Bottleneck Vacancies in Norway

Healthcare, engineering and education particularly affected

Main bottlenecks appear within health care, for different types of engineers and blue-collar work, as well as in education, primarily pre-primary and primary school.

Shortage of high-skilled and skilled-manual workers

Main bottlenecks appear within the health care sector. Lack of nurses, nursing professionals and health care assistants is estimated to be 6000. The need for engineers and workers within ICT is still high, though it has gone down from 8000 in 2012 to 4600 in 2013. Compared to numbers of unemployed, this is still considered to be a major bottleneck in Norway.

In addition to these main groups, bottleneck occupations are also found within the education sector, primarily for early childhood educators and primary school teachers as well as for several occupations within blue-collar work, such as carpenters and joiners, electricians and physical and engineering science technicians.

Data on the nature of these bottlenecks was not available (see page 5).

Lack of workers with formal competencies

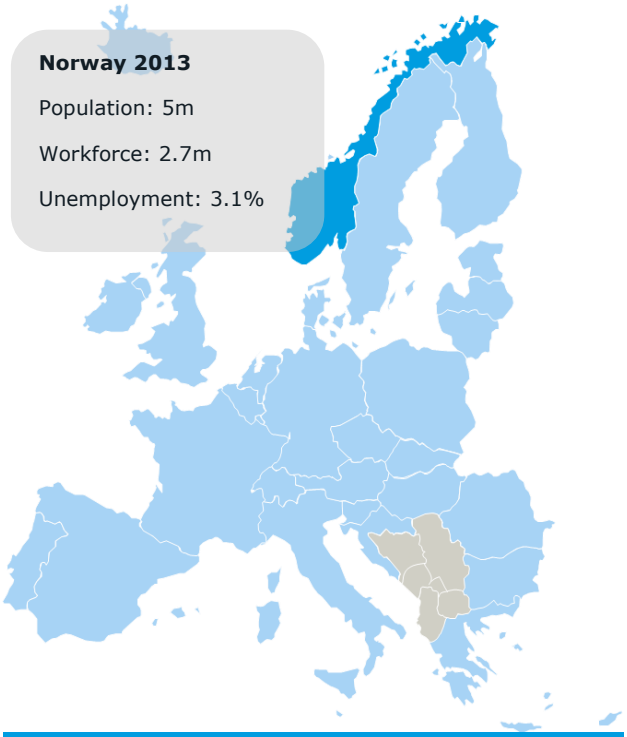
The main reason for bottlenecks in Norway is a lack of qualified workers. Of enterprises stating problems filling vacancies, 58% had not succeeded in filling vacancies, whereas 42% had to hire someone holding other or lower formal competencies than was sought after. Underlying trends concerning young peoples' choice of study may partly explain why vocationally oriented education suffers from a low number of applicants. This applies for both occupations within blue-collar work, such as carpenters, electricians and plumbers, as well as for cooks and shop sales assistants.

Mitigation strategies include vocational training

For several of the identified bottlenecks, employers are recruiting from other countries. This applies for occupations within construction and health care, as well as for cooks and shop sales assistants. Employer organisations and the Ministry of Education and Research are working on different strategies to increase the number of applicants in vocationally oriented education as well as to reduce drop-out rates.

Assessment of available evidence

Good. See page 5 for more information.



TOP 20 Bottleneck Vacancies in Norway 2013

Occupation (ISCO-08)*	Development since 2008
Health care assistants	↗
Nurses	↘
Shop sales assistants	↗
Carpenters and joiners	↗
Early childhood educators	↗
Building and related electricians	→
Contact centre salespersons	↗
Primary school teachers	↗
Engineering science technicians n.e.c.	↘
Cooks	↘
Civil engineering technicians	↗
Craft and related workers n.e.c.	↘
Nursing professionals	↘
Plumbers and pipe fitters	↘
Welders and flame cutters	→
Heavy truck and lorry drivers	↘
Mining and metallurgical technicians	↘
Bus and tram drivers	↗
Civil engineers	↗
Mechanical engineering technicians	↘

*Where an occupation has been identified on a more specific level than ISCO 4 digit, this is used.

Top 20 Bottleneck Vacancies

The bottleneck vacancies have been identified using a periodic report from The Norwegian Labour and Welfare Administration (NAV), called "Bedriftsundersøkelsen". Both private and public enterprises are asked whether they failed to recruit workers during the last three months, or had to hire someone with lower or other formal competencies than desired. Information includes number of vacancies affected.

Bottlenecks mainly appear with high-skilled occupations, such as nursing professionals, nurses, early childhood educators and several types of engineers. The health sector is considered to be affected the most by bottlenecks. Enterprises state a lack of 6000 people in this sector. There is a lack of 2650 nurses and nursing professionals and 2450 health care assistants. Enterprises within health care services, moreover, anticipate an increase in demand for labour next year.

Lack of workers within construction is estimated to be around 4700. This is a small decrease compared to last year's survey. About 1/5 of enterprises states recruitment problems, mainly due to a lack of qualified applicants. Prognoses for the coming year however point to a smaller growth rate in employment.

There is still a lack of engineers in Norway, numbers varying within different industries and sectors. Enterprises within mining lack mining and metallurgical technicians, whereas there is a lack of civil engineers in several sectors, for instance, both construction and manufacturing. The municipal sector, in particular, faces considerable challenges regarding vacancies for engineers.

11% of enterprises within retail states recruitment difficulties, over 70% saying this is due to a lack of qualified applicants.

In addition to this, a large proportion of the identified bottleneck occupations is found within skilled-manual occupations, such as carpenters, electricians and plumbers. There are no elementary occupations on the list.

Occupations are ranked based on an index of estimated lack of workers in each occupation, developed by the Norwegian Labour and Welfare Administration. Survey data is collected with a large sample of employers twice a year (see p. 5).

Rank	Bottleneck Vacancies ISCO -08	Number of Employed in Occupation 2011	Skills level (ISCO-08)	Geographical aspects
1	Health care assistants	85000	SNM	National/ Regional/Rural
2	Nurses	73000	HS	National/Rural
3	Shop sales assistants	167000	SNM	Urban
4	Carpenters and joiners	47000	SM	National/Regional
5	Early childhood teachers	28000	HS	National/Regional
6	Building and related electricians	28000	SM	National/Regional
7	Contact centre salespersons	7000	SNM	N/A
8	Primary school teachers	86000	HS	National/Regional
9	Physical and eng. science techs n.e.c.	13000	HS	
10	Cooks	22000	SNM	National/Regional
11	Civil engineering technicians	18000	HS	National/Regional
12	Craft and related workers n.e.c.	N/A	SM	National/Regional
13	Nursing professionals	23000	HS	National/Rural
14	Plumbers and pipe fitters	15000	SM	National/Regional
15	Welders and flame cutters	6000	SM	National/Regional
16	Heavy truck and lorry drivers	25000	SM	National/Rural
17	Mining and metallurgical technicians	16000	HS	National/Regional
18	Bus and tram drivers	11000	SM	National/Rural
19	Civil engineers	7000	HS	National/Regional
20	Mechanical engineering technicians	7000	HS	Regional

Elem:Elementary, SNM: Skilled non manual, SM: Skilled manual, HS= High skilled

Main sectors with Bottleneck Vacancies

Sectors	Bottleneck vacancies
Health Care	Nurses, health care assistants
Education	Early childhood and primary school teachers
Construction	Carpenters, electricians and plumbers
Mining and quarrying/ Manufacturing	Engineers and civil engineers

In addition to sectors experiencing bottlenecks already mentioned, municipalities have difficulties filling vacancies, in particular for engineers, civil engineers and workers with technical college.

According to NITO, around 75% of engineering graduates choose to work in the private sector.

Bottleneck problems in health care

Employment within health care increased by 13,800 people from 2011 to 2012, making this the fastest growing industry within both the public and private sector. Factors influencing demand include an ageing population and a high average age among health care assistants. At the same time, there are several challenges when it comes to recruiting and retaining young people in this occupation.

Health care assistants work in different parts of the health care sector, but typically more in the municipal sector, such as in nursing homes, and less so in hospitals. Work involves assisting patients with all types of activities of daily living. The total lack of workers in this sector in 2013 amounts to approximately 6000 persons. Statistics Norway has estimated supply and demand for personnel within this sector, indicating that this sector might lack as much as 57,000 health care assistants and 28,000 nurses in 2035.

Main reasons for Bottleneck Vacancies

Lack of technical competencies

Most bottleneck occupations in Norway occur due to a lack of technical competencies. Within the education sector a large amount of enterprises state recruitment difficulties due to too few qualified applicants. 65% of enterprises failing to recruit qualified people had to hire people with lower or other formal competencies than those sought after.

11% of enterprises within retail state recruitment difficulties, over 70% saying this is due to a lack of qualified applicants. 19% of enterprises within accommodation and food service activities state recruitment difficulties. About 1/3 of these say a lack of workforce is due to too few qualified applicants.

Young peoples' career choices

An underlying trend concerning young people's choice of study may be taken into account to explain low number of applicants in vocationally oriented education. To further aggravate the situation, there is a considerable drop-out rate from all of these programmes. While a lack of nursing professionals is due to a lack of study places, some colleges offering degrees in engineering have problems filling all their places.

Retention problems for senior workers

For occupations within construction, employers have problems attracting and retaining senior workers, perhaps due to this type of work being rough, outdoors in all kinds of weather etc. Retaining senior workers also applies to occupations within engineering, as many workers leave their jobs to work in the oil industry. As wages in the oil industry are typically higher than what are offered in other sectors, this industry tend to "steal" workers from other sectors.

Initiatives to cope with Bottleneck Vacancies

Initiatives aimed at mitigating bottlenecks are implemented both by employers, by employer organisations and as coordinated strategies between several parties and entail both short term and long term strategies.

Recruitment abroad is a common strategy among employers in a vast array of sectors. For some sectors, this is considered to be a short term strategy. Although this can solve recruitment problems, it might involve hiring someone with lower formal competencies than what was sought after.

As vocationally oriented education faces considerable challenges regarding recruitment and drop-out rates, employer organisations work specifically with these occupations. Work tends to involve several actors and are often long term in nature.

Skills Strategies

Lack of nursing professionals have led some employers to train regular nurses in doing specialized work. A large proportion of people working in the municipal sector are so-called "unskilled", the highest proportion found in kindergarten and health care. In the municipal sector there is a considerable focus on skills strategies to attract and retain workers; i.e. workers are encouraged to get work certifications and municipalities contribute by facilitating this process.

Municipalities and county councils have often formed partnerships with universities and colleges; municipalities primarily with health care, education and to some extent the technical sector.

Vocational schemes

To mitigate bottlenecks for occupations within engineering, alternative admissions to engineering programmes, the so called "Y-vei" was developed in 2002. In this way, admission is based on relevant work certification. This strategy has been successful in terms of reducing drop-out rates dramatically.

Employer organisations and the department of education and research are working on developing a "Y-vei" for other types of vocationally oriented education as well. Vocationally oriented education involves health care assistants, shop sales assistants, carpenters and joiners, electricians, cooks, craft and related workers, plumbers, welders as well as work within transportation.

Wages

In some occupations, raising wages is one strategy to attract qualified personnel. This applies in particular to engineers and more so in the private sector, and in particular in oil related industry. Even though employers within the public sector are more constrained by collective agreements regarding wages, problems filling vacancies have led to these employers raising wages as well. Employers also try out different economic incentives to stimulate nurses to go forward with specialization.

In terms of mobility, there is a tendency of people moving from rural areas to larger cities, thus creating greater bottlenecks in certain regions and in particular rural areas.

Other strategies

Vocationally oriented education has a low number of applicants, partly because of job-image, partly due to young people being uncertain about different occupations. Research has shown that this uncertainty leads them to choose an academically oriented education. Employer organisations work on this issue in several ways: by highlighting options and career paths, working on job-image and creating ways that young people get in touch with and get to experience the subject at hand, preferably in lower secondary school.

The Norwegian Association of Local and Regional Authorities (KS) has developed a visitor's centre for classes in lower secondary school to promote occupations within the municipal sector.

Main sources used to identify Bottleneck Vacancies in Norway

The bottleneck vacancies have been identified using one main source:

- A periodic report from the Norwegian Labour and Welfare Administration (NAV), called "Bedriftsundersøkelsen".

In addition to this, three general interviews were conducted in order to get an overview of relevant bottlenecks in Norway, reasons for these bottlenecks as well as initiatives to mitigate bottlenecks. According to respondents, Bedriftsundersøkelsen is considered to be the most important and perhaps the only source for this purpose, as it is the only survey that identifies bottleneck occupations in Norway. Whereas other data do exist on level of employers or sectors, this is the only survey offering information on level of occupation.

Indicators used to identify bottlenecks are direct indicators (see green box for questions asked in the survey). The survey is conducted twice a year, but the two surveys are not comparable as demand for labour and lack of workers vary during the year. In addition to this, collection of data in the two surveys also vary.

In order to get a deeper understanding of the identified bottlenecks, six specific interviews were conducted with relevant people. In addition to using Bedriftsundersøkelsen as our major source, explanations and reasons have been explored through desk research on news paper articles, different types of reports and surveys.

Overall, the data quality is assessed to be good.

Bedriftsundersøkelsen has been issued twice a year, in spring and autumn. 2013's survey is similar to the previous year survey, but both questionnaire and estimation model were altered in 2012. Data gathered between 2008-2012 is therefore not directly comparable to data from 2013. For this reason the nature of the bottlenecks could not be assessed.

The report is based on a large survey conducted among a representative sample of both private and public enterprises.

In spring 2013, 12,208 employers responded (response rate: 66%).

Employers were asked the following questions:

- Have you failed to recruit workers during the last three months, or have you had to hire someone with lower or other formal competencies than you sought after?
- If yes on 1) is this due to too few qualified applicants?
- If yes on 2) how many positions is this regarding, and within what profession?

Sources

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Eight interviews conducted with key stakeholders and experts.