With unemployment in Germany now standing at 5 million, it might appear counterintuitive to argue that Germany needs more labour migration. But many experts and employers are increasingly concerned about current and future gaps in labour supply, especially of qualified labour. They argue that shortages in areas such as health care, engineering and a variety of services will become more acute because of ageing populations and the growing importance of the knowledge-based economy. Such shortages could hamper growth and productivity, or impede the delivery of key social services. Labour migration programmes, many would argue, can help meet these gaps, and are therefore essential for maintaining current levels of prosperity and welfare.

This view, however, is highly contested in German political debate. Opponents of more liberal policies question the need for new labour in a situation of mass unemployment. They argue that gaps should be filled by matching unemployed workers to vacancies. This position often goes hand in hand with a concern to avoid potential problems with the socio-cultural integration of large numbers of new labour migrants.

This dossier aims to sift through the evidence in support of these different positions. How acute are labour shortages, and which sectors and occupations do they affect? How are they likely to evolve in the coming decades? Can they be filled through domestic workers, or is labour migration required to address shortages? Clearly, analysing the economic evidence will not provide any clear answer to the question of how much migration is desirable. This will also depend on broader questions about the sort of society one wants to live in. But given the level of confusion and misinformation that characterises public debates, clarifying the scale and nature of shortages should help inform choices.

What causes labour shortages?

Labour shortages occur where there is a demand for labour in a particular occupation, but a lack of workers who are available and qualified to do the job. Shortages can take a number of different forms. Aggregate shortages occur in situations of full employment, where there are simply not enough workers to meet demand for labour. Far more frequent, though, is the problem of shortages due to mismatch of labour demand and supply. This refers to a situation where the number of workers is sufficient to fill jobs, but workers are unable or unwilling to fill vacancies for one of the following reasons:

- Qualifications mismatch: workers do not have the necessary education, training or experience to fill vacancies
- Preferences mismatch: they may have adequate qualifications, but do not want to do a particular job because of inadequate pay, status or working conditions
- Regional mismatch: they are able and in principle willing to do the job, but are located in the wrong geographical area and are not ready to move
- Mismatch due to information deficits: workers are not matched to jobs because of a lack of information on existing vacancies, or inadequate recruitment procedures on the part of employers.

Shortages due to mismatch can coexist with high levels of unemployment, as is the case in many European countries including Germany.

Aggregate shortages and mismatch on the labour market occur as a result of two types of changes. First, they may occur where changes in labour demand outpace corresponding shifts in the size or composition of the labour force. Such changes are often generated by growth in the economy as a whole, or in particular sectors; changes in the international division of labour that affect the location of production and services; or by technological change and changes in productivity. Second, shortages may be generated by decreases in labour supply. The labour force may become smaller or its skills or occupational composition may change. This is often as a result of demographic change, trends in the qualifications structure of those entering the labour market, or declining participation rates.

How acute are shortages in Germany?

In common with many other OECD countries, Germany faces quite substantial changes in both labour demand and supply. On the demand side, two trends are of particular importance:

- Structural economic change
  Germany will continue to experience a decrease in the employment share of the manufacturing and agricultural sectors and an increase in the service sector share. This is partly a result of delocalisation of labour intensive production to regions with lower labour costs, notably Asia. However, it is likely that high-skilled jobs will continue to be located in OECD countries, because of the availability of qualified workers with relevant language skills and specialised knowledge of legal frameworks. The result is that demand for qualified and highly qualified workers in occupations such as IT, engineering, consultancy and financial services will continue to grow.
• **Technological development and innovation**

In a "knowledge based economy", skilled human capital is the most valuable factor of production. Indeed, it is estimated that more than half of GDP in OECD countries is derived from human capital rather than the material value of goods. Productivity and competitiveness have become more than ever a function of having the right knowledge and skills. The importance of technology can be most obviously illustrated by the burgeoning IT sector. But in a more general sense, innovation has become vital for productivity and growth in highly competitive international markets, characterised by short product cycles. The importance of technology and innovation implies the need for personnel not just with the relevant qualifications, but also with an ability to adjust flexibly to rapid technological change.

The trend towards greater demand for highly qualified workers is already evident: between 1975 and 2000, the employment of highly qualified workers increased by 180%. Demand will continue to grow in the coming years, even in the event of economic slowdown.

Taken together, these changes imply above all an increasing demand for highly qualified and qualified workers in the tertiary sector. Demand for low- and unqualified workers will decrease, with an estimated loss of 2.2 million jobs between 1996 and 2015. The composition of these low skilled jobs is likely to change. Traditional manual labour in industry and agriculture will decrease, but ageing populations and the growing importance of the tertiary sector will also create rising demand for various sorts of services, also covering low-skilled occupations.

This brief discussion of demand for labour does not in itself tell us much about future labour gaps. For this, we also need to consider how far this demand may be met by domestic labour supply. Here, three trends are of particular importance: demographic change, education, and regional and occupational mobility.

• **Demographic change**

Germany is set to experience a significant increase in the old age dependency rate – i.e. the ratio of economically active to non-active members of the population. This can be attributed to lower birth rates, combined with higher life expectancy. By 2030 the proportion of the population in Germany who are retired will rise to 35.8% as compared to 23.5% in 2000. Labour supply will decrease by an average of 0.7% per year between 2010 and 2040. The overall decrease in the labour force will negatively affect economic growth, and will almost certainly make it impossible to sustain current levels of welfare and social services. The rising proportion of older people will also generate greater dependence on welfare, social and health service, creating additional demand for healthcare. These trends may be partially offset by rising participation rates, i.e. the proportion of the working-age population who are economically active or seeking work. In fact, rising participation rates of women over the past 15 years have helped counteract the impact of demographic change on the size of the labour force (although it should be noted that in the east German states female participation rates have been declining since the 1990s). While increased participation rates are to be welcomed, they cannot be expected to continue to compensate for demographic trends in the next forty years.

• **Education**

Until the early 1990s, there was a steady trend towards better qualifications in Germany. The proportion of unqualified persons on the labour market decreased substantially, while those with professional qualifications rose. However, since the beginning of the 1990s, while the number of graduates has continued to rise, the number of those with a professional qualification (Lehre/ Fachschulabschluss) has stagnated. Combined with the overall decline in the numbers of those entering the labour market in the coming years, we can therefore expect a decrease in professionally qualified labour of almost two million between 1998 and 2015.

• **Occupational and Regional Mobility**

In comparison to some other European countries,
Germany workers do not display high rates of mobility between different occupations, or between regions. One reason for the lack of occupational mobility on the part of unemployed people is that some jobs are seen to have unacceptably low pay or status or difficult working conditions. Lack of occupational mobility may also be partly attributed to the relatively rigid structure of occupational training in Germany. This makes it more difficult for those already trained or with experience in one area to switch to another occupation where there are job vacancies. Meanwhile, inter-regional mobility is amongst the lowest in the EU. Only 1.1% of the employed population moved to another region in 1999, compared to an EU average of 1.4%. The lack of movement between occupations, and between different geographical regions, partly explains why there remain gaps in some non- and semi-skilled jobs in a number of sectors – for example agriculture, catering, or domestic work.

What overall picture can we derive from this analysis? The growing importance of the knowledge-based economy and continued deindustrialisation will generate increased demand for qualified and highly-qualified workers. However, assuming that current demographic and educational trends persist, domestic labour supply will not be able to keep up with this shift in demand. A generally shrinking labour force, accompanied by stagnation in the trend towards better qualifications, is likely to create acute shortages of skilled workers. Meanwhile, ageing populations will also create a significant rise in the demand for healthcare workers with various skills levels. Going back to the typology of labour shortages, we can say that future gaps will be characterised by qualitative mismatch, exacerbated by aggregate shortages. These types of shortages may be further aggravated by continued low occupational and regional mobility on the part of domestic workers, especially in low-skilled work.

A report commissioned by the Immigration Council in 2004 listed 14 areas with labour shortages, including health (doctors, physiotherapists, pharmacists), engineers (machine and aeroplane construction, machine building technicians) and services (insurance experts, qualified trade representatives).

**Can labour migration solve the problem?**

A much-cited report from the United Nations Population Division argued that Germany would require 3.6 million immigrants per year between 2000 and 2050 to retain current dependency rates. But few commentators accept that this scale of immigration would be desirable, or even necessary. Instead, most German and OECD governments have considered that the first line of attack lies in reforms influencing domestic labour supply. These can take four major forms:

- Encouraging higher participation rates, through welfare and social programmes that encourage people to (re-)enter the labour market. This includes providing better possibilities for mothers to work.
- Encouraging later retirement, partly through improving the employment perspectives for older workers.
- Education and training to ensure the labour force has the relevant qualifications to meet future labour demand and ensure innovation.
- Encouraging better match of workers to jobs through promoting regional mobility, and providing incentives for unemployed people to take up jobs they would not otherwise have chosen.

However, there are limits to how far these reforms can meet labour demand. First, there is no certainty that such measures will have the intended impact on people’s employment decisions. For example, welfare and social policies and education reforms can at most change incentive structures – there is no guarantee that people will change their behaviour in the desired way. Second, most measures will involve a time lag before they take effect. Education reforms, for example, will only have an affect over 5-10 years. This is therefore no solution for immediate and pressing shortages. Third, some skills such as language, knowledge of foreign markets or cutting edge technologies used elsewhere may by definition only be provided by workers from abroad. Fourth, and importantly, attempts at projecting future shortages are unreliable. Many of the factors influencing future shortages, such as rapid technological change, are impossible to predict. This makes it very difficult for policy-makers to plan supply-side measures in detail, or to design policies for the medium to long-term.

By contrast, labour migration is a fairly rapid and efficient instrument for meeting shortages. Sectoral and occupational...
German companies recruit more than 300,000 mainly unskilled workers from abroad each year. The largest section of these work for only a few weeks or months as seasonal farm labourers or in restaurants and cafes. Foreign workers from overseas-based companies also come to Germany to carry out industry related services or dismantle whole factories which can then be sold abroad. The number of people involved in this type of work alone amounts to some 100,000 every year.

An immigration policy that focuses exclusively on current labour market needs is too short-sighted. It is also questionable whether such an approach can be justified in light of the 5 million unemployed in Germany. The present labour market situation is indeed characterised by "mismatch". To be sure, one element of this is that the skills and qualifications required by employers do not match those that currently exist in the labour force. But an additional problem has been the short-sightedness of managerial decisions. Gaining immediate benefits has often been given too high priority and, for example, the tendency to fill positions on a temporary basis has exacerbated already high unemployment among older and less-qualified workers. Moreover, recruiting foreign workers to meet immediate and pressing shortages implies that recruitment programmes can quickly lose their relevance. This was clearly illustrated by the programme set up to encourage the recruitment of qualified foreign workers in the IT sector. In this particular case there was an unanticipated crisis which led to demand for employees being drastically reduced. At the same time, Germany was not particularly attractive for qualified foreign workers because of the various restrictions on rights imposed in the framework of such a temporary programme.

An immigration policy that takes into account longer-term labour market trends can contribute to easing the effects of demographic change. The introduction of a Canadian style points system, which encourages the immigration of well qualified individuals along with their families, would be a positive step. Measures in line with this Canadian model have not yet been introduced, however, as a result of opposition from the Christian Democratic Union and Christian Social Union. Nonetheless, it is important to pursue this path further. The approach must also be part of a package of measures that expand domestic labour force participation. These measures could include: age and family friendly jobs, extension of crèches and all-day school, as well as more effective qualification and integration initiatives. A precondition for the implementation of socially and economically beneficial immigration is, and remains, the realisation of a political and social strategy to counter prejudice and exclusion as well as to promote acceptance and openness.

The opinion expressed here is of the author alone and does not necessarily correspond to that of the Policy Brief.

Footnotes
6 In this point system, points are allocated according to the qualifications and abilities of the applicant for immigration. This system has successfully been applied in Canada.

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References

- BMI-Gutachten für die Unabhängige Kommission Zuwanderung, available online in German only at : http://www.bmi.bund.de/cln_012/nn_122778/Internet/Content/Themen/Zuwanderung/DatenundFakten/Gutachten__fuer__die__Unabhaengige__Kommission__ld__48621__de.html

Further Reading

- Institute for Employment Research (IAB): http://iab.de/iab/engiab.htm
- Federal Ministry of the Interior-Website on immigration (also with English version): http://www.zuwanderung.de/
- OECD, Directorate for Employment, Labour and Social Affairs: http://www.oecd.org/home/
- German Confederation of Trade Unions (DGB): http://www.dgb.de/sprachen/englisch/kontakte.htm
- Federation of German Industries (BDI): http://www.bdi-online.de/en/index_en.htm