

Brain drain or brain gain: Labour market migration to and from Denmark

Abridged version

This is an abridge version of the original Danish language report. For more details about the study please consult the Danish language version or contact Chief Economist Claus Seidelin clas@dea.nu.

Numerous studies show that Denmark will face a major shortage of labour in the near future. The shortage will be especially pronounced in certain skilled trades, but a wide range of businesses are expected to struggle to meet their recruitment needs for highly educated workers. A recent projection from Axcel Future (2016) showed that Denmark will have a shortage of 90,000 skilled tradesmen in 2030, which is in line with earlier studies that have also predicted a massive shortfall of skilled workers, including electricians, tool makers and industrial technicians. Similarly, Engineer the Future (2015) expected a shortfall of 14,000 engineers and science postgraduates by 2025. This trend could seriously stymie the ability of Danish companies to create economic growth, jobs, and prosperity.

Background

Recent years have seen a number of reforms to the Danish job market aimed at increasing the supply of labour. These reforms included a major overhaul of the retirement system and changes to subsidised employment schemes, student grants, and unemployment benefits. Technical and vocational education have also been reformed with the intention of creating more desirable vocational degrees that in turn will train more and more highly skilled tradesmen for Danish businesses. Despite these policy changes, more steps are needed to ensure that businesses will be able to recruit the capable hands and minds they will need to replace the large cohorts of Baby Boomers leaving the job market in these years.

International recruitment often comes up as a possible way of addressing the expected skills gap. Increased labour immigration would expand the pool of available talent, but conversely, emigration threatens to make it more difficult for businesses to meet their future recruitment needs. Access to overseas labour and employees who are willing to relocate is increasingly valued by companies as they

Tænketanken DEA
Fiolstræde 44
DK-1171 København K
www.dea.nu

Authors:
Claus Seidelin, chief economist

plan their recruitment strategies, but it is yet unclear whether and to what degree Danish businesses will be able to recruit the talent they need in light of international emigration.

This report by DEA addresses this issue by examining trends in labour immigration and emigration from Denmark in recent years. Our focus is strictly limited to migration associated directly with work and considers both the types of work undertaken by migrants and their level of education. While it has long been high on the political agenda, there has been a lack of research on migration specifically for work purposes, and hence this report will disregard migration for humanitarian and familial reasons.

Economic theory suggests that migrant labourers in the lower end of the education curve will tend to move to countries that in addition to offering higher wages, also have a lower wage return to education (and vice versa). Bearing this in mind, we should expect that expansion of the European Union to include new Eastern European member states and free mobility of labour that followed will have led to an influx of unskilled labour from the new member states, whereas more highly educated migrant workers will have preferred countries with higher wage returns to education than Denmark.

Results

By controlling for formal education and job types filled, we have been able to answer two important questions: First, how many and which people have moved to or from Denmark to work, and second, from which levels of education and in what kinds of jobs Denmark has experienced brain drain or brain gain in recent years.

Our main finding is that Denmark has experienced positive net labour immigration – a brain gain – across every level of education between 2001-2011. While there has been a large net immigration of unskilled labourers especially since the mid-2000s, there was also a net immigration of skilled and highly educated workers to Denmark throughout the same period.

Overall, this report concludes that:

- Approximately 90,000 immigrants arrived in Denmark for work purposes between 2001 and 2011, while approximately 48,000 Danes left for overseas. In net terms, Denmark saw a total immigration of around 42,000 people. Around 29,500 workers arrived without qualifying education (unskilled labourers), just under 6000 had vocational-level qualifications, and the remaining 6500 had higher educational qualifications.
- Both labour immigrants and emigrants tend to be younger men, much as migrants tend to be in general. Around a third of labour immigrants came from Eastern Europe, where Polish, Ukrainian and Rumanian immigration has been on the rise since the mid-2000s. Emigration from Denmark was more evenly distributed across the Nordic region, EU-15 countries, and non-EU countries. Sweden, the United Kingdom, and the United States were the top destinations for Danish emigrants. Very few Danes left for Eastern Europe for work.
- One in three labour immigrants was employed within the fields of property service and cleaning, agriculture and horticulture, and hospitality. Academia and the IT industry also employ many immigrants. As for emigration, the greatest outflows came from the restaurant industry, IT, engineering, and academia. This distribution is reflected in the types of positions filled by emigrants and immigrants; Danish emigrants tended to find employment in highly skilled roles, while a relatively higher proportion of immigrants were employed in lower-skilled professions.

- The average level of education was lower among immigrants than emigrants, which is partially due to the considerable inflow of workers from Eastern Europe and countries outside the EU into industries with many blue-collar jobs. While 53 percent of immigrants had no qualifying education at the time of their arrival, as opposed to just 38 percent among emigrants. Conversely, 29 percent of immigrants had completed higher education, compared to 41 percent of emigrants. A large proportion of highly skilled migrants were employed in the same job functions, indicating that some job functions are particularly linked to international job markets.
- Between 2001 and 2011, around 3000 international students stayed to work in Denmark after completing full degree programs here. Conversely, just under 3500 Danish students moved overseas immediately after graduation. The number of international students is growing fast, and in 2011, they accounted for around a fifth of highly-educated immigration to Denmark.

There is a large degree of uncertainty associated with assessing immigrants' level of education because of the lack of reliable information on degrees completed overseas. What is more, revisions to the Danish implementation of the International Standard Classification of Occupations (ISCO) from 2010 have made it more difficult to compare job functions filled by immigrants and emigrants, respectively, over time. Sensitivity analyses do, however, suggest that Denmark will have had a positive net rate of skilled and highly-educated immigration even under relatively conservative assumptions.