected to grow at a substantial slower pace over 2016-30 than in the period 2011-16. The highest annual increase in employment in the period 2016-21, is expected in the *construction* sector, while in 2021-30 the highest growth is expected in *non-marketed services*. Within sub-sectors, the greatest increase is expected in *health and social work*, as well as in *transport*).

Figure 2 Employment growth by broad sector of economic activity, 2011-30



Source: Cedefop (2018 Skills Forecast)

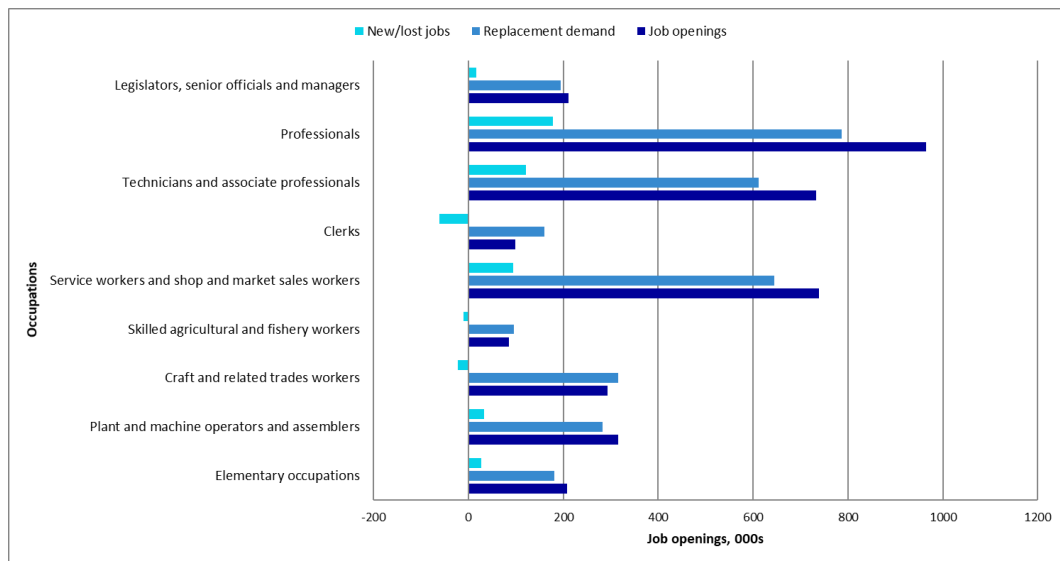
4. Job openings by occupational group

Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created due to the expansion of the employment in that sector or occupation. Replacement needs arise as the workforce leaves the occupation due to retirement or career changes. Replacement needs, generally, provide more job opportunities than new jobs, meaning that significant job opportunities arise even in occupations declining in size (i.e. agricultural workers are a typical example, as ageing workers employed in the sector will need to be replaced).

Figure 3 shows the total job openings by broad occupational group over the period 2016-30. It shows that most jobs to be created in Sweden are expected to

come from the need to replace workers leaving their occupation, mostly due to retirement. Through this, many job opportunities will arise for *professionals*, representing 26.4% of the total job openings (compared to 19% for EU-28) with 965 thousand job openings (82% of them due to replacement demand) and for *service workers and shop and market sales workers*, with 739 thousand job openings (87% of them due to replacement demand). *Clerks* will experience a slight decline in employment, yet the need to replace existing workers will create also new jobs in this occupation.

Figure 3 Job openings by broad occupational group, 2016-30



Source: Cedefop (2018 Skills Forecast)

When occupational groups are analysed in more detail it is possible to see that most of **new jobs** will be created for *business and administration associate professionals*, *health associate professionals* and *science and engineering professionals*. However, a significant amount of new jobs will be created for occupations that are traditionally considered as medium- or low-skilled, such as *personal care workers* and *drivers and mobile plant operators*. These occupations and *business and administration associate professionals* will contribute most in Sweden's economy in terms of **total job openings** (openings due to both net change and replacement needs), over the period up to 2030.

5. Drivers of occupational change

Within the Cedefop skills forecasts, future employment growth (or decline) of occupations is further broken down by separating national economic components

from regional industrial and economic effects, helping to interpret what is driving the change. From this perspective employment growth can be explained by three possible drivers: (a) overall trends of the economy (i.e. growth or decline), (b) shifts of employment between sectors and (c) changes in the occupational structure within sectors (i.e. factors making some occupations more important/ others).

The sectoral changes of the Swedish economy and the shift towards *non-marketed services* create new demand for typically low and medium skilled occupations such as *personal care workers* and *protective services workers*. However, the change will mainly be beneficial for numerous high-skilled occupations, such as *health professionals and associates, legal, social and cultural professionals and teaching professionals*.

On the other hand, some routine-based, easily automatable occupations such as *numerical and material recording clerks, general and keyboard clerks* and *other clerical support workers* are expected to decrease in employment because of advancement in technology.

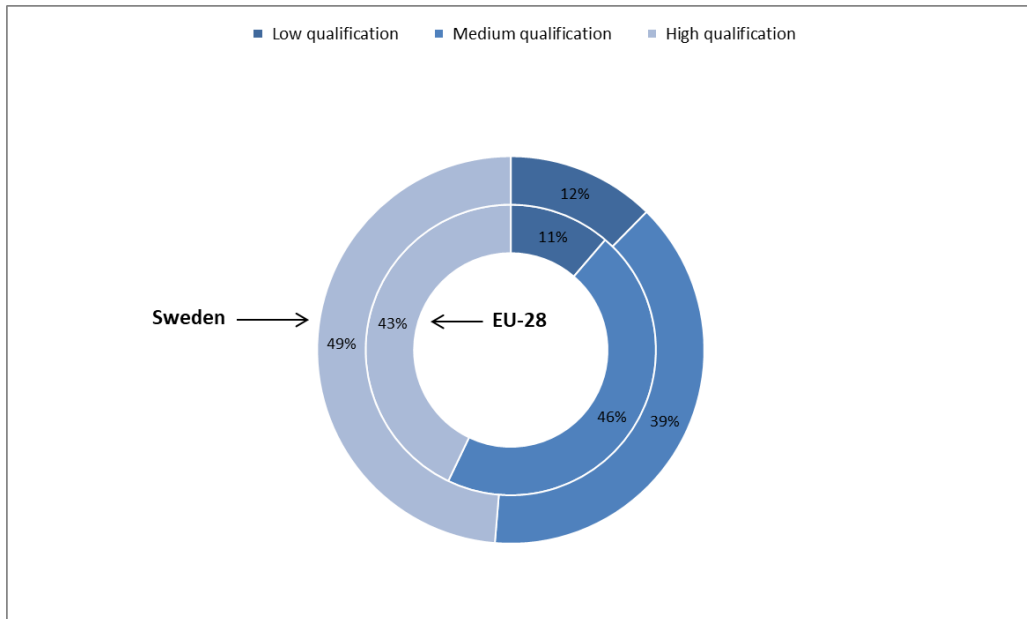
Taking into account both occupation and sector effects, some of the occupations that are expected to increase the most are *health associate professionals* and *science and engineering professionals*. On the other hand, occupations affected by automation like *general and keyboard clerks* are expected to decrease.

6. Demand for and supply of skills

Within the Cedefop skills forecasts, skills are proxied by the highest level of qualification held by individuals in the labour force and employment. Three levels are distinguished, high, medium, and low, which correspond to the official ISCED classification. The occupational group also offers an indication of the skill level required, as some occupations (e.g. professionals) typically require high-level skills, while some others (e.g. elementary) typically require only basic ones. Therefore, occupational groups are also linked to a skill level.

Figure 4 shows the shares of total job openings for qualifications needs. Almost half of the jobs forecasted to be created over the period up to 2030, will require high qualification, while 39% of jobs will require medium qualification. On the other hand, only 12% of total job openings will require low qualification, a percentage almost the same with EU-28 average (11%).

Figure 4 Share of total job openings by level of qualification, 2016-30



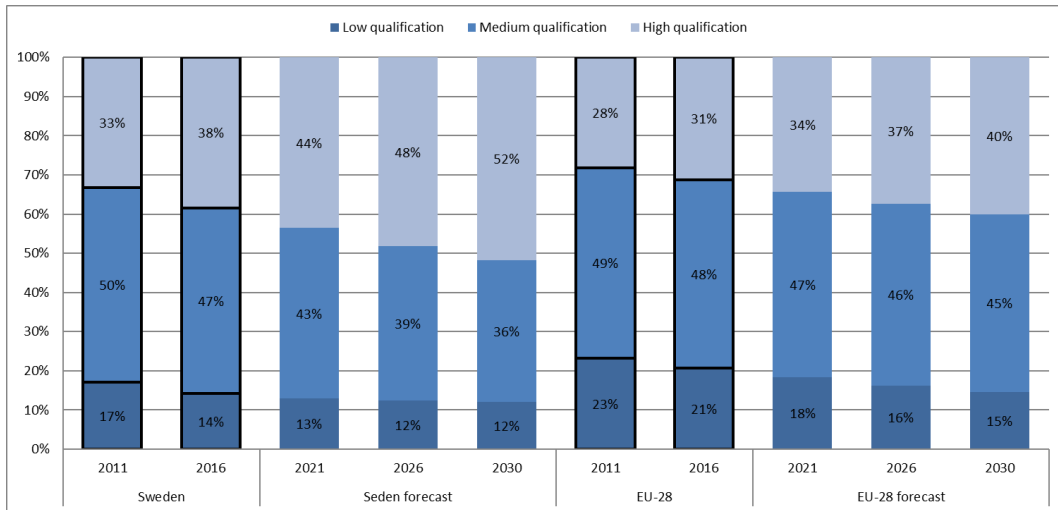
Source: Cedefop (2018 Skills Forecast)

The number of jobs requiring high level qualification is expected to increase within occupations such as *business and administration associate professionals*, *health and teaching professionals*. However, the second highest amount of job opportunities requiring a high qualification is expected to occur within *personal care workers*, which is not considered as a high-skilled occupation.

Future labour supply trends depend on the size of the working age population (defined as aged 15 or older), the labour market participation rates, and the extent to which people acquire formal qualifications.

As can be seen from Figure 5, the share of people with high level qualifications is expected to continue increasing over the period up to 2030, remaining significantly higher than the EU-28 average. On the other hand, the share of low-qualified persons is expected to decrease in the same period, and to be lower (12% in 2030) than the EU-28 level (15%). The share of people with medium level of qualification is projected to decrease, reaching 36% in 2030, 10 pp lower than the EU-28 average.

Figure 5 Labour force share by level of qualification, 2011-30



Source: Cedefop (2018 Skills Forecast)

The supply for high-qualified workers is expected to exceed the demand, while the supply of medium-qualified workers is expected to be in shortage, a situation which could give rise to skills mismatch. The demand for low qualified workers is expected to match the supply.

Cedefop methodology and scenarios

Cedefop skills forecasts offer quantitative projections of future trends in employment by sector of economic activity and occupational group. Future trends on the level of education of the population and the labour force are also estimated. Cedefop's forecasts use harmonised international data and a common methodological approach allowing cross-country comparisons about employment trends in sectors, occupations and qualifications. The forecasts and methodologies applied are validated by a group of national experts. These forecasts do not substitute national forecasts, which often use more detailed methodologies and data, while they also incorporate in-depth knowledge of a country's labour market.

The latest round of forecasts covers the period up to 2030. The forecasts take account of global economic developments up to May 2017. Despite cross-country differences, the EU economy as a whole is expected to show modest growth, after a better-than-expected performance in 2017. Over 2018 and 2019, the EU economy as a whole is expected to grow, albeit at a slower pace compared to 2017, supported by increased household expenditure and falling unemployment, although wage growth remains muted. Investment is also expected to pick up given favourable financing conditions and an improved economic outlook. The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in 2017 (Europop 2015) ⁽¹⁾ and the short-term macroeconomic forecast produced by DG ECFIN in May 2017 ⁽²⁾.

For the latest update and access to more detailed Cedefop skills forecast data please visit:

<http://www.cedefop.europa.eu/el/events-and-projects/projects/forecasting-skill-demand-and-supply>



⁽¹⁾ <https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data>

⁽²⁾ https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2017-economic-forecast_it

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