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European Centre for the Development
of Vocational Training

EN



2020 skills forecast Greece



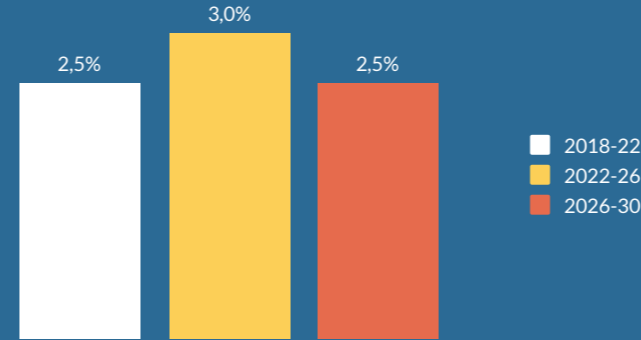


4 539 000

Employment in 2030

8.5%
Increase
2018-30

% Employment growth 2018-30



2 418 000

Total job openings, 2018-30



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

FASTEST-GROWING SECTORS

Growth per year 2018-30

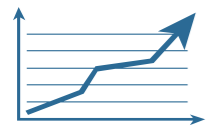
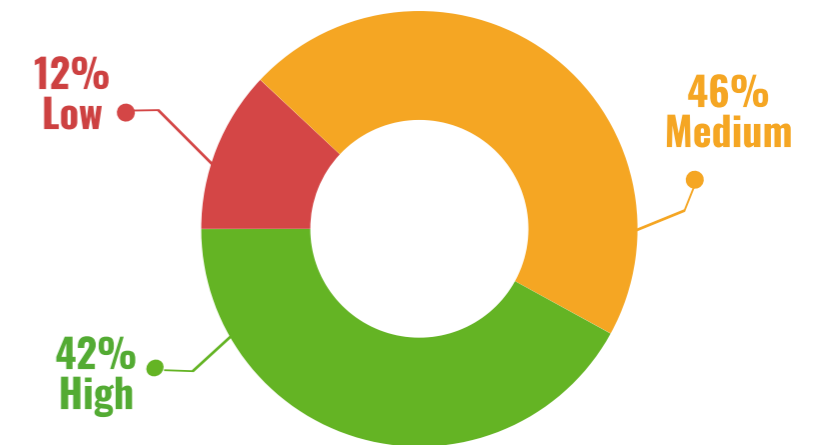


HIGHEST-DEMAND OCCUPATIONS

Total job openings 2018-30



Total job openings by qualification level 2030:



4.4%

Increase
in employment in
2018-30



Fastest-growing sector
Non-marketed services



Highest-demand occupation
Business & administration associate
professionals

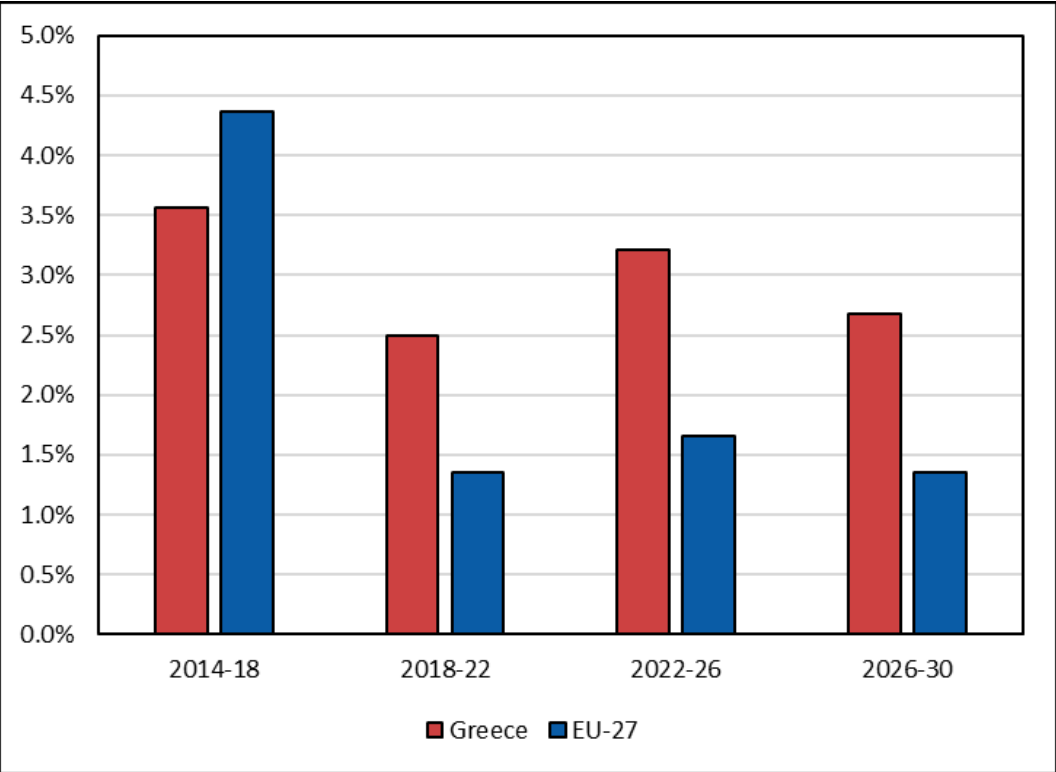
17% Increase in high-skilled
labour supply 2018-30



1. Employment outlook

Employment in Greece is forecast to increase over the period 2018-30 at a faster rate than the EU-27 average. Employment is expected to grow by 2.5% in the short term (2018-22), by 3% in the medium term (2022-26) and by 2.7% in the longer term (2026-30). Employment growth in Greece is expected to be faster than the EU-27 average over the whole of the forecast period.

Figure 1. Percentage employment growth in Greece and the EU-27, 2014-30



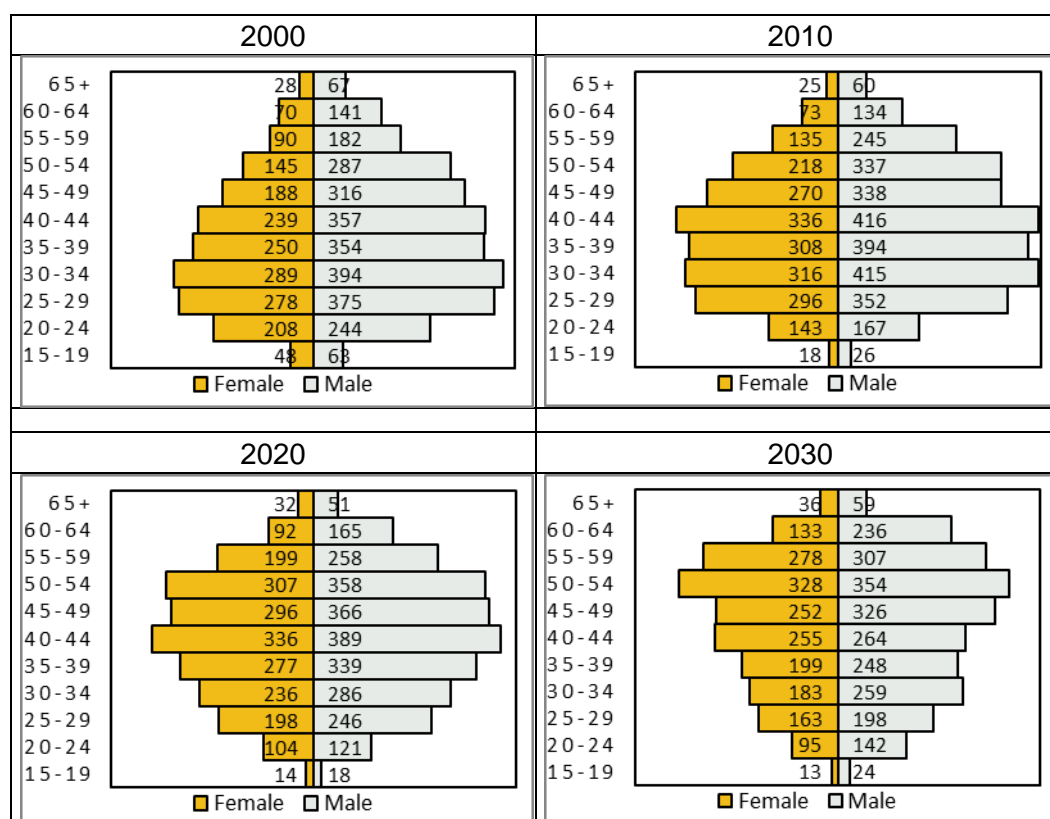
Source: Cedefop (2020 Skills Forecast).

2. Labour force overview

In Greece, the labour force is expected to decrease by 6% over the three decades from 2000 to 2030. As shown in Figure 2, the decrease in the labour force is driven by the decline in age groups below 45 years old, particularly over the forecast period of 2020-30. Among the age groups with a particularly strong decline are, for example, the 35-39 and 40-44 age groups, in which the labour force is expected to decline by 28% over 2020-30. This is primarily caused by a decline in the population among these age groups, which is expected to outweigh an expected

increase in the participation rate. As a result of the economic crisis, Greece is experiencing high levels of outward migration especially among younger people. On the other hand, the size of the labour force who are 55-59 and 60-64 years old is expected to continue to rise over 2020-30, growing by more than 30%. This is not only caused by an ageing population, but also driven by an increasing participation rate of the older age groups, with both 55-59 and 60-64 year-olds expecting to see participation rates increase by more than 10% over 2020-30 alone. This change in behaviour can partly be explained by pension reforms since the financial crisis, which have decreased the level of individual pensions.

Figure 2. Distribution of the labour force, 2000-30



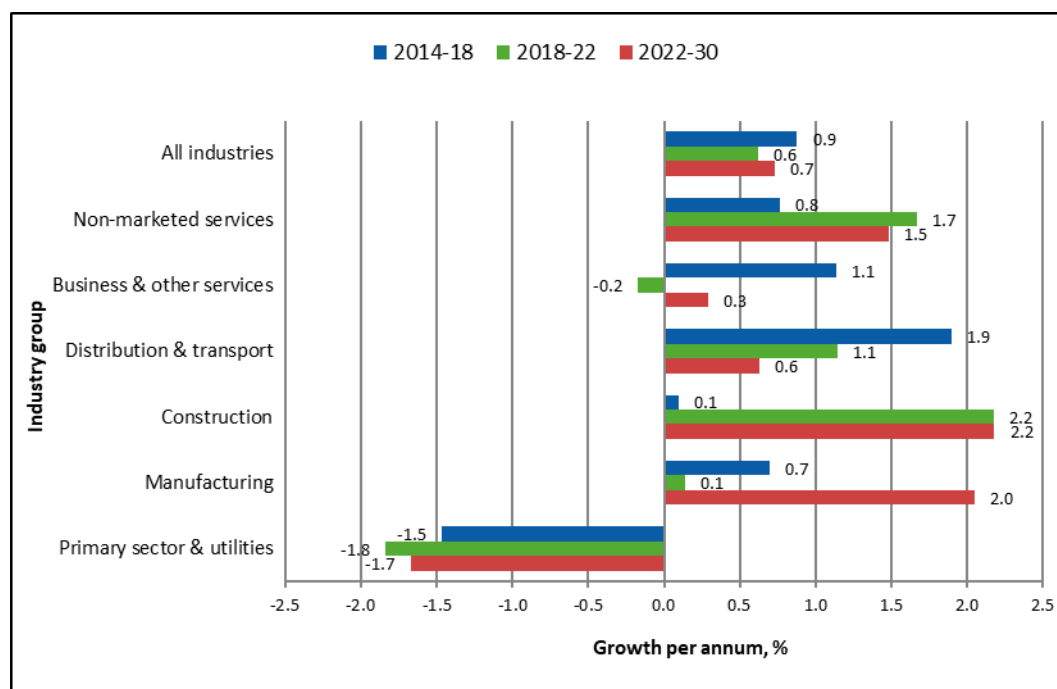
Source: Cedefop (2020 Skills Forecast).

3. Sectoral employment trends

As Figure 3 shows, all sectors apart from *business and other services* as well as *primary sector and utilities* are expected to see increases in employment in both the short term (2018-22) and the longer term (2022-30). The strongest employment

growth is expected in *construction*, with growth of 2.2% pa in both the short and longer term, and much higher than was observed over 2014-18. This expansion in growth is driven by the recovery expected in the construction sector, which was hit particularly hard during the financial crisis in Greece. *Non-marketed services* is also expected to see strong growth, with employment increasing by 1.7% pa and 1.5% pa in the short and longer term respectively. Meanwhile, *primary sector and utilities* is expected to see a continued decline in employment at a higher rate than the 1.5% pa decline observed over 2014-18. Elsewhere, *business and other services* observed reasonably high growth over 2014-18 but is expected to see a decline in employment in the short term and only modest growth in the longer term. *Manufacturing* is expected to see almost no employment growth in the short term, but strong growth of 2% pa in the long term.

Figure 3. Employment growth by broad sector of economic activity, 2014-30



Source: Cedefop (2020 Skills Forecast).

In terms of sub-sectors (i.e. below the level of the six broad sectors discussed above), the strong growth seen in *non-marketed services* is driven partly by *health* and *education*. The *health* sector is expected to see growth of more than 3% pa in both the short and longer term, reflecting the growing elderly population that is expected in Greece over the next decade. Within the *business and other services* sector, *telecommunications* is expected to see strong growth of more than 6% pa, while *architectural and engineering* is expected to see a decline of more than 6%

pa, leaving the sector as a whole stagnating across the forecast period. The strong growth in *manufacturing* in the long term is explained by rising employment growth in other *manufacturing*, outweighing declines in *optical and electronic equipment* and *rubber/non-metal mineral products*.

4. Job openings by occupational group

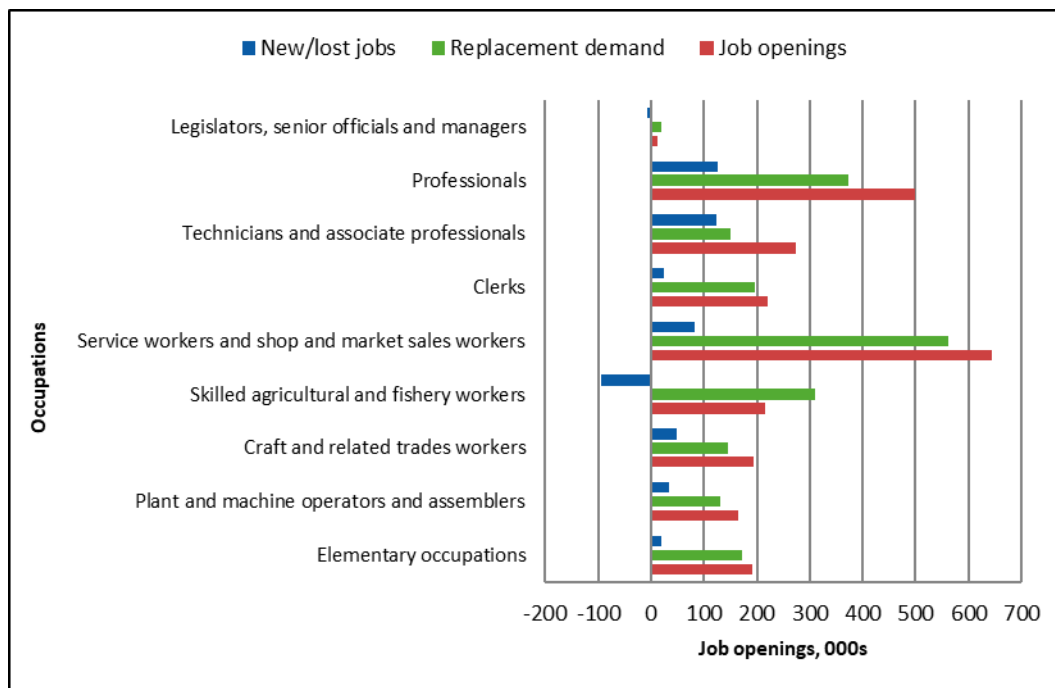
Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created due to the expansion of the employment in that sector or occupation. Replacement needs arise as the workforce leaves 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 4 shows the total job openings by broad occupational group over 2018-30. The number of job openings indicates the number of jobs that are required to be filled due to lost/newly created jobs and those that are in need of replacement workers. Aside from *legislators, senior officials and managers, professionals*, the higher skilled non-manual occupations of *professionals* and *technicians and associate professionals* are expected to see a considerable number of new jobs created and total job openings over the forecast period. Both occupations are expected to see over 100 000 new jobs being created, while *professionals* are also expected to see a high level of replacement demand. The new jobs among these occupations are primarily driven by *health and teaching professionals* and *health associate professionals*, which are each expected to see more than 40 000 new jobs created, reflecting growth in the *health* and *teaching* industries expected to be seen in the *non-marketed services sector*.

Service workers and shop and market sales workers are expected to see the highest number of new job openings (645 000), which is primarily driven by replacement demand. However, there are still expected to be a considerable number of new jobs created, with 60 000 of the 82 000 new jobs being created among *sales workers*. *Skilled agricultural and fishery workers* is the only occupation that is expected to shrink over the forecast period, mostly driven by *market-oriented skilled agricultural workers*, where over 90,000 jobs are expected to be lost. This is due to the decline of employment in the *agriculture* sector through mechanisation but also because of ageing of the labour force in this sector. Even

so, replacement demand will mean there are still a substantial number of job openings for these workers.

Figure 4. Job openings by broad occupational group, 2018-30



Source: Cedefop (2020 Skills Forecast).

5. Drivers of occupational change

Within the Cedefop skills forecast, 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 than others).

The occupational composition of employment in Greece is mainly characterised both by changes in the level of specialisation within occupations, and, in fewer cases, by changes in industry size. Stronger occupation-specific and industry effects will lead, overall, to an increasing share of *professionals* and *legislators, senior officials and managers, technicians and other associate, customer services clerks*. The increase in industry size will have a positive impact, alongside a modest occupation effect, on *health professionals, health associate professionals, building*

and related trade workers excluding electricians and some elementary occupations. High-skilled occupations that can benefit from these trends are, for example, *chief executives, senior officials and legislators*, and, in particular, *legal, social, cultural and related associate professionals and health associate professionals*.

The overall effect of occupational change therefore depends on a number of factors that need to be considered together. Increasing digitisation and moves toward a service-oriented economy, including within manufacturing, will lead to a greater use of higher-level occupations at the expense of some medium and low-level occupations. All relevant lower-level occupations are expected to decrease apart from *general office clerks* and occupations supporting production such as *building and metal trade workers and labourers in mining, construction, manufacturing and trade*.

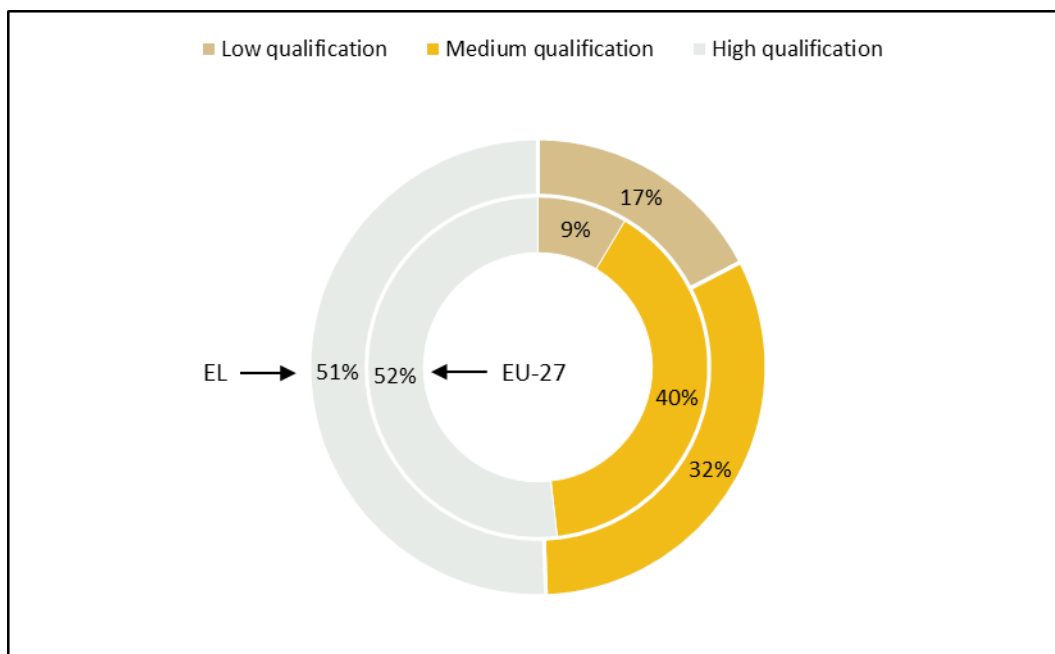
Intermediate occupations are expected, overall, to decrease slightly. Among the medium-qualified occupations becoming stronger are *health professionals* and *legal, social and related associate professionals*.

6. Demand for and supply of skills

Within the Cedefop skills forecast, skills are proxied by the highest level of qualification held by individuals in the labour force and in 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 5 shows the shares of total job openings by qualification level for Greece and the EU-27 over 2018-30. In Greece, as in the EU-27 as a whole, around half of all job openings are expected to require a high qualification. Compared to the EU-27, a lower share of job openings are expected to require medium qualifications, while a higher share are expected to require low qualifications.

Figure 5. Shares of total job openings by level of qualification, 2018-30



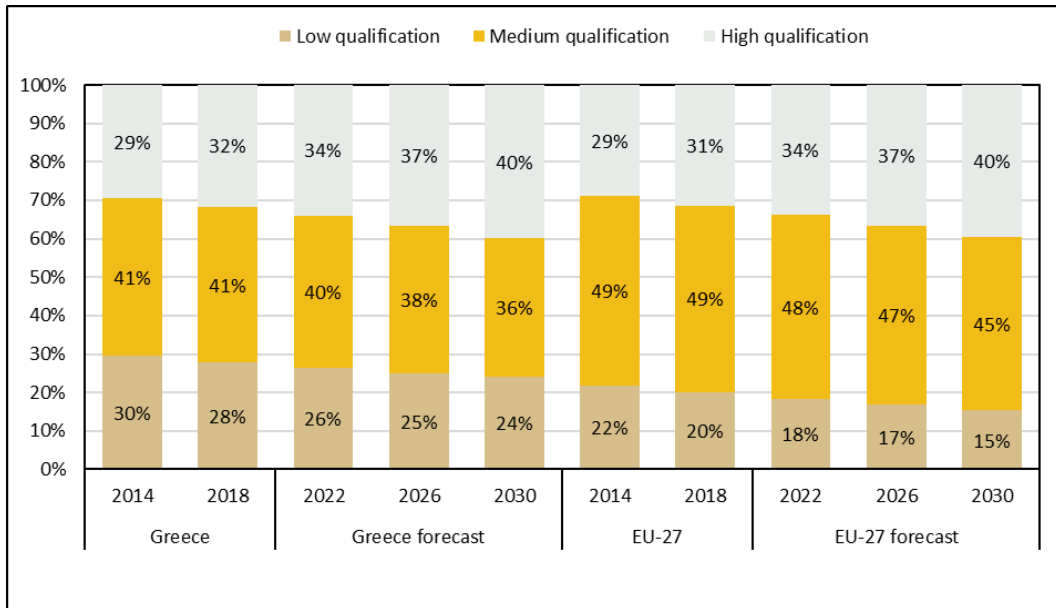
Source: Cedefop (2020 Skills Forecast).

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.

Figure 6 depicts the development of qualification shares in the labour force in Greece and the EU-27. Greece is rapidly increasing its share of higher qualified in the labour market. While the share was at 32% in 2018, it is expected to increase to 40% by 2030.

The increase in the share of higher qualified is expected to come from the outflow of older workers, both low and medium qualified. The share of medium qualified workers is expected to decrease from 41% in 2018 to 36% in 2030, while the share of low qualified workers is expected to decrease only slightly, by 4 pp, over the same period. Relative to the EU-27 average qualification mix, Greece is expected to continue to have a lower share of medium qualified and a higher share of lower qualified.

Figure 6. Labour force share by level of qualification, 2014-30



Source: Cedefop (2020 Skills Forecast).

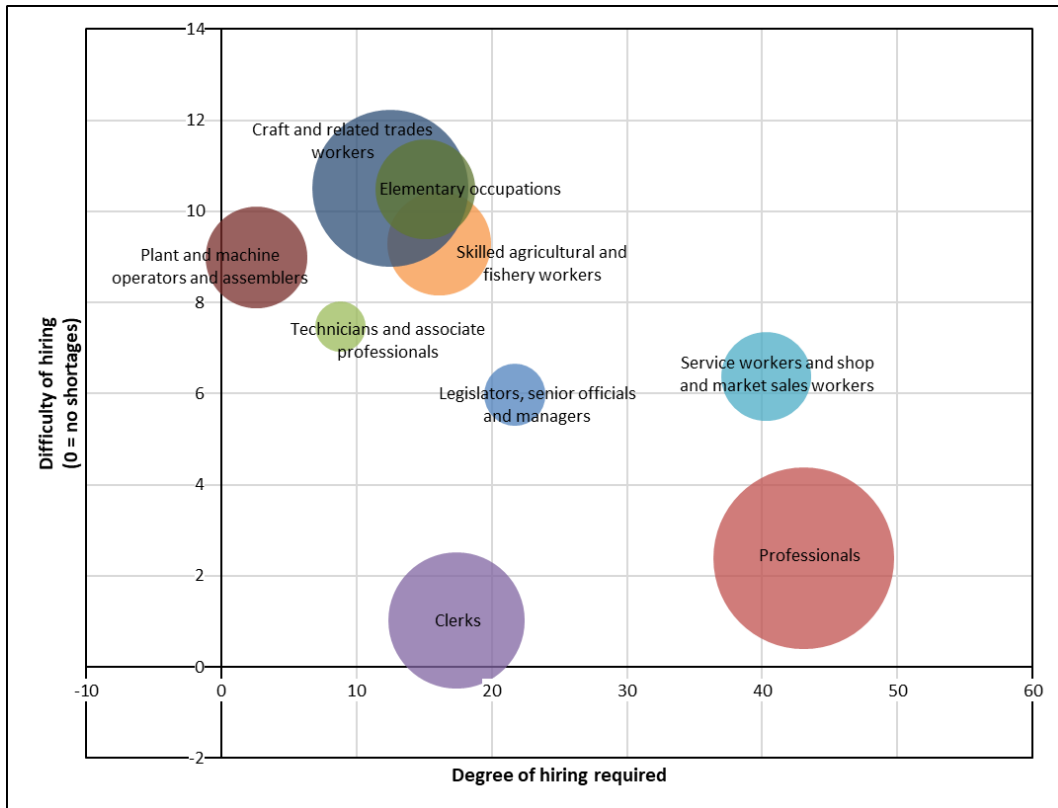
Overall, the forecast implies a shortage of the medium qualified, while the supply of the high and low educated is forecast to sufficiently fill the demand within high and low-level occupations.

Figure 7 shows an indicator, *difficulty of hiring*, whose aim is to approximate shortages of supply by qualifications and its impact on occupations. This measure, shown along the vertical axis, indicates increasing difficulties to fulfil demand given the available supply of qualifications used in the occupation. Along the horizontal axis, the *degree of hiring required* in the occupation is depicted. Higher values indicate that to reach the forecast result that occupation will need to adjust more (in terms of workers with particular qualifications) relative to the base year (2018) levels. These changes (degree of hiring required) can be due to a change in the qualifications required or increases in the number employed. The size of the bubble

indicates the *overall employment level*, bigger bubbles indicate more employment while smaller bubbles less employment.

Occupations with both a high *degree of hiring required* and a high *difficulty of hiring* (i.e. towards the top right of the figure) are likely to have the most difficulties in achieving a suitable workforce.

Figure 7. Indicators of future hiring difficulties, 2018-30



N.B: Indicators were calculated at the level of the underlying two-digit occupation groups. Aggregation was based on the employment weights within each one-digit occupation group.

Source: Cedefop (2020 Skills Forecast).

The increasing supply of higher educated workers suggests there may be shortages, particularly among the medium qualified. These shortages could imply that some of the higher educated will have to be employed within occupations at a lower level than they qualify for, or it will result in hiring difficulties. Medium level occupations such as *service workers and shop and market sales workers*, as well as *plant and machine operators and assemblers* and *craft and related trades workers*, are expected to show higher levels of hiring difficulties in the forecast (Figure 6). The former are expected to see high levels of change by qualification, and thus a high degree of hiring required, while the latter two occupations are expected to see a low degree of hiring required. While *professionals, legislators, senior officials and managers* are expected to have less hiring difficulties, they are expected to see a relatively high level of hiring required in the forecast period. A medium degree of hiring required but relatively high hiring difficulties are expected to be seen among *technicians and associate professionals*.

Hiring difficulties among *professionals* are expected to be very low across the underlying occupations. The degree of hiring required will differ, though, with *health professionals* (37) being well above the average for *professionals* as a whole (17), while the degree of hiring required among *science and engineering professionals* (2) but also *business and administration professionals* (10) will be much lower.

Cedefop methodology and scenarios

The Cedefop Skills Forecast offers quantitative projections of future trends in employment, by sector of economic activity and occupational group. Future trends in the level of education of the population and the labour force are also estimated. Cedefop's forecast uses harmonised international data and a common methodological approach allowing cross-country comparisons between employment trends in sectors, occupations and qualifications. The forecast and methodology is validated by a group of national experts. The forecast does 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 the forecast covers the period up to 2030. The forecast takes account of global economic developments up to May 2019. The European economy is continued to expand for the seventh year in a row in 2019, with real GDP growing in all EU Member States. As global uncertainties continue to weigh, domestic dynamics are set to support the European economy. The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in May 2019 (Europop 2015) ⁽²⁾ and the short-term macroeconomic forecast produced by DG ECFIN in May 2019 ⁽³⁾.

The Cedefop Skills forecast was developed before the global Covid-19 pandemic had begun. The short-term economic impacts of the pandemic and subsequent lockdowns in many countries are very uncertain, and therefore the current short-term forecast is likely to be over-optimistic. However, the key long-term factors (such as the ageing population, increasing use of automation/artificial intelligence, globalisation, resource scarcity and moves towards a carbon neutral economy) will still hold as the EU Member States put plans in place to deal with the virus and their economies move forwards. The trends in the longer-term forecast are therefore still likely to hold.

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>



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

(3) https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2019-economic-forecast-growth-continues-more-moderate-pace_en



For more details, please contact Cedefop's Skills Forecast team at: Skills-Forecast@cedefop.europa.eu

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