

Germany's skilled labour shortage is the worst since unification

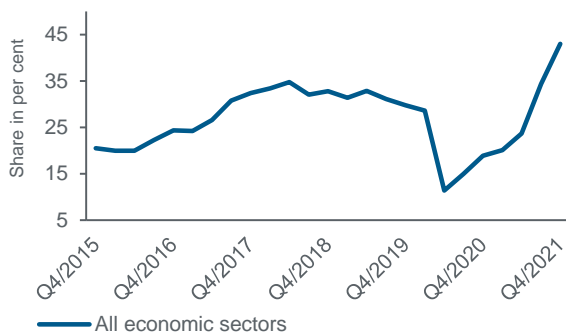
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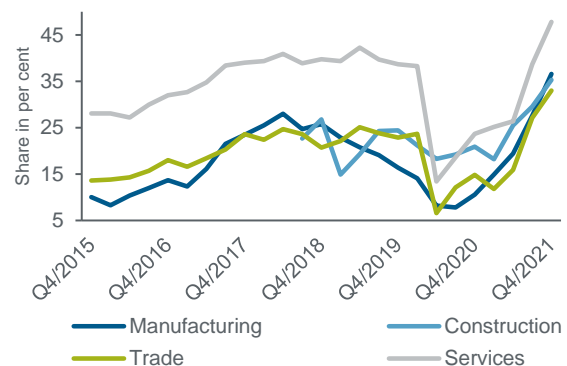
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- At the start of the fourth quarter, skills shortages were affecting operations at 43% of businesses.
- Skilled labour shortages impacted operations at 37% of manufacturing firms, the highest share in past 30 years by a wide margin.
- The services sector was hardest hit, with a lack of qualified workers hampering operations at 48% of businesses.

KfW-ifo Skilled Labour Barometer



KfW-ifo Skilled Labour Barometer Economic Sectors



Shares of businesses whose operations are being negatively affected by a shortage of skills. Q4/2021 means 4th quarter 2021, with the survey conducted in the first month of each quarter, meaning October for the current quarter.

Sources: KfW Research, ifo Institute

Skills shortage greatly worsened in the second half of the year, affecting all economic sectors

In October 2021, 43% of all businesses were impacted by skilled labour shortages. That share was only 23.7% in October 2020 because of the coronavirus crisis. Consequently, since the summer the shortage of skilled labour has grown into a much more widespread barrier to production than before the pandemic. All sectors are affected.

The services sector has been hardest hit by skills shortages, with 47.8% of services businesses reporting disruptions to business activity due to a lack of qualified workers. Thus, the share of service providers affected by skills shortages has nearly doubled from the same period last year.

But the shortage of skills has worsened dramatically in the other major economic sectors as well. In the manufacturing sector, the share of enterprises impacted more than tripled from 10.6% in October 2020 to 36.6% in October 2021. Not since German unification have so many manufacturing firms been affected by skilled labour shortages. In retail trade, 37%

of businesses reported problems as a result of skills shortages, in the construction sector 35.3%.

In the subsegments of the sectors, the skills shortage in October was most pronounced in the hospitality industry, where 72.1% of businesses were affected. This was followed by land transport (rail and road transport of passengers and freight) including transport in long-distance pipelines, where 64% of businesses were affected by a lack of skilled workers. More than half of information technology service providers are also affected. The causes for the particularly pronounced skills shortages in these sectors differ.

In the hospitality and catering sector many employees went to look for work in other industries because of the extended lockdown phases and income losses they incurred from short-time work. However, the relatively low pay has likely played a role here as well, as it has in land transport. With an average gross monthly salary of EUR 1,792 per full-time employee in the second quarter of 2021, hospitality is one of the lowest-paying sectors, even when tips given in the usual amounts are included. Gross monthly salaries averaging

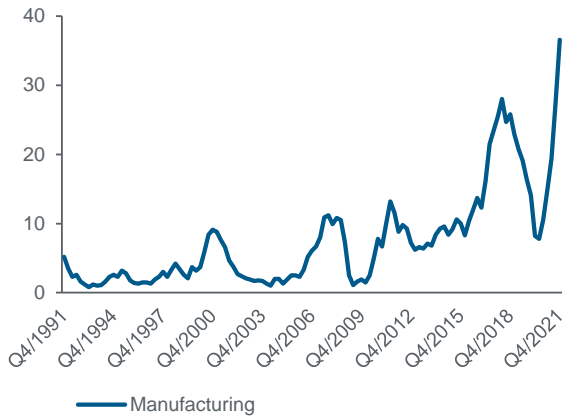
KfW Research

KfW-ifo Skilled Labour Barometer: November 2021

EUR 3,247 in land-based transport are also well below the total average of EUR 4,580 for the manufacturing and services sector.

Skilled labour shortage worse than ever since German unification

Percentages of businesses with operations negatively affected by a shortage of skilled labour.



Source: KfW Research, ifo Institute

The picture is different in information technology service businesses. This industry pays well above-average gross monthly salaries of EUR 6,566 and the shortage of skilled workers here is due to the fast-growing demand for IT services. The severe shortage of IT specialists must be acknowledged as a serious barrier to the innovative and competitive capabilities of the German economy.

The underlying cause for the increased skills shortage, however, is that during the upturn the number of job vacancies – a good 800,000 reported in October – was almost back to the record level of the year 2018, while the supply of skilled labour tightened. Another contributing factor was the sharp drop in labour migration during the pandemic. Net immigration fell from 327,000 in 2019 to 220,000 in 2020.

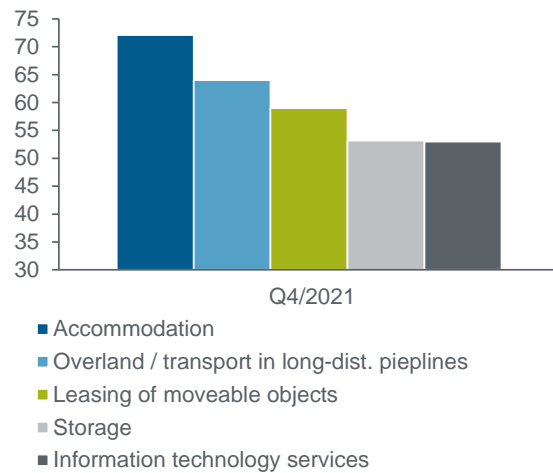
SMEs, especially manufacturers, are more likely to be affected than large enterprises

In October 2021, 43.2% of SMEs reported that their activities were being hampered by a shortage of skilled labour. The share was nearly as high among large enterprises, at 42.5%. In the manufacturing sector, however, skills shortages affect

SMEs much more (42.9%) than large enterprises (26.9%). In the services sector, by contrast, shortages affect a much higher number of large enterprises – currently 54.7%.

Top 5 sectors affected by skills shortages

In per cent.



Source: KfW Research, ifo Institute

Conclusion: In the years ahead, the skilled labour shortage may hamper growth more severely than previously expected

The current KfW-ifo Skilled Labour Barometer shows that the German economy is grappling with more than material shortages and supply bottlenecks. The skills shortage is affecting the German economy to a far greater extent than before the crisis. The lack of skilled personnel is threatening the further recovery and growth in the coming years. What direction the skills shortage will take crucially depends on whether and to what extent Germans' labour force participation and skilled migration pick up again, and to what extent skilled workers can be qualified in line with demand through training and further education and their skills can be kept up-to-date, particularly with regard to digitalisation. It will be important to improve businesses' technological competitiveness and to increase the weak labour productivity growth rate. This, too, calls for immediate action if Germany wants to significantly alleviate the skills shortage in the coming years.

KfW Research

KfW-ifo Skilled Labour Barometer: November 2021

KfW-ifo Skilled Labour Barometer in figures

Shares of businesses whose operations are being negatively affected by a shortage of skills.

| | | Quarter/Year | | |
|---------------|--|--------------|---------|---------|
| | | Q4/2020 | Q2/2021 | Q4/2021 |
| Total | | 18.9 | 23.7 | 43.0 |
| Manufacturing | Total | 10.6 | 19.4 | 36.6 |
| | Manufacturing of vehicles & parts | 3.6 | 15.2 | 36.0 |
| | Mechanical engineering | 6.8 | 17.0 | 33.5 |
| | Manufacturing of food & animal feed | 14.5 | 25.2 | 32.3 |
| | Manufacturing of chemical products | 7.0 | 9.6 | 20.1 |
| | Manufacturing of metal products | 15.3 | 27.8 | 45.8 |
| | Metal production & processing | 8.2 | 17.9 | 38.1 |
| Construction | Total | 20.9 | 25.5 | 35.3 |
| Trade | Total | 14.8 | 15.9 | 33.0 |
| | Wholesale | 13.5 | 16.1 | 30.0 |
| | Retail | 16.5 | 15.7 | 37.0 |
| Services | Total | 23.7 | 26.4 | 47.8 |
| | Transport: overland / pipelines | 28.2 | 36.1 | 64.0 |
| | Telecommunications | 15.2 | 14.2 | 25.3 |
| | Provision of information services | 29.8 | 37.2 | 53.0 |
| | Legal & tax consultation | 39.9 | 54.8 | 52.2 |
| | Business consultation | 16.8 | 21.6 | 34.3 |
| | Architect./en. firms, tech./phy./chem. testing | 39.4 | 42.1 | 54.1 |
| | Research & development | 7.7 | 20.2 | 37.0 |
| | Catering | 19.7 | 5.9 | 48.9 |
| | Accommodation | 15.2 | 6.9 | 72.1 |
| SME | | 18.5 | 24.1 | 43.2 |
| LSE | | 19.6 | 22.9 | 42.5 |

Source: KfW Research, ifo Institute

Abbreviations:

S(mall and) M(edium-sized) E(nterprises).

L(arge-)Scale E(nterprises).

Construction and interpretation of the KfW-ifo Skilled Labour Barometer

The KfW-ifo Skilled Labour Barometer is based on evaluations of the ifo economic surveys which are used to calculate, among other things, the well-known ifo Business Climate Index. The Skilled Labour Barometer reports on the share of enterprises in Germany that report adverse impacts on business operations from a shortage of skilled workers. Each quarter about 9,000 enterprises from trade and industry, construction, wholesale, retail and services (without the banking and insurance sectors or the state) are polled on their business situation, among them some 7,500 SMEs. In addition to providing an overall indicator for the skills shortage in the German economy and indicators for various sectors and regions, the barometer also enables a company size-specific data evaluation separated into SMEs and large enterprises. Enterprises are generally classed as small to medium-sized if they employ a workforce of not more than 500 and record an annual turnover not exceeding EUR 50 million. For a more accurate analysis, however, these quantitative distinctions have to be drawn more narrowly for retail trade (maximum annual turnover of EUR 12.5 million), the building and the construction industry (up to 200 employees) and services (maximum annual turnover of EUR 25 million). All enterprises that exceed at least one of these thresholds are classed as large-scale enterprises. The construction and civil engineering sector was first surveyed on the impacts of skills shortages on business activity in the third quarter of 2018. That was the reason the sector was not integrated into the overall indicator before that quarter. The value of the overall indicator varies only marginally as a result.