Skilled labour requirements in firms

Shortages are emerging in some sectors and regions

Many firms are finding it increasingly difficult to fill vacancies. Although an extensive shortage of skilled labour cannot be discerned at present, bottlenecks are nonetheless becoming apparent in some areas. While demand for unskilled labour is showing a downward trend, demand for qualified skilled workers is growing.

The subject of “skilled labour requirements” is discussed intensively in particular when the economic situation is good. However, in both public and scientific debate there is some dispute about whether there really is a serious lack of skilled labour in Germany. Reliable statements in response to this question can only be made with a sound data basis. With the “IAB Establishment Panel” and the “German Job Vacancy Survey” (EGS), the IAB has two top-class data sets that can be used to determine firms’ demand for labour — differentiated by sector, region and occupation — and to gain information about potential shortages. Corresponding analyses formed the basis of the Labour Supply Report (Arbeitskräftebericht) published by the Federal Ministry of Labour and Social Affairs at the end of 2011. The latest results were published in Volume 339 of the “IAB-Bibliothek” series. The results publicised there are described here in brief.

Firms’ labour demand has increased further

Initial indications of possible shortages of skilled workers can be gained by looking at the development of labour demand, in other words the number of people in employment and the number of vacancies. After a decline in employment in the early 2000s, an increase has been visible since 2005 which has also continued in the recent past. According to the data of the IAB Establishment Panel, the establishments counted 35.2 million employees in 2011, some 600,000 more than in the previous year. While the number of people in employment remained stable even during the economic and financial crisis, the number of vacancies fluctuates more strongly with the economic situation. Following a decrease in 2008 and 2009 associated with the crisis, the number of job openings has increased substantially again (see Figure 1 on page 25). However, the number of vacancies in the fourth quarter of 2011 was somewhat lower again than it was before the recession, at 1.13 million, (to compare, fourth quarter of 2007: 1.22 million job vacancies).

The firms’ demand for labour focuses principally and increasingly on skilled workers. This applies in particular for jobs requiring a vocational qualification. In contrast, the proportion of job vacancies for unskilled workers has fallen considerably in recent years — with the exception of the crisis year of 2009. Part of this decline can be explained by a special factor: since the end of 2010 publicly subsidised jobs, which generally only require a low skill level, have no longer been recorded in the Job Vacancy Survey. When examining the primary labour market alone, the proportion of the vacancies that are for unskilled workers is even smaller.

Demand for labour varies considerably between the labour market segments

The qualification-specific demand for labour is closely linked with the demand from establishments in different branches of the economy (cf. Figure 2 on page 26). Especially the business services sector has proved very dynamic in the recent past. However, in parts of the manufacturing industry, too, there has been a positive development in the unmet labour demand, which can probably be put down...
mainly to the favourable economic trend and the competitiveness of the German industry.

At occupational level, there is currently substantial demand in particular for electrical occupations and for professional drivers, chefs and qualified office staff. Especially in the latter occupations the level of fluctuation is comparatively high, however. Furthermore, for the future the establishments are expecting particularly high demand for skilled workers in the health sector and in education – above all for geriatric nurses and educators. In view of the progressive ageing of society and the increased expansion of childcare facilities, demand in this area can be expected to increase still further.

No indication of a general labour shortage

Looking at labour demand provides initial indications as to which occupations and skill levels are especially in demand by firms. However, it does not reveal any actual bottlenecks in staff recruitment. These can only be diagnosed when firms have trouble meeting their needs – in other words, for example, if the recruitment process is difficult or lengthy, if firms have to make compromises when hiring new staff or if there is an insufficient number of job-seekers for the vacancies.

At macroeconomic level, various indicators suggest that tension on the labour market has grown from the viewpoint of firms. In 2011, for instance, the German labour market was characterised by an increase in unmet labour demand and a drop in unemployment. There were a total of 240 unemployed persons for every 100 vacancies – five years earlier, in 2006, the figure was still 350. The registered unemployed constitute only part of the available supply of labour, but this development nonetheless indicates that it has become more difficult for firms to fill vacancies. All the same, we cannot yet speak of a shortage of skilled workers or even of labour in general in the economy as a whole. The situation is different when various labour market segments are examined.

Shortages in individual labour market segments

In regional terms, the likelihood of skilled labour shortage is largest in the economically prosperous regions of southern Germany (cf. Figure 3 on page 28). In all regions the unemployment rates were lower in 2011 than in the previous year. The number of job vacancies, which had fallen considerably during the economic and financial crisis, increased again with the upturn in the economy and also continued to grow in 2011. In the view of the firms, the tension on the labour market remains lower in eastern Germany than it is in the west. Nonetheless, some eastern German states are moving closer to the average for the country as a whole. The high unemployment rates have fallen substantially above all in Thuringia and Saxony.

Comparing sectors, it is in particular the information and communication sector that has had to contend with manpower shortages most recently: the length of time required to fill a job with a new hire, averaging 110 days, was well above the average for the economy as a whole, which was 76 days. Furthermore, the proportion of new hires that the firms report as having been associated with difficulties, for example due to too few applicants for the vacancy, was especially large, at 35 percent.

In the field of “other services”, too, which includes health and social work as well as education, the situation tends to be tense. There are shortages above all in nursing occupations, but also shortages of educators and education social workers. In addition, the recruitment process is proving more difficult than average for electrical occupations and mechanical engineers. In these shortage occupations firms are finding it increasingly hard to recruit qualified staff quickly and without any serious obstacles.

Conclusion

From the viewpoint of the firms, the labour market has become tighter recently. Unmet labour demand has increased, the number of job-seekers has fallen. It must be taken into consideration, however, that different adjustment
processes influence the supply of and demand for skilled workers. These include, for example, the development of wages, changes in the demand for goods and services as well as regional and occupational mobility processes. Such adjustment processes take a certain amount of time, however. For example, the regular duration of studies for an engineering degree in Germany is five years. An adjustment in the form of a larger number of graduates due to an increase in demand can therefore only be expected with a substantial time lag in this case. Moreover, this involves the danger of over-reaction in the sense of a “pork cycle”. Especially in the case of so-called shortage occupations, it is therefore important to observe the further development.

In the meantime, some firms are having more difficulty filling their vacancies than was the case in previous years. In some areas, the time required to fill a job has grown, as has the proportion of new hires that the firms regard as having been difficult to find, for example due to there being too few or unsuitable applicants. However, there is still no question of a general, nationwide shortage of skilled workers – or of labour overall.

References


Dietz, Martin; Kottner, Arije; Kubis, Alexander; Leber, Ute; Müller, Anne; Stegmaier, Jens (2012): Unvollkommene Ausgleichsprozesse am Arbeitsmarkt. Analyse der Arbeitskräftestruktur im Rahmen des IAB-Betriebspanels und der IAB-Erhebung des Gesamtwirtschaftlichen Stellenangebots. IAB-Forschungsbericht Nr. 8 (in German).

Kubis, Alexander; Leber, Ute; Müller, Anne; Stegmaier, Jens (2013): Der Arbeitskräftebedarf in Deutschland 2006 bis 2011 Nachfrage, Rekrutierungsprozesse und Engpässe aus Sicht der Betriebe. IAB-Bibliothek 339 (in German).

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Notes:
* The vacancy rate is defined here as the jobs to be filled immediately (excluding subsidised jobs) as a proportion of all employees covered by social security plus the jobs to be filled immediately (excluding subsidised jobs).
** The unemployment rate measures the proportion of registered unemployed persons as a percentage of all employees covered by social security plus the registered unemployed.

Source: IAB-EGS, BA Statistics Department

Figure 3
Regional vacancy* and unemployment rates** in Germany, 4th quarter of 2010 and 2011