4.8 The KfW-ifo Skilled Labor Barometer

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4.8.1 Concept and Objectives

The shortage of skilled workers has increased considerably in recent years and is now affecting large parts of the German economy. Among the worst affected sectors and professions are the healthcare sector, the construction industry, and science, technology, engineering, and mathematics (STEM) professions. The Covid-19 pandemic increased the severity of the problem even more acutely in sectors such as the hospitality industry. In view of the demographic change and the retirement of the baby boomer generation, this is likely to continue to be a major challenge in the coming decades. According to projections by the Federal Statistical Office (2021a), for example, the working age population (15 to 74) will shrink from 2023 onwards. The Joint Economic Forecast Project Group (2021) therefore assumes that average growth rates in the German economy will fall noticeably below one percent in the second half of the 2020s. Thus, labor shortages may become a serious obstacle to growth in Germany and lead to further bottlenecks in the supply of goods and services.

In order to obtain current information on developments in the shortage of skilled labor, the ifo Institute, in cooperation with KfW Research, has developed a skilled labor shortage indicator based on answers from the ifo Business Survey ("KfW-ifo Skilled Labor Barometer"). Its intention is to describe the shortage situation in a clear and up-to-date manner, help to inform policymakers and the public, and highlight the need for action. In addition to an overall indicator for the German economy, information is also provided for various sectors, federal states, and small and medium-sized enterprises (SMEs) compared to large companies. All indicators are published twice a year in May and November by KfW Research on their website (KfW Research 2022a).

4.8.2 Methodology of the Skilled Labor Barometer

The following question is asked quarterly to all participating companies in the ifo Business Survey:

Our business activity is currently impeded. (yes/no) if yes, by the following factors:

- *lack of skilled workers*
- *lack of low-skilled workers*
- ...

This is the wording for the service sector. Apart from business activity, the other sectors have different wordings (manufacturing: production activity, construction: construction activity, trade sector: sales activity).

For the calculation of the Skilled Labor Barometer, only the answers to the skilled workers variable are used. The proportion of companies that are affected reflects the degree of shortage of skilled labor in the German economy at the respective point in time. The aggregation of the answers to the indicators follows the methodology used for the ifo Business Climate Index for Germany and for the other indicators of the ifo Business Survey (Sauer and Wohlrabe 2018b).

Information on the shortage of skilled workers has already been collected in the ifo Business Survey in the manufacturing industry since the 1960s. The main indicator of the Skilled Workers Barometer for the overall economy starts in 2009, as the questions on the shortage of skilled workers were also asked in the service sector from this point onward. In the construction industry, questions were only asked in general terms about labor shortages until 2018, before the shortage of skilled workers was also included in the questionnaire. An indicator that also includes construction has therefore only been available since 2018. In the construction sector, the question is surveyed monthly but for the indicator only the first month of each quarter (January, April, July, October) is used, when it is also asked in the other sectors. A list of all indicators (available industries, regions, firm size categories) and the starting dates of the respective time series can be found on the KfW Research website.[8]

4.8.3 Results of the Skilled Labor Barometer

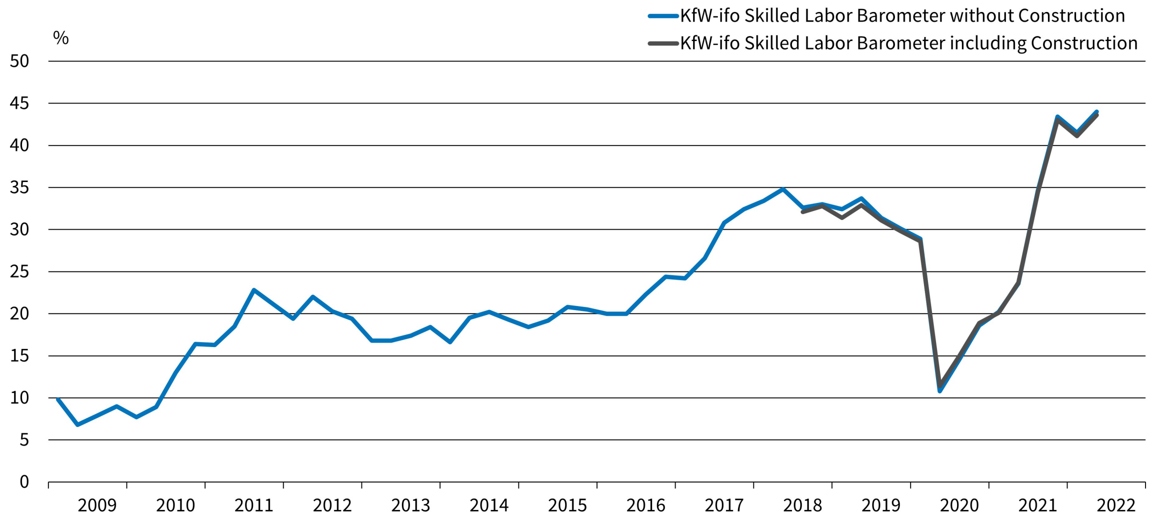
Figure 4.23 shows the main indicator of the Skilled Labor Barometer for the German economy (with and without the construction sector). It indicates the proportion of German companies that are affected by a shortage of skilled workers. It can be seen that the shortage of skilled workers has increased significantly since 2009. Between 2009 and 2011, the indicator rose visibly from around 10 percent to just under 20 percent. It then fluctuated around the 20 percent mark until 2016, after which there was a further significant rise to an interim peak of 36.2 percent in April 2018. As the economy slowed down, the proportion decreased somewhat, but was still over 30 percent at the end of 2019. With the outbreak of the Covid-19 pandemic, which confronted companies with numerous other problems, the extent of the shortage of skilled workers diminished considerably. However, this dip was only temporary.

The results from April 2022 showed that 43.6 percent of the companies in Germany were impeded in their business activities by a shortage of skilled workers. This was considerably more than a year earlier (23.7%) and marked an all-time high since the introduction of the question in the survey.[9]

[8] https://www.kfw.de/About-KfW/Service/Download-Center/Konzernthemen/Research/Indikatoren/KfW-ifo-Fachkr%C3%A4ftebarometer/

[9] For a comparison to other European countries see Peichl et al. (2022).

Figure 4.23: KfW-ifo Skilled Labor Barometer



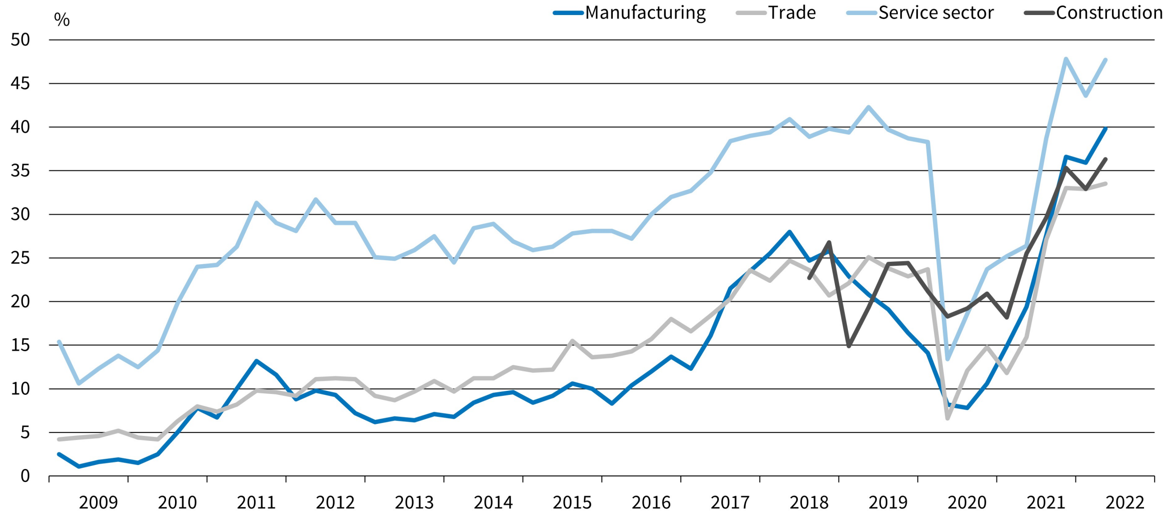
Source: KfW-ifo Skilled Labor Barometer.

Among the major economic sectors, shortages of skilled workers are currently (April 2022) having the greatest impact in the service sector (Figure 4.24), where 47.7 percent of the surveyed companies reported problems. In the other sectors, the share of affected companies is significantly lower, though the problem has also increased considerably for them. In manufacturing, construction, and the trade sector, in April 2022 the share was higher than ever before.

The survey results also provide information on regional characteristics of the shortage of skilled workers. In structurally weaker regions, a slightly higher number of companies are affected by a shortage of skilled workers. In Eastern Germany, for example, the share of companies affected has been somewhat higher than the overall economic average in recent years. However, it is becoming apparent that the problem is now widespread throughout Germany and not limited to individual regions.

In recent years, hardly any differences can be seen between small and medium-sized enterprises (SMEs) and large companies throughout the German economy. However, differences can be seen at the sector level: While SMEs in the manufacturing sector are struggling much more with the shortage of skilled workers, the problems are noticeably more severe among large companies in the other sectors, especially the service sector (Sauer and Wollmershäuser 2021).

Figure 4.24: Skilled workers shortage by economic sector



Source: KfW-ifo Skilled Labor Barometer.