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NAV's Horizon Scan 2019

Developments, trends and consequences towards 2030

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1. MAIN CONCLUSIONS

NAV's Horizon Scan 2019 deals with the most important societal trends that will affect the labour and welfare field up until 2030, and what consequences they might have for NAV.

1.1 People move and grow older – the welfare state is being challenged

The population is growing more slowly than before as a result of lower birth rates and less immigration. Most NAV employees engage with people of working age, a group in which a moderate population growth of 5% is expected in the period until 2030. Overall, the population is expected to increase by 8% by 2030 because the number of elderly people is rapidly increasing. This means that the NAV user groups where we will see the highest growth will be assistive technology users and pensioners. The ageing population also makes it more challenging to ensure sustainable welfare schemes and will be a challenge for our labour and welfare policy going forward.

Immigration is decreasing, but the immigrant population is nonetheless expected to increase by 25% by 2030. Lower immigration could make it easier for immigrants to enter the labour market. Changed composition of immigration, lower labour immigration and a higher proportion who come through family reunification or as refugees, could pull in the opposite direction, if more people fail to meet the labour market's qualification requirements. The immigration forecasts are uncertain, however, and can change quickly.

Population growth is expected to be strongest in Oslo and Akershus. A population decrease and strong ageing are expected in the least central municipalities, which may lead to a shortage of qualified labour. Despite moderate population growth, changes in the composition of the population and in where people choose to live will make new demands of NAV.

1.2 A faster pace of change

The high pace of change in the employment market due to digitalisation, globalisation and climate change is expected to increase. This will require adaptation on the part of individual citizens, employers and the public sector.

People will probably have to change jobs more frequently and update their qualifications more often than before. Rapid changes can lead to periods of higher unemployment in industries and occupations that are particularly affected by these changes. At the same time, employers must expect to experience periods when they will struggle to recruit relevant, up-to-date expertise. We expect lower unemployment among those with higher education and among skilled workers, with a shortage of skilled workers in the health sector and traditional trades. One out of four high-school students fail to complete it, and this group will be most at risk in the labour market. Many people who do not participate in the labour market have complex problems.

Helping to increase occupational and geographical mobility will be an important task for NAV. The changes in the workplace will require extensive knowledge about the labour market and good cooperation between employers, the education and health sectors and NAV. NAV must be capable of quickly changing its priorities in response to sudden unforeseen changes.

1.3 New expectations and possibilities

People's expectations of NAV will increase in step with what other public and private services offer. NAV's users will gain more influence and be given access to more information, while at the same time taking a more active role in their own cases.

Many NAV processes are suited to self-service solutions and automation. It will be possible to detect life events and to offer benefits and services automatically, by using information we already possess. Digitalisation has the potential to improve coordination between NAV, employers, municipalities and the educational and health sectors. This could improve user experiences, particularly for users with complex needs.

We expect to see increasing digitalisation of the society. Big data will enable NAV to offer better and more personalised services, and NAV's measures can become more targeted. Digitalisation will lead to major changes in NAV, and policies, regulations, the organisation, work processes and expertise will have to be developed in conjunction with these changes. Other change drivers are protection of privacy requirements and the rationalisation of the public sector.

1.4 Changes since the last Horizon Scan

The following are the biggest changes since NAV's previous Horizon Scan (NAV, 2016):

- **Population growth** is expected to be lower than previously assumed, while the ageing of the population is expected to increase. Population growth of 8% is expected from 2019 to 2030, compared with 13% from 2016 to 2030 in the previous scan. The immigrant population is expected to increase by 25% from 2019 to 2030, compared with the previous forecast of 50% from 2016 to 2030.
- The scan is clearer in its conclusion that users' needs and expectations will govern the development of NAV and the public sector, with increased expectations of cooperation. Many have little experience of and knowledge about processes in the public sector, and one out of four have inadequate or no digital skills. It is a requirement that digital services are simple, user-friendly and use understandable language. Many users find dealing with the public sector difficult, despite the fact that it has become easier, technically speaking, to use the solutions.
- We expect that **technological developments** will continue to result in pervasive digitalisation. A new feature of this scan is that we also point out the possibilities of detecting life events and offering benefits and services automatically. We are clearer in stating that digitalisation will require coordinated development of the whole of NAV and ethical awareness with respect to protection of privacy. Faster technological development and rapidly increasing user expectations necessitate continuous step-by-step development rather than large-scale digitalisation projects.
- **Workplaces** will, as before, be affected by digitalisation and other technological changes, but the estimated number of jobs that will be eliminated due to automation in Norway has been reduced from 33 to 6 per cent. We nonetheless expect that one out of every four jobs will undergo major change. Periods of high unemployment can be expected in occupations that are particularly strongly affected by automation, but there is little risk of permanent high unemployment. The need for cooperation with other entities to develop required competencies in the workforce is given greater emphasis in this year's scan.
- The use of **health-related benefits** has decreased every year since 2009. There has been a positive development for all age groups except young people under the age of 30. We therefore believe that we are no longer seeing a trend towards increased medicalisation of social and employment-related problems. We nonetheless point out that the changes in the workplace carry a risk that the positive trend might be reversed.
- Polarisation and reduced trust in society's elite has dominated political developments in many countries, but this trend has not been seen in Norway so far. Protection of privacy and the use of personal data are discussed more this time than last, partly because of new legislation.

A new feature of this year's scan is that questions for reflection are included at the end of each chapter. Hopefully, they will stimulate engagement and debate.

2. SUMMARY

NAV's Horizon Scan 2019 discusses the most important societal trends that will affect the labour and welfare field in the period up until 2030, and their potential consequences for NAV. The scan is based on external research and NAV's own publications, as well as internal questionnaire surveys.

2.1 Weaker population growth going forward – great variation between user groups

The ageing population and the increase in the immigrant population will be the two predominant demographic trends. Population growth is expected to be somewhat weaker in the years ahead compared with the last 10–20 years. Norway's population is expected to increase by 8% from 2019 to 2030.

Population growth is expected to differ greatly between different age groups, leading to variation in how the demographics affect different user groups in NAV. Disregarding cyclical fluctuations and other short-term trends, we expect that the total number of users of NAV's benefits and services will increase more or less in step with the general population growth. NAV must expect smaller budgets going forward since the 'cutting red tape and rationalisation reform' will mean a 5% decrease in real terms in the period up until 2030. Combined with the expected increase in the number of users, this means that NAV will have to be run almost 15% more efficiently in 2030. NAV is expected to be able to increase its productivity through the use of self-service solutions and more stringent prioritisation based on an evidence-based approach.

The above 67 age group will increase most, by more than 30%. This means that retirement pension and assistive technology aids for the elderly are expected to increase most in the period up until 2030. Many of NAV's services and benefits target people of working age. The demographic trend indicates a moderate increase in users in this group – the population aged from 19 to 66 is expected to increase by 5% up until 2030.

The immigrant population is expected to increase by more than 25% by 2030. Expected net immigration is clearly lower than in the preceding decade because of lower immigration and higher emigration. Rapid changes and uncertain forecasts as regards the influx of refugees and immigrants in general will require NAV to be prepared to quickly change its priorities.

Eighty per cent of the growth in the immigrant population is expected to be people from Eastern Europe outside the EU, Africa, Asia and Latin America. The corresponding proportion in the preceding decade was 50%. The vast majority of immigrants from this country group come from Africa and Asia. Fewer labour immigrants are expected, as well as a higher proportion of refugees and family reunifications. Lower growth in the immigrant population can make it easier for immigrants to enter the Norwegian labour market, while a higher proportion who lack the qualifications and work experience the labour market needs could pull in the opposite direction. Labour immigration has fluctuated with the economic cycles, which has a stabilising effect on the labour market.

The need for information in several languages and demand for interpreting services are expected to increase, but not as rapidly as before, since the increase in the immigration population will be lower. Digital technology that can translate and communicate orally could help us to tackle the language challenges. We expect continued strong growth in the number of international cases, i.e. cases where the user lives abroad or where the case requires information to be exchanged with social security authorities abroad.

Population growth is expected to be strongest in Oslo and Akershus. Some population growth is expected in all counties, although a decrease in population is expected in the least central municipalities. Continued strong centralisation will lead to big differences in how the ageing of the population will affect local labour markets. The big local variations in population development will have a bearing on how NAV should be organised going forward.

2.2 Higher user expectations

Personal users and employers are important user groups for NAV. Expectations of NAV are increasing in step with the services users are becoming accustomed to in other sectors of society. Today, many people find dealing with the public sector time-consuming and bureaucratic, with poor coordination of services. Inhabitants and businesses will expect better cooperation between public agencies and administrative levels in the public sector.

Users' needs and expectations must be the point of departure for development of the public sector. Stronger user participation and user-orientation in NAV are necessary in order to ensure better user experiences and make the best possible use of users' competence. Digitalisation and increased user participation will change the division of labour between individuals and the public sector, empower users and give them more control over their own cases.

To develop simpler and better services for users, public agencies will be expected to reuse information to a greater extent. For example, an application process could start with a pre-completed form for the user's approval, or services can be triggered as a result of life events such as births and unemployment. This will require modernisation and development of the regulatory framework.

NAV often meets people in demanding life situations, which increases the need for good communication, good language and simple, user-friendly services. The Agency for Public Management and eGovernment's (Difi) annual citizens' survey shows that NAV scores consistently lower than other public agencies and authorities with respect to using simple and understandable language. It is natural for NAV to play a leading role in the work on improving and simplifying the language used by the public sector. Working to ensure simpler and more understandable regulations will also help to improve our dealings with users.

NAV must take account of the fact that 25% of the population aged 16–74 currently have inadequate or no digital skills. Not everyone has access to the internet or digital communication. Even though this proportion must be expected to decrease rapidly, this group will not disappear entirely. Many of these users could probably use digital services if the services are good and sufficiently well adapted. Voice-controlled and multi-language services and other technological solutions could help users with poor digital skills, poor reading skills or weak Norwegian language skills.

Increasingly rapid change in the workplace will affect both individuals and employers. One important effect will be that the need for competence development will increase. Some jobs will disappear, while others will be created. The content of and qualifications required for many occupations will change. It will be important for personal users to update and develop their skills, while more employers are likely to experience problems recruiting qualified employees. These changes will affect what instruments are available to NAV as well as NAV's role, particularly in relation to qualifications and education.

2.3 Technological development gives NAV new possibilities

Technological development will create new possibilities for NAV, at the same time as it affects the society we are serving. Technological development is taking place at a rapid pace, and we expect to see pervasive digitalisation of society. Technology is changing what competence is required both within NAV and in society at large, and dealing with the consequences of this will be a key challenge for NAV.

Rapidly increasing data capture combined with new insight technology means that we have the potential to learn more about the effect of our services and methods, which means that NAV will be in a position to provide better counselling, to utilise resources more efficiently and to prioritise in a more targeted way. This can be done, among other things, through systems for computer-based decision support for counsellors, case officers, personal users and employers. NAV can use technology to communicate better with users and to give users better access to information about their own cases. Business processes can be automated or transformed. For example, we can base benefits on life events that automatically trigger a

decision proposal without individuals having to apply. Digitalisation will affect policy, regulations, services, the organisation and competence needs.

Digitalisation will require investments and while reducing the need for manual work. For NAV this means that we must continuously weigh the need for investments against current operating expenses and rationalisation of our operations. Digitalisation, data capture and the sharing of data can be a source of innovation for both NAV and external actors, enabling us to collaborate to meet user needs in a better way.

The high pace of change in society means that businesses and organisations place greater emphasis than before on adaptability. Many choose to develop by taking small, frequent steps rather than through large-scale projects, in order to increase the pace of change and to ensure continuous user participation. Digital changes will require coordinated development of the whole NAV organisation, across disciplines and across the public sector. Changing business models as a result of digitalisation will both provide possibilities and present challenges for management of the public sector.

The degree of automation will depend on many factors in addition to what is possible technologically, such as social acceptance of automation, the pace of change in laws and regulations, and ethical and protection of privacy considerations.

2.4 Faster pace of change in the workplace

We expect the pace of change in the workplace to increase as a result of technological developments, globalisation and falling oil and gas production. New technology offers many possibilities, and it will also result in major changes in demand for qualifications and labour. Rapid technological change and sudden shifts will probably result in employees having to change jobs and update their qualifications more often. According to the OECD, six per cent of all jobs in Norway have a high risk of disappearing completely due to automation, while one out of every four jobs is expected to undergo big changes. However, different analyses diverge greatly in their conclusions and there is high uncertainty. Low-paid and low-skilled occupations are most at risk, but many tasks performed by highly educated labour will also be affected. Technological development will also create many jobs, and the labour that is freed up will be in demand in other industries and occupations. While we do not expect permanent higher unemployment, we may experience periods of increased unemployment in industries and occupations that are particularly affected by these changes. The rapid pace of change also entails an increased risk of more people becoming permanent benefit recipients.

In recent years, the global economy has grown by three to four per cent a year, and stable growth is expected going forward. Brexit and the political situation in the USA and several other countries mean that there is a risk of more protectionism, resulting in a downward adjustment of previous forecasts. This risk could have particularly negative consequences for a small, open economy like Norway's, particularly since Europe and the US are our most important trading partners. The ageing population will also increase the burden on the working population, both in Norway and internationally, which will reduce growth in the global economy.

Estimates from Statistics Norway show that we may see a more differentiated labour market in future. Employment in private service production and in public administration is expected to increase substantially in the period up until 2030, and the number of jobs in these sectors could increase by 220,000. Employment in the retail and manufacturing sectors is expected to decrease going forward. The greatest fall in employment is expected in the petroleum industry, by 12 per cent between 2017 and 2030, after already having seen a strong decrease. An increase in employment is expected in the building and construction industry in the short term, but a slight reduction is expected in the longer term. It will be an important task for NAV to contribute to increased geographical and occupational mobility.

While the platform economy (the sharing economy) is presently modest in size, it could come to play a big-

ger role in the labour market. In the long term, it could give vulnerable groups better opportunities to participate in the labour market. For NAV, it could also challenge ordinary workplaces as an arena for work-related training.

A high degree of globalisation and relatively high labour immigration could make it more difficult for vulnerable groups to enter the labour market. Currently, around one out of four fail to complete upper secondary education within five years, and more than a third of all pupils on vocational programmes fail to complete their education. At the same time, however, we expect the biggest labour shortage in the period up until 2030 to be among skilled workers, particularly in the health sector and traditional trades.

Up until 2030, unemployment among unskilled workers is expected to be clearly higher than among people with higher education or vocational training. It will be necessary to change measures and policy instruments aimed at the most at-risk groups – unskilled youth, immigrants who lack basic skills and people with impaired work capacity. This will increase the need for cooperation between NAV and other actors, particularly in the health and educational sectors.

2.5 Young adults and immigrants most at risk of low income

The proportion of youth and young adults with persistent low income is increasing. Fourteen per cent of young adults (aged 18–34) had persistent low income in 2017, almost 5 percentage points more than 10 years ago. In same period, the proportion of elderly over the age of 67 with low income has decreased from 17 to 9 per cent.

Persistent low income is a relative measure of poverty according to the EU's definition (EU 60). It entails that a household has an income that is less than 60 per cent of the median income for three successive years (it also takes account of the number of children and adults in the household). Even though the proportion of the population with low income has increased, the risk of poverty in the sense of a lack of basic material and social goods has been stable and low in recent years.

Immigrants and descendants of immigrants are strongly overrepresented in the low-income group. Thirty-two per cent of people with a background from countries in Eastern Europe, Asia, Africa and Latin America have persistent low income. Immigrant children account for more than half the children in low-income households. There has also been an increase in the low-income group among children who are not from an immigrant background. Technological development and globalisation could make it more difficult for at-risk groups in the labour market, and it will probably lead to increased income differences in the time ahead.

The lack of labour market attachment is one of the main reasons for low income among young adults and immigrants. The challenge will be to ensure that the individuals in question meet the requirements of the labour market as far as possible. This will place greater demands on NAV as regards cooperation with other sectors, such as the education sector and the health sector. Before NAV can implement work-related services, job-seeking immigrants without basic schooling will need a combination of adapted educational programmes at primary/lower secondary level and language tuition. Together with the employers, municipalities and the educational authorities, NAV should establish cooperation models with a view to developing suitable qualification paths for these groups.

2.6 Reduced use of health-related national insurance benefits

According to the World Health Organization (WHO), Norway is among the best countries in the world in terms of public health. Life expectancy is increasing, and we see a corresponding increase in healthy life years. Potential threats to improvement in public health include risk factors such as alcohol, drugs and obesity, while developments in health technology and medical research pull in the positive direction. According to the WHO, the proportion of overweight people is 58 per cent. The proportion of tobacco users has fallen sharply, but one out of every four people over the age of 15 still smoke or use moist snuff, while 11 per cent are daily smokers.

Most studies that have compared the prevalence of mental health problems in the population over time find no increase. The exception to this rule is for young people in the 16–24 year age group, where an increasing proportion experience mental health problems. It is unclear whether this reflects objective changes in health or whether it is also due to increased openness about mental illness or to an increased tendency to diagnose complex problems.

The proportion of the population who receives health-related benefits has fallen every year since 2009. At the end of 2017, 17 per cent of the population aged between 18 and 66 received such benefits. Important explanations for the decrease include more stringent activity requirements and more contact with the workplace during periods of illness. The reduction has been particularly great among the 60+ age group, probably due to better health and a higher educational level. The number of young people under the age of 20 on health-related benefits has increased as a result of the increase in the number of children and young people with serious mental health problems. One hypothesis is that more premature babies than before survive and that, in adulthood, this group has an increased prevalence of long-term neurological and mental health problems. It has also been found that more children are born with deformities.

Up until 2030, we expect the proportion of the population receiving health-related benefits to remain stable. Among other things, this will depend on how far Norway succeeds in tackling the pace of change in the labour market and in reducing the drop-out rate from upper secondary education. In other European countries, it is more common not to be in employment or in education without receiving benefits. Norway therefore has a high proportion of recipients of health-related benefits compared with other countries. The Norwegian benefit system entails a risk of medicalisation in connection with factors such as dropping out of school, social maladaptation and drug or alcohol use. A sizeable proportion only receive sickness benefit or other health-related benefits for short periods. This means that it is important that contact with NAV is efficient and can be conducted in a way that best suits the individual user.

In order to counteract increased use of benefits as a result of the rapid pace of change in the labour market, NAV must, in cooperation with employees and employers, place greater emphasis on the need for adaptation, resources and work capacity. This will require more targeted follow-up independently of the diagnosis and benefit, and NAV will have to advocate regulatory amendments that underpin this. More cross-sector cooperation will also be necessary, particularly with the health and education sectors.

2.7 Restructuring and funding challenges related to the welfare state will affect labour and welfare policy

The main goals of Norway's labour and welfare policy are a well-functioning labour market in which as many as possible can participate, a strong social safety net and sustainable welfare schemes. To achieve these goals, the policy must be adapted to societal developments.

We expect Norway's labour and welfare policy to be strongly influenced by the need for major restructuring in the labour market, and that it will be become more and more challenging to ensure the sustainability of welfare schemes. Particular priority will be given to measures aimed at increasing labour force participation among young people who have not completed upper secondary school, and immigrant groups with a low labour force participation rate. In addition, we expect that the ageing of the population will result in a continued strong focus on increased labour market participation among older age groups.

For some vulnerable groups, flexible solutions where training is more closely linked to a workplace could be an alternative. In many cases, retraining and competence-raising can take place in close cooperation with a workplace. This will make it necessary to view educational and labour market policy in conjunction and to establish close cooperation between educational institutions, NAV and employers.

In 2018, the Government appointed an Employment Committee, which, among other things, is tasked with

assessing whether public support schemes for people of working age are sufficiently targeted to support increased labour force participation. The measures and changes that this work will lead to will form an important basis for policy formation in the time ahead.

We expect popular support for universal welfare schemes to remain high, and that there will be broad consensus on the importance of high employment to securing the future of our welfare schemes.

Striking the right balance between incentives and distribution considerations is a fundamental welfare policy dilemma. Such assessments can cut across the traditional left-right political divide. There have not been any signs of increasing political polarisation in Norway in the last decade, although international developments indicate that there is a risk that this could change. Digitalisation will also affect Norway's labour and welfare policy. One dilemma in this context is weighing the possibilities new technology offers against the safeguarding of fundamental due process principles, such as protection of privacy.

3. INTRODUCTION

Society is changing, and the pace of change seems to be increasing. NAV's services must reflect this development. The Horizon Scan discusses the most important societal trends in the labour and welfare field up until 2030, and what consequences they will have for NAV. In some areas, there are forecasts with a reasonable degree of certainty that we can use in our work, while there is great uncertainty in other areas. The scan shows what we believe to be the most probable developments. It can help NAV to formulate the most expedient plans and strategies for the years ahead. The findings in the Horizon Scan have already been taken into account in NAV's updated corporate strategy (NAV, 2018a).

NAV's first Horizon Scan was published in July 2014 (NAV, 2014) and this is the third edition to be published. The Horizon Scan is based on external research and NAV's own publications. It has been necessary to involve the whole NAV organisation in order to ensure support and obtain relevant input. Two questionnaire surveys have been carried out, one among NAV employees and one among user representatives. NAV's central user committee, the employees' unions and the Norwegian Association of Local and Regional Authorities (KS) have also been involved. The scan is also based on 28 workshops that were held in different parts of the organisation and with external partners in 2016 in connection with the previous Horizon Scan.

The scan is general in nature. NAV covers large and complex areas where societal trends do not all pull in the same direction or proceed at the same pace. Developments can vary from place to place and from area to area, they can be unpredictable, and it can be difficult to interpret what a change means. We encourage units in the organisation to prepare more local and detailed horizon scans where expedient.

The scan is divided into seven areas of society (Chapters 5–11): Demography, user expectations, technology, the labour market, health, living conditions and policy. Chapter 4 differs from the rest of the report. Here, the objective is to use different scenarios to investigate the uncertainty, and thereby show the range of possible outcomes for the labour market of the future and how NAV will be affected.

3.1 User participation

As part of our work on this year's Horizon Scan, we distributed a questionnaire survey to NAV's employees and to user representatives in order to find out what they believe are the most important trends for NAV. The following five trends were mentioned by the most people:

- Restructuring in the labour market because of digitalisation and technological development
- Ageing of the population
- Lack of education/skills among vulnerable groups in the labour market
- More people diagnosed with mental illness, especially among the young
- Requirements for budget cuts and rationalisation in the public sector

Another finding from the questionnaire survey was that the scan is perceived as being 'more useful than known' – we will therefore work more on communicating the results of this year's scan. More findings from the questionnaire surveys are included in the appendix at the end of the report.

3.2 The editorial team

The work on this edition has been carried out by the Labour and Welfare Directorate. The editors and writers are: Ole Christian Lien (chair), Maja Egeland, Jorunn Furuberg, Ingunn Helde, Inger Cathrine Kann, Elin Våge Lafton, Ragnhild Kongsvoll, Øyvind Møklebust, Hilde Olsen, Håkon Røstad, Johannes Sørbø, Eugenia Vidal-Gil and Jørgen Vågsether. Heidi Braaen, Magnus Wright Jacobsen, Are Hovland Nielsen, Ida Frisak Ringnes and Terje Wagelid have also contributed.

4. FUTURE SCENARIOS

The purpose of creating future scenarios is to think freely about possible changes in our surroundings and what consequences they can have for NAV. In this year's report, we have chosen to develop scenarios by varying the assumptions about how society meets changes, and assumptions about values and behaviour. The scenarios have been developed at workshops for NAV employees. They are based on the findings in Chapters 5–11, with particular emphasis on trends relating to the labour market and future competence needs.

The scenarios are also presented as a film.

4.1 Faster pace of change in the workplace

The topic addressed in the scenarios is the increasing pace of change in the labour market and how this affects the need to change and update competence. There are three main reasons why we expect a faster pace of change in the workplace (see Chapter 8);

1. **Technological development:** Can lead to the disappearance of some occupations, and to changes to the content of many others. Given that the pace of change is increasing, employees and enterprises will need to update and change their competence more often. Technological developments are expected to have the biggest impact on occupations that require little education and involve routine work. In future, we expect that technology will to a greater extent also affect occupations that require more education and involve more complicated tasks.
2. **Globalisation:** Growth in the global economy appears to be slowing down, and there is great uncertainty about the future. Norway has a small, open economy that is strongly affected by developments in the global economy. American and British foreign policy in particular seem to be heading in the direction of increased protectionism. Migration flows and how Europe deals with them will have consequences for Norway. Labour immigration has slowed down since 2011.
3. **The green transition:** Is about how society and the economy can be restructured so that growth and development take place within the limits of what nature can tolerate. More specifically: How can a transition be made to products and services that have fewer negative consequences for the climate and the environment than at present? The UN Climate Panel concludes that the world must make extensive changes quickly if the goal of limiting global warming to 2 degrees is to be achieved. Norway's climate and environmental policy largely focuses on strengthening Norway's competitiveness and creating green growth and green jobs.

The faster pace of change in the workplace affects the need to update and change people's competence.

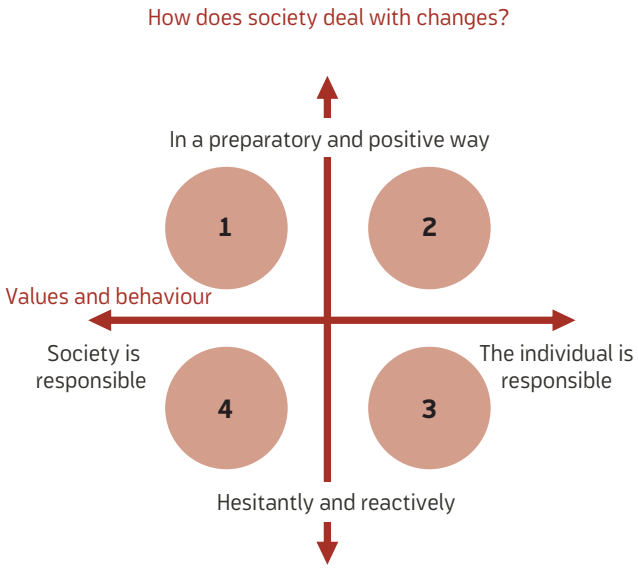
Interesting questions in this context include:
- How will we acquire competence in future?
- Will the relationship between education and other ways of acquiring competence change?
- Who is responsible? Individuals/private enterprise, employers or public authorities?
- What could the consequences be if we do not succeed in ensuring that people have updated competence in future?

4.2 Two axes – four scenarios

We have based our scenarios on two axes that give us a total of four scenarios. We wish to challenge forecasts and habitual thinking by highlighting the extremes. The axes have been chosen based on possible directions society might take:

- **The first axis** is about how society deals with changes. At the one extreme, society deals with changes by anticipating them and being proactive, while, at the other extreme, society waits for changes to happen and deals with them in a reactive way.
- The second axis is about values relating to who is responsible for solving tasks and meeting challenges. Most societies divide tasks between the private and public sectors. At the one extreme, it is the community and the public authorities that are responsible, while, at the other, responsibility rests with the individual/private enterprise.

Figure 4.1. **Two axes**



Source: **NAV**

In 15 years, we envisage a society that has developed in four different directions, which are summed up in Figure 4.2.

Figure 4.2. **Four scenarios**

1. The hands-on society

- Public services characterised by a high pace of change.
- Public agencies offer enterprises opportunities to teach employees new skills, making it easier for them to invest in their own employees and the future.
- It is unusual to take a lengthy education and more common to update your education more often.
- Most people start working earlier, and they work longer. People expect to change occupations and learn new skills many times during their working lives.
- Educations that focus on learning, ethics and change are more common.

2. My employer educates me

- Individuals take responsibility for adapting, and employers have a key role in developing employees' skills.
- Enterprises are quick to invest in competence. There are many private providers of continuing education and adaptation programmes.
- Many people take out private insurance against unemployment, so that they have financial security in a transitional phase.
- The public sector contributes funding and support for employers.
- Those who have an employer find that most things turn out well, including adapting to new competence requirements when necessary.

4. The welfare state that stagnated

- Mainly public agencies that are responsible for ensuring that people have the competence employers need.
- Many people need and expect to receive assistance from public agencies, but the provision of public services fails to meet demand.
- Employers are looking for people with new skills, but it takes a long time to re-educate labour.
- The courses, measures and education offered by public agencies are not very up to date
- Some of the competence needs are covered through labour immigration, but there is strong competition for the best qualified people.

3. Let things take their own course

- Many enterprises have problems adapting quickly enough because they lack the right competence. It takes time to educate people so that they have the right skills. This often results in periods of higher unemployment.
- There are private schemes for those who are unemployed or at risk of becoming unemployed, but not everyone can afford to buy such services.
- Increased labour emigration to countries that have tackled restructuring better.
- The platform economy is widespread, with the result that more people have fewer rights when they become ill or unemployed.

Source: **NAV**

5. DEMOGRAPHIC DEVELOPMENTS

This chapter is largely based on Statistics Norway's (SSB) most recent population statistics as of 1 January 2019, and population projections from June 2018 (Leknes et al. 2018).

5.1 Weaker population growth, but a strong increase in the number of elderly

In the population projection from 2018, the assumptions concerning fertility and net migration have been downwardly adjusted compared with the projection from 2016. This is because population growth has been lower than expected in the last two years due to a reduction in births and lower net immigration. The number of people resident in Norway is now lower than SSB estimated in connection with the previous projection.

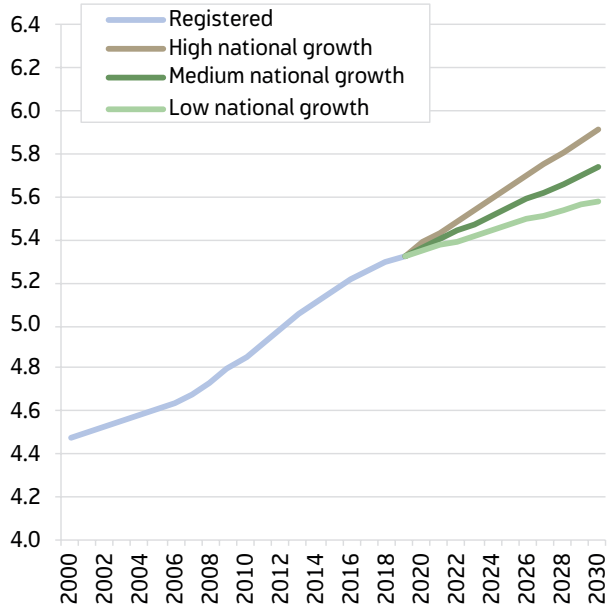
Population growth will mean more personal users for NAV

At the beginning of 2019, Norway had around 5.3 million inhabitants. Since the turn of the millennium, the population has increased by 0.9 per cent a year on average. From 2018 to 2019, however, growth decreased to 0.6 per cent. In its medium alternative, SSB expects a corresponding annual growth of 0.7 per cent until 2030, which means that Norway will have about 5.7 million inhabitants in 2030.

In the three alternatives outlined in Figure 5.1, we can expect the population to be between 5.6 and 5.9 million in 2030. SSB's medium alternative predicts that the population will increase by 410,000 persons compared with the present level, corresponding to an increase of around 8 per cent. This will result in more personal users for NAV. All else being equal, this will lead to an increase in NAV's need for resources. One way of addressing this is by increasing the use of self-service solutions and automation, prioritising more stringently and making more efficient and targeted use of resources.

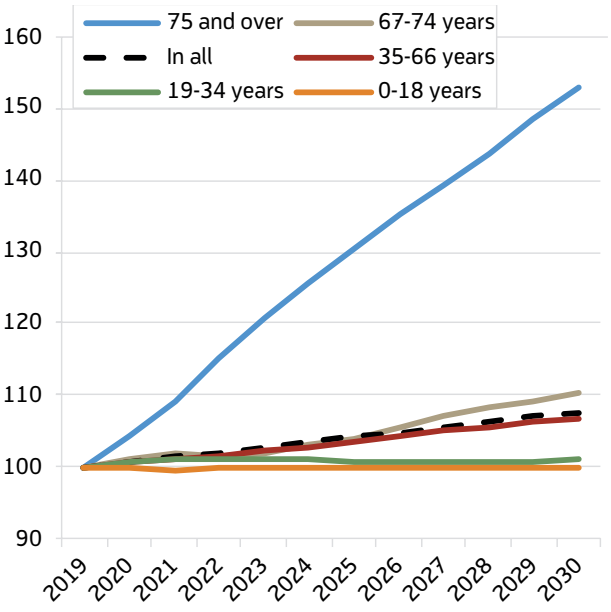
The rest of the chapter is based on SSB's medium alternative.

Figure 5.1. **Population growth projection for Norway until 2030, with three alternatives. Figures in millions as of 1 January each year.**



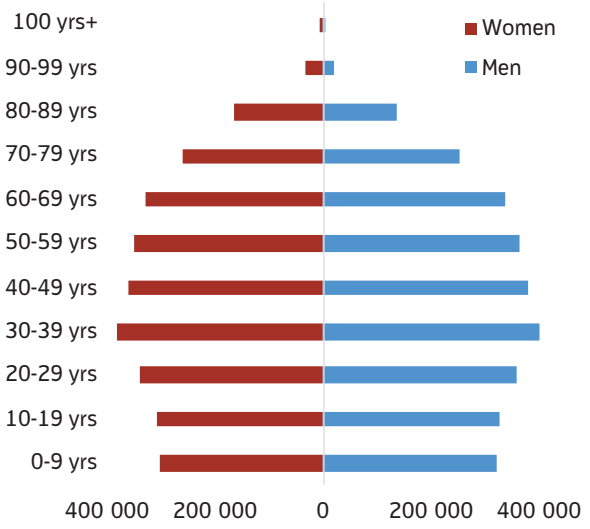
Source: SSB

Figure 5.2. **Population development 1 January 2019–1 January 2030 by age group, cf. the medium alternative. 2019=100.**



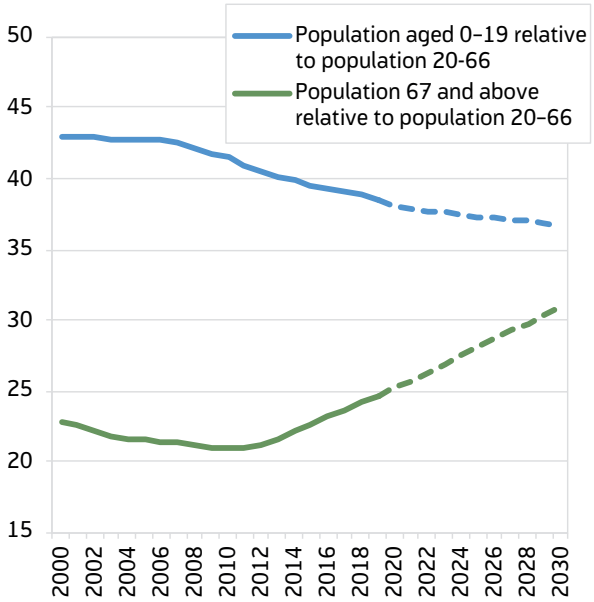
Source: SSB

Figure 5.3. **Numbers in the population 1 January 2030 by gender and ten-year age group.**



Source: SSB

Figure 5.4. **The population aged 0–19 and 67 and above as a percentage of the population aged 20–66. Figures as of 1 January each year. Percentage.**



Source: SSB

Older age groups are increasing most

Population growth in the coming years is expected to be very unevenly distributed between age groups. Because of the low birth rate, SSB assumes that the number of children and adolescents under the age of 18 will decrease by 0.1 per cent in the period from 2019 to 2030, while the group of young adults aged 19–34 is expected to increase by 1.0 per cent. The youngest age groups are thereby expected to increase by much less than the average population growth. The opposite is true of the oldest age groups. While the 67–74 age group is expected to increase by 11 per cent, the oldest age group, 75 and older, is expected to increase by as much as 53 per cent (see Figure 5.2). In total, the group aged 67 and older is expected to grow by over 30 per cent, and there will thereby be around 250,000 more people in this group in 2030 than in 2019. Figure 5.3 shows a population pyramid for 2030.

Even if we were to succeed in increasing labour market participation among the older age groups, the population growth will mean that the burden on the working population – i.e. the number of people in work in relation to the non-working population – will increase somewhat in the years ahead.

Figure 5.4 shows that the age wave started around 2010. Until then, we had a favourable demographic development, where the population between the ages of 20 and 66 increased more quickly than the population over 67. Because the birth rate started to increase from 1943 onwards, this trend reversed in 2010, and the percentage over the age of 67 is now increasing more and more as the large birth cohorts from the post-war years reach the age of 67. SSB expects the proportion of elderly in the population to continue to increase substantially until 2100.

While the group over the age of 67 today amounts to almost 15 per cent of the population, the medium alternative predicts that it will amount to 18 per cent in 2030. SSB also expects life expectancy at birth to increase by around 2.0 years from 2019 to 2030. The consequences for the burden on the working population will be somewhat reduced because labour market participation is steadily increasing among seniors, also among the group over the age of 67. At the same time, however, we note that the low birth rate will lead to an easing of the burden on the working population.

Even though there is a pronounced ageing of the population in Norway, we are nonetheless in a somewhat more favourable demographic situation than many other European countries. The Norwegian population is not ageing

as much as in many of our neighbouring countries. On average, roughly 24 per cent of the population in the EU will be over the age of 65 in 2030 (Eurostat), compared with roughly 21 per cent in Norway (not shown). The return on the Government Pension Fund – Global will probably also mean that the challenges of funding welfare schemes will be less problematic for Norway than for many EU countries. However, the white paper *Long-term Perspectives on the Norwegian Economy* (2017) shows a significant uncovered funding need in public finances in Norway if current trends continue, but that the challenges will primarily arise after 2030. How the ageing of the population can affect the labour market is discussed in Chapter 8.

NAV must be run 15 per cent more efficiently in 2030

The fact that the population is growing most in the oldest age groups will have several consequences:

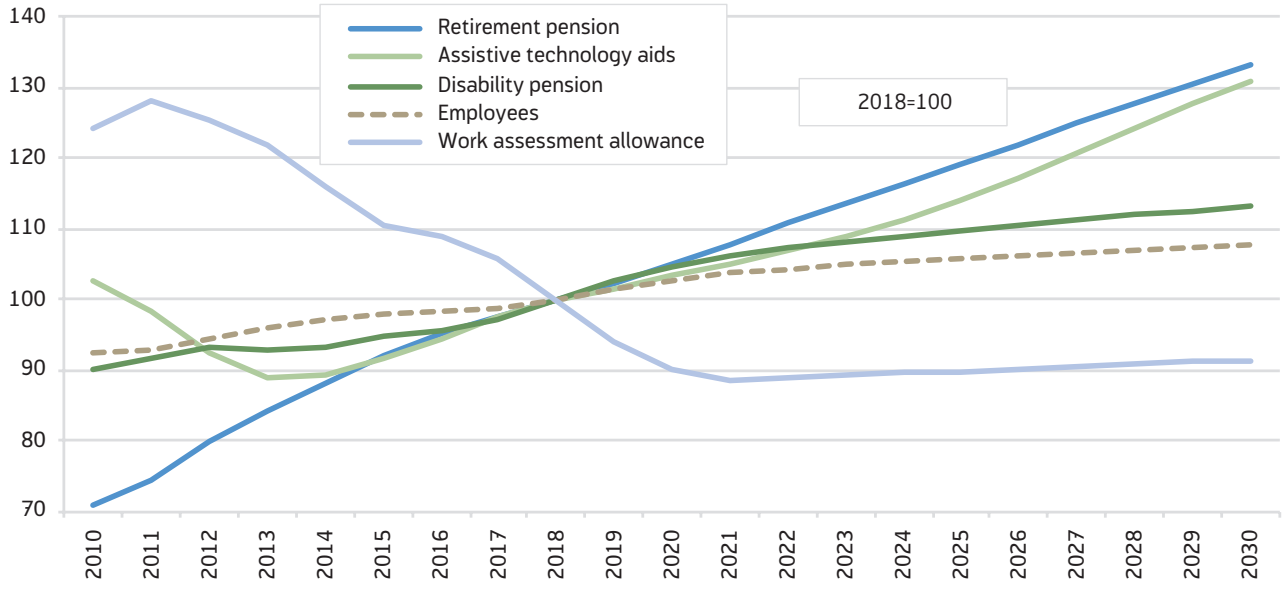
Thirty-three per cent more old age pensioners

All in all, we can assume that the increase in the number of users of NAV benefits and services in the period up until 2030 will be fairly close to the general population growth of 8 per cent. Many of NAV's benefits and services are aimed at people of working age, and we can probably expect somewhat lower growth, perhaps around 5 per cent, in this group, corresponding to the growth in the 19–66 age group until 2030.

However, changes in the age composition of the population will lead to large differences in the need for different benefits. If the expectations of a reduced birth rate prove accurate, this will mean fewer children receiving child benefit and cash-for-care benefit and fewer parents receiving parental benefit. At the same time, we expect the number of old age pensioners to increase strongly up until 2030, by around 33 per cent from 2018 (see Figure 5.5).

Even though the number of old age pensioners is increasing strongly overall, we expect the number of new pensioners per year to decrease somewhat from the present level. This is because the cohorts reaching retirement age will be somewhat smaller than in the last five years, and because the introduction of a flexible age for drawing retirement pension has resulted in very many people drawing their retirement pensions in the first few years. It is therefore not assumed that the increase in the number of old age pensioners will entail big changes in NAV's resource use, among other things because the application process is already largely automated.

Figure 5.5. **Projection of the number of people in employment and the number of recipients of selected NAV benefits and assistive technology aids. 2018=100. The mean figure for each year.**



Source: SSB, NAV

For work assessment allowance (AAP), we experienced a decrease in 2018 which is expected to continue in 2019 because we expect the number of new recipients to be lower than the number leaving the scheme. Despite the fact that the demographic projection indicates population growth, a reduction in the number of recipients of work assessment allowance is also expected in 2020 and 2021. This is related to the fact that, for 2020, account has been taken of a change to the regulations whereby exemptions from the maximum benefit period cannot apply for more than two years. For the whole period 2018–2021, we therefore assume that many of the recipients of work assessment allowance will be transferred to disability benefit. With effect from 2022, we have assumed an increase in the number of recipients of NAV benefits that is in step with the demographic development.

... and more than forty per cent more with assistive technology aids

Since population growth is primarily strong in the oldest group, we also expect a strong increase in the number of users of assistive technology aids from NAV. A demographic projection shows that the number of users of assistive technology aids through NAV will increase by 31 per cent from 2018 up until 2030. At present, it is the age group 80 years and above that are the most frequent users of assistive technology aids. The growth in the years ahead will largely apply to users in this age group.

The challenges facing the assistive technology system in the years ahead are related to *volume problems* and a *change in users' age profile* (NAV, 2017a). The volume problems are due to the fact that the capacity for lending aids, maintenance, service and repairs must be adapted to the number of users. The change in the age profile can affect what kinds of services will be developed and which focus areas will be prioritised. The Government's Care Plan 2020 (the Ministry of Health and Care Services, 2014) states, for example, that '*... it is desirable that more people live longer at home, and live active and independent lives – with individually adapted services, security and dignity*'. This means that the provision of assistive technology aids for the adaptation of homes will have to be significantly more of a focus area and that the number of users will probably increase. Improved health among the new generation of elderly people can perhaps reduce this estimate somewhat, but more and more people will survive serious illnesses and live for more years with illness and functional impairments.

In recent years, moreover, welfare technology, i.e. technology in the home that contributes to self-coping, participation in society and life quality, has attracted more and more attention. Welfare technology will also be relevant in the field of assistive technology, since it is expected to play a key role in addressing the health and care challenges the demographic development will give rise to.

NAV must be run more efficiently

We do not expect that NAV will be allocated more resources to compensate for the population growth. On the contrary, the so-called 'cutting red tape and rationalisation reform', which was introduced in 2015, means that the operating budgets for all government agencies will be reduced by 0.5 per cent every year. If this reform is continued, it will mean that NAV's operating budget will be about 5 per cent lower in 2030 than in 2018. If we also assume that the total number of NAV users will increase in step with the general population growth, this will mean 8 per cent more users in 2030. This means that NAV must be run nearly 15 per cent more efficiently in 2030.

5.2 Increase in the immigrant population

Lower net immigration

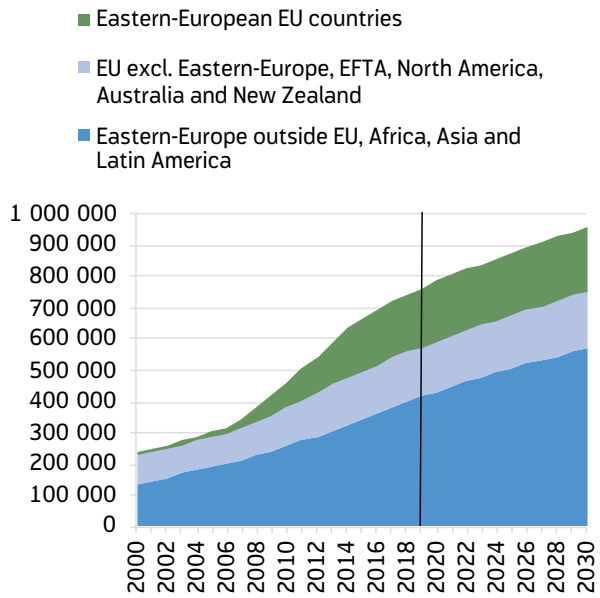
Growth in net immigration was relatively moderate until the early 2000s. By 2005, the numbers had reached 18,000 annually, and more than half of the net immigration consisted of non-Europeans. This figure then rose rapidly, mainly because of labour migration from the new EU member states in Eastern Europe. During the period 2007 to 2014, we had annual net immigration of between 38,000 and 48,000 a year, more than half of whom were European nationals.

Since 2015, we have seen much lower net immigration to Norway. In 2018, the figure for net immigration to Norway was around 18,000 people. The reason for the decrease is twofold. Firstly, we are seeing lower immigration and higher emigration by Euro-

pean nationals. This must be seen in conjunction with the economy and the labour market in both Norway and other European countries. For example, we see that more Swedes are going back home, while fewer labour migrants are coming from Poland and Lithuania than previously assumed. Secondly, we are seeing far fewer refugee arrivals than before. One country after the other has closed its borders as a result of the high number of refugees who came to Europe in 2015. Refugees who would have made their way to Norway before, are now largely stopped before they get here.

SSB therefore expects net immigration to be a little over 20,000 persons in 2019, before decreasing in subsequent years. During the period 2025–2030, net immigration is expected to be around 18,000 persons a year. For the period up to and including 2024, net immigration is expected to account for more than half of the population growth, and a little less than half after that. That is nonetheless much lower than the corresponding percentage during the past ten years. In the high alternative, net immigration will increase strongly in the next few years, before decreasing again up until 2024. After that, this alternative shows increasing net immigration.

Figure 5.6. **Development of the immigrant population and projection until 2030.**



Source: SSB

When immigration is high, emigration is also higher. Emigration is particularly influenced by higher labour mobility across national borders. While more Norwegians work abroad for periods than before, some labour immigrants move back to their home countries after a period in Norway. SSB now expects annual emigration to be between 31,000 and 32,000 persons a year. That is lower than emigration during the period 2015–2018, but far higher than in the years before 2010.

An increase of 25 per cent in the immigrant population in the period up until 2030

Even though net annual immigration will be somewhat lower, the immigrant population will nonetheless increase significantly. SSB expects the immigrant population to increase from 765,000 in 2019 to just below 960,000 in 2030 (see Figure 5.6). The immigrant population includes immigrants as defined by SSB, i.e. persons resident in Norway who are born abroad to foreign-born parents. Descendants of immigrants (persons born in Norway to foreign-born parents) are not included here. This group tends to fare very well in Norway in most areas.

This means that, up until 2030, the immigrant population will increase by more than 25 per cent, while the rest of the population is expected to increase by 5 per cent. Immigrants will make up 17 per cent of the population in 2030, compared with 14 per cent today. While 55 per cent of immigrants in 2019 came from Asia, Africa, Latin America and Eastern Europe outside the EU, this percentage is expected to increase to around 60 per cent in 2030. The percentage of immigrants from Eastern European EU countries is expected to decrease from 25 per cent today to 21 per cent in 2030, while the percentage from Western Europe, North America, Australia or New Zealand is expected to decrease from 21 to 19 per cent.

Around four out of five immigrants who have arrived in recent years are in the 16–66 age group. The immigrant population is generally younger than the rest of the population, and immigrants receive disability benefit (see Chapter 10) and retirement pension to a much smaller extent than the general population. At the same time, however, the proportion without a labour market attachment is higher among immigrants, and more of

them have low income or only one income per household (see Chapter 9 on living conditions). If more immigrants succeed in finding employment, then immigration can contribute to making the burden on the working population somewhat lower than it would have been without immigration (cf. Figure 5.3, Chapter 5.1).

Poor Norwegian language skills could remain a challenge

In SSB's low, medium and high alternatives, the immigrant population is expected to amount to 16–17 per cent of the population in 2030. It is therefore highly probable that the immigrant population will increase in Norway, regardless of which projection alternative proves to be most accurate. However, people with little education, poor Norwegian language skills and little relevant work experience can find it difficult to gain entry to the Norwegian labour market.

Both NAV's services and employers will therefore have to deal with a situation in which some immigrants lack the competence and skills required to find a job. Since the immigration population is now growing more slowly than before, however, the proportion who have lived in Norway for a short period will be lower than before. It is therefore not given that NAV will have many more users than today as a result of these challenges. Moreover, the slower growth of the immigrant population could mean that it will be easier for some immigrant groups to enter the labour market. At the same time, the projections show that labour immigration will account for a lower share of immigrants than before and that the proportion of refugees and family reunification immigrants will be higher, which pulls in the opposite direction. Since the strong influx of asylum seekers in autumn 2015, measures have been initiated to help immigrants to utilise their education and work experience from their home countries to a greater extent in the Norwegian labour market, so that they can contribute and be a positive economic resource for society (Report No 30 (2015–2016) to the Storting).

Increased immigration and emigration can lead to an increase in resource-intensive cases

In 2018, there are 13,800 full-time equivalents in the part of NAV that is under state management, while there are around 5,000 full-time equivalents in the municipal part of NAV. Of the full-time equivalents under state management, 9,300 work in labour market services, while 2,900 work in benefit administration.[1]

Since most immigrants are of working age, it is primarily the labour market and services part of NAV that will be affected by the increasing immigrant population. How large a proportion of NAV's resources is spent on assistance and follow-up of personal users with an immigrant background is not known, but the proportion is substantial. The extent to which the resources used on this group will continue to increase is also uncertain.

As regards benefit administration, a continued increase in the immigrant population will lead to an increase in the number of cases involving users resident in Norway where the case processing requires information to be exchanged with foreign social security authorities. Moreover, in the case of benefits that can be received abroad (referred to as export of benefits), higher emigration will result in more personal users who are resident abroad. For example, the number of old age pensioners resident abroad doubled from 24,000 at the end of 2005 to 48,000 at the end of 2018. We expect this figure to increase to around 72,000 in 2030. The number of recipients of disability benefit living abroad has gone down, however, from 8,400 at the end of 2008 to 7,100 at the end of 2018.

Just over 300 full-time equivalents are involved in processing international cases[2] in the benefit administration.[3] That is 11 per cent of the personnel resources spent on processing NAV benefits, but less than 2 per cent of NAV's total resource use. As regards international cases, we expected to see a stronger increase in cases where the users are resident in Norway than in cases where the users are resident abroad.

It is a problem that there is generally less system support for the processing of international cases than national

[1] Figures as of October 2018.

[2] International cases here means cases where the user claims a benefit, and i) the user has changed his/her country of residence, country where he/she is staying and/or working, to or from Norway, ii) the case processing requires information to be exchanged with foreign social security authorities, or iii) the user is resident abroad.

[3] Cf. information obtained in October 2018. This does not include the consideration of appeals.

cases, and more of the processing therefore has to be done manually. Contact with foreign social security authorities also means that the case processing cannot be automated to the same extent, at least not in the short term. It is therefore probable that the ongoing digitalisation of NAV will have a bigger rationalisation effect for national cases than for international cases. Unless changes are made to how such cases are processed, the resources required for international cases could therefore increase more in the years ahead than the increase in the number of other cases. International cases are generally more demanding to check and can entail an increased risk of benefit fraud.

Increased risk of benefit fraud

It is a requirement for most benefits from NAV that the recipients are staying in Norway. However, employees, job seekers, employers and benefit recipients all move across national borders more frequently than before. This results in new control challenges for NAV. Some people circumvent the rules by moving to or staying for a long time in other countries without notifying NAV. Pensioners are allowed to move abroad, but it is challenging to check whether recipients are alive, and a great deal of manual cooperation is required with the authorities in other countries and the Norwegian foreign service.

5.3 Largest population growth in central areas, reduction in the least central municipalities

Growth in both central municipalities and rural areas

The population has increased in both central areas and more rural areas in recent years. Part of the population growth is due to the fact that the elderly live longer than before, but immigration from abroad is also a strong contributory factor. There is considerable variation, however. For much of the post-war period, the least central municipalities according to SSB's definition[4] have seen a decrease in population, and this trend has largely continued since 2010. According to SSB, more than half of the municipalities experienced a decrease in their population in 2018.

Big differences in population development between municipalities from 2018 up until 2030 – examples

Utsira and Gjesdal in Rogaland county are expected to experience the largest increase in the number of elderly. The increase in the number of people over the age of 67 is estimated to be 88 per cent for Utsira and 71 per cent for Gjesdal. Both these municipalities are expected to see an increase of around 2 per cent in the number of children and adolescents under the age of 18 during the period.

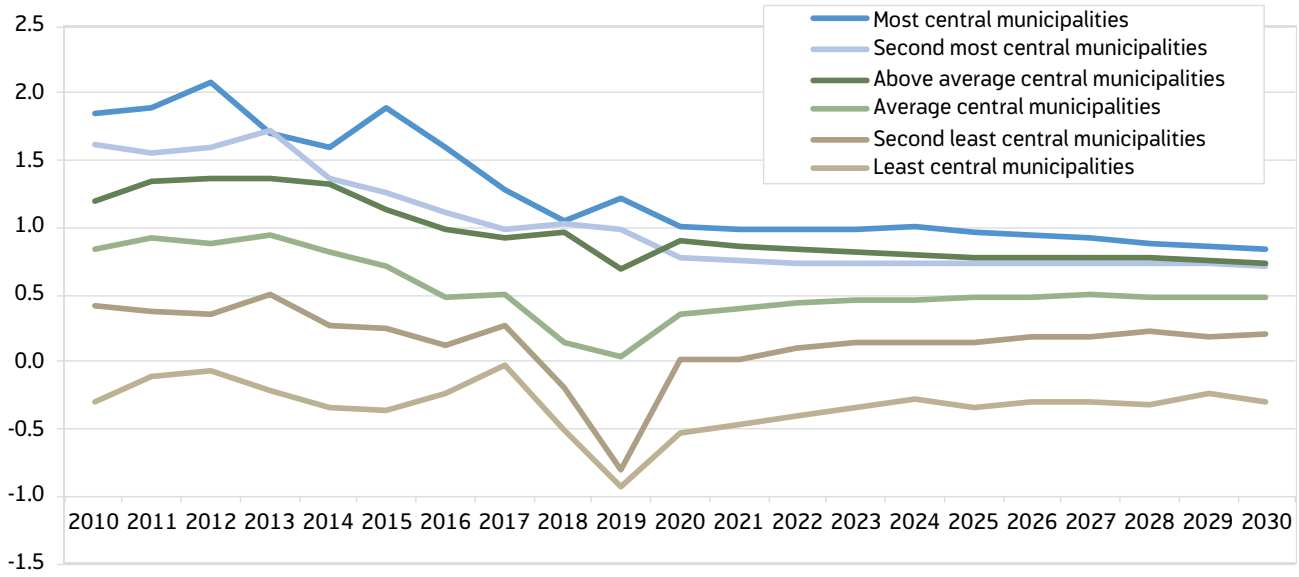
Fjaler (Hordaland) and Ås (Akershus) municipalities are expected to see the biggest increase in the number of children and adolescents, at 66 and 41 per cent, respectively, while the growth in the number of elderly is expected to be 17 per cent for Fjaler and 37 per cent for Ås.

Aremark (Østfold) and Engerdal (Hedmark) municipalities are expected to experience a reduction in the number of children and adolescents under the age of 18, of 35 and 38 per cent, respectively. Instead, Aremark is expected to see an increase of 34 per cent in the number of elderly, while the corresponding increase in Engerdal is expected to be around 13 per cent.

An increasing proportion of the population live in central areas. The proportion of people who live in the municipalities classified as most central, second most central and more central than the average has increased from just over 69 per cent in 2010 to 71 per cent at the beginning of 2019. SSB expects this proportion to increase slightly – by one percentage point – up until 2030. There is great uncertainty associated with these projections, and it is not unlikely that centralisation will be stronger than expected. We can also expect considerable local variation. The age wave is under all circumstances expected to hit the rural municipalities hardest since fewer and fewer children grow up in less central areas.

[4] In 2017, Statistics Norway (SSB) launched a new index of the centrality of municipalities. The old index, which was based on the size of urban settlements, had four levels, where Oslo and the surrounding area and the five regional centres Kristiansand, Stavanger, Bergen, Trondheim and Tromsø and the surrounding area all had the highest centrality. In the new index, it has been taken into account that Oslo and the surrounding area stand out strongly from the other city regions. A distinction has also been drawn between the least central municipalities and those that are somewhat more central. The new index is therefore more differentiated and has six levels (Høydal 2017).

Figure 5.7. Population growth projected until 2030, by the centrality of municipalities. Percentage growth from the preceding year as of 1 January each year.



Source: SSB

Table 5.1. Total population growth 2019–2030 and the proportion of the population above the age of 67, by county. Percentage.

County	Population growth	Proportion of the population above the age of 67, 1 Jan. 2019	Proportion of the population above the age of 67, 1 Jan. 2030
The whole country	8	15	18
Akershus	13	14	17
Oslo	13	11	13
Vest-Agder	10	14	18
Østfold	10	17	20
Aust-Agder	10	16	20
Buskerud	10	16	19
Vestfold	9	17	21
Hordaland	8	14	18
Trøndelag	8	15	19
Rogaland	7	12	17
Hedmark	5	19	23
Oppland	4	19	22
Møre og Romsdal	4	17	21
Telemark	4	18	22
Troms Romsa	4	15	20
Nordland	3	17	22
Sogn og Fjordane	1	17	22
Finnmark Finnmárku	1	15	20

Source: SSB

The population is increasing in all counties – most in Oslo and Akershus

The population will probably grow in all counties in the next ten years. Based on the county structure in 2019, the increase is expected to be greatest in Oslo and Akershus (11 per cent), while the smallest increase is expected in Sogn og Fjordane and Finnmark (1 per cent). Relatively low growth (3–4 per cent) is also expected in Telemark, Troms and Nordland.

The age composition varies considerably between counties. Oslo and Rogaland currently have the lowest proportion of elderly, while the inland counties of Hedmark and Oppland have the highest proportion. The proportion of elderly will increase in all counties in the next ten years, but the differences between counties will largely persist.

Population development can affect how NAV is organised.

Regions with a strongly ageing population will experience a shortage of labour in the years ahead, for example in the health and care sector. This can present increasing challenges for NAV in its role as employment agency. Since it is especially Norwegian-born people who move away from rural areas, however, it is conceivable that immigrants will fill some of the labour shortage in these areas.

Moreover, seen in isolation, the fact that the elderly population is increasing will not have major consequences for NAV, since old-age pensioners are a group that need little assistance from the NAV offices. However, particularly after 2025 (cf. section 5.1), NAV will also see an increased need for assistance among recipients of assistive technology aids as a result of the demographic development. Work has therefore been initiated with a view to making the provision of assistive technology aids more efficient and forward-looking, also keeping the new county and regional structure in mind. Issues that need to be addressed include what services should still be located near users. Depending on what solution is arrived at, this could have consequences for the number of Assistive Technology Centres and where they are located. It could also be necessary to merge service locations and to specialise services and functions (NAV, 2018b).

As a result of the regional reform that will enter into force in 2020, a new regional structure has also been adopted for NAV. The structure largely mirrors the structure set out in the regional reform, but, for practical reasons, NAV has decided to divide the Viken region into two areas, Øst-Viken and Vest-Viken. NAV will therefore go from 19 counties to 12 regions.

Major changes are also taking place in that there will be fewer NAV offices because of mergers between municipalities. This has led to a reduction in the number of medium-level offices, which have been replaced by fewer, larger NAV offices in the new municipalities. This process is expected to continue as a result of further municipal mergers and of what is referred to as the host municipality model. This model means that several municipalities enter into agreements under which one of them will perform tasks on behalf of the other collaborating municipalities.

5.4 Reflection questions

- Who are NAV's users in 2030?
- How will the population development affect your unit?
- What must NAV do to adapt to the changed settlement pattern?
- How can we prepare for uncertain immigration forecasts?

6. USER EXPECTATIONS

NAV's users largely reflect Norway's population. People not in employment, parents, people on sick leave and employers are all among NAV's users. In addition, NAV cooperates with others in order to create good services, for example with doctors and other public agencies.

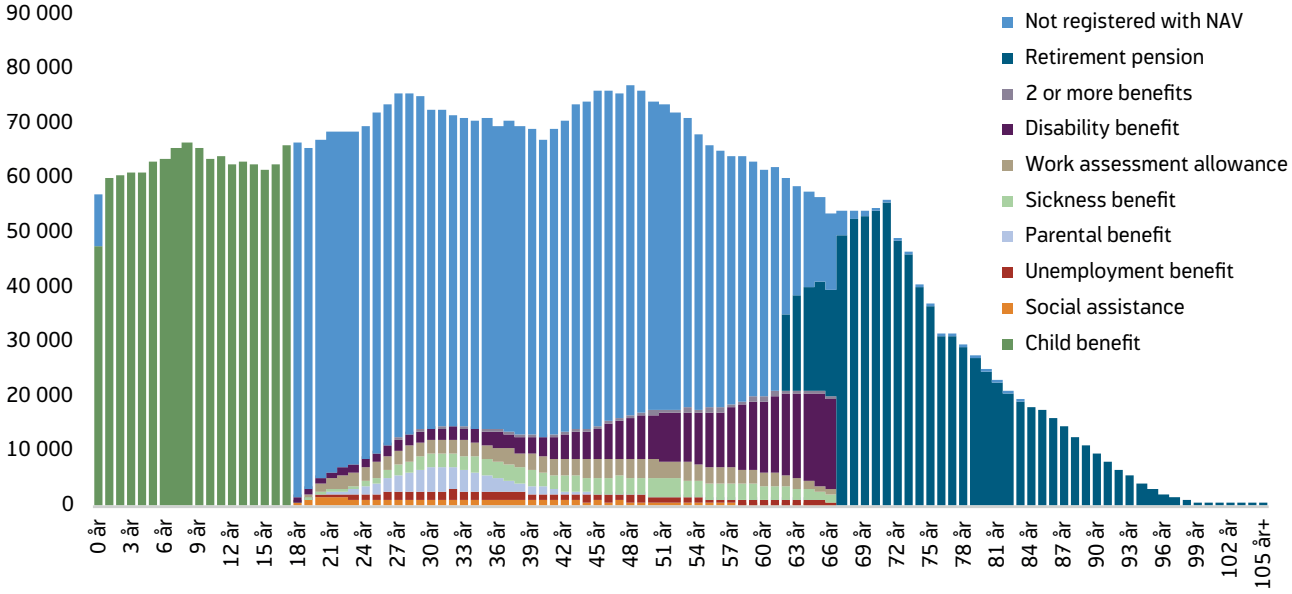
Everyone who lives in Norway will come into contact with NAV at some point during their lives, and will need NAV's services to a large or small extent. Many need NAV's services in demanding life situations or times of crisis, where they need the right help from NAV to be able to move on. In many situations, it is only NAV that can provide the right service for personal users, while, in other situations, they can choose to use other service providers or their private network. Whether people can choose whether or not to use NAV's services, it is decisive that NAV develops its services in step with changes in people's expectations.

Figure 6.1. **Service areas in NAV.**

Source: **NAV**

[5] Social assistance, unemployment benefit, sickness benefit, work assessment allowance and disability benefit have been checked for double registration, and only persons who receive one of these benefits are shown under these headings. Persons with two or more of these benefits are shown under '2 or more benefits'.

Figure 6.2. **Important user groups in NAV. Figures as of year-end 2017.**[5]



Source: **NAV**

The needs people come to us for help with are grouped in Figure 6.1. People will often have needs that cannot be met by NAV alone, but will need help from the municipality, the educational sector, the health sector or employers. It is expected that the public sector will have to coordinate its efforts to a greater extent in order to meet these needs in a good way.

Figure 6.2 shows which user groups receive benefits from NAV, by age group. Some of these benefits are highly automated, such as child benefit, while others need a lot of personal follow-up. Many services are also provided to people who do not necessarily receive benefits from NAV, such as unemployed people who are not entitled to unemployment benefit. NAV's use of resources is therefore not reflected in this figure.

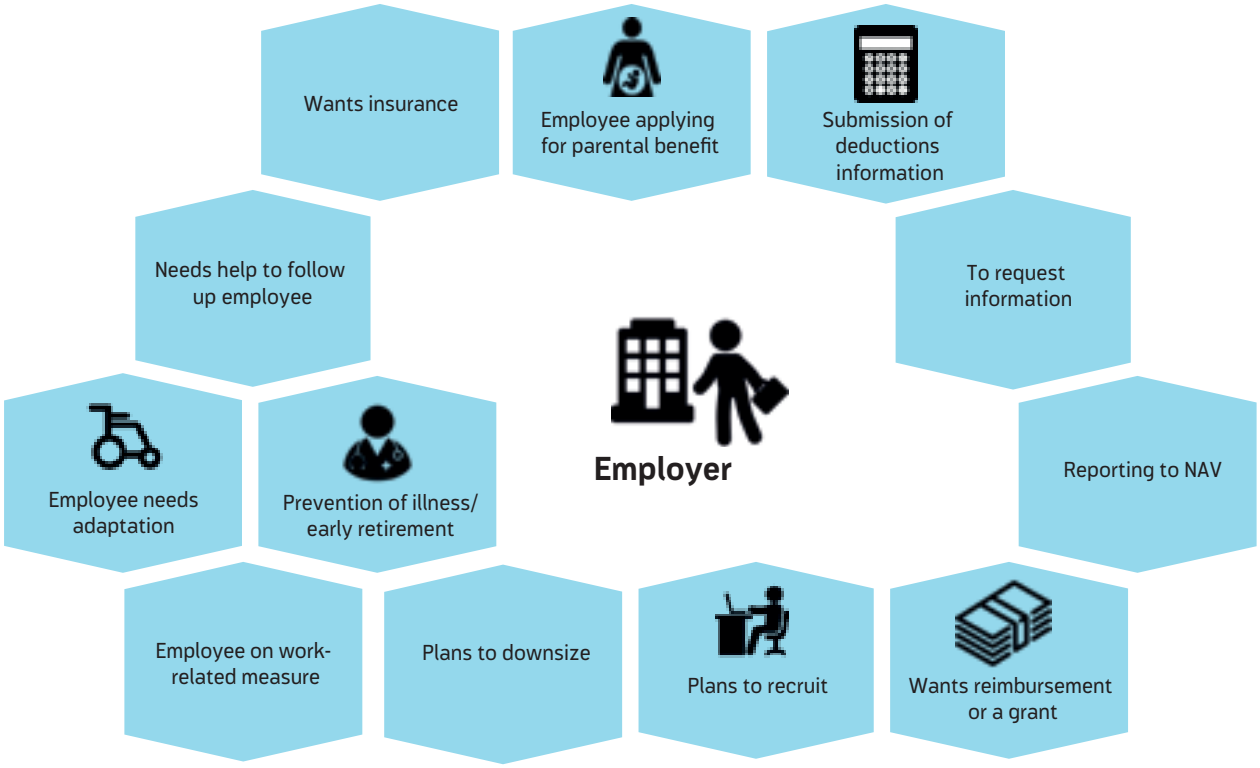
NAV will strengthen its cooperation with employers in the years ahead. They play an important role in ensuring that employees update their competence in step with expectations in the workplace and technological developments. Employers are also users of NAV's services, for example in connection with recruiting and retaining employees, and restructuring. Figure 6.3 shows examples of employers' needs in relation to NAV.

6.1 Expectations are shaped by others

Even though many people find that public agencies provide services of good quality, it is also a widely held view that dealing with the public sector is time-consuming and involves a lot of red tape. Many people are only rarely in contact with public services and are therefore unfamiliar with the processes involved. The Population Survey (Difi, 2017a) shows that 49 per cent of respondents believe that dealings with public agencies involve a lot of inconvenience and annoyance. This proportion has increased in the last few surveys. NAV's own surveys show that employers also have expectations of more digital services, better cooperation and accessibility and clearer information (NAV, 2018c).

The fact that more people than before believe that public services are cumbersome is not necessarily

Figure 6.3. **Examples of employers' needs in relation to NAV.**



Source: **NAV**

because the services have become poorer. As better services are provided in other areas of society, people will expect the same of NAV and other public agencies.

The public sector must keep abreast of changing expectations and keep up with the changes being made to services people otherwise encounter in society. To meet the needs of the future, NAV must be flexible and manage to meet these needs in an effective way for both users and NAV. We cannot expect people to have detailed knowledge of how the public sector works and how it is organised.

Users expect coordinated services and individual service

NAV's own user surveys (NAV, 2017d, NAV, 2018e, NAV, 2018f and 2018g) show that both employers and personal users use many channels of communication in their dealings with NAV, and that the use of these channels is changing relatively quickly.

Users' needs often influence which channel they contact NAV via. Contact with NAV is also governed to a large extent by how NAV is organised. Today, personal users who need information or wish to apply for benefits are directed to digital services or telephone contact. The development of digital dialogue and self-service solutions means that fewer people have to go to a NAV office or contact NAV by phone. At the same time, the content of queries is changing. When users have more information about the regulations and their own case, the questions they ask NAV can be more complicated to answer.

There has been increasing focus in recent years on the need for more coordination of services from different public agencies. This is particularly important in relation to labour and welfare policy, where there is a need for close cooperation between NAV, the educational authorities, the health service, the child welfare service, the correctional service and various municipal services that are not represented at NAV offices. In future, it will be important to develop good models for this kind of cooperation through, for example, common management signals, funding, work processes and performance measurement. Experience from, for example, individual placement and support (IPS), which is a collaboration between NAV and the mental health services, shows that good, coordinated services significantly increase the chances of an individual entering employment.

Changes in the labour market change needs and expectations

The trends described in Chapter 8 show that the labour market will probably be affected by the faster pace of change created by technological developments, globalisation and the green transition. This will affect both personal users and employers. There will be an increasing need for continuous competence development throughout people's working lives. For businesses, it could be challenging to recruit qualified employees.

These changes could also lead to changes in users' needs and expectations, and they could challenge NAV and the policy instruments available to us. This will apply in particular to the instruments available to NAV and NAV's role in relation to qualification and education (see more on this topic in Chapter 4). In our dealings with users, we must keep up with developments and anticipate changes in the labour market.

We must meet personal users in the channel they master

NAV must ensure that users receive the benefit or service they are entitled to. This also applies to those who have difficulty understanding rules and processes. For some users, it will be necessary to have physical meetings with NAV in order to understand and make themselves understood. For others, it is important for them to be able to sit in peace and quiet and take the time they need to put what they want to say into words, perhaps with the help of a spell check program. Today, NAV offices offer assistance to users who have inadequate digital skills, have problems using the phone or need an interpreter. NAV must be accessible to everyone, and it must make sure that users who cannot use digital services get equitable services.

Interviews with personal users (NAV, 2018d) show that they do not necessarily have strong preferences about which communication channels NAV should offer. Essentially, they need correct information quic-

kly. NAV must therefore offer channels that are expedient for both users and NAV itself. For example, users might want to use channels they have used before in contact with other actors and that they have positive experiences of. In what way NAV should be accessible to users is thereby also influenced by what other actors offer people. At the same time, NAV often meets people in demanding life situations who need more reassurance than they do in their dealings with many other services.

Employers must be treated as both users and partners

Employers are our most important partners in relation to getting more people into employment. They are also users of NAV's services and have many of the same expectations as personal users. For example, they want NAV to use plain and understandable language, and they want clarity and to be in control of their dealings with NAV.

Many employers want to cooperate with NAV in order to meet a need or to make an effort for society. They can often choose whether to cooperate with NAV or with another actor. Unless a conscious decision is made to leave it up to the private sector to meet employers' needs, NAV must offer services and user meetings that are so good that employers choose NAV rather than other providers. In areas such as following up sickness absence or mandatory reporting, employers cannot choose not to cooperate with NAV, but a good user experience is important both in order to make things easier for employers and to create a good climate for other forms of cooperation.

Most enterprises are in contact with NAV through several different channels. The Employers Survey 2018 (NAV, 2018f) shows that only around a quarter of employers have contact with NAV via just one channel. Almost 70 per cent have been in contact with NAV by phone and around 60 per cent through meetings or digital submissions or registration. The survey shows that employers want to contact NAV by phone/text message to a greater extent. Enterprises in the private sector attend meetings at NAV offices less than public agencies do. The private sector seems to prefer other forms of communication with NAV.

Most employers have fewer than 10 employees, while most employees work for bigger employers. What services employers need from NAV depends on the size of the enterprise. Small and medium-sized enterprises are less often in contact with NAV. Large enterprises often manage by themselves, but when they need assistance, they want it quickly. Employers expect NAV's representatives to be professional, service-minded and solution-oriented. It is also important to have easy access to the right person or function in NAV. For some enterprises, it is desirable to have one contact person in NAV, while for others it is important to know who to contact and to know that they will get a swift answer (NAV, 2017b).

NAV will continue to improve its cooperation with employers in the years ahead. Digitalising communication can save work for both parties and give them a better overview. Such changes will require cooperation with employers and their organisations, and with providers of, for example, payroll and personnel systems.

NAV must use language that people understand

The language NAV uses in its dealings with users is decisive if users' rights are to be safeguarded, if they are to fulfil their obligations and make use of NAV's services. When NAV uses language that is difficult to understand, this can undermine users' due process protection. People with little or no Norwegian-language skills are also entitled to have their rights respected when dealing with NAV and public services. Moreover, understandable language is also expedient because it makes it easier for users to use self-service solutions in their dealings with NAV. NAV must work systematically to make the language used in its own texts, and also in laws and regulations, plainer and more understandable.

The public sector and NAV have long endeavoured to use plainer and more understandable language. A lot has improved, but there is still a long way to go. Difi's Population Survey from 2017 (Difi, 2017b) shows that NAV scores consistently worse on questions about plain language and information than other public authorities, with the exception of the planning and building authorities. Even though NAV has made progress in relation to some of the questions, it has

regressed in relation to others. The area in which NAV and several other agencies score poorest is whether users understand the rules that apply to the services. NAV is a large agency with complicated regulations that are difficult to explain in a simple way.

Young users are a priority group for NAV. They often have problems understanding the language used by public agencies. In a survey (NRK, 2018), Arkitekst showed that few young people understand the contents of letters from public agencies. Even though they understand the words that are used, they are unable to understand the context in which they are placed. Young people often have less experience of public agencies and thereby know less about the terminology and processes involved. New digital solutions can help NAV to communicate in a more understandable way, for example by providing information adapted to suit the recipient.

Technology suppliers are investing a lot in lowering the threshold for communicating with computers, and this will help NAV in its work on good user dialogues. Further development and merging of technologies we already know, such as speech to text and text to speech (Siri from iPhone) and automatic translation (Google translate) will make it easier for people who have difficulty reading or speaking Norwegian.

New General Data Protection Regulation confers new and clearer rights

The new General Data Protection Regulation (EU, 2016) gave users some new rights and clarified rights conferred by earlier legislation. Among other things, it includes more wide-ranging rights to information, including right of access to information, the right to have information corrected, deleted or access to it limited, and the right to object to the processing of personal data. There are separate rules concerning the use of profiling[6] and a right to object to automatic case processing. Respecting these rights will be an important prerequisite for NAV's development.

[6] Profiling means that decisions, for example on the provision of services, are made on the basis of personal data. Decisions on what kind of follow-up an unemployed person will be given are one example.

6.2 Users will influence development

Digitalisation could give users more influence

The expert group that looked into NAV (Ministry Labour and Social Affairs, 2015) concluded that NAV must create better user experiences and utilise users' competence in the best possible way. Both digitalisation and increased user participation could help to give users more power.

Digitalising services makes it possible to change the division of labour between citizens and the public sector. Digital services thereby enable people to become active participants in both the shaping and performance of services. 'User-centric focus' is one of five main priorities in the white paper Digital Agenda for Norway (Report 27 to the Storting, 2015–2016,). It means that users' needs will be the key premise for digitalisation of the public sector. This will influence how we work on developing services and their contents.

Increased user participation will lead to better services

User participation through user representatives is enshrined in law in the Act relating to NAV. A Fafo report from 2015 (Hilsen and Skinnarland, 2015) found big differences in how the user committees functioned. The user committees are an important information channel as regards keeping up to date with users' expectations. They are also important arenas for cooperation on the development of services and for achieving user-driven development. In autumn 2018, a strategy was adopted for user participation in NAV at the system and service levels.

Important goals for the strategy include further developing existing arenas and creating new ones. Important initiatives will include raising competence, improving representation and further developing the role and functions of the user committees. The strategy also emphasises user-driven service development and concerted efforts by politicians, public agencies, users and employers. Another focus area in the strategy is to get young people to participate in the development of NAV through youth councils at different levels, and directly in connection with service development.

Service design is a focus area in the public sector and in NAV. The basic idea is to place the user at the centre of the development process and to view the whole range of services from the users' perspective. In this way, agencies can develop and organise more efficient and concerted services that meet real user needs (Difi, 2018). And one of the four focus areas in NAV's new corporate strategy is precisely 'User-driven development'.

By coordinating and developing individual services more on the basis of users' needs and situation, users will perceive them as more holistic and will enjoy better services. In the long term, using life situations as the point of departure can contribute to better coordination across agencies and sectors, thereby ensuring better user meetings. The principle of focusing on the user could also lead to a change in the division of tasks, both within NAV and between different public agencies.

6.3 NAV must create services that are simple and accessible to all

Reuse of information and simpler processes for users

Digitalising services is about considering how services can be improved, and not just 'electrifying' existing forms and processing. Among other things, Digital Agenda for Norway (Report 27 to the Storting, 2015–2016) emphasises the reuse of information that we already have about users, which will save users having to submit the same documentation several times. Another example of how services can be simplified for users is to reverse the process, so that users do not have to apply for benefits and services they are entitled to (see also section 7.2).

People often come into contact with NAV in difficult life situations

When people come into contact with NAV, they are often in a demanding life situation and are worried about their finances. It often concerns their ability to provide for themselves and their family, and making a mistake can have serious consequences. A large-scale health survey in Denmark shows that 47 per cent of the unemployed experience high stress levels (unpredictability, nervousness and stress) in their everyday lives. For people in work, the figure is 19 per cent (Danish Health Authority, 2018). Prolonged stress has a negative effect on memory (Samdal et al. 2017).

In contact with NAV, stress can reduce people's ability to absorb a lot of complicated information. Surveys of NAV users show that many personal users only contact us to make sure that they have actually understood the information they have been given. They want to be absolutely sure and need extra confirmation and reassurance. This can lead to extra pressure and higher demand for personal assistance, although it is also largely possible to design digital services that meet these needs.

Even though digital solutions will make user interaction with NAV easier, some user meetings will, also in the future, take the form of personal meetings between counsellor and user. One important focus area in NAV going forward will therefore be to raise competence in counselling and work inclusion among staff at NAV offices.

People with poor digital skills must also be able to use our digital services

Norwegian top the European digital skills ranking (SSB, 2017a). A survey carried out by Statistics Norway on behalf of Eurostat shows that 45 per cent of the population aged between 16 and 74 have good general digital skills. The same survey shows, however, that as many as 22 per cent have inadequate digital skills and that 3 per cent have no digital skills.

Even though Norway scores well compared with other European countries, there is reason to take these 25 per cent seriously. NAV administers welfare schemes that must be accessible to all, and it must therefore create digital services that are so simple and good that people with inadequate digital skills can also use them. In addition, NAV must make sure that those who are unable to use nav.no also receive the full range of services.

Digital skills are affected by age and education. Norwegians whose highest education is lower secondary school have poorer digital skills than Norwegians with higher education. Fifty-seven per cent of Norwegians aged between 16 and 74 with a university college or university education have good digital skills. Only 12

per cent of this group have inadequate skills. Looking at age, as many as 59 per cent in the 16–34 age group have good digital skills, compared with just 24 per cent in the age group 55–74; see Figure 6.4 (SSB, 2017b).

A survey conducted by Skills Norway (2018) shows that internet use is increasing fastest among the elderly. If we compare internet use in 2010 with 2018, there has been an increase of as much as 33 per cent among the over 60s. In 2010, 56 per cent of those aged 60 or over used the internet daily. In 2018, the figure was 74 per cent.

In the same survey, 4 per cent of the population state that they do not use the internet. These are mostly elderly people, people who have little education and/or who are not in employment. The main reasons given are lack of skills or a wish not to use the internet.

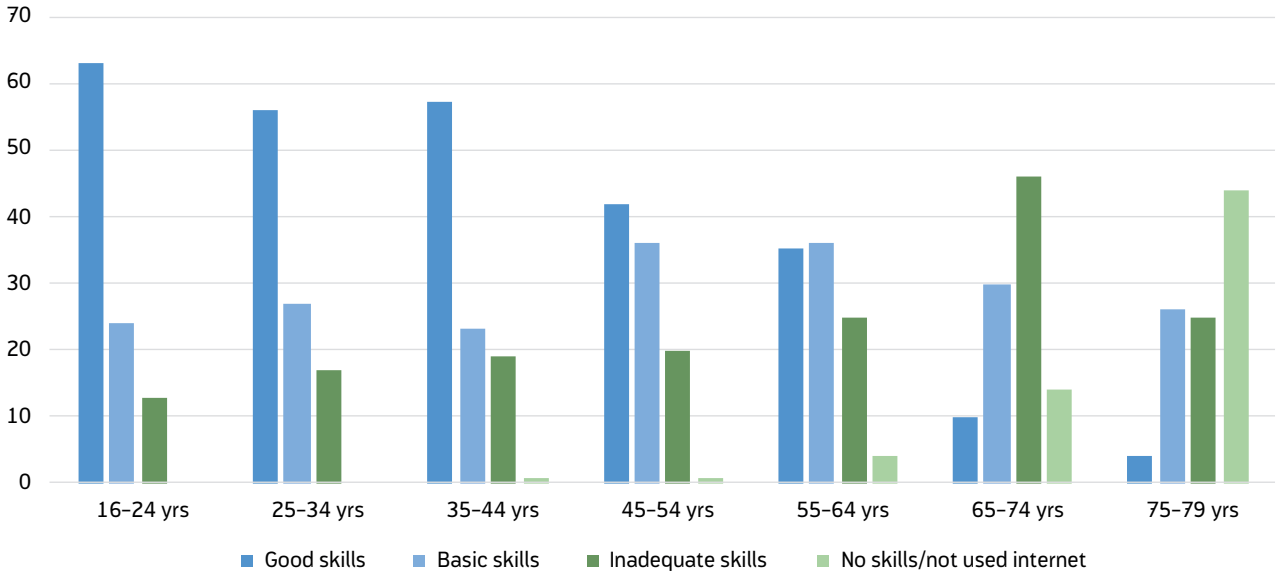
Children and young people who grow up with digital services have better digital skills than those who have learnt to use digital services later in life. This does not necessarily mean, however, that it is easier for young people to use digital public services. Firstly, young people's internet use largely involves using social media and streaming services (Skills Norway, 2018), which bear little resemblance to the digital services offered by public agencies today. Secondly, older people have other knowledge and experience that is often relevant when in contact with public services. One example of how this can affect public agencies is that young taxpayers are the age groups that most often contact the Norwegian Tax Administration. In her doctoral thesis, Guri Verne explains that one of the reasons for this is that these taxpayers know little about the regulations and the process relating to tax returns. They have no experience of submitting tax returns from before the process was automated, and therefore have greater difficulty than others understanding the structure of the digital form (Vern, 2015).

We assume that the percentage of people with inadequate or no digital skills will decrease in the period up until 2030, both because of increasing digital competence, but also because technology companies are investing in increasingly user-friendly services. NAV is also expected to contribute through better communication, plainer language and changes to services.

6.4 Reflection questions

- What do personal users and employers expect of NAV in 2030?
- How can NAV utilise users' competence?
- What characterises a good user meeting in 2030?

Figure 6.4. **Digital skills in 2016, by age. Percentage.**



Source: SSB

7. TECHNOLOGY

Technological developments change the way we live, work and relate to each other. This chapter provides an overview of the digital technology that we believe will be most important in the field of labour and welfare in the years ahead.

7.1 Technology is changing society

Digitalisation will change society, business and industry and the labour market in far-reaching ways in the year ahead. Goods and services will be produced and sold much more efficiently than before, which will form the basis for lower costs and prices. New markets and new income and business models will be developed, and new ways of cooperating and engaging in research and innovation will emerge. At the same time, however, digitalisation will challenge existing social structures, industries and ways of working. Generally speaking, it will be a challenge to create new, and hopefully productive, jobs to replace those that disappear. Public agencies will be expected to increase their productivity in step with private enterprises.

Norway has a good point of departure. We have a well-functioning digital infrastructure, competence-based business and industry and strong industries that operate internationally. We have a proactive public sector that is introducing new digital services, and a well-educated population that is quick to use new technologies.

Technological innovations have always freed up resources and led to economic growth. However, some technologies – often referred to as 'enabling technologies' – are more important than others. They are characterised by widespread use, nationally and internationally, and they contribute to innovations in all sectors, with major effects on the economy and on production. Steam engines and electricity are examples of enabling technologies, as are digital technologies.

Enabling technologies are emerging rapidly in other areas as well, for example nanotechnology, biotechnology and technology that creates advanced materials. When technologies are used at the same time, they can solve more complicated tasks and create greater value.

New technologies lead to changes that put society to the test. One key challenge is dealing with the consequences when technology makes human labour superfluous and we have to create new jobs (NHO, 2018).

Technological trends affect NAV

Many people call digitalisation the fourth industrial revolution. Many predict that the pace of technological development will be exponential, leading to automation and new business models with major consequences for employment and social structures. At the same time, however, we have learned from economic history that, over time, technological development has created higher productivity, economic growth, increased employment and higher wages.

Technological trends that may be directly or indirectly significant for NAV are discussed in a separate textbox.

Technological trends of particular importance to NAV

1. Insight technologies

– **Artificial intelligence** denotes IT technology that makes it possible for machines to learn from experience, find previously unknown patterns, adapt to new situations and perform tasks we normally regard as being reserved for human beings. Such technology is changing our lives. For example, you can now talk to your mobile phone, translate languages, recognise faces, let your car drive itself. This enabling technology also means that machines can give advice and make independent decisions. Artificial intelligence can also be used to diagnose illnesses, and it can enable the production of cheaper and better materials (Irgens, 2018).

– **Machine learning** is a category of artificial intelligence that means that computers can learn without being programmed. The computer is able to make its own rules based on data and results. Machine learning makes it possible to make 'intelligent'

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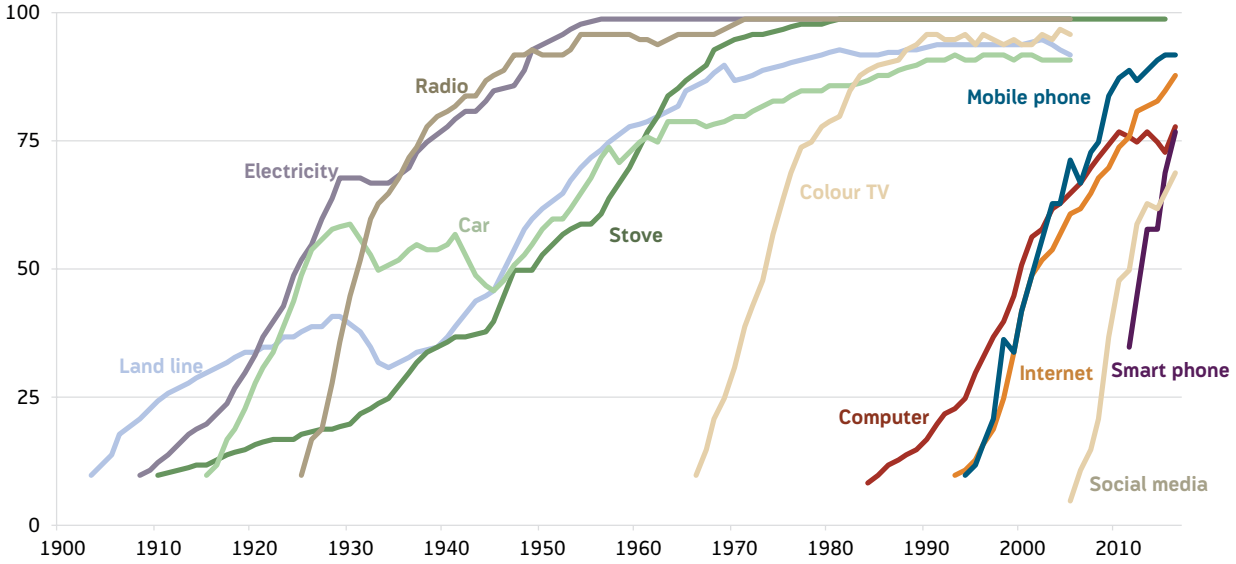
assessments and decisions based on large amounts of data. Among other things, this technology is used to recognise patterns, it can translate from one language to another, and it can be used for speech recognition and synthetic speech.
- **Data-driven decision support** is related to the above points. It provides advice and predictions for service users. For NAV, decision support can be used in relation to personal users, employers and our own staff. Our information about users, their life situation and what results are achieved can be used, for example, to motivate or propose activities for a personal user who is under work-related follow-up. Decision support can also be used to automate routine tasks. Digital assistants and machine learning can help users to manage by themselves to a greater extent, so that NAV can devote its time to helping those who need help most.
- **Speech to text, text to speech and automatic translation:** We can use speech recognition programs such as Siri and Alexa already today, and there are machines that can read text (synthetic speech) or translate (Google Translate), and we can communicate with chatbots. Once these technologies have matured and are combined, we will be able to speak Syrian to a 'Norwegian' computer and receive an answer in Syrian, automatic minutes of conversations will be generated, and the machines will be able to simultaneously translate from Urdu to Norwegian. This will help many people who are unable to communicate digitally today, and it will also make it possible for people to speak to each other in different languages without an interpreter.

2. Digital infrastructure
- **Cloud services** provide access to computing power via the internet from large data centres. This enables efficient operation and distribution of software and cost-efficient services. Many people use cloud services such as map services, Gmail, OneDrive and Office 365. Other software, for example accounting systems, are also increasingly being delivered as cloud services.
- **Digital platforms** make it possible to create new business models by offering infrastructure that connects customers and suppliers. Amazon, Apple, Alipay, Airbnb, Facebook, Uber, Spotify and Finn are examples of such platforms. Platforms create a network effect by increasing participation and value creation for their users, and they are increasingly data-driven. These platforms make it necessary to develop regulations relating to taxation, working conditions, competition, security and protection of privacy.
- **High-speed mobile network (5G):** Norway will make the transition from 4G to 5G, the next generation mobile network, in 2020. With 5G, capacity can be divided into several layers, for example by reserving a priority layer for the emergency communication network, health services and self-driving cars, while ordinary mobile use is assigned to layers with lower priority.
- **'Block chain'** is a distributed database that maintains a continuously increasing amount of data called 'blocks' that cannot be altered or manipulated. The technology can, for example, enable the direct transfer of assets in a network without a third party such as a bank being involved.

3. Visualisation of large amounts of data
Large amounts of data form the basis for new ways of presenting data visually, or as physical models and finished products.
- **Hybrid reality** is a mixture of real and virtual worlds where physical and digital objects appear to interact and integrate naturally. Hybrid reality can be divided into 'virtual reality' and 'mixed reality'. Virtual reality is computer technology that allows the user to influence and be influenced by a computer-generated environment that imitates a reality. NAV has already experimented with giving youths insight into work tasks and jobs they had never thought of before (MEMU, 2018). In 'mixed reality' it is possible to mix digital information with what one hears and sees, as in the game Pokémon GO, for example.
- **Digital twin** refers to a digital representation of a physical object. This could, for example, be a visual representation of a building or an engine created using design drawings, historical data about maintenance and sensors. A digital representation of an organisation can be used to predict effects of organisational changes and to identify process changes.
- **3D printing** is a technology that makes it possible to create a three-dimensional object using a printer that builds the object layer by layer. Today, 3D printing is used in product development and industrial design, architecture and other model building, orthopaedics and technical aids, as well as to produce complicated objects such as aeroplane turbines.

4. Smart objects
- **The Internet of Things:** Consumer articles, clothes, household products and machines are equipped with built-in sensors that make it possible to collect data because they are connected to the internet. The technical aids department can utilise this, for example to plan maintenance and to understand patterns of use.
- **Autonomous objects:** Self-operating machines, cars, robots and drones that, by using sensors and artificial intelligence, manage to relate to their surroundings without human intervention. Autonomous objects can operate on land, in the air and at sea, and they can make completely new services possible. Self-driving cars will affect everyone who works as a driver and will thereby affect NAV. At the same time, however, they provide new opportunities for mobility for elderly people and others who currently receive help in the form of specially adapted vehicles.

Figure 7.1 **Proportion of the US population that has started using new technology over time, 1900–2016. Percentage.**



Source: Ritchie and Roser (2018)

Increased pace of innovation

The performance capacity of digital technology is increasing exponentially. Computers are one example. They have doubled their capacity every 18 months ever since the 1960s.

Society starts using new technology more quickly than before. It took many years from cars and electricity were invented until most people had started using them, while, for example, smartphones and the internet have become widespread in a very short space of time.

Many of these technological innovations have become essential tools in the workplace, while also being used privately. The rapid introduction of new technology requires both workplaces and many employees to adapt swiftly. It also makes new business models possible.

Businesses emphasise adaptability

The increased pace of development is changing how enterprises are organised. Adaptability ensures continued relevance and demand, which is becoming more important than cost-efficiency for many businesses. Many of them therefore choose an organisational structure that facilitates rapid change.

In Difi's 'Digitalisation Strategy in the Public Sector' (Difi, 2017c), it is emphasised that the public sector should adopt an 'innovative and flexible approach' to developing new services for the public. Technologies develop over time and the public sector must make sure that services, solutions and business models are continuously developed. It will be important for the public sector to create an innovative culture where employees and enterprises dare to try something new and are not afraid to make mistakes. There will also be an increasing need for technology and analytical expertise, and there will be competition for those with talent.

Many enterprises increase their adaptability by working in an 'agile' way. The risk is reduced by dropping big projects in favour of such 'agile methodology', which involves working in an interdisciplinary way and making constant changes and improvements. Continuous development and deployment reduces costs and the risk associated with big projects.

7.2 Technology will change NAV's services and activities

NAV is digitalising services in order to create better user meetings. The digital services can create better user meetings themselves, or they can reduce costs so that the resources that are freed up can be used to create better user meetings in other areas.

New technology makes it possible for NAV to perform its social mission in a better way than at present. Technology can help to rationalise today's processes, but it will be equally important to create new services and new business models. The point of departure for developing services must be to meet users' needs (see also Chapter 6). This is a focus area in NAV's corporate strategy that is also emphasised in Difi's 'Digitalisation Strategy in the Public Sector' (Difi, 2017c). By involving users more in development, we will be able to adapt more quickly to changes in user needs and requirements from society at large.

NAV may come to resemble a travel agent's, or the banking and insurance industry, in that a large part of the user dialogue and service production takes place digitally. Traditional banks are now being challenged by start-ups that are almost fully digital and have few or no local branch offices. In the retail and wholesale trade, shops and wholesalers are being challenged by enterprises with a digital business model. NAV must also be capable of renewing itself.

NAV has developed several digital services and given the NAV offices the possibility of intensifying their efforts to follow up groups that are not in employment and get them into work or activity. Digitalisation could reduce the need for a local presence, and it could lead to many manual tasks in NAV being automated.

Rapidly increasing data capture combined with new insight technology means that we have a huge potential to learn more about which services and methods work and for which groups, which means that NAV will be in a position to utilise resources more efficiently and to prioritise in a more targeted way. Digitalisation makes it possible to offer more individually adapted services.

For NAV, it will be particularly important to learn more about the possibilities offered by big data analyses and artificial intelligence. We should also endeavour to utilise the advantages of digital platforms and cooperation with others.

Data-driven development

Data-driven innovation could be one of the most important drivers of economic growth going forward. More data are being produced every week now than were produced during the whole of the preceding millennium (Report 27 to the Storting, 2015–2016). Large amounts of data are part of production processes and business models, and data are becoming increasingly valuable for the economy.

Systems for data-driven decision support will provide a better basis for making good decisions based on knowledge about users and results. Technology can contribute to NAV going from being a rules-oriented agency to becoming more result-oriented, with a higher degree of personal adaptation based on individual users' needs. This development must comply with privacy, security under the law and verifiability requirements.

Data-driven decision support can involve an unemployed person receiving tailored advice about which jobs he or she should apply for and what competence-raising measures he or she should focus on in order to maximise the chances of succeeding in the employment market. A NAV counsellor can receive advice about which users should be prioritised and what services should be offered to individual users in order to help as many as possible to get back into employment.

Using data and artificial intelligence will increase the potential for digitalisation of services. Processes relating to the consideration of decisions, applications and follow-up of users in NAV can be digitalised, and in many cases fully or partly automated. Smarter use of data also makes it possible to create more personalised services and to offer good advice to users or counsellors in the form of decision support. Digitalisation will offer new possibilities in NAV's control work, but it also presents new challenges relating to benefit fraud.

Today's processes and regulations were shaped by yesterday's technology – the postal service, documents in paper format and personal appointments. Digitalisation makes it possible to think afresh about what constitutes a good process. It is conceivable that users will no longer have to do anything because public agencies know who is entitled to and needs a service. The allocation of services and benefits is often initiated by an application or at the initiative of a case officer/counsellor in NAV. In future, it will be

possible to develop systems that detect life events and automatically take initiatives because public agencies know that a service or benefit will be relevant to users. Public agencies must also be able to comply with protection of privacy requirements in this context.

In recent years, NAV has done a lot of work on digitalising benefit administration, and more digitalisation of work-related services can be expected in the time ahead. The degree of automation will depend on many factors in addition to what is possible technologically, such as social acceptance of automation, laws and regulations, and ethical and protection of privacy considerations.

Security, ethics and protection of privacy

As a result of technological development, traditional crimes can be committed in new ways, and IT crime is becoming a serious problem for society. Today, more people are victims of cybercrime than of traditional crime (NOU 2015:13). According to the World Trade Organisation (2018), fear of cyberattacks and breaches of privacy are two of the five biggest perceived threats against the international economic system. This is underpinned by a growing trend towards cyberattacks against critical infrastructure and strategic targets staged by hostile states or other advanced perpetrators.

The Norwegian National Security Authority (NSM) has warned that cyberattacks against important Norwegian institutions and organisations are on the increase and are becoming more advanced and organised (NRK, 20 Aug. 2016). They point out that more and more entities, processes and services are being interlinked and connected to the internet, and that service outsourcing is an attractive solution for many enterprises. This development creates long and complicated digital value chains, often outside the Norwegian authorities' control (NSM, 2018).

The new protection of privacy regulation (GDPR) opens new possibilities, at the same time as the use of new technology can create challenges relating to legality, ethics and protection of privacy. The national legislation relating to NAV is 'old' and the individual acts (legal authority) do not necessarily meet the requirements of the new Personal Data Act. This can be addressed by developing laws and regulations, or it could mean that, in some cases, protection of privacy considerations will be an obstacle to NAV and other actors providing the most efficient service possible. For example, using artificial intelligence to make machine decisions could be challenged on the grounds that the decisions cannot be explained, or that it is impossible to provide sufficient insight into how a decision was made and on what grounds. The solution could be to refrain from using such solutions, so that NAV keeps the user's trust.

Cooperation and innovation

Digitalisation provides new opportunities for cooperation between agencies, in users' best interests. By sharing data, NAV can offer coherent services together with partners, which can be either public or private enterprises. Breaking down the boundaries between organisations often provides good opportunities for creating added value. Sharing data and insights will be important going forward. NAV possesses large amounts of data which, used correctly, have a great potential to optimise the use and effect of the measures at our disposal.

Digital platforms enable tasks to be divided between several actors, and they can make it possible to exploit innovations that other actors are responsible for. Apple was quick to realise the advantages of allowing others to use Appstore for development and innovation. Good public digital platforms can enable other actors to further develop public services and find new and better forms of interaction between public agencies and their users. NAV can create a platform that makes NAV's data and services available, so that others can build innovative solutions on top of the platform and deliver new services to NAV users that help us to deliver on our social mission in a better way. We have already started on this on https://data.nav.no/.

In the Dream Commitment 2017 (Innovation Norway, 2017), Innovation Norway recommends that public agencies and the private sector work in partnership to develop world-class innovative solutions. Public-Private Innovation (PPI) is a relatively new term that has been coined for development coopera-

tion between public and private actors with a view to creating new solutions that also have a potential for commercialisation.

Even though NAV has a unique role in society, our needs and processes are often similar to those of other enterprises. We can learn from others and participate in technological development and innovation by utilising software and cloud solutions that are available on the market, for example communication solutions, accounting solutions or analytical solutions.

Social technology

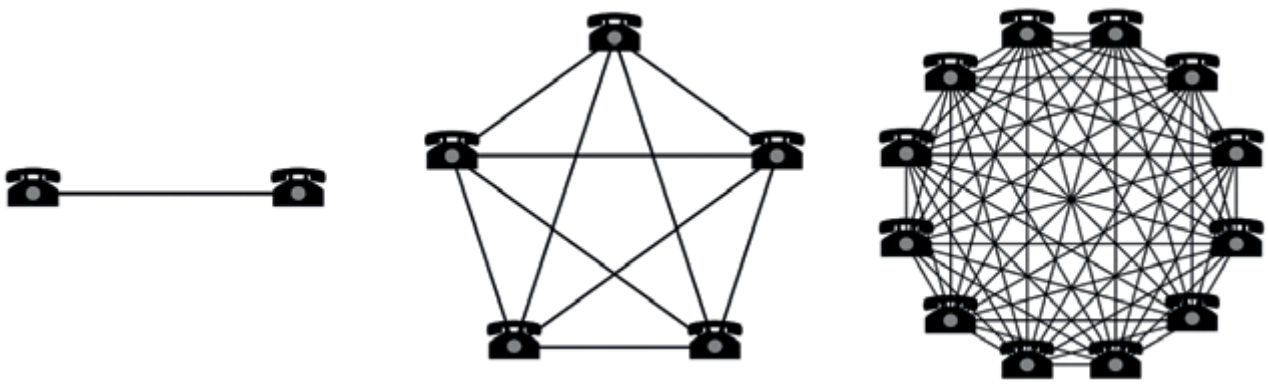
Social technology will change how services can be produced, and social platforms will create new forms of cooperation and new collaborative arenas, including for NAV. Social technology has found a natural place in our everyday lives in a short space of time. Value creation is characterised by 'the network effect', i.e. that solutions become more valuable the more people who use them. Telephony is a clear example of this – telephone services are more valuable if everyone can be reached by phone than if only a handful of people have a phone (Figure 7.2). Facebook, LinkedIn, Finn, Apple, Google, Airbnb and Uber offer platforms and social networks where users are offered services that are more valuable the more people use the platform. Digital chat room solutions can contribute to knowledge being shared internally in NAV, with and between NAV's users and other actors. Users with common needs can share their experiences and get advice from other users or experts in NAV.

Wikipedia is a good example of how collective intelligence, engagement, openness and technology have created concrete value. Its quality is the result of contributors no longer being limited to a small group of dedicated authors. Wikipedia is a product of the systematisation of collective knowledge, It is expected that NAV and other public agencies will have to utilise this and other similar technological possibilities if they are to deliver on their social mission in the years ahead.

7.3 Reflection questions

- How can data-driven decision support be useful?
- How do ethics and the new Personal Data Act affect how we use information?
- What can prevent us from exploiting the possibilities that technology offers?
- How can we prevent algorithms from contributing to the discrimination of individuals or groups?
- How can we use technology to get more people into employment?
- How will technology change user meetings in 2030?
- How will technological development have affected NAV's organisation in 2030?

Figure 7.2 **Illustration of the network effect – the number of possible conversation partners increases faster than the number of phones.**



8. DEVELOPMENTS IN THE LABOUR MARKET

In 2015 and 2016, Norway experienced an economic downturn driven by a strong fall in oil investments and a decrease in activity in oil-related industries. This led to higher unemployment and big geographical differences in the labour market. Since the beginning of 2017, the labour market has improved in step with higher growth in the mainland economy. Norway is now experiencing a moderate economic upturn, which NAV expects to continue for the next two years (NAV, 2018h). This will contribute to a further increase in employment, and the number of people in the labour force will continue to increase going forward. We therefore expect a slight reduction in unemployment up until 2020.

How our trading partners fare is important for Norway's economic development, because exports of traditional goods and services account for around 25 per cent of mainland Norway's gross domestic product (GDP). This has a direct effect on demand for labour. Including exports of crude oil and natural gas, exports amount to 40 per cent of mainland Norway's GDP. Europe and the USA are Norway's most important trading partners, accounting for 70 per cent of mainland exports last year.

There is great uncertainty about how the economy and the labour market will develop in the longer term. If we look as far as 10 to 20 years ahead, it is impossible to say when cyclical upturns and downturns will occur. It is therefore necessary to disregard short-term economic fluctuations and try to project the underlying trend going forward. The use of NAV's measures and services must in any case be organised in such a way that we are able to tackle cyclical fluctuations as they arise.

8.1 Stable growth in the global economy in the immediate future

The world's total gross domestic product (GDP) increased by 3.7 per cent in 2017, which is the highest growth rate since 2011. Both the growth in investments and international trade decreased in the first half-year 2018, however. This indicates that international growth peaked in 2017. Both the International Monetary Fund[7] and the OECD[8] expect growth of the global economy to continue at roughly the same pace in the first few years, which entails a downward adjustment of previous estimates.

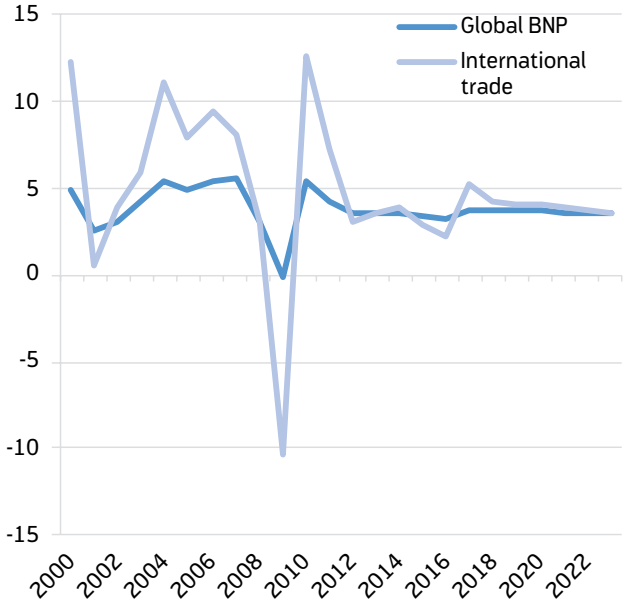
Trade policy is creating uncertainty

The slowdown in international trade is partly due to increased protectionism. In 2018, the USA imposed higher tariffs on steel and aluminium from the EU and China. Canada and Mexico and on washing machines and solar panels from all countries, as well as higher tariffs on several other products from China. Several of these countries have to a varying degree taken counter-measures by increasing tariffs on imports of several American products. The trade conflict between China and the USA has escalated strongly. The IMF expects growth in international trade to decrease somewhat in the first few years (Figure 8.1). Further protectionist measures could reduce economic growth as a result of higher prices for more products and lower purchasing power among consumers, which, in turn, could lead to lower demand and lower employment. In addition, several international trade agreements are currently being renegotiated. In December, the USA and China agreed to call a 'truce' in their trade conflict: The USA has postponed the introduction of higher tariffs on the rest of Chinese imports until 1 March 2019. During this three-month period, the two countries will try to negotiate new bilateral trade terms.

The UK Government and the EU agreed on a draft exit agreement that would enter into force once the country leaves the EU in March 2019. However, the draft was met with huge opposition in the UK, and Prime Minister Theresa May postponed the planned vote over the agreement by Parliament in December 2018. At the time of writing, the British Government is trying to renegotiate the agreement in order to

[7] IMF, *World Economic Outlook*, October 2018.
[8] OECD, *Interim Economic Outlook*, November 2018.

Figure 8.1. **Annual growth in international trade and GDP. Estimate from 2018. Percentage.**



Source: IMF

secure the support of Parliament, but the signals from the EU indicate that this could prove a difficult proposition. The date of the vote in Parliament has not been set yet, but the British Government has set mid-January 2019 as the deadline. If the exit agreement with the EU (with possible changes) is voted down, the UK Parliament may take responsibility for drafting an alternative agreement with the EU. Some British politicians have also advocated holding a new referendum on UK membership of the EU. Nor can it be ruled out that the UK could leave the EU without any trade agreement at all, even though both the Government and other politicians have warned about the consequences. At the time of writing, there is therefore still great uncertainty about the outcome of Brexit.

Higher global growth follows several years of expansive economic policy and very low interest rates in the wake of the financial crisis, particularly in the industrialised countries. This has also led to higher financial investments and asset prices, and to a high debt level in both the public and private sectors. As monetary policy is normalised and interest rates are increased, problems could arise with the repayment of debts, which, in turn, could lead to financial instability and lower economic growth than expected.

Growth is decreasing among Norway's trading partners

GDP growth in the USA was expected to remain high in 2018. This is due to the expansive effect of tax cuts and higher growth in public expenditure. However, the IMF has reduced its growth estimate a little for the USA in 2019 (Figure 8.2). Higher import tariffs and the ongoing trade conflict with China are the reasons for this. The estimated GDP growth in the eurozone[9] in 2018 was also adjusted downwards as a result of weaker growth than expected. According to the IMF, GDP growth in the eurozone will be around 2 per cent in 2018 and 2019, which is somewhat lower than in 2017. Overall, growth in the eurozone and the USA will be somewhat lower than previously expected, but still solid. Demand from our most important trading partners will thereby increase a little less than previously expected.

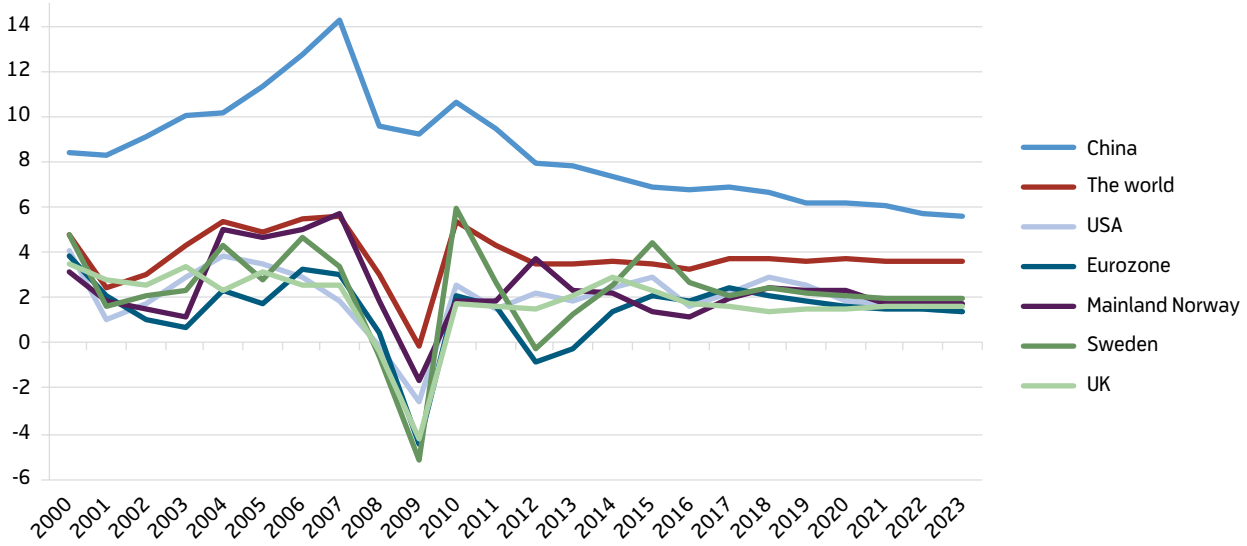
China's economic growth has decreased gradually in recent years. Because of the trade conflict with the USA, the IMF expects China's growth rate to continue to decrease going forward, and somewhat faster than previously estimated. According to the IMF, GDP growth in India is expected to increase in the next few years. In the other emerging economies, particularly in Latin America, increased trade barriers and higher interest rates in the USA have already led to a weakening of their currencies and a stock market fall, and it especially in relation to these countries that the IMF has reduced its growth forecasts.

Moderate economic upturn in Norway

Growth in the mainland economy increased in 2017, and we are now in a moderate economic upturn, which NAV expects will continue until 2020 (NAV, 2018h). After falling for four years, oil investments will increase in 2018 and the two following years, thereby giving the Norwegian economy positive impulses. In addition, more people in employment and increased purchasing power will contribute to higher growth in private consumption going forward. Continued low

[9] The eurozone comprises Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

Figure 8.2. **Percentage growth in GDP. Estimate from 2018. Percentage**



Source: **IMF, NAV and SSB for Norway**[10]

interest rates, a weak krone and good international growth will help to boost growth in the mainland economy, but less and less so as interest rates increase, the krone becomes stronger and growth among our most important trading partners decreases up until 2020. Going forward, lower investment in housing and lower growth in public expenditure will reduce growth in the Norwegian economy in 2018 and in the two following years.

Lower unemployment

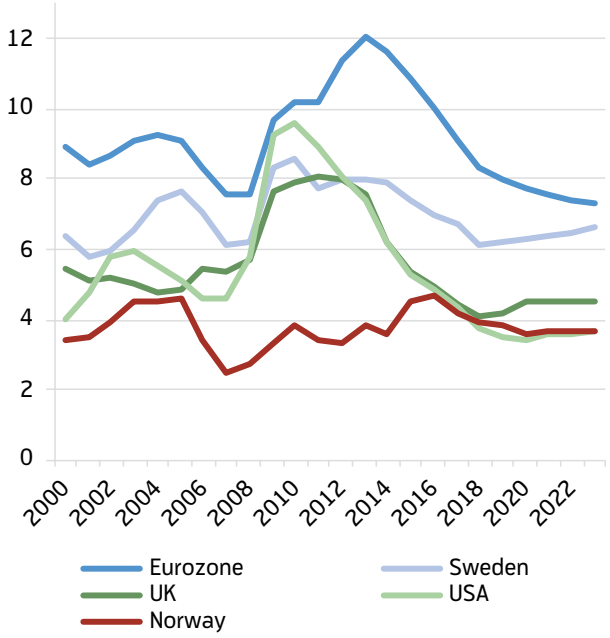
The labour market in the industrialised countries has improved in recent years (Figure 8.3). Unemployment in the eurozone has now fallen continuously for more than four years. In August, unemployment was 8.1 per cent of the labour force, the lowest level since November 2008. Employment in the eurozone has also seen steady growth for more than four years. Unemployment in the USA started to fall already in 2010, and it has continued to fall so far this year. In September 2018, unemployment was 3.7 per cent of the labour force, the lowest unemployment level since 1969. Employment is continuing to increase in the USA as well. However, the share of the population that was in employment in September 2018 was unchanged from the year before, while labour force participation was somewhat lower. Up until 2023, the IMF expects unemployment among our most important trading partners to change relatively little and to be at a low level in historical terms.

Challenges in the longer term

Globalisation has contributed to increased technological development and economic growth in recent decades, at the same time as many jobs have been lost because they have been outcompeted by competitors in other countries. This development has also led to a distortion of competition between high and low-educated labour and to the present situation where strong forces are emerging that oppose globalisation and international cooperation. The biggest challenge highlighted by the IMF is the low growth in wages and disposable income among workers, increasing inequality and the widespread impression that there is less social mobility than before. It is therefore necessary to prepare the labour force for the challenges that will result from technological development going forward, and to ensure that growth is more inclusive than before and that the benefits are more evenly distributed. As a consequence of globalisation, NAV must also increasingly look to the global labour market to find jobs for its users.

[10] NAV's forecast for the years 2018–2020, SSB's projection (Dapi et al., 2018) for the years 2021–2023.

Figure 8.3. **Unemployment as a percentage of the labour force[11]. Estimate from 2018.**



Source: IMF, NAV and SSB for Norway[12]

The demographic challenge we are facing in Norway, with more and more elderly people in relation to the number of employed persons, is also a challenge in many other industrialised countries, and it will reduce growth in the global economy in the long term. In addition, climate change will be a major challenge for the development of the global economy in the years ahead..

8.2 More and more people employed in service jobs

To be able to project employment by industry in the longer term, it is necessary to project the industry structure of the economy. Dapi et al. (2018) base their projection of the Norwegian economy up until 2035 on several assumptions. It is assumed that the oil price will increase a little going forward, but less than price inflation. Oil production and investments will increase until 2023 and thereafter decrease gradually up until 2030, in line with the estimate from the Norwegian Petroleum Directorate (2018). The decrease in oil production and investments will thus reduce growth in the mainland economy in the longer term.

Internationally, economic growth has increased in recent years, and thereby also demand for Norwegian goods and services. International growth peaked in 2018, and, going forward, slightly lower growth in demand from our trading partners is assumed. Exports of traditional goods will continue to grow faster than has been the case in recent years, which will be a positive contribution to growth of the Norwegian economy. It is also assumed that the population will develop as estimated in the main alternative in SSB's latest population projection. This means that the oldest of the elderly will constitute an increasingly large share of the population going forward, so that both pension payments and the need for care services will increase. It is assumed that public expenditure, i.e. the sum of public consumption and investments, will grow a little more slowly in future than mainland GDP. At the same time, a slight increase is assumed in employment in the public administration, largely in order to take account of higher activity in the health sector. On the other hand, private consumption is expected to grow faster than mainland GDP, partly as a result of increased pension payments. Given these assumptions, the service sector (service occupations) will grow faster than the rest of the economy.

The development in employment by industry follows from the assumed development in the Norwegian economy, and, as Figure 8.4 shows, it is employment in the private service sector and public administration that will increase in the period up until 2035. In the retail and wholesale trade, building and construction, industry and the recovery of oil and gas, employment will be lower in 2035 than it was in 2017.

More employees in health and care services

Employment in the private service sector amounted to almost a quarter of total employment in Norway in 2017. According to SSB's projections, the number of people employed in this sector will increase by 21 per cent up until 2035, corresponding to 140,000 more employees than in 2017. Employment in public ser-

[11] The unemployment figures are based on the labour survey for all countries, as shown in Figure 8.3.
[12] NAV's forecast for 2018–2020, SSB's projections for 2021–2023.

vices has steadily increased in recent decades, largely as a result of growth in health and care services. This trend is expected to continue, so that employment in public services in 2035 will be 11 per cent higher than in 2017, i.e. around 90,000 more employees. Taken together, employment in private and public service provision will account for slightly less than 60 per cent of total employment in mainland Norway in 2035.

It is estimated that employment in building and construction will be at about the same level in 2035 as it was in 2017. Employment has increased strongly in this industry in recent years as a result of high growth in housing investments. Investment in housing has decreased in the last four quarters, and employment in building and construction has increased more slowly. According to the projections, this trend will continue up until 2022, then reverse. The retail and wholesale trade is one of the biggest industries as regards the number of employees. In 2017, 376,000 people were employed in this sector, and employment has been fairly stable in recent years. SSB projects a weak decrease in employment in the retail and wholesale trade in the period up until 2035, a development that can be related to changes in shopping patterns, technological development and an increase in online shopping. Private consumption is expected to increase going forward, however.

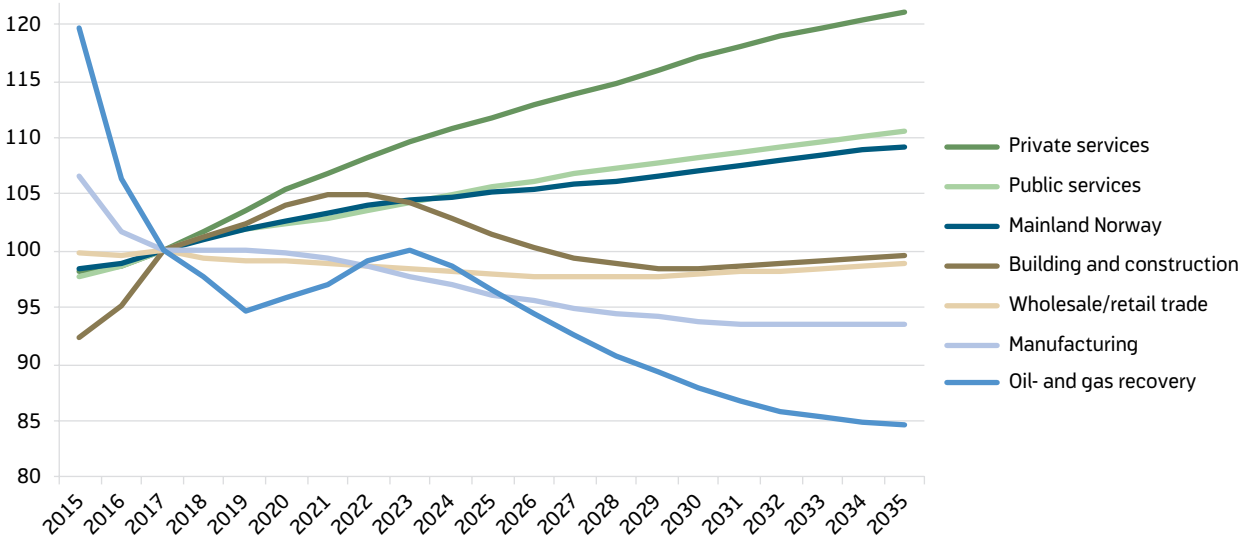
Employment in the oil and natural gas industry has decreased since 2014, but is expected to increase somewhat again until 2023 in step with the new increase in oil investments. Figure 8.4 shows that, after 2023, the projection indicates a 15 per cent decline in employment in the petroleum sector up until 2035, which means approximately 4,000 fewer people employed.

The decline in the oil industry also affects manufacturing, especially sectors that provide services to the oil industry, for example the engineering industry and the shipbuilding industry. Even though other parts of manufacturing will experience higher demand from abroad going forward, SSB's projections show a fall in employment in the period up to 2035. There will then be 15,000 fewer people employed in the manufacturing sector than in 2017.

Geographical and occupational mobility will become more important

A new decrease in employment in the petroleum sector and the oil-service industry after 2023 could lead to relatively large geographical differences in the labour market. In counties with many oil-related enterprises, it will be important to focus on restructuring the labour force. Other regions will experience increased employment and lower unemployment.

Figure 8.4. **Projected employment by industry. Indexed, 2017=100.**



Source: SSB

This means that geographical and occupational mobility among job seekers will become an important part of the NAV's follow-up.

8.3 Highest unemployment among people with little education

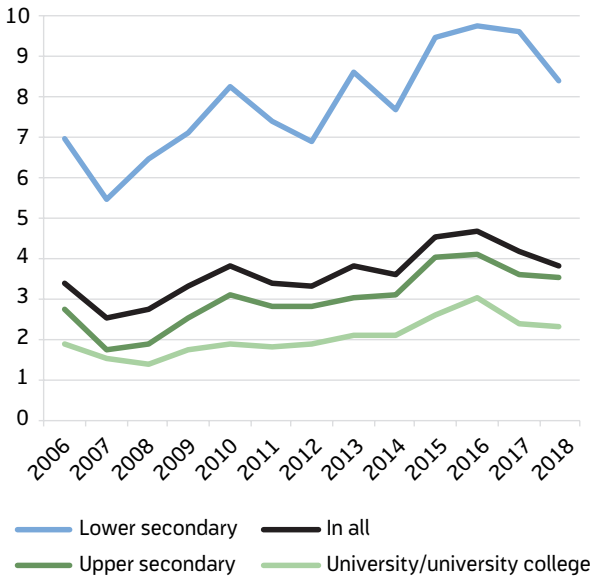
In its projections, SSB estimates that unemployment as measured in the labour force survey (LFS) will be 3.7 per cent of the labour force up until 2025, while after that it is assumed that the average LFS unemployment rate will be 4.0 per cent. Unemployment varies with the economic cycles, however. As Figure 8.5 shows, unemployment has fluctuated strongly during the period 2006–2018, with strong increases, for example, after the financial crisis in 2008 and during the last economic downturn from 2014 to 2016. This applies regardless of educational level, although those with little education have experienced greater fluctuations and higher unemployment than those with upper secondary or higher education.

NAV must deal with sudden changes in the labour market

As mentioned, the stable unemployment up until 2035 described in the projection must be seen as the average level of unemployment, and fluctuations in unemployment must be expected going forward. This means that NAV must be able to deal with sudden changes in the labour market, which means that NAV's workload can increase considerably in a short space of time, as we saw during the financial crisis and in Rogaland county in 2014–2015. This concerns both the processing of applications for unemployment benefit and follow-up of unemployed people. In addition, we know that, during periods of higher unemployment, more people also receive health-related benefits such as sickness benefit and work assessment allowance.

We expect that unemployment will continue to be higher among people with little education than among people with a trade certificate or higher education. Those with little education generally have a greater need for follow-up from NAV and more often need different types of work-related measures.

Figure 8.5. **Unemployment by educational level. Percentage of the labour force.**



Source: LFS

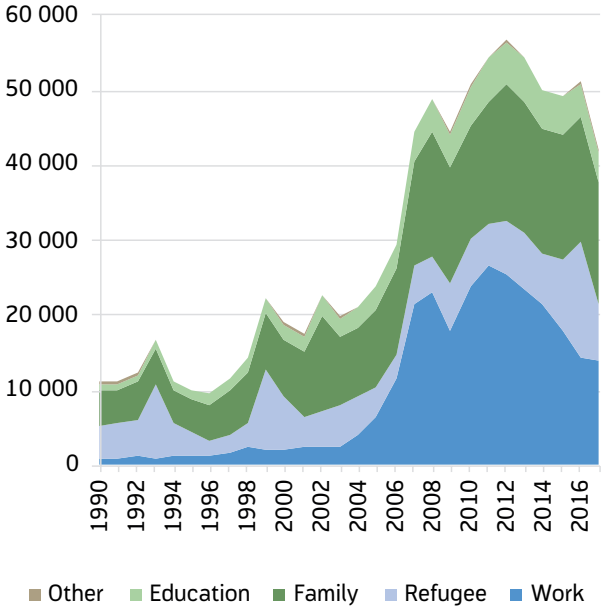
8.4 Lower labour migration

Immigration to Norway has increased strongly in recent decades (also discussed in section 5.2). The increase has been particularly great since the EEA expansion in 2004. During the period 2004–2011, labour migration accounted for an increasing share of immigration to Norway, particularly from Eastern European countries such as Poland and Lithuania. Figure 8.6 shows that labour migration from non-Nordic countries went from 12 per cent of immigration in 2003 to 49 per cent in 2011.

After reaching a peak in 2011, labour migration from non-Nordic countries has decreased: In 2017, 14,000 non-Nordic nationals stated that they came to Norway for work purposes, around half as many as in 2011. Labour immigration has also decreased somewhat as a share of total immigration, and in 2016–2017 family reunification was the most common reason for immigration to Norway.

In SSB's population projections (Leknes et al., 2018) there are three different alternatives for immigration to Norway, one with high, one with medium and one with low immigration. The medium immigration

Figure 8.6. **Immigration by reason for immigration. Excluding Nordic nationals. Number of persons.**



Source: SSB

alternative is the main scenario, but there is great uncertainty. SSB (Tønnesen et al., 2018) makes assumptions based on a number of variables in order to project how immigration to Norway will develop. The countries of the world are divided into three groups, and separate projections have been prepared for immigration from each of these groups. An econometric model is used to estimate immigration based on differences in income between Norway and the immigrants' area of origin, unemployment in Norway and in the area of origin, the number of people from the area of origin who already live in Norway and the expected population development in the area of origin. In the medium alternative, it is assumed that immigration will continue to decrease up until 2030, as we have seen in recent years, which is largely due to an expected reduction in immigration from Eastern Europe. Emigration will also decrease somewhat and, for most of this century, net annual immigration will be between 17,000 and 20,000 people. That is around 10,000 fewer per year than was estimated in the projection from 2016.

8.5 Increasing number of people with higher education

During recent years, demand for labour with higher education has increased. From 2006 to 2018, total employment measured in the labour force survey (LFS) increased by 340,000 persons, or 14 per cent. The increase among those with higher education was even greater, and this group accounted for 41 per cent of total employment in 2018, compared with 33 per cent in 2006. The number of employed people with lower secondary as their highest education fell by 14 per cent in the same period, while there was an increase in the number of employed people with unknown education. The reason for the increase in the number of employees with unknown education is increased immigration, since many immigrants have no registered education in Norway. However, there are relatively few people with uncompleted or unknown education, and they account for less than one per cent of total employment.

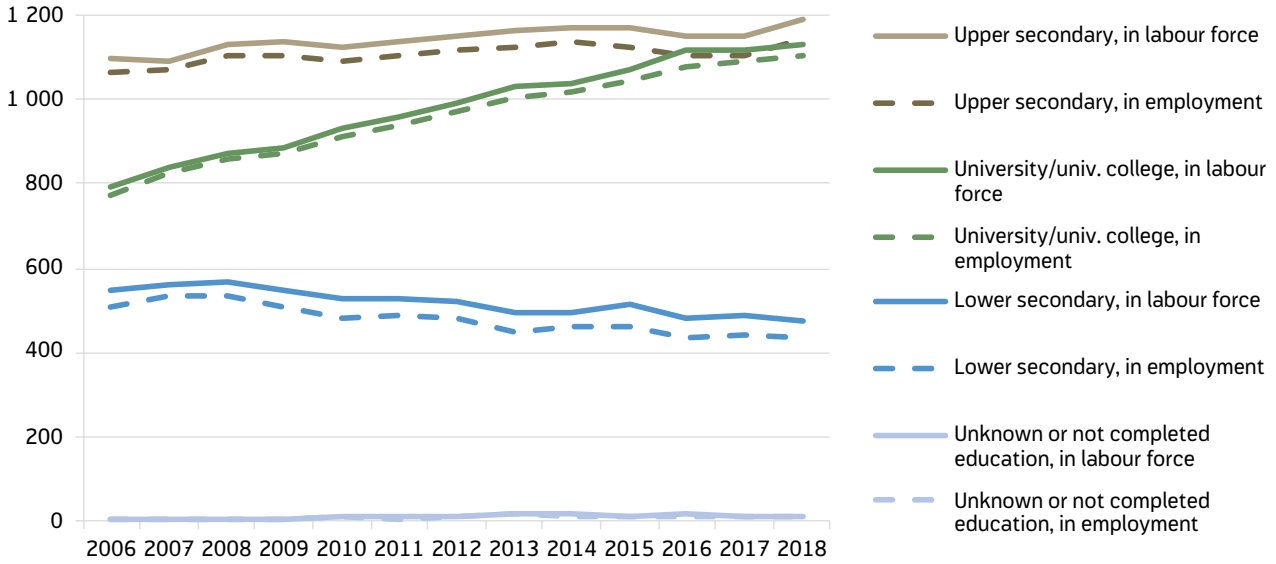
The number of employed people with upper secondary school as their highest education increased by 7 per cent from 2006 to 2018. In 2018, this group amounted to 43 per cent of all employees, down from 45 per cent in 2006. The educational level of the population has increased strongly during the same period. Figure 8.7 shows that the number with higher education has increased in particular, and this group also makes up an increasing share of the labour force. At the same time, there are now fewer employees without education higher than lower secondary level.

Table 8.1. **Immigration according to SSB's population projections, the medium alternative. Number of persons.**

	Immigration	Net immigration
2017	56 400	21 300
2020	51 400	19 200
2040	48 900	17 300

Source: SSB (Leknes et. al. 2018)

Figure 8.7. **Number of persons in the labour force and employment by educational level. Numbers in 1,000s.**



Source: LFS

More people are now completing upper secondary school

Since 2006, there has been a positive trend of more people completing upper secondary school, and the proportion that complete their education was almost 5 percentage points higher in 2017. A total of 74.5 per cent of students who started upper secondary education in autumn 2012 had completed within five years. That is 1.4 percentage points more than the previous cohort. There are differences between study programmes, counties and genders, however. The percentage not completing upper secondary education within five years is highest among boys in vocational study programmes. Here, 57 per cent of those who started in 2012 had completed by 2017. Even though this completion rate is lower than the average, it is also 1.3 percentage points higher than for the previous cohort. Girls in general studies programmes had the highest completion rate in 2017, at 90 per cent. On average, the proportion of boys who completed upper secondary education in 2017 was somewhat lower than the proportion of girls. At the same time, the proportion of boys had increased most compared with the previous cohort, and this applied to both general studies programmes and vocational programmes.

More and more people are also completing higher education. In 2016–2017, 34,200 students completed higher education, 10,000 more than ten years before. Students in the 19–24 age group made up 80 per cent of students who completed a higher education programme at first degree level. Six of 10 higher students who completed a higher education programme were women, and this proportion has changed little since 2006.

8.6 High demand for skilled health and care workers

Figure 8.9 shows the projected supply of and demand for labour by educational level up until 2035 (Dapi et al., 2018). Supply and demand are projected in two separate models that are both based on the current population and SSB's most recent population projection. Demand for labour is modelled on the basis of assumptions about economic development in Norway. This means that demand for certain types of labour depends on the industry composition going forward and what the employment composition in each industry has been like in recent years. The projection of the labour supply, i.e. the labour force, is independent of assumptions about the future economic development and is based on the population's educational choices in the past five years, and the observed labour force participation rate in different age and educational groups. The projection thus does

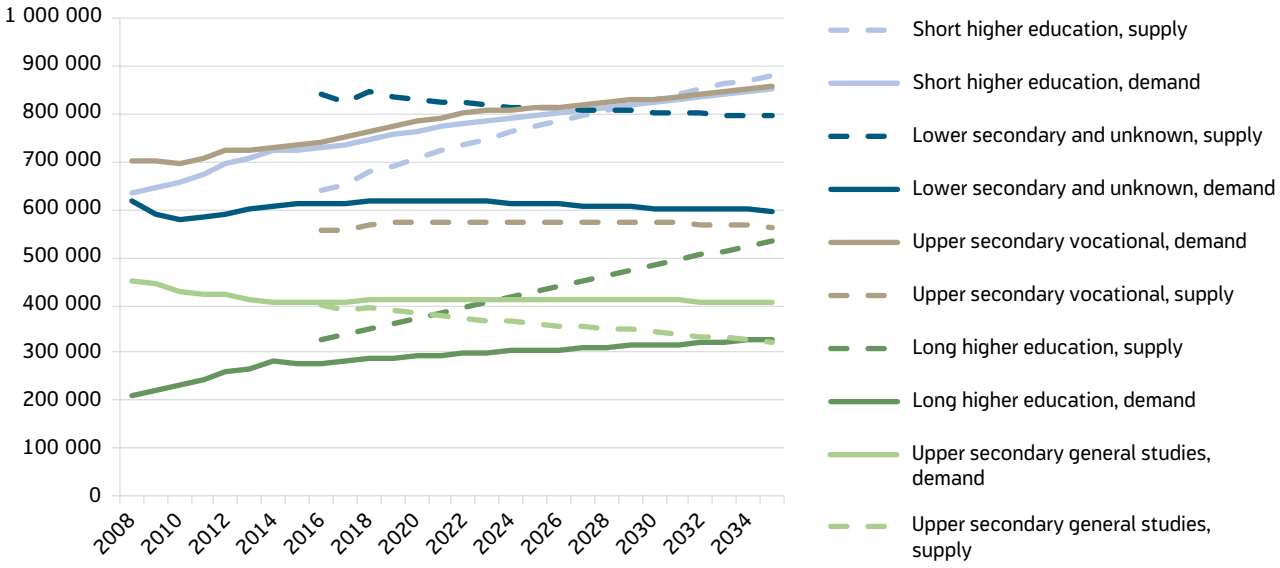
not take account of mechanisms that contribute to adaptation to the labour market, such as changes in relative pay and the unemployment level for different educational groups. The discrepancies that emerge in the projection between supply and demand for some educational groups cannot, therefore, be interpreted as projected unemployment among these groups – they point instead to possible imbalances in the labour market in the longer term.

The projections show that the trend towards an increased educational level in the population will continue going forward. People with a bachelor's or master's degree will make up an increasingly large share of the labour force, and they will increase more than employment among this group, while demand for skilled workers is expected to increase much more than the supply. People with lower secondary or unknown education will make up a smaller and smaller share of the labour force. This must be seen in conjunction with the fact that the population projections show lower net immigration to Norway, and that many immigrants are registered with lower secondary education or an unknown educational background. This group will also account for a smaller and smaller share of employment, and the projections show that demand for people with lower secondary education is expected to be lower than the supply. The level of unemployment is highest among persons with a lower secondary education or unknown education (as shown in Figure 8.5), and they will probably continue to be a disadvantaged group in the labour market.

Uncertain projections

It is important to interpret Figure 8.8 in light of the fact that the projection of the labour force is based on the assumption that those who choose an education in the time ahead will make the same educational choices as corresponding persons have done in the past five years. In reality, this will not be the case. Young people who make educational choices will take into account how large the demand is for different types of education, and of the expected pay and unemployment level in different occupations. When recruiting, employers will also take into account what types of education the available labour has. For example, if there is an imbalance between supply and demand, employers can increase wages for the type of labour that is in short supply, which will provide an incentive to take education in the field in question. Education policy can also help to correct any imbalances.

Figure 8.8. **Projection of supply and demand for labour with different educational levels, 2017–2035. Number of persons.**



Source: SSB (Dapi et al., 2018)

One important reason for the discrepancies between supply and demand for some educational groups is that more people with a low educational level will retire in the years ahead. It is assumed in the projections that they will be replaced by people with the same educational level, while relatively few people with higher education will retire in the period up until 2035. However, employers can also change the composition of the labour force by hiring employees with a higher (or lower) level of education than they previously did. In reality, many of those who only have lower secondary school will be replaced by people with more formal education. As Dapi et al. point out, some educational groups resemble each other and can perform each other's tasks, and people with higher education should be well equipped to acquire new knowledge. The introduction of new technology can also change how different types of labour are used going forward.

Increased demand for people with upper secondary vocational education

As Figure 8.8 shows, much greater growth is expected in employment than in the labour force for people with a vocational education at upper secondary level. Dapi et al., (2018) also make more detailed projections for this group by discipline. For upper secondary vocational subjects relevant to industry, building and construction and the traditional trades, higher growth in employment is expected than in the labour force, and after 2020 there will be an unmet need for people with such qualifications. This will happen despite the fact that the supply of labour with such vocational qualifications has been adjusted upwards since the previous projection, since more people are now completing such educational programmes. It could prove difficult to replace this type of labour with people with higher education. Increasing the completion rate in these programmes at upper secondary level could help to reduce the potential shortage in future.

The projection also reveals an unmet need for people with an upper secondary education in general studies and economic and administrative subjects. In this case, however, and particularly in economics and administration, the shortage of people with this education could be met using people with an education at bachelor's or master's degree level. Moreover, it is expected that many accounting tasks will be digitalised.

Increasing need for health and care personnel

As a result of the ageing population, there will be an increasing need for health personnel in the period up to 2035. According to the projections, there may be a significant shortage of people with upper secondary education in health and care subjects. In addition, not enough people will take bachelor's degrees in nursing and care subjects, i.e. train as nurses and social educators. All in all, an increasing shortage of people with these types of education is expected up until 2035. Part of this need can be met by people with a bachelor's degree in other health subjects that are not as specifically aimed at the elderly population, and which the projections predict more people will take an education in than there will be demand for. At the same time, there is uncertainty about to what extent the standard of health services will be raised (which could further increase demand). Technological changes could also change the need for health personnel.

How the population develops will also decide the need for people with an education in teaching. For this group, the employment projection has been downwardly adjusted as a result of lower growth in the number of children because of lower immigration and a lower fertility rate. The labour force is showing stable development, since roughly as many are being educated as are retiring. In total, the projections show a good match between employment and people with this kind of education in the period up until 2035.

More people with higher education

In the time ahead, we will see strong growth in the proportion of the labour force with higher education. This is because the proportion of people with higher education is lower among those who are retiring than among those starting on their careers. Although demand for employees with higher education will increase, the supply of labour with higher education will increase even more. It is particularly in economic and administrative subjects, social science and the arts and humanities that the projection shows higher supply than demand. This could mean that those with higher education will perform tasks that were previously carried out by people with a lower educational level, but the tasks could also change in a way that makes higher education necessary.

People with higher education in technical and natural science disciplines make up a stable share of employment in the projections. The reason why this proportion will not increase going forward is that many people with such competence have worked in the petroleum sector and in industry and that a lower activity level is expected in oil-related industries from 2023 onwards. Growth in building and construction has also been downwardly adjusted, although growth in the private service sector helps to reduce the decrease in demand for people with this type of education. However, technological developments could lead to a greater need for people with higher education in technical and natural science disciplines than the projection would indicate.

8.7 Norway's economy will see faster restructuring

A much discussed analysis from 2015 estimated that it was highly probable that one out of every three jobs in Norway would disappear because of automation in the next 20 years (Ekeland et al., 2015). That is roughly on a par with what has been found in corresponding analyses for Finland, but lower than in Sweden and the USA, where almost 50 per cent of all jobs are at risk.

However, there are many variables involved, which means that the estimates are very uncertain Jobs have disappeared because of mechanisation ever since the Industrial Revolution, and in recent decades because of digitalisation. However, we have seen that, over time, the labour that is freed up moves to other industries and occupations. In Norway, jobs in industry fell by almost 30,000 (10 per cent) from 1990 to 2015, while employment in agriculture and forestry fell by more than 50,000 (50 per cent) in the same period, without this having led to a strong increase in unemployment.

Bye and Næsheim (2016) point out that there are several factors that are not taken into consideration in the method used by Ekeland et al. The tasks involved in a given occupation will often change when new technology is introduced, so that the occupation does not disappear, but changes. New technology also leads to higher productivity, so that the price of a product can be reduced. This, in turn, can increase demand for the product and contribute to higher employment. Demographic changes, policies and income growth are other factors that can affect which occupations will be needed in future, something Ekeland et al. do not take into account in their analysis.

Nedelkoska and Quintini (2018) have estimated that less than 14 per cent of all jobs in 32 OECD countries have a high probability of being eliminated through automation given the technological possibilities available today. In Norway, however, they believe that this only applies to 6 per cent of jobs. Automation will entail substantial changes, however, for a much larger proportion of jobs. Among other things, this analysis uses a much more finely meshed occupational structure when assessing the consequences of automation than Ekeland et al. (2015) do, and they use data from PIAAC (Survey of Adult Skills) for different countries. However, the fact that they only consider what is technologically possible today indicates that their estimates may be rather cautious. Like Ekeland et al., this analysis also claims that automation will have the biggest impact on jobs that require little education. McKinsey Global Institute (2017) estimates that, globally, under 5 per cent of jobs can be fully automated using technology that is currently available, but that almost all jobs involve some tasks that can be automated. The estimates thus diverge greatly as regards how many jobs could disappear through automation in the time ahead, although there seems to be consensus that such processes could increase the importance of education and competence.

Bessen (2016) looked at US data and found that occupations that involve using computers have seen a significantly higher increase in employment than other occupations during the period 1980–2013. This also applies to occupations that involve many routine tasks. He finds that computers have removed some jobs, but that they have created more new ones, so that the net effect is positive.

Følster (2018) calculates that 30,000 new jobs were created in Norway because of new technology during the period 2009–2014, and that many of them went to people who work on new digital technology, operate

IT systems and similar. These are not the only kind of jobs that are being created, however. Increased online shopping has led to more jobs for messengers, for example. The World Economic Forum (WEF) has estimated that, up until 2022, robots and artificial intelligence will create 58 million more jobs than they eliminate (WEF, 2018).

NHO, the Confederation of Norwegian Enterprise (2018), points out that it will be important for Norway to utilise new technology to solve the challenges facing the world and that this could give us new market opportunities. On assignment for the Ministry of Trade, Industry and Fisheries, Digital21 (Digital21, 2018) has developed a strategy setting out recommended measures aimed at boosting Norwegian business and industry's ability to develop and make use of new technology in step with digitalisation. The strategy points out that digitalisation will change the boundaries between sectors and definitions of industries, and that new businesses and industries will emerge across existing boundaries. Technology can be expected to increase productivity and value creation in all sectors, although to a varying degree. Digitalisation is also expected to lead to sectors and industries merging.

Innovation Norway (2016) points to six areas of opportunity for new business development where Norwegian expertise, technology and resources can help to solve the challenges the world is facing:

- **The ocean space:** Exploit the potential for competence and technology transfer between the marine-based industries: petroleum, renewable energy, shipping, fisheries and aquaculture.
- **Clean energy:** Climate-friendly energy solutions to solve global climate challenges
- **Bioeconomy:** Sustainable exploitation, production and processing of biomass from ocean to land, for food and animal feed, materials and chemicals, and bioenergy
- **Health and welfare:** Demand for welfare technology is growing fast, both nationally and globally, as a result of the ageing population. Access to health data and registers containing social, economic and demographic data is one of Norway's most important advantages in the international research context.
- **Smart societies:** This is about cooperation and links between, for example, transport and logistics, energy-efficient buildings and houses, public infrastructure, civil protection and public administrative services.
- **Creative enterprises and tourism:** Concerns cooperation between the culture sector and the tourism industry. There is a great potential here because the tourism industry is one of the fastest growing industries in the world.

Even though there are many indications that automation will not lead to mass unemployment, we could experience periods of higher unemployment before labour is absorbed by other industries or sectors. This is reinforced by the fact that low-paid and low-skill occupations appear to be at particular risk of eradication through automation, even though some occupations that require greater skills will also disappear.

If, in the next 20 years, we enter a period where occupations disappear faster because of technological developments, this will have consequences for NAV. Even if we do not see mass unemployment, more people will be unemployed for a while between jobs and will need to be followed up by NAV. This applies in particular to people who have worked in occupations where little education is required. Lifelong leaning will be more important if as many people as possible are to be able to keep up as the skills required for an occupation change. This will make demands of both employers and employees, but it could also entail changes to NAV's role. Qualification measures and education for those registered with NAV could become more important, and closer cooperation could therefore also be required between NAV and the educational sector. Perhaps changes will also be made to the regulations governing NAV benefits as regards how benefits can be combined with education.

We also know that higher unemployment results in more people on health-related benefits, and that more people may therefore be excluded from employment. Kann, Yin and Kristoffersen (2016) show that there is a strong correlation between the unemployment rate in a municipality and the number of people applying for work assessment allowance. Bratsberg et al.

(2013) found that the probability of ending up on disability benefit when becoming unemployed increased by 121 per cent for men and 48 per cent for women from 1992 to 2007 (see also section 10.2). Lima (2016) saw that the oil-driven economic downturn (2014–2016) led to an increase in the number of people exhausting their right to sickness benefit and in applications for work assessment allowance in the hardest hit counties.

The Productivity Commission (NOU 2016:3). the Cappelen Committee (NOU 2016:15) and the Committee on Future Competence Needs (NOU 2018:2) all recommend meeting the extensive structural changes in the labour market with measures to raise the level of competence in the population. This must be achieved by strengthening and further developing the policy instruments used in educational and labour market policy. They point in particular to solutions that entail using ordinary enterprises as arenas for qualification and education (as described in Chapter 11). At the same time, the apprentice scheme, labour market measures and welfare schemes must be designed so that they do not have unforeseen consequences and unfortunate displacement effects. This will require closer cooperation between the education sector, employers and NAV.

The National Competence Policy Strategy 2017–2021 emphasises the need for a concerted effort and that more sectors and agencies must be involved and must coordinate their activities better than is the case today. The parties to the strategy also agree that training and competence-raising measures should be used to a greater extent in the labour market and integration policy context, and that NAV's training measures for jobseekers who need qualifications to find employment should be strengthened and adapted.

Platform economy

Another factor that will affect the labour market in the time ahead is the development of the sharing or platform economy. The sharing economy is not a new phenomenon as such. We have, for example, long been able to let a room to others, but new internet platforms have made it much easier to do so. Companies like Uber (taxis) and Airbnb (competes with hotels etc.) have received a lot of attention. They can offer cheaper services than established companies and thereby capture market shares. New car hire services, cleaning services and tools and equipment hire have also emerged. So far, however, such services only have a very small market share. According to Juel (2016), Airbnb accounted for about 2 per cent of guest nights in Norway in 2015, the rest being provided by hotels, campsites etc. Pedersen et al. (2016) found that turnover in the sharing economy was approximately NOK 500 million in 2015 (corresponding to 0.02 per cent of GDP) and estimated an annual increase of 60 per cent in the period up until 2025. This means that the sharing economy will amount to around 2 per cent of GDP in 2025.

People who offer their services via platform companies are usually not employees of these companies, but are self-employed. This development can be a challenge for the established structures in the labour market. Self-employed people do not have the same rights as employees as regards, for example, sickness benefit and occupational pension. People with income from self-employment as their main income source can thus be more dependent on other national insurance benefits, for example if they become ill. So far, however, we have not seen an increase in the proportion of self-employed people in Norway. The share who have income from self-employment as their main source of income fell slightly from 2003 to 2012, while the share of employees who also earned income from self-employment increased somewhat during the same period (Grünfeld et al., 2016). The majority of the Sharing Economy Committee (NOU 2017:4) believed that, so far, there is little need to change the national insurance rights of self-employed people. Nor did they propose changes to the Working Environment Act as a result of the sharing economy, but recommended keeping close track of further developments.

It is conceivable that platform services will outcompete established businesses. They could thereby contribute to higher unemployment among employees with regulated pay and working conditions, and among other self-employed people. On the other hand, the sharing economy could give marginalised groups better

opportunities to participate in the labour market. Juel (2016) cites surveys that show that 25 per cent of Uber drivers in Paris were unemployed before starting to drive for Uber, and that many people who let rooms via Airbnb would be unable to keep their home without this income. In the Norwegian labour market, growth in the sharing economy could lead to fewer trade union members and to the tripartite cooperation between the State and the social partners becoming less important. This could also make it more demanding to ensure responsible wage settlements, and it could be more difficult to introduce major reforms, since the social partners in Norway have traditionally played an important role in such contexts.

The green transition

Summer 2018 was one of the hottest and driest ever in Norway, according to the Norwegian Meteorological Institute. In July, the temperature was 4.3 degrees above the norm, while precipitation was only 50 per cent of the normal level for the country as a whole (Norwegian Meteorological Institute, 2018). This followed record-high temperatures in May and a hotter June than normal in Southern Norway. Among other things, this resulted in crop failure for many Norwegian farmers and many forest fires. Climate change means that we can probably expect to see more extreme weather going forward – drought, more extreme precipitation and wind. In such case, the result could be major problems for Norwegian agriculture, although it will also bring both challenges and opportunities for Norwegian business and industry. Among other things, more extreme weather means that we will have to improve infrastructure so that it can withstand more precipitation and wind. Moreover, technological changes are needed in order to reach the targets in the Paris Agreement, which will provide opportunities for Norwegian business and industry.

The Paris Agreement from December 2015 was signed by 175 countries, and it was later specified in 2018 at the UN Climate Summit in Katowice. The Agreement states that global warming shall be limited to 2 degrees and that endeavours will be made to keep it to less than 1.5 degrees. Among other things, this will require switching from fossil fuels to renewable energy, and it can have consequences for both oil prices and demand for Norwegian oil and gas. In a projection from DNV GL, it is estimated that global demand for oil will peak in 2024, while demand for gas will peak in 2034 (DNV GV, 2018). In this scenario, however, the targets in the Paris Agreement are not reached. That will require a faster transition than described here. In autumn 2018, the UN Climate Panel estimated that greenhouse gas emissions must be cut by 40–50 per cent by 2030 if we are to reach the target of maximum 1.5 degrees warming. This would require a very strong reduction in the use of fossil energy sources such as coal and oil already by 2030.

During the period 2014–2016, Norway experienced an oil-driven economic downturn, among other things because the oil price fell from USD 110 a barrel in summer 2014 to a low point of less than USD 30 in January 2016. This led to a sharp fall in oil investments, a drop in employment and higher unemployment. At the same time, however, the effect on the Norwegian economy was less noticeable than expected. Norges Bank reduced the interest rate, and, combined with the fall in the oil price, this contributed to a substantial weakening of the Norwegian krone. An expansive fiscal policy and moderate wage settlements helped to reduce the downturn in the economy.

The downturn in the oil industry primarily affected the labour market in the counties of Rogaland, Hordaland, Møre og Romsdal and Vest-Agder. In other parts of the country, on the other hand, unemployment fell during the same period, among other things because of the weakening of the Norwegian krone. The downturn in the oil industry also led parts of industry to start looking in other directions, for example shipyards taking on assignments for the aquaculture industry. At the same time, we also saw a reduction in labour immigration, and some of those who lost their jobs in the oil industry moved abroad. That helped to reduce the effect on unemployment.

Total global investments in renewable energy have increased strongly over time. In 2017, USD 280 billion was invested in renewable energy, resulting in a reco-

rd-high 157 GW of new capacity.[13] A lot of solar energy was installed, in particular, although large investments are also being made in wind power. Investments in power generation and distribution have also increased strongly in Norway in recent years, and, at the time of writing, they are estimated to be around NOK 42 billion in 2018. This is partly due to increased development of wind power. There is reason to expect continued substantial growth in renewable energy going forward, which will also provide opportunities for Norwegian industry, for example in offshore wind power. At the same time, substantial investments are being made in oil in Norway, where investments are expected to total NOK 156 billion in 2018.

Oil investments look like increasing in the next few years, providing good growth impulses for industry. According to the Norwegian Oil and Gas Association (TU, 2018), however, a new reduction is expected after 2020, unless major discoveries are made. Few discoveries of new oil and gas fields could thus lead to a rapid decrease in oil investments in the 2020s. In addition, in future we must expect that the climate agreement, the strong global growth we see in renewable energy and developments in transport technology will mean that we will have adapt and switch from oil to new industries. In this perspective, the oil-related economic downturn we experienced in 2014–2016 can be an indication of something we will see more of in coming decades. The experience gained during that period tells us that we have an adaptable economy where some major stabilisers (the exchange rate for the Norwegian krone, the interest rate etc.) have a great impact. At the same time, we see that the transition from oil-based industry to other industries leads to huge geographical differences. In counties where the oil industry has been dominant, the situation will be demanding, with a sharp rise in unemployment in some places. In other parts of the country where the oil industry is less dominant, on the other hand, we see that the effect of the exchange rate and interest rate is far more important, and that unemployment decreased in the period 2014–2016.

Experience from previous transitions can tell us how NAV should deal with such situations. Geographical and occupational mobility is becoming more important, while general changes to regulations introduced to alleviate the situation in areas in a difficult situation can have unfortunate results in other parts of the country. NAV must probably be prepared to face greater expectations as regards contributing more to restructuring in relation to both enterprises and unemployed people. Instruments such as funding of in-house training for enterprises facing major changes will be relevant, as well as other training measures.

8.8 Reflection questions

- How will changes in the labour market affect NAV?
- What will it mean for NAV that competence needs are changing quickly?
- How will changed employment relationships affect NAV?
- How should we deal with rapid changes for certain occupational groups or regions?

[13] The figures are taken from https://energiogklima.no/klimavakten/fornybarinvesteringer/ (retrieved 3 November 2018).

9. LIVING CONDITIONS

Norway is one of the richest countries in the world, and economic growth has for many years meant higher real income for most people. Compared with other countries, we have largely succeeded in maintaining an even income distribution, with relatively small differences in living conditions. The proportion of the population with low income is also relatively small. This is due to prolonged high employment and a low unemployment rate, and to the fact that the tax system, welfare schemes and income policy collaboration continue to contribute to an income distribution that results in smaller differences than in other countries.

9.1 More people with persistent low income

Comparisons of the extent of poverty in different countries or over time often use an income-based definition of poverty. The number of people and proportion of the population with low income (see fact box) gives us a basis for monitoring how the risk of poverty develops. The development as regards low income gives us a basis for monitoring and assessing how developments in demographics and employment contribute to more complex poverty problems. There are also important living condition factors that are not included in the income measure, however. Examples include information about health, housing and other material conditions. The extent to which these factors

Definitions

Income after tax
This income term is defined as the sum of a household's registered income after tax. This includes all income from employment, capital income and transfers, such as pensions, various social security benefits and housing benefit. Taxes and negative transfers, such as child maintenance payments and pension premiums, are deducted. There are some factors that affect a household's financial resources but that are nonetheless not included in the income term. These are the value of public services, home production, the value of housing services and durable consumer goods, and any income not liable to tax, such as income from undeclared work (see Omholt, 2016 for more about this).

EU-60 and EU-50
The EU has two different measures of low income, where low income is defined as having an income per consumption unit in a household of less than 50 or 60 per cent of the median income. These two measures are referred to as EU-50 and EU-60. A separate equivalence scale is used to calculate how many consumption units there are in a household.

The EU scale and consumption unit
In the EU scale, the first adult is weighted 1, the next adult 0.5 and children 0.3. A household consisting of two adults and two children is thus calculated to constitute 2.1 consumption units. This means that, according to the EU scale, the household needs an income that is 2.1 times higher than that of a single person to enjoy the same standard of living. The measure thereby takes account of economies of scale in large households. In 2017, the low income thresholds were NOK 184,000 and NOK 221,000 per consumption unit for the EU-50 and EU-60, respectively, according to SSB's income statistics for households. This means that the low-income threshold for a household consisting of two adults and two children was NOK 387,000 according to the EU-50 measure, while it was NOK 465,000 based on the EU-60 measure.

Annual low income versus persistent low income
Annual low income means having income under the low-income threshold in a given income year, while persistent low income means having income under the low-income threshold for a prolonged period. There are different ways of calculating persistent low income. It can be defined either as having low income for three years in a row, or for three out of four years, or as having an average income over a three-year period that is below the low-income threshold. We have chosen to define persistent low income as having an average income below the low-income threshold over a three-year period. Student households are excluded, both because studying is a temporary phase and because student loans are not deemed to be income in the income survey.

The Gini coefficient
The Gini coefficient is a measure of inequality based on the relationship between the cumulative share of the population ranked by income size and the cumulative share of the total income at their disposal. The size of the coefficient represents the share of total income in society that must be redistributed to achieve full equality. The Gini coefficient can vary from 0 (complete equality) to 1 (maximum inequality).

are influenced by income varies between different countries because publicly financed services and welfare schemes differ.

Low income is defined in two different ways: by using an absolute or a relative approach. Absolute poverty is defined on the basis of the amount of money required to obtain an essential selection of basic goods and services. One example is 'one dollar a day', which the World Bank launched in the 1990s as a measure of the proportion of the global population living in extreme poverty.

Relative poverty is defined on the basis of the general income level in a country. It is common to use the median income of the entire population as the point of departure. The median income is calculated by noting all household incomes in ascending order, where the median income is the income in the middle of the distribution. Median income reflects 'normal' income better than average income, because a few people who earn a great deal can skew the average.

EU-60 (Omholt, 2016) is a measure of low income that is widely used in Norway. Here, low income in a household is defined as less than 60 per cent of the median income per consumption unit in the household. Wealth is not taken into account in this measure. In addition, a distinction is often drawn between annual and persistent low income. Persistent low income can be defined in different ways. Here, we have defined it as having an average income over a three-year period that is lower than the low-income threshold.

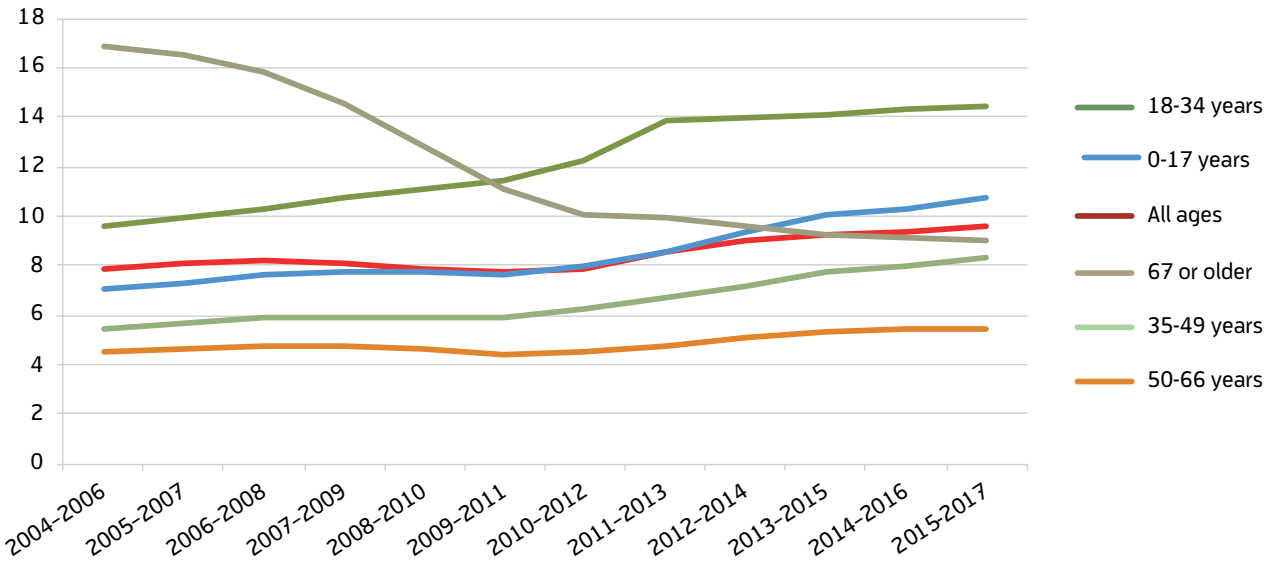
Despite the development in real income being positive for most inhabitants, the number of inhabitants with persistent low income has increased in recent years, from 7.7 per cent during the period 2009–2011 to 9.6 per cent in the period 2015–2017. This indicates that changes are taking place over time in the relative income situation of different population groups.

9.2 The proportion of young people and young adults with low income is increasing, while the proportion among the elderly is decreasing

Previously, the elderly were at particular risk, but the demographic composition of the low-income group has now changed. The proportion over the age of 66 with low income has fallen significantly in recent years and is now lower than the average for the popu-

[14] Students living alone have been excluded.

Figure 9.1. **Percentage of persons with persistent low income (EU-60).[14] Different three-year periods.**



Source: SSB. Available from: http://www.ssb.no/tabell/10498

lation. Figure 9.1 shows that the proportion with low income is highest among young people between the ages of 18 and 34 (not including students). If we take wealth into account, the proportion of elderly with low income falls further.

Young couples without children, single parents and couples with children below school age had the weakest real income growth during the period 2011–2014 (SSB, 2018a). There may be several reasons for the low income growth among young people, for example that the proportion of young people who are outside the labour market because of mental health problems is increasing. That the proportion of the elderly with low income is decreasing must be seen in conjunction with the fact that new pensioners have worked more and therefore have a higher pension basis than the oldest pensioners. The minimum pension level has also increased more than general wage growth (particularly during the period 2008–2010). It must be assumed that the proportion of the elderly with low income will continue to fall for some years yet because of further growth in employment among persons over the age of 60.

9.3 Immigrants are overrepresented in the low-income group

In 2017, 36 per cent of all persons in households where the main provider was an immigrant from Eastern Europe, Asia, Africa or Latin America had an income below the low-income threshold, if we use the EU's definition of annual low income. There are big differences between immigrants, depending on which country they come from. The differences between immigrant groups and persons born in Norway can largely be explained by differences in labour market attachment. The proportion of households with no labour market attachment is higher among immigrants, and there are also significantly more households with only one income among many of the immigrant groups. The probability of being poor decreases with length of residence, although many nonetheless remain at a low income level, even after a long period of residence. This applies especially to immigrants with backgrounds from Somalia, Iraq, Syria and Afghanistan. This suggests that the differences between immigrants and Norwegian-born nationals will persist unless we succeed in getting more immigrants into employment. Many Norwegian-born people with immigrant parents have more education and therefore often higher income than their parents. The total income of Norwegian-born people with immigrant parents is nonetheless lower than the income of people who do not have an immigrant background (Epland and Kirkeberg, 2018).

Children of immigrants make up an increasing proportion of children in low-income families.
The proportion of children in households with persistent low income increased significantly during the period 2001–2005. After a period of weak growth, this proportion increased again from 2011. The most important reason for the increase is that we now have a higher proportion of families with children from immigrant backgrounds that have a weak labour market attachment. Another contributory cause is that financial support in the form of child benefit has been reduced, both in absolute and relative terms, from the late 1990s until the present (Epland and Kirkeberg, 2016).

More than half of all children in the low-income group are from immigrant backgrounds. There are large regional differences. The proportion of children in the low-income group is especially high in Oslo, but it is also high in Østfold and Telemark counties. Children with an immigrant background from Somalia, Iraq, Afghanistan and Eritrea are strongly overrepresented. Children with a background from Somalia are in a unique position: in 2016, 79 per cent of Somali children belonged to a family with persistent low income (SSB, 2018b). Even though children from immigrant backgrounds make up the majority of children in the low-income group, there has also been an increase among children without an immigrant background. Almost half of these children lived together with a single mother or father.

9.4 Poorer health, materially and socially disadvantaged

Norway has a well-developed welfare system that means that people with modest financial means have access to health services, education and other public

services. If we compare different social groups, we nonetheless find systematic differences in health. Factors that affect health, health determinants, include employment, upbringing and education, social networks, residential environment and the local community, culture, health services and the individual's own health habits (Norwegian Institute of Public Health, 2018). Living condition surveys show that low household income and the experience of being materially and socially disadvantaged are closely linked for many groups. They also show that people with low income often have poorer health, that they more often live alone and have less social interaction than those who are above the low-income threshold. Families with children that have low income, little education and receive social assistance, and immigrants feel materially and socially disadvantaged to a much greater extent than the rest of the population (With and Thorsen, 2018).

Eurostat has developed an indicator that incorporates several living condition factors. It is called AROPE[15] and measures the risk of poverty and social exclusion. In Europe, women, young adults, unemployed people and people with little education have a higher risk of poverty and social exclusion compared with the rest of the population. The Norwegian population has fewer financial problems than people in many countries in Europe. This means that the risk of poverty and social exclusion is relatively low in Norway compared with the average in EU countries. In the EU as a whole, 23.5 per cent of the population were at risk of poverty and social exclusion in 2016. The corresponding figure in Norway was 15.3 per cent (Eurostat, 2018). The other Nordic countries also have a low proportion of the population at risk of poverty and social exclusion compared with other European countries.

The proportion below the low-income threshold is small in Norway, and labour market attachment is high. The proportion of the population with low income has nonetheless increased in recent years. At the same time, the results of the living conditions survey show that the proportion of the whole population that state that they lack several basic material and social goods has been relatively stable in recent years (With and Thorsen, 2018). Among the low-income groups, the proportion reporting such forms of poverty has been stable or has increased slightly, while there has been a reduction during the period 2014–2017 among recipients of social assistance and unemployed people.

Low-income groups are particularly disadvantaged in the housing market

Compared with other countries, more people own their own homes in Norway, far more have detached houses, and we have more living space on average. More than 80 per cent live in homes owned by someone in the household, and this proportion has remained relatively stable since the 1980s (Revold, Sandvik and With, 2018). Among adults, the probability of living in an owner-occupied home increases with age and it is highest around the age of 70. After the age of 70, the probability of owning one's home decreases. Among couples, both with and without children, a higher proportion own their own homes than among people living alone and single parents.

Even though housing conditions are improving in general, the standard of housing and the living environment vary with socioeconomic status. Households living in cramped conditions have less access than other households to outdoor areas in the immediate vicinity of their home, and the same applies to households with low income.

House prices have increased very strongly in recent years, although they levelled off in 2018. Demand for housing has been very high in high pressure areas where population growth has far outstripped the housing supply. For many families, this has led over several years to a higher housing expense burden, defined as having housing expenses that exceed 25 per cent of income. This has a major effect on their financial situation in general. If housing expenses are too high, financially disadvantaged groups can be forced into living in housing that is not suitable for the household. Overall, the proportion of people with a high housing expense burden has remained relatively stable at bet-

[15] At-risk-of-poverty or social exclusion'

ween 20 and 30 per cent since 2003. Among households that rent housing, among low income households and among those who receive housing benefit and/or social assistance, this proportion was between two and three times higher in 2016. The proportion has increased by between 16 and 20 percentage points since 2003 (Revold, Sandvik and With 2018).

9.5 New technology and globalisation can result in increased income differences

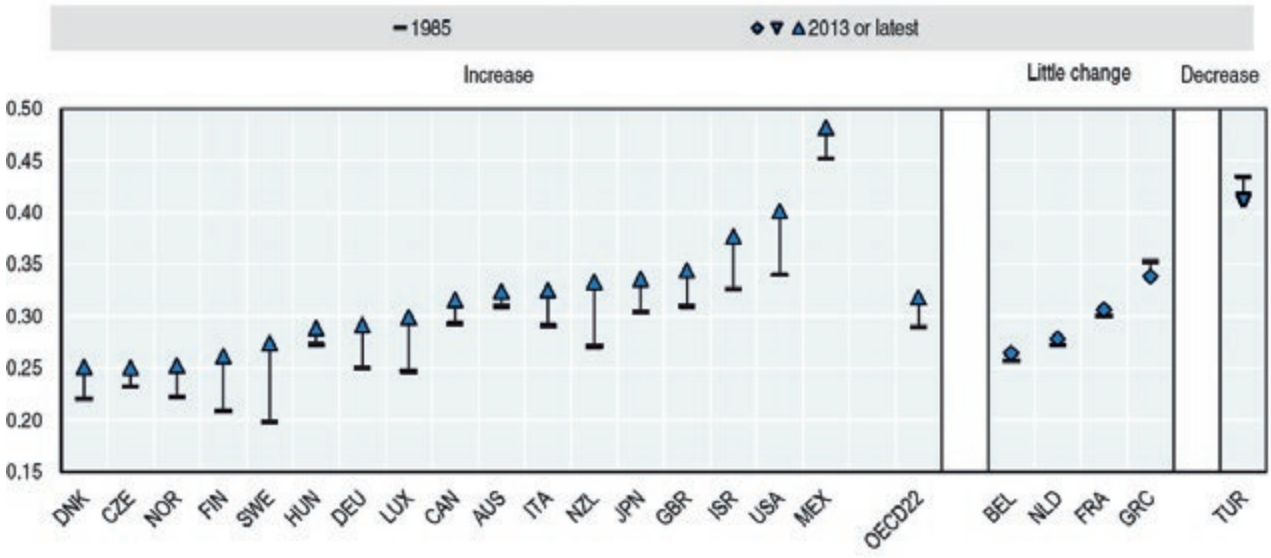
Income from paid employment is the most important and most common source of income for Norwegian households. Naturally, there is a close connection between the development in employment and low income for different groups, although benefit use and minimum benefits also play a role. People aged between 25 and 65 with no labour market attachment have a five times greater risk of having persistent low income than other people in this age group.

Norway has high employment and relatively small wage differences compared with other countries. These two characteristics make a significant contribution to preventing large income differences and poverty. The government-appointed Commission on Income Distribution pointed out that Norway and the other Nordic countries have contributed to small differences through universal and generous income security arrangements, coordinated wage formation through tripartite cooperation, which has led to small income differences before tax, relatively high and progressive income tax, comprehensive provision of publicly funded health services and education, and an active labour market and macroeconomic policy that ensures high and stable economic activity and employment (NOU 2009:10).

The even income distribution is being challenged, however, by the effects on the labour market of long-term structural changes relating to globalisation, demographic trends, migration and technological developments.

Labour migration can lead to increased competition for jobs that require fewer qualifications. This can make it more difficult for vulnerable groups to enter the labour market. Such groups include people with impaired work capacity, youth who are neither in work nor education, and certain immigrant groups. At the same time, this development could place the wage formation and collective agreement system under pressure and put the Nordic model's social and economic sustainability to the test in the years ahead.

Figure 9.2. **Development in income differences in different countries from 1985 to 2013 measured by the Gini coefficient.**



Source: OECD (2015)

Figure 9.2 shows that differences increased during the period 1985–2013 in most OECD countries, measured by the development in the Gini coefficient. The general trend is that people with the highest income have had very high wage growth, while those with the lowest income have had weaker wage growth in times of prosperity and a reduction in difficult times. The illustration shows that, even though Norway is in a unique position, with high employment and small wage differences, long-term structural changes in the Norwegian economy and in the labour market will contribute to increased income differences over time.

Work is the main way of avoiding low income

Increased income differences can lead to more NAV users. Given that lack of a labour market attachment is one of the main reasons for low income among young adults and immigrants, NAV's main task will be to get as many people as possible into employment. This could require new and different measures, especially for the groups that are at risk of low income. The challenge will be to ensure that the individuals in question meet the requirements of the labour market as far as possible.

Big regional differences in poverty make it even more important to coordinate central government and municipal services, especially in Eastern Norway.

9.6 Reflection questions

- How can we prevent the increased pace of change creating more poverty?
- Which societal changes will affect living conditions in future?
- How can low income for children and young people be prevented?
- How can NAV cooperate with others to combat poverty?

10. HEALTH

Most of us will need health-related benefits[16] for shorter or longer periods during our lives. Who receives such benefits varies strongly over time. There are many factors that can affect the need for health-related benefits going forward: developments in health and the age composition of the population, the propensity to claim benefits, migration between countries, and more unpredictable factors, such as the development of antibiotic resistance and climate change. Social inequality is very important in relation to how health and trust develop among the population. Sufficient trust is necessary if NAV is to help users who need health-related benefits.

10.1 Norway among the best countries as regards public health

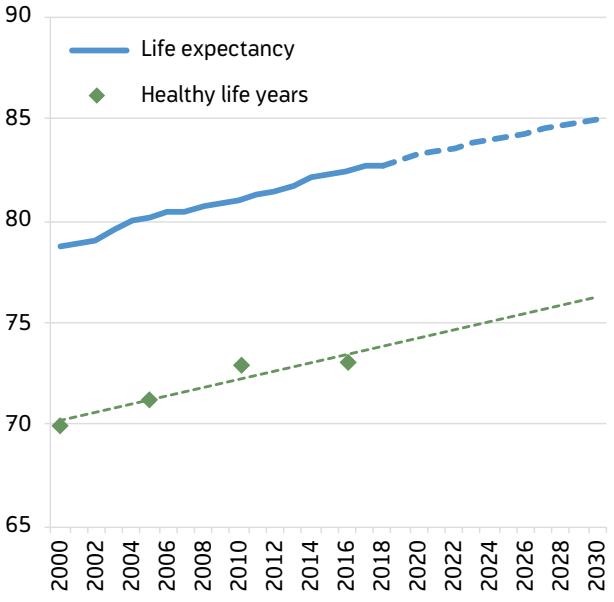
According to the European Health Report (World Health Organization, 2018), Norway is among the best countries in the world in terms of public health. The report shows that people are living longer but that further progress is being threatened by risk factors such as drinking, smoking, obesity and inactivity. Life expectancy in Norway has increased by almost 25 years during the last century, and the number of healthy life years has increased even more. A lot of positive developments are also taking place in health technology and medicine. This is leading to improvements in health and could counteract some of the negative trends we discuss below. Figure 10.1 shows the development in life expectancy and healthy life years since the turn of the millennium, and a projection until 2030.

The most important causes of illness and impaired health are musculoskeletal diseases, mental health problems and illnesses, cardiovascular disease and cancer. Non-infectious diseases such as diabetes, chronic obstructive pulmonary disease (COPD) and dementia are also an important part of the burden of disease (FHI, 2018). This is reflected in the diagnosis pattern among those who receive health-related benefits.

Too much obesity, inactivity and smoking

Surveys carried out by SSB show that 11 per cent smoke daily. In an age-standardised comparison of European countries, WHO has calculated that around one out of four people over the age of 15 in Norway smoke or use moist snuff (*snus*). That is a higher share than in the other Nordic countries, but lower than in many other European countries. Norway has the lowest proportion of young smokers (WHO, 2018). In high income countries, 18 per cent of deaths and 11 per cent of lost healthy living years can be ascribed to smoking (World Health Organization 2009). If we exclude those who die after the age of 70, the number of smoking-related deaths is around 2,000 per year. Smoking was a main or contributory cause in 26 per cent of all deaths among women and 40 per cent among men aged between 40 and 70. Women who died from smoking between the ages of 40 and 70 lost an average of 14 living years. For men, the average

Figure 10.1. **Development in life expectancy and healthy living years 2000–2018, projection until 2030.**



Source: **NAV and the World Health Organization**

[16] Health-related benefit means that the person in question receives either disability benefit, work assessment allowance or sickness benefit. From 2010, work assessment allowance replaced rehabilitation benefit, occupational rehabilitation benefit and temporary disability benefit.

was 20 years (Vollset et al., 2006). Among smokers, the risk of a heart attack is deemed to be two to three times higher than among non-smokers. Those who smoke most have a higher risk (Teo et al., 2006).

The proportion of the population who are overweight, i.e. have a body mass index (BMI) over 27, has increased from 24 per cent in 2005 to 28 per cent in 2015 (SSB, 2017c). The proportion of children who are either overweight or obese seems to have stabilised at between 15 and 20 per cent (FHI, 2018). Over time, obesity leads to an increased risk of developing a number of illnesses and problems, including type 2 diabetes and cardiovascular disease. Nonetheless, life expectancy continues to increase and the prevalence of, for example, cardiovascular disease has decreased. One of the reasons for this could be that we have also seen a favourable development in cholesterol and other fatty substances in the blood, a decrease in blood pressure and fewer smokers (Sulo, 2013). More and more people live with diabetes, but the number of new cases per year seems to have levelled off. However, people who are overweight or obese have a higher risk of various forms of repetitive strain injuries and musculoskeletal problems. Sickness absence and other health-related benefits relating to musculoskeletal complaints have nonetheless decreased significantly in the past 20 years (Figure 10.2).

Up until 2025, a further increase is expected in cancer cases as a result of the population growing and getting older, although the level is expected to remain stable as a proportion of the population. Around 70 per cent of all cancer patients survive cancer for at least five years after being diagnosed. They often live with their illness for a long time, during which they need health-related benefits from NAV and adaptation in the workplace.

Stable proportion of the population with mental health problems

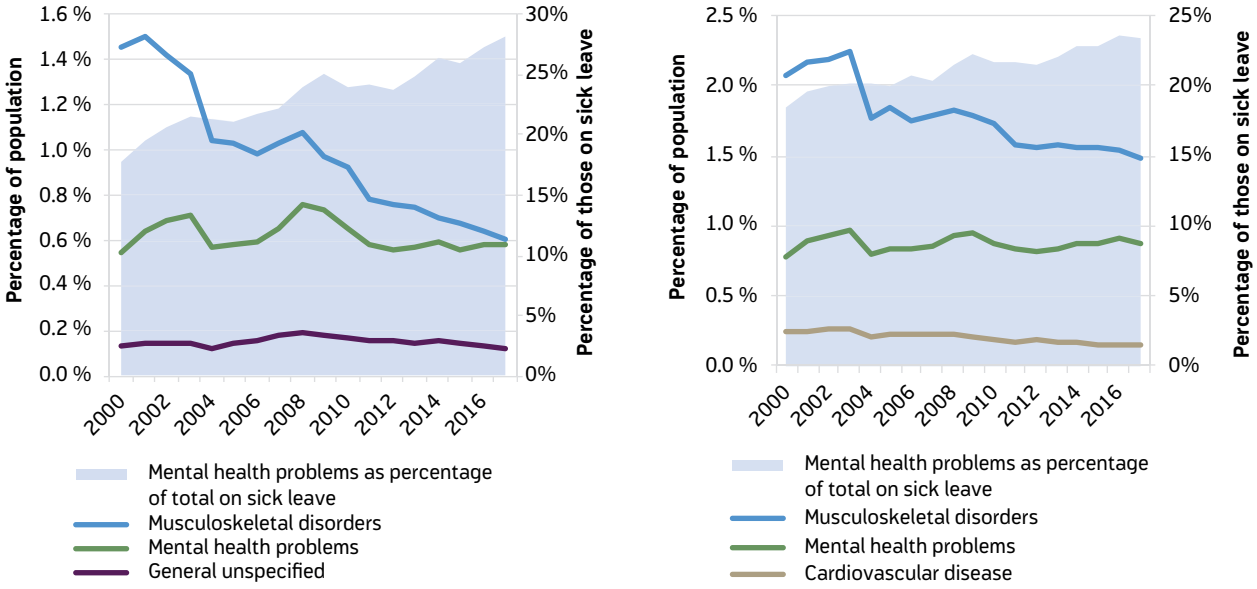
Most studies that have compared the prevalence of mental health problems in the population over time find no increase (Baxter et al., 2014; Kessler et al., 2005; FHI, 2018). One exception is the 16–24 age group, where there has been a clear increase in the proportion of women who report that they have serious mental health problems (Sletten et al., 2016). This could be because more people develop mental illnesses ('objective health') or because more people are given a diagnosis, even though the objective health situation is unchanged. The Norwegian Institute of Public Health believes that is may be reasonable to assume that part of the reported increase in mental health problems is real. No certain conclusion has been drawn about this development. It is therefore unclear whether the development reflects the fact that young people have become more ill in general, or whether it is also due to an increased tendency to diagnose more general coping problems, a trend often referred to as 'medicalisation', related to issues such as dropping out of school, social maladjustment and substance abuse.

A large part of absence from work that is due to health problems is related to mental illness, especially among young people. The proportion of the population with sickness absence due to mental health problems has been stable for the last 20 years. During the same period, there has been a decrease in several other diagnoses, so that the proportion of people on sick leave because of mental health problems has increased (Figure 10.2). This is because, firstly, there are fewer people on sick leave with other diagnoses, especially musculoskeletal problems. Secondly, it is because the composition of people receiving health-related benefits is changing because young people – among whom mental health problems are the most common diagnosis – make up a larger proportion of benefit recipients. There are more people on sick leave – and more with mental health problems – during periods with high unemployment, for example in 2003, 2008 and 2015 (Figure 10.2).

It is difficult to compare the diagnosis pattern for disability benefit and work assessment allowance separately, since, ever since the 1990s, big changes have been made as regards the length of the maximum period for work assessment allowance.[17] Which groups receive work assessment allowance and which receive disability benefit has therefore varied over time (see Kann and Kristoffersen, 2015). When we look at health-rela-

[17] Or corresponding benefits in the period before work assessment allowance was introduced in 2010.

Figure 10.2. **The proportion of the population (curves) on sick leave by diagnosis group and the proportion on sick leave (the shaded area) with diagnoses in the mental health problems group at year-end 2000–2017. Age 18–66 years on the left, 18–29 years on the right.**



Source: **NAV**

ted benefits taken together, the data are only comparable from 2010, when work assessment allowance was introduced. From 2010 to 2017, the proportion of the population receiving work assessment allowance because of mental health problems has decreased, while the proportion receiving disability benefit because of mental health problems has increased.

Uncertainty about the climate and environment

In Norway, climate change could lead to more vermin and insects, longer pollen seasons and new pollen allergies (FHI, 2018). More bad weather with a lot of precipitation could trigger more avalanches and landslides, increasing the risk of accidents, injuries and fatalities. An increased prevalence of post-traumatic stress disorder (PTSD), depression and anxiety disorders has been found after extreme weather and natural disasters. Climate change affects the prevalence of infectious diseases. Climate change usually hits the weakest hardest (FHI, 2018).

Antibiotic resistance on the increase

Illness caused by infections only accounts for a small part of the total burden of disease in Norway today, but the situation could change quickly, among other things because of increased antibiotic resistance (FHI, 2018). Infectious diseases can increase the burden of disease, since it can take a long time to recover from serious infections caused by bacteria that are resistant to antibiotics. Even though there is some uncertainty about the consequences of antibiotic resistance, we do not expect to see big changes in the period up to 2030.

Health and social factors are related

Health and lifestyle, for example smoking, diet and physical activity, are closely related to social factors, the local community, housing and living conditions. Inequality, housing and living conditions also affect the development of illness in the population (Dahl, 2014). Mental health problems among young people appear to be closely related to social factors (Sletten, 2017). In an article collating research in the area, Pickett and Wilkinson (2015) show that income differences have a negative effect on health. Income differences in Norway are smaller than in many other countries, but they have increased strongly in recent years.

At the global level, technology is the dominant factor driving increased wage differences, and thereby

increasing inequality (NHO, 2018). Rapid technological development could thus reinforce these tendencies in the years ahead. If those who own the technology take a bigger share of the profit, the differences could increase. This is line with a clear pattern in recent decades: Where employees' share of value creation ('factor income') has decreased, capital owners' share has increased. How inequality develops must be closely monitored because it is important to the development of people's health. One particularly important challenge is the high incidence of persistent low income and other living condition challenges among some immigrant groups (see section 9.1).

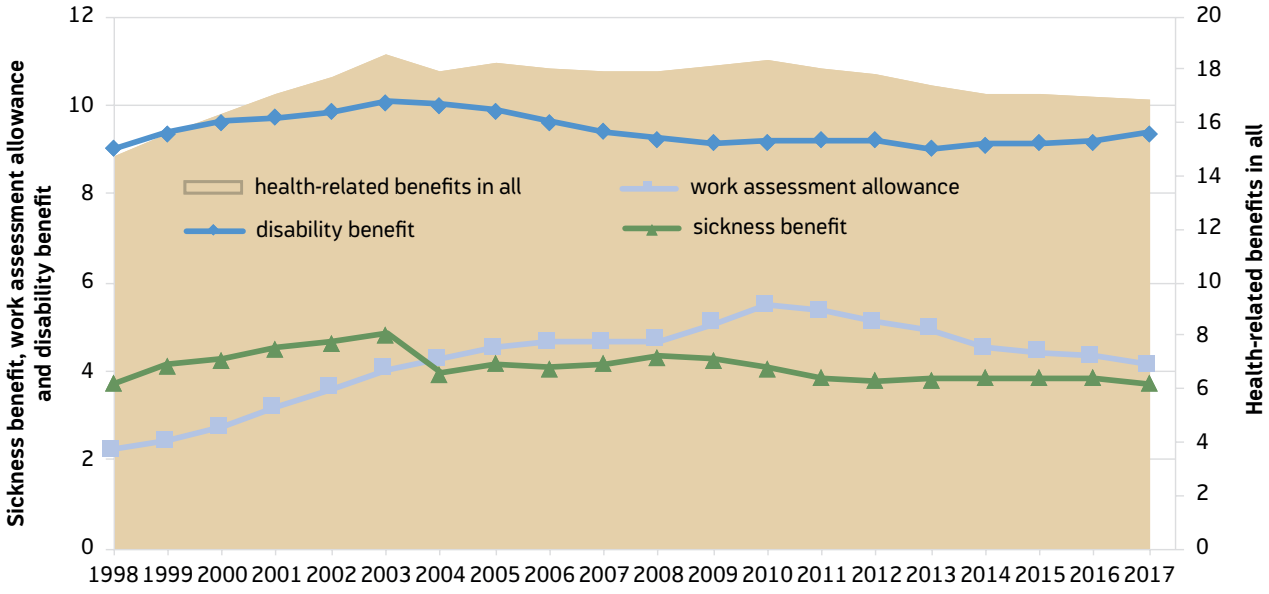
10.2 Fewer on health-related benefits

Relatively few people receive health-related benefits for more than 2–5 years, while a large proportion of the population receive sickness benefit and other health-related benefits for a short time over a five-year period (Brage et al., 2013, Kann and Sutterud, 2017a). At the same time, more and more people work some of the time while they are ill. This applies to recipients of sickness benefit, work assessment allowance and disability benefit. NAV expects this trend to continue.

Over a five-year period, more than half of the population of working age will receive one or more income security benefits[18] from NAV (Kann and Sutterud, 2017a). If we only look at health-related benefits, the pattern is the same. During one year, approximately 800,000 will be on sick leave at one time or another. There are big changes from one year to the next in who makes up this group. In the course of a year, roughly one third of employees are absent from work because of illness at least once, and, over a six-year period, 35 per cent of employees are part of this group, which accounts for 80 per cent of sickness absence in a given year. This means that new groups will all the time need to contact NAV, which means that it will be important that the contact between NAV, the individual user and employers is efficient and takes place in the way that best suits the individual. The digital platforms that underpin this contact are undergoing rapid development and constant improvement.

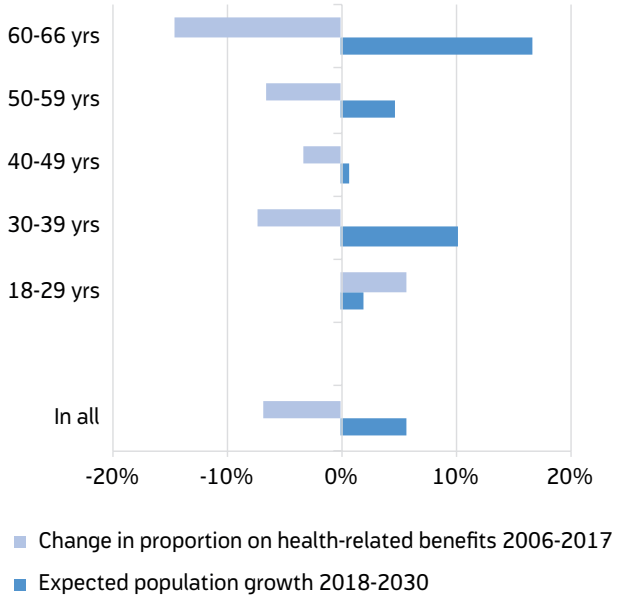
[18] Health-related benefits, unemployment benefit, transitional benefit, benefits while participating in employment schemes (social assistance is not included and will further increase the proportion)

Figure 10.3. **Proportion of the population aged 18–66 on health-related benefits overall (right axis), and proportion on disability benefit, work assessment allowance and sickness benefit (the left axis) at year-end 1998–2017. Percentage.**



Source: **NAV**

Figure 10.4. **Change in the proportion on health-related benefits 2006–2017 and expected change in the population from 2018 to 2030, by age.**



Source: **NAV**

Strong decrease in health-related benefits for the oldest

After 2009, the proportion of users receiving health-related benefits fell and was 17 per cent of the population aged between 18 and 66 at the end of 2017, or 13 per cent if we exclude those who receive sickness benefit (Figure 10.3). This is largely due to the fact that the proportion of recipients over the age of 50 has fallen (Kann and Sutterud, 2017a). Preliminary figures from 2018 show a further decline from 2017.

Because the oldest users largely use health-related benefits and because use over time has decreased strongly in these age groups, this will lead to fewer people using such benefits in the years ahead. The fact that the number of people in the 60–66 age group will increase most in the period up to 2030 pulls in the opposite direction. Overall, therefore, the proportion on health-related benefits is expected to remain relatively stable up until 2030 (Figure 10.4).

The fact that the reduction in the use of health-related benefits has taken place at the same time as more and more people in all age groups have become overweight, could mean that other health gains have been greater and have compensated for the problems associated with overweight. The fact that mortality has also decreased strongly in recent years confirms this picture. It could also be the case that more people with impaired health participate in employment, given that the proportion on graded benefits has increased over time.

More people on health-related benefits when unemployment is high

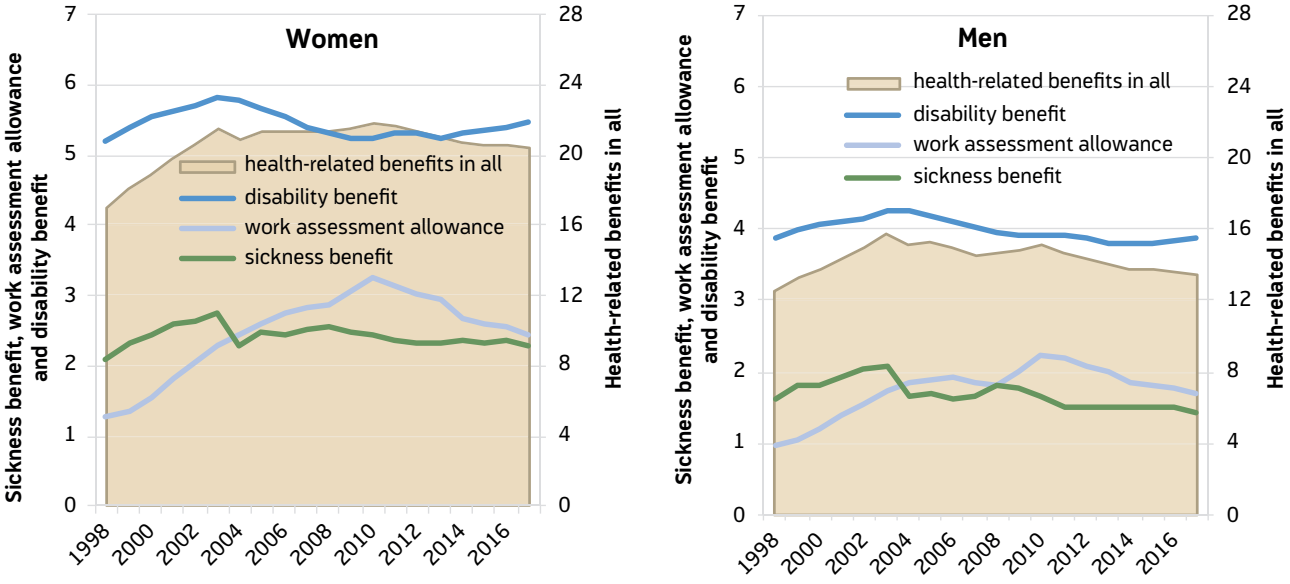
Cyclical fluctuations in the labour market have a lot to say for how many people are granted health-related benefits and how many stop receiving a health-related benefit (see for example Nossen, 2014; Kann and Kristoffersen, 2014; Kann and Kristoffersen, 2015 and Kann et al., 2016). For example, the good labour market until 2009 reduced the number of new recipients of temporary benefits, and the number who no longer received such benefits increased. We saw the same trend when unemployment increased in 2014/2015 and decreased in 2017. There may be a 'grey area' between unemployment benefit and temporary health-related benefits. Some unemployed people with poor health may receive a health-related benefit for a period, although the opposite can also occur. The risk of such medicalisation is particularly high in periods of economic downturn. How unemployment develops until 2030 will therefore probably strongly influence the number of people on health-related benefits.

The differences between women and men are increasing

There are big differences between the genders in terms of the number of recipients of health-related benefits, and they are increasing. Of the health-related benefits, it is for sickness benefit that the differences are greatest and increasing most. Even though some of the difference can be explained, there is still a lot we do not know about the causes (see for example Nilsen et al., 2017).

A doctoral thesis from 2018 studies the variation in sickness absence between workplaces (Ulvestad, 2018). The analysis shows that around 40 per cent of the differences in sickness absence between workplaces is due to factors in the workplace, while the rest is due to differences in the composition of the labour force. Moreover, the results indicate that the high level of sickness absence in

Figure 10.5. Proportion of the population aged 18–66 with health-related benefits, by gender. Percentage.



Source: **NAV**

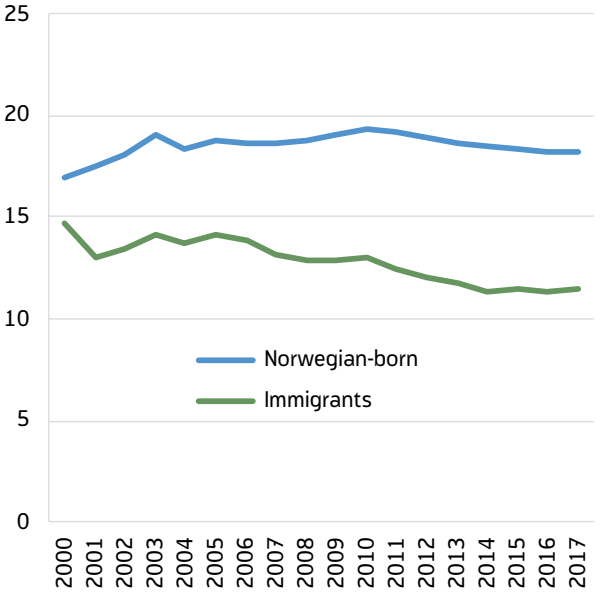
the municipal sector is not because municipal workplaces 'create more absence', but rather that they have employees with a higher susceptibility to absence. In sectors and occupations where sickness absence is high, women are often in the majority among the employees. In such occupations and sectors, workplace adaptations for people with poor health can be an important task for employers and NAV in the years ahead.

Immigrants receive health-related benefits less often

People born in another country receive health-related benefits much less often than people who were born in Norway. The main reason for this is that it is often a requirement for receiving a health-related benefit that the person in question has been in employment, and employment is low in some immigrant groups. In addition, labour migrants are often a resourceful group since they have been willing to migrate and have succeeded in finding a job in Norway. They are thereby probably a group with relatively good health. When immigration increases, seen in isolation, this leads to a decrease in the proportion of the population receiving benefits (Figure 10.6). However, immigrants receive other benefits such as social assistance and unemployment benefit to a greater extent, and, taken together, the proportion receiving benefits/ assistance is therefore roughly the same for immigrants as for those born in Norway.

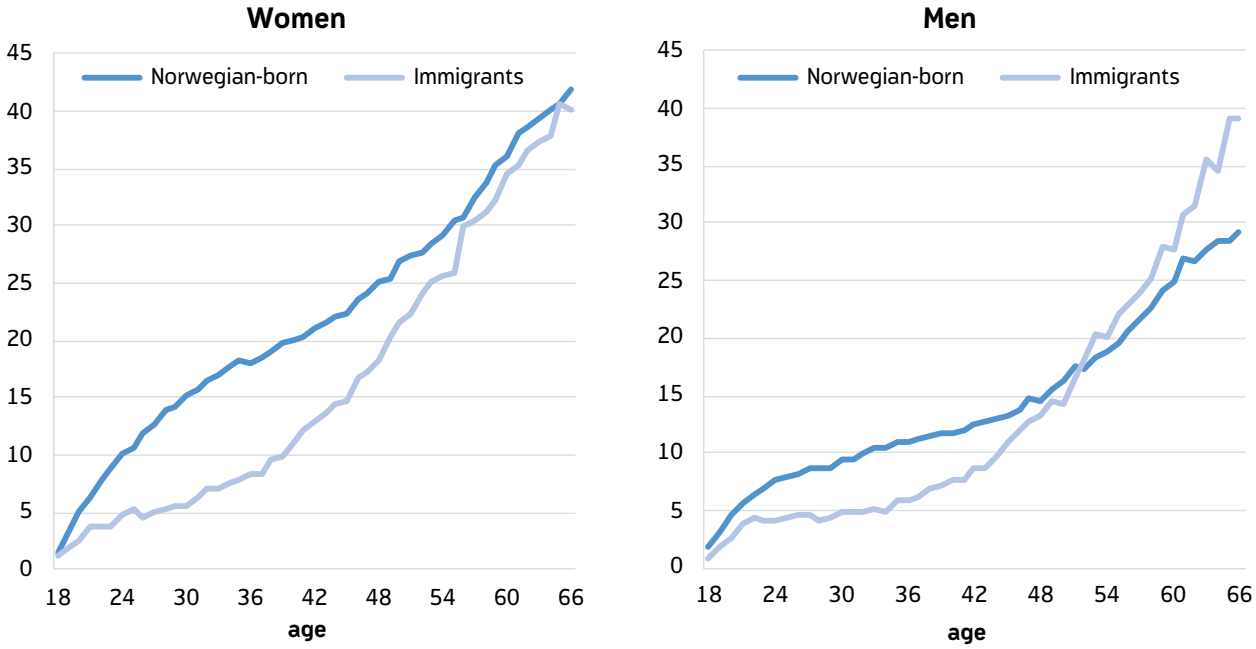
[19] The number on health-related benefits has been corrected for double registration in both Figure 10.6 and Figure 10.7.

Figure 10.6. Proportion of Norwegian-born people and the immigrant population aged 18–66 on health-related benefits[19] at year-end 2000–2017. Percentage.



Source: **NAV**

Figure 10.7. **Proportion of Norwegian-born people and the immigrant population aged 18–66 on health-related benefits in 2017, by gender and age. Percentage.**



Source: NAV

The proportion of immigrants on health-related benefits varies with gender and age (Figure 10.7). Among men over the age of 50, immigrants are overrepresented in the group on health-related benefits. The average age of the immigrant group will increase more than among Norwegian-born people, which could lead to a change in this situation. If we look at women, Norwegian-born women are overrepresented among those on health-related benefits in all age groups (Figure 10.7). This is probably related to the fact that many groups of immigrant women have low labour market participation and are therefore not entitled to health-related benefits.

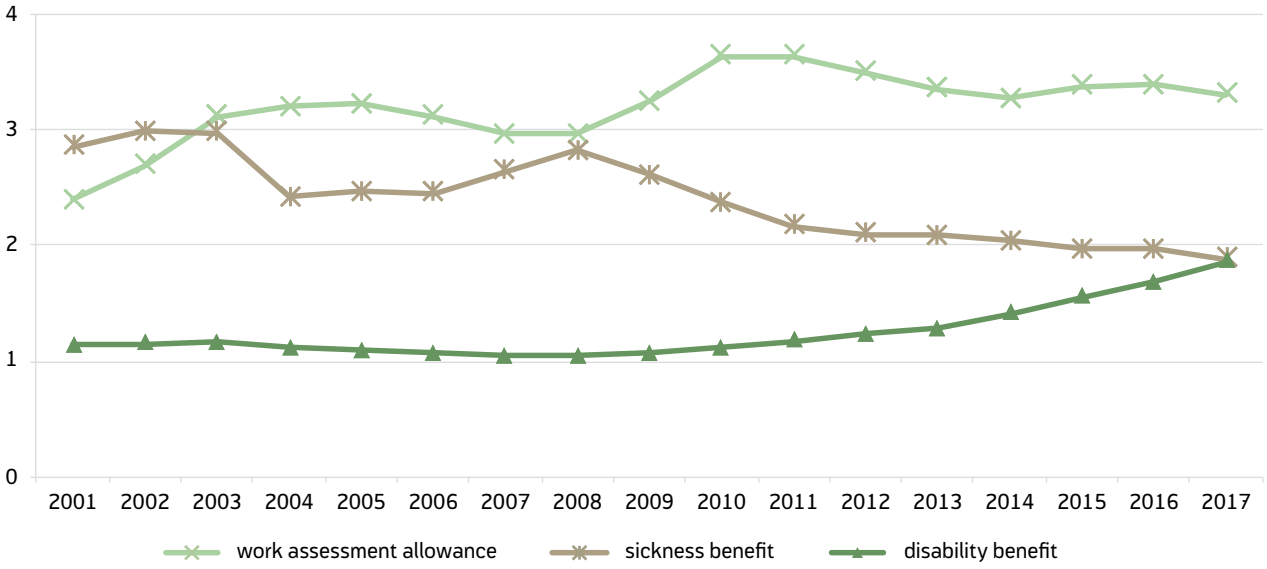
Bratsberg et al., (2011) found that length of residence in Norway affects the extent to which immigrants receive health-related benefits. Immigrants who come to Norway to seek asylum have, as expected, a high assistance rate during the initial period after arriving in Norway, mostly social assistance and little health-related benefits. For these people, the degree of self-sufficiency will increase during the first decade they live in Norway. Labour migrants tend to claim little benefit to start with, but after 10–15 years in Norway, there is a tendency for more of them to receive such benefits. Since this pattern is seen more or less regardless of the time of arrival in Norway, it is difficult to use cyclical fluctuations to explain the phenomenon. It therefore appears that there are exclusion mechanisms in the labour market and/or aspects of the national insurance system that result in immigrants becoming more susceptible to receiving benefits the longer they have lived in Norway.

Strong increase in disability benefit among young people

The proportion of young people on health-related benefits has been stable for the last 20 years, at between 6 and 7 per cent in the 18–29 age group (Figure 10.9) (Kann and Sutterud, 2017a). Sickness absence in this group fell by as much as 45 per cent from 2001 to 2018.

The disability rate for young people has increased strongly, however. The proportion on work assessment allowance, and the earlier benefits that were replaced by work assessment allowance, increased until 2010, but it has decreased since then. The most important factor contributing to the increase in young people on disability benefit is that more and more eighteen-year

Figure 10.8. **Recipients of health-related benefits as a proportion of the population aged 18–29. At year-end 1998–2017. Percentage.**

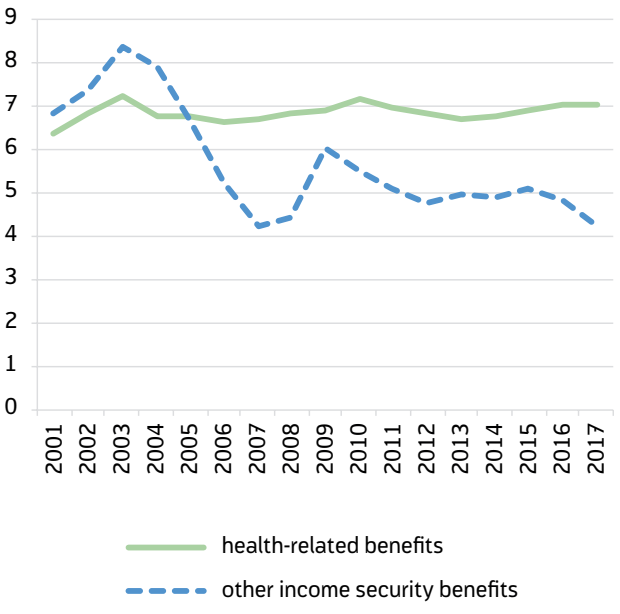


Source: **NAV**

olds are being put on disability benefit. The most frequent diagnosis is mental retardation. This could be because more and more children are born with disabilities, either because more women have children later in life or because more prematurely born children survive with persistent neurological and mental health problems. Improvements in medical treatment have increased the survival rate for children and young people with disabilities, so that the proportion who grow to adulthood and are granted disability benefit has increased. Asperger's syndrome and autism is another diagnosis group that has increased among those who receive disability benefit as 18-year-olds.[20] We do not know the reason for this increase, but it could be that more people than before are given this diagnosis and that the condition is becoming more prevalent. Some researchers believe that environmental toxins could play a part in triggering autism.

The number of young people granted disability benefit before the age of 24 has been increasing ever since the 1970s (Brage and Thune, 2008 and 2015). Part of the increase is probably due to the fact that more and more live-born children are born with deformities. We see that there is strong covariation between the number of live-born children with congenital deformities and the number granted disability benefit before reaching the age of 24, 24 years later (Figure 10.10). Only a minority of those with deformities are granted disability

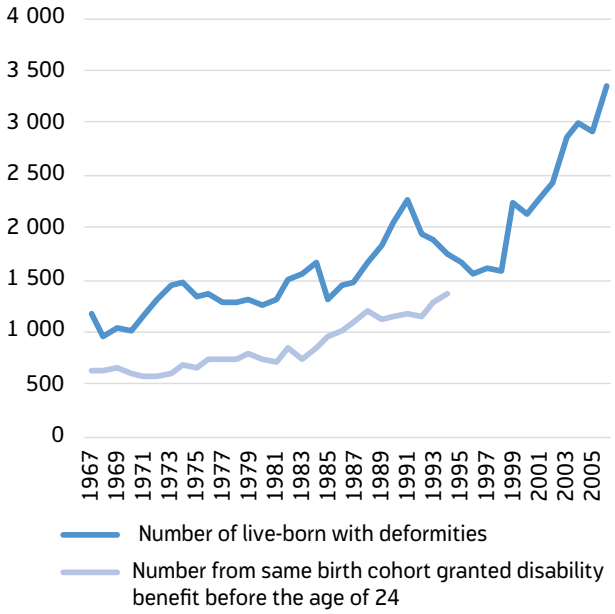
Figure 10.9. **Recipients of income security benefits as a proportion of the population aged 18–29. Figures at year-end 1998–2017. Percentage.**



Source: **NAV**

[20] Among these, like those with deformities, there is great variation in the level of functioning. Disability benefit is only granted to the poorest functioning people in this group.

Figure 10.10. **The number with congenital deformities by year of birth and the number from the same birth cohort granted disability benefit before the age of 24.**



Source: NAV and the Medical Birth Registry of Norway

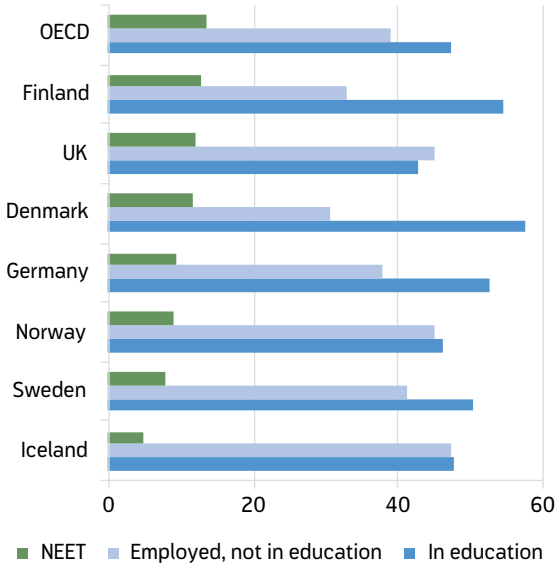
benefit, but, in our opinion, the covariation is so strong that there is reason to believe that this can explain part of the increase observed among young people on disability benefit in recent years. If this is the reason, we can expect that the growth will continue up until 2030.

We see that there was a marked shift from non-health-related income security benefits (unemployment benefit, social assistance, transitional benefit and benefits while participating in employment schemes) to health-related benefits (sickness benefit, work assessment allowance and disability benefit) during the period 2002–2004 (Figure 10.8). Before 2005, non-health-related benefits were more common than health-related benefits, but they fell strongly during the period 2004–2007 and have since been considerably lower. This is related to the fact that the maximum period for unemployment benefit was reduced from three to two years and that the rules governing benefits for single parents were tightened (Kann and Sutterud, 2017a).

The counterpart to the number of people on benefits is the number in employment. The employment level among young people is also high in Norway, and six percentage points higher than the OECD average.[21] The level is nonetheless somewhat lower than it was 10 years ago. A lot of the decrease in the employment level among young people in Norway can be explained by the fact that the proportion in education is

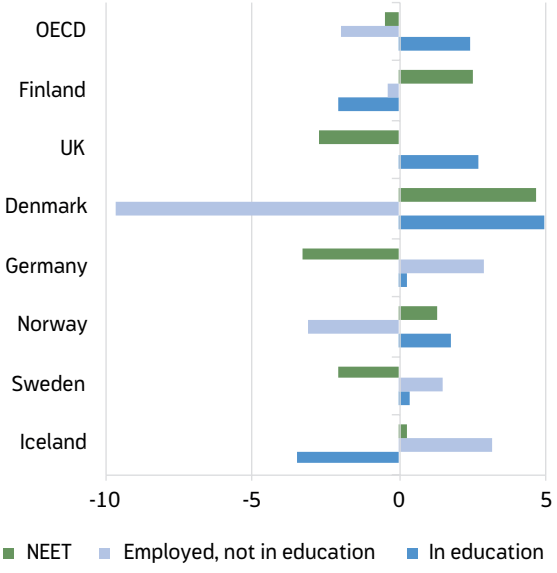
[21] The categories are mutually exclusive. In these statistics, the OECD has defined those who combine employment with education as 'not in employment'.

Figure 10.11. **Young people aged 15–29, by activity in 2017. Percentage.**



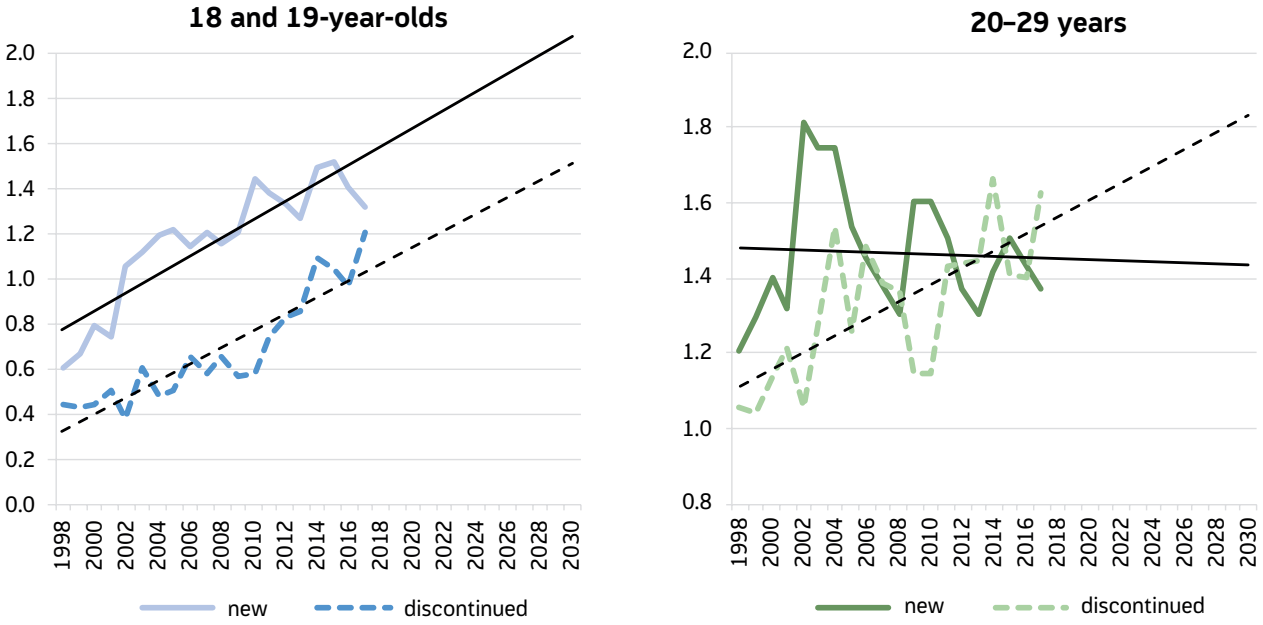
Source: OECD

Figure 10.12. **Young people aged 15–29, by activity. Change in percentage 2007–2017.**



Source: OECD

Figure 10.13. New recipients (number of new cases granted) of work assessment allowance or disability benefit and discontinuations (concluded cases) as a proportion of the population, 1998–2017. Percentage.



Source: **NAV**

increasing (Kann and Sutterud, 2017a). However, since 2007,[22] there has been an increase of 1.3 percentage points in the proportion of young people who are not in education, employment, or training (often referred to as Neets). Even though Norway is still lowest in the OECD together with Iceland and Sweden in terms of the proportion of young people in the Neets group, this is a development that should be closely monitored (Figures 10.11 and 10.12) (OECD, 2018).

We have also looked at how many young people start or stop receiving a health-related benefit every year[23] (Figure 10.13). For 20–29-year-olds, there appears to be a slightly decreasing trend as regards the number who start on such benefits if we look at the period as a whole, particularly after 2005 (Figure 10.12). There was a marked increase in 2002. This was probably due a tightening of the rules for unemployment benefit (the maximum duration was as a rule reduced from 3 to 2 years). Young people without a job and with health problems may have been granted health-related benefits to a somewhat greater extent.

We see that the number granted a health-related benefit is high during periods when unemployment is high (2003/2004, 2009 and 2014/2015). The number who stop receiving such benefits is also low in these periods, which means that it is difficult for those who already receive a benefit to enter employment during periods of high unemployment.

Technological developments could lead to structural unemployment,[24] and it could lead to more people applying for health-related benefits, cf. the experience from the oil crisis in Rogaland, where more people were on long-term sick leave and work assessment allowance (Lima 2016, Kann et al., 2016).

Among 18 and 19-year-olds there is a long-term increase in the number granted a health-related bene-

[22] 2007 was the year with highest employment among young people in Norway during the period 1997–2018.

[23] Transitions from one health-related benefit to another are thus not defined as starting on or stopping receiving health-related benefits.

[24] Unemployment that arises when unemployed people do not have the qualifications required for vacant jobs.

fit. Young people on disability benefit make up a significant proportion of new recipients. It is not known, however, whether the increase is due to poorer health or to more needs being identified. Nor have the medical links between premature children and the granting of disability benefit been documented. It has only been proven that there is covariation between these variables. In addition to mental retardation, organic illnesses, schizophrenia and severe developmental disorders, as well as behavioural and personality disorders, are the most common mental health problems among young people on disability benefit. Many of those who are granted health-related benefits at a young age are expected to need lifelong support and adaptation.

It is also important to improve the treatment of young people with mental health problems and adaptation in the workplace for people with mental health problems. By cooperating more closely, the health sector and NAV will develop models and work methods to ensure flexibility and coherence in the services offered. The agencies must also facilitate joint systematic knowledge development and communication within the field of work and health.

Disabled people want to participate

Employment among disabled people has been at a stable and low level for many years. The labour survey from September 2017 shows that 43 per cent of the disabled group are in employment.[25] It will be a major task to include more of them going forward.

Norway from an international perspective

There are relatively few people in Norway who are outside the labour force or who are unemployed without receiving unemployment benefit or another benefit. However, of those who are outside the labour force, the proportion that receive benefits is high, and a very high proportion receive health-related benefits. Sickness absence is high in Norway compared with other countries. International comparisons of sickness absence are often based on the different countries' labour force surveys (LFS). Based on LFS figures, Norway has the highest sickness absence among countries it is natural to compare ourselves with. A report from SSB (Berge et al., 2012) concludes that the labour market surveys are relatively similar and that they therefore cannot explain the differences in sickness absence. The composition of the labour force can explain part of the difference in sickness absence. Moreover, differences in the sickness benefit system and other institutional factors can influence the registered sickness absence. Another survey (Gleinsvik et al., 2014) concludes that Norway's high sickness absence in international comparisons can neither be explained by differences in how sickness absence is measured nor by differences in the maximum period or other rules for sick leave.

Moreover, the proportion receiving disability-related benefits (disability benefit and work assessment allowance) in the 18–64 age group is significantly higher in Norway than in other European countries, including the Nordic countries (Barth et al., 2015). Figures from the OECD show the same pattern. Barth et al. have looked at how many people live on benefits altogether in different countries, and how many combine benefits with work. They found that the proportion of people living on benefits in Norway was at the lower end of the scale. Unemployment benefit, retirement pension and all other cash transfers (national insurance benefits) are included in this study. They also noted that, in Norway, it is more common to combine benefits with work. For example, 22 per cent of the population aged from 25 to 64 have more than half of their income from benefits. The proportion in Denmark is 23 per cent, in Finland 25 per cent, in the UK 25 per cent and in Ireland 30 per cent.

It cannot be ruled out that people with health problems are more visible in Norway because they are entitled to benefits. When medical diagnoses are the criterion for benefits, this can lead to social problems and unemployment becoming 'medicalised'. By this is meant that the individual and the individual's surroundings understand to a greater extent that the individual's situation and problems in several areas of life have medical (individual) causes that are expected to be treated by the health service. A diagnosis and a long-term health-related benefit can affect the user's

[25] https://www.ssb.no/akutu

self-understanding and how he/she is perceived by his/her surroundings; problems in the labour market can in such case easily be interpreted as individual health problems (Grødem, Nielsen and Strand, 2014)

The Frisch Centre has carried out an effect study that indicates that local variations in the practice for granting work assessment allowance can contribute to the 'medicalisation' of social problems and unemployment, and that this, in turn, weakens the individual's labour market attachment (Schreiner, 2016). The findings indicate that granting young people work assessment allowance instead of unemployment benefit or social assistance generally increases the probability of a weaker labour market attachment after five years. This is manifested in the form of a substantial reduction in employment and income from employment and a corresponding increase in benefits received. These findings apply to young people in the grey area between health problems and unemployment, i.e. young people who will not be granted a health-related benefit if the criteria are applied more strictly.

High employment rates among weak groups

In a country with small wage differences and a generous national insurance system, it is easy to imagine that people with poor qualifications will have lower employment rates. Using data from extensive international surveys of people's skills (called PIAAC data), Barth et al. (2015) have calculated employment rates for different age groups among persons with weak health (poor or not good) and those who have weak numerical skills. They found that Norway fares very well compared with other European countries as regards employment in both these groups, but better for those with weak numerical skills than for those with poor health.

The activity duty presupposes trust

An activity duty as a condition for receiving welfare benefits is a common European trend. The activity requirement means that the right to welfare benefits is contingent on the recipient participating in some form of activity, for example work for benefit, active jobseeking or qualifying activities in the form of courses or training. The legislator's dilemma is that benefits are intended to function as insurance for those who, through no fault of their own, lose the ability to work. At the same time, it is important to ensure that it pays to work and to avoid people who could work choosing benefits instead. Economists therefore often refer to the activity requirement as an alternative to low benefits subject to strict criteria.

The way in which the activity requirement is implemented by NAV will be important in relation to what effects it has. It can have a negative effect for the individual and for how NAV is perceived if the requirements are unreasonable, inappropriate or difficult or impossible to meet. Research shows that there are many problems associated with activity requirements that have to be solved if users are to continue to trust NAV (Hagelund et al., 2016; Kann et al., 2012; Lima et al., 2017).

Several surveys indicate that the activity requirement has contributed to a strong reduction in sickness absence since it was introduced in 2004, see Markussen, 2010 and Kann and Brage, 2007, Kann et al., 2012). Hedmark county introduced stricter activity requirements for sickness benefit in 2013, and in 2014, they did the same for work assessment allowance. This led to a substantial reduction in sickness absence and in new applications for work assessment allowance, and it was later introduced in the rest of the country (Lima et al., 2017; Kann and Lima, 2015; Hernæs et al., 2017). The reduction in sickness absence has also led to lower recruitment to long-term health-related benefits such as work assessment allowance and disability benefit (Kann et al., 2013).

The activity requirement does not just entail an obligation for the sick person, it also gives him or her a right to adaptation in the workplace. It will be important to focus more on employers' adaptation duty to ensure that as many people as possible participate in employment.

As regards mental health problems, little is known about how the best possible adaptations can be made for this group. The use of adaptation grants, or subsidising pay for stand-ins who replace an employee on sick leave, could be one way of making adaptations, in addition to various aids.

Closer cooperation with the health and education sectors

In order to get more people into work and fewer on benefits, NAV must, in cooperation with employees and employers, place greater emphasis on the need for adaptations, resources and work capacity. This will require more targeted follow-up irrespective of the diagnosis, benefit and age, and NAV will have to advocate regulatory amendments that underpin this goal. More cross-sector cooperation will also be necessary, particularly with the health and education sectors. The Norwegian Directorate of Health and the Directorate of Labour and Welfare have developed a strategy for a concerted effort in the field of work and health. The goal is to get more people into employment. Models and work methods will be developed to ensure that services constitute a coherent whole.

10.3 Reflection questions

- What does it mean for NAV that people's health is improving?
- How can we avoid the rapid pace of change leading to more people on health-related benefits?
- For whom and when can work be good for their health?
- How should NAV cooperate with the health service?
- How can we prevent people with mental health problems being socially excluded?

11. POLITICAL TRENDS

The goal of Norway's labour and welfare policy is to underpin a high level of welfare and good distribution among the population. To achieve this goal, policy must be adapted to developments in society, both in order to exploit opportunities and to solve problems. High employment is crucial, both in order to ensure high value creation and as a distribution policy instrument.

The labour and welfare policy is partly directed at the public through the design of welfare schemes and other measures that can affect people's possibilities and incentives to be in paid employment, but it can also be directed at employers. How welfare and distribution develop is also influenced by other policy areas with a bearing on economic growth, such as health, education and international relations. In addition, NAV, as a large public agency, will be influenced by and be a driving force in Norway's modernisation and digitalisation policy.

11.1 Societal trends form the basis for labour and welfare policy

Political decisions are prepared and decided by the government and Storting in power at all times. At the same time, important societal trends have formed the basis for labour and welfare policy reforms in Norway. The Pension Reform is one example of this. In Norway, work on a reform often starts with a government-appointed committee or expert group that is tasked with assessing the need for changes to existing policy and making concrete recommendations. NAV's expertise and administrative experience is often utilised in such contexts. This contributes to knowledge-based policy development.

11.2 The ageing population and immigration influence labour market policy

One political measure aimed at reducing the effects of the ageing of the population is to give people better financial incentives to work longer. More elderly people in employment could make new demands of labour market policy, since more people in the older age groups will need measures or other forms of assistance to stay in work or find a new job.

Changes in the age composition could mean that the labour market policy will have to be changed to give it a clearer lifespan perspective. The needs of young people who fail to find work because they have not completed upper secondary education could be quite different from those of older employees with long work experience, but who need to switch to less physically demanding jobs towards the end of their careers.

The increase in the proportion of the population from an immigrant background also indicates that our labour market policy should be developed more in the direction of flexible solutions that can be adapted to individual needs. What elderly people with long experience from the Norwegian labour market and young people from immigrant backgrounds have in common is that both groups could benefit from work-related measures and training in ordinary enterprises. To create good and effective solutions for these groups, it will therefore be necessary to look at education and labour market policy in conjunction. This will entail close cooperation between educational institutions, NAV and employers. Among refugees with little formal competence, it will be necessary to a greater extent to offer longer qualification paths in cooperation with other public service providers. This will require major investment to make employment, and thereby future gains, possible.

NAV already cooperates extensively with the education sector. In recent years, cooperation with, and services for, employers have also been given higher priority There is a good foundation in place for further developing a lifespan-based education and labour market policy. It may be a challenge to establish effective and flexible solutions that are capable of accommodating a wide range of possible participants and that are not too complicated to administer.

11.3 Striking a balance between incentives and distribution – a political dilemma

Striking the right balance between incentives and distribution considerations is a fundamental welfare policy dilemma. The purpose of the National Insurance scheme's benefits is to provide financial and social security. At the same time, these benefits should stimulate people as little as possible to choose to live on benefits rather than being in paid employment.

Means-tested benefits can be an effective way of combating poverty, but they often provide poor incentives for employment. Increasing child poverty in Norway (see Chapter 9), particularly among some immigrant groups with a low employment rate, shows that measures that ensure that as many people of working age as possible are in work are an important part of our welfare policy.

How much weight is given to the different considerations will be affected by which parties are in government and which parties have a majority in the Storting. At the same time, there is a fairly broad consensus on the main elements of labour and welfare policy, so that the weight given to effectiveness and distribution, respectively, can cut across the traditional left-wing/right-wing political divide.

Norway has relatively high employment in the international context. There has nevertheless been a slight decrease in the labour force participation rate in the past decade, while labour force participation has increased in several comparable countries. Seen in isolation, increased immigration has led to an increase in the number of people who lack the basic skills required to enter the labour market. There has been broad consensus in Norway for several years that we shall have one labour market where everyone is guaranteed their basic rights and a living wage. To ensure participation in the labour market, Norway has therefore chosen to focus on competence and on raising the competence of individual jobseekers rather than reducing minimum wages and weakening workers' rights (NOU, 2017:2). Nonetheless, we observe pressure on wages and an increase in the proportion of temporary jobs in certain industries (Berg et al,. 2016). If, going forward, we are to achieve a higher employment rate than at present without reducing minimum wages and increasing differences, this will make great demands of our overall employment policy, including labour and welfare policy.

In January 2018, the Government appointed an expert group, which, among other things, was tasked with considering whether public transfers and support schemes for people of working age are sufficiently targeted and capable of contributing to an increased labour force participation rate and employment rate.

The expert group is currently in Phase 1 of its work as an employment committee – the social partners will be involved in Phase 2. There is reason to assume that the proposed measures and changes this work will produce, will form an important basis for policy formation in this area in the years ahead.

Seventeen years after the first Inclusive Workplace (IW) Agreement was signed, the targets for reduced sickness absence have still not been achieved. There is therefore reason to believe that new measures aimed at reducing sickness absence will have a central place in the discussions going forward. It is important that NAV contributes to this work, both with its know-how about how different schemes and measures function today and with assessments of how proposed changes can be administered and what effect they will have.

11.4 New ways of working are challenging labour and welfare policy

Technological development is an important driving force behind changes in the labour market. New ways of organising enterprises, with employees often having looser forms of attachment, also present NAV with new challenges, for example with respect to contact with employers and responsibility for following up and adaptation in the workplace, and as regards checking that the activity requirements and the criteria for qualifying for benefits are met.

A government-appointed committee recently assessed the opportunities and challenges the sharing economy

presents (NOU 2017:4). The Committee concluded that, so far, there is little need for major changes to the regulations as a result of the sharing economy. The employment market in Norway is largely well-ordered. In some industries, however, employees are subjected to social dumping, which may be combined with benefit fraud and other types of crime. Technological developments have increased the risk of economic crime. At the same time, technological development offers new opportunities to uncover such irregularities. Both legislation and cooperation between different authorities, nationally and internationally, will have to be further developed in the years ahead. Experience of administering today's regulations is important in this context, but it will also be necessary to find new ways of cooperating and new work methods.

In Norway, the proportion of self-employed people is relatively small. For some user groups, however, the possibility of starting their own business could be a suitable channel for using their talents or for making the transition from unemployment and passivity. Some immigrants come from cultures where it is normal for people to run their own businesses. For others, new technology can form the basis for and provide opportunities for realising new business ideas. It is already possible to combine unemployment benefit with starting one's own business. It is also relatively easy to start a business in Norway. Further measures could nevertheless be proposed to stimulate entrepreneurship. It is conceivable that NAV will play a role in this context, for example through schemes that can make entrepreneurship a more popular alternative to ordinary labour market measures.

Norway has a well-developed income security system that includes most people, and where the minimum levels are high in the international context. In the public debate, however, it has been questioned whether such a system would provide sufficient income security in a future labour market where more people will be unemployed or underemployed for periods, and where more people are self-employed or only have a loose attachment to an employer and perhaps work in other countries for periods. Guaranteed income, or a basic income for all, has been proposed as an alternative. It seems unrealistic, however, that such a universal basic income could be introduced without significantly increasing taxes or without the income being so low that it will not protect those who really need it from poverty (OECD, 2017).

Changes may nevertheless be made to our benefit systems in order to better meet the needs of those who have 'non-standard' jobs and to give people a greater financial incentive to take such jobs. In Denmark, for example, rules have been introduced that can increase unemployment benefit entitlements if an unemployed person takes small jobs. In Norway, there is currently a debate about the right to earn occupational pension entitlements on all income (from the first krone).

11.5 Political demands for rationalisation in the public sector

Digitalisation and automation have made it possible to operate with fewer and bigger NAV entities. This has been necessary in order to meet the political demand for rationalisation of the public sector. The ageing of the labour force and the anticipated fall in revenues from the petroleum sector mean that demands will continue to be made for rationalisation and savings in the public sector if we are to maintain public benefits at current levels and deal with the expected increase in health and care services. This could lead to simplification of the rules in order to better facilitate further digitalisation and rationalisation, for example in the form of fewer national insurance benefits, fewer special rules and fewer rules that require discretionary assessment. Political micromanagement is one possible threat to rationalisation. The Norwegian Association of Local and Regional Authorities (KS), for example, believes that the increased enshrinement in law of rights to welfare services and increased pressure on local democracy will be a trend in the period up to 2023 (Zynk, 2018).

Over time, big changes have been made to how public services are organised. NAV itself is the result of a merger of the former employment and national insurance agencies and a partnership with the municipalities. These kinds of organisational changes and changes in the division of roles will be a natural part of

everyday life for many organisations and enterprises going forward. NAV is now permitted to spend part of its budget for labour market measures on carrying out tasks itself that were previously purchased from external providers. In 2018, the Government proposed transferring responsibility for the in-house training scheme to the new county authorities, and pilot projects will be implemented in which municipalities are given responsibility for administering work assessment allowance. During the period 2017–2020, 47 mergers between municipalities have been carried out or are planned (Office of the Prime Minister, 2018), and many new inter-municipal solutions are also planned that will affect how the local NAV services are organised.

The division of tasks and organisation of services will also be changed in future. However, there are few clear trends as regards in which direction developments are heading, although it is a political ambition (Report to the Storting 27, 2015–2016) that public services should be perceived as interlinked and coherent by users, regardless of which public agencies provide them. As mentioned in Chapter 7, this will make new demands of policy development, cooperation and the sharing of data between agencies.

It is necessary for NAV to be open and cooperation-minded. In addition to extensive cooperation with other public agencies, NAV cooperates with many private actors. Technological development has provided new possibilities for collecting and sharing information, which, in turn, can lead to a change in the division of tasks, faster and cheaper case processing and better services. It is particularly important that the public fully trusts NAV to adequately safeguard the information it has about individuals. This makes demands of NAV's administration, but also to how the regulations are designed. To help to ensure that protection of privacy legislation is developed in a way that both takes account of information security considerations and meets the need for simple and efficient services, NAV must contribute information about its experience, challenges and possible solutions.

Rationalisation means achieving the same results with fewer resources. In its interaction with its users, this could mean that NAV must do more of what works and less of what has been shown not to work. A significant improvement will be needed in the knowledge base for labour and welfare policy if we are to achieve this. This will entail systematically studying results of research on this area in other countries, but also working systematically to establish a knowledge base that is based on the Norwegian context and way of carrying out tasks. There is a need to increase both the quality and relevance of research on the labour and welfare field, and also to increase the overall research effort through several large-scale projects. If we are to succeed in this, we must also be willing to test new ways of performing tasks, even if this entails a risk of failure.

11.6 The policy of digitalisation means change

In Digital Agenda for Norway (Report to the Storting 27, 2015–2016), the Government recommended the principle of 'digital first preference', which means that, as far as possible, the public administration shall be accessible online and that web-based services shall be the main rule for the administration's communication with users. By 'users' is meant private individuals, employees, employers and other partners. The Digital Agenda sets targets for the Government's digitalisation policy, but it is not always in alignment with sector policy in the different ministries.

Some of the ambitions may prove difficult to achieve since they are in conflict with other important considerations, such as due process protection, protection of privacy, labour market policy and financial considerations. How far, for example, are they willing to let NAV go as regards automatically granting rights? Increased interdepartmental dialogue will be required to promote the development of good digital solutions in the labour and welfare field and possibilities for efficient use of data across policy areas.

One main goal of the Digital Agenda is: 'A user-centric and efficient public administration'. For NAV, this means that we must meet users based on their situation/life event and deliver good and efficient services based on what we know about each and every one of them. The goal of user-centric services could affect the organisation of and the services delivered

by the public sector. Increased interdepartmental dialogue will be needed to ensure that the digitalisation policy and labour and welfare policy are seen in conjunction with each other to a greater extent.

The fast pace of digital change also means that the framework conditions within which NAV operates will have to be adapted and changed. This could be a challenge in relation to the pace of policy development within and between the involved ministries.

11.7 Risk of increased polarisation

There is an international trend towards increasing polarisation. Prebensen (2018), who has studied different measures of the development of political polarisation in Norway, concludes that polarisation has been unchanged or decreased slightly in the past decade. This is based on surveys of views on various political issues (for example tax and immigration). The analysis found that the spread of opinions has been unchanged or deceased slightly from 2007 to 2017. The analysis also shows that trust in public institutions, such as the Storting, the courts of law and the police, has not decreased during this period either. Moreover, support for the most far left and far right parties in general elections has been stable or decreasing from 2005 to 2017, depending on which parties are included in the definition.

Even though we have no proof so far that political polarisation is increasing in Norway, it could nonetheless be a risk factor judging by societal developments in some other countries, for example the Brexit referendum in the UK, the new political climate in the USA following the election of Donald Trump as president, and the election of populist politicians in countries such as Brazil and Italy. Zynk (2018) predicts that increased political and cultural polarisation and more 'contempt for elites' will become a trend in Norway in the next five years, driven by greater inequality, urbanisation and immigration. The findings are based on an analysis of big data carried out for the Norwegian Association of Local and Regional Authorities (KS) based on posts on Norwegian websites and in social media. International trends and immigration from cultures where there is less trust in institutions and the public sector could gain a foothold in Norway as well. The challenge of ensuring sustainable welfare schemes could lead to bigger differences and thereby contribute to increased polarisation.

11.8 Need for a policy that underpins the ability to adapt

In 2015/2016, record numbers of refugees arrived in Norway and many other European countries. The inflow of refugees has decreased strongly since then. In some parts of the world, however, the situation is still tense and this could trigger new waves of refugees. It is uncertain how poverty and climate change can affect international migration patterns in the longer term. The inhabitants of these countries often lack the qualifications required by the labour market in highly developed countries. At the same time, however, the ageing of the population in many western countries means that these countries will need to import labour.

This illustrates the importance of having a policy for inclusion if we are to be able to utilise the available labour. This already has high priority in Norway. NAV must share its knowledge of the effects of the measures used to get people into work. This could include policy areas that lie outside NAV areas of responsibility, such as education policy. The social partners will also have a responsibility through wage formation.

Major changes are taking place in some industries, driven by climate and environmental goals and technological development. The transport sector, in particular, is undergoing strong change. Another example is the recycling sector. Climate change could also affect the primary industries in both Norway and other countries. Some of these factors will be important to certain occupations and sectors, while the global effects are difficult to predict as yet.

As a small, open economy, Norway is dependent on being able to trade goods and services with other countries without major barriers. Some industries, particularly those that supply the oil industry. but also metal manufacturing, international shipping and fisheries, largely produce for export. At the same time,

we are completely dependent on imports of many goods. A comprehensive system of free trade between countries has developed since WWII. Norway participates in this cooperation through WTO and it is part of the European Economic Area (EEA).

The USA has recently introduced trade barriers, partly to protect its own manufacturers and partly as sanctions against other countries. The UK has decided to leave the EU in 2019. At the time of writing, it is still unclear whether the UK's EU membership will be replaced by agreements that regulate trade, and what such agreements will look like. Increasing support for political parties that are critical of the EU means that there is uncertainty about the further development of the EU and what influence the EU will have in the global arena.

Uncertainty about areas that are of major significance to Norway's economy and labour market means that it will be important to be prepared for unexpected changes. There is broad political agreement about the importance of increasing the adaptability of the economy and the labour market. What concrete form this will take will nonetheless depend on the government in power at all times and the composition of the Storting. Increasing uncertainty and new political trends in many countries could affect the freedom of action and priorities of Norwegian politicians. NAV should therefore keep up to date with developments in order to contribute to necessary restructuring. NAV must be prepared to adapt to unexpected changes and adjustments to framework conditions by building a flexible and adaptable organisation that offers services adapted to users' needs.

11.9 Reflection questions

- How can sustainable welfare schemes be ensured?
- What political issues will affect NAV in the period up to 2030?
- How should user-driven development affect labour and welfare policy?
- How will changing competence needs, the labour market and health affect policy?
- What political changes are necessary to promote better cooperation?

APPENDIX – WHAT ARE THE EMPLOYEES' VIEWS AND WHAT DO USER REPRESENTATIVES THINK?

About the survey

A simple questionnaire survey was distributed to all NAV employees in connection with the update of the Horizon Scan. The survey concerns what NAV employees see as being the challenges for NAV in general going forward and what consequences this will have for their own work tasks in particular. A more or less identical survey was distributed to user representatives on NAV's central and local user committees. The responses have been used as one of many sources in the discussion of these topics in the Horizon Scan.

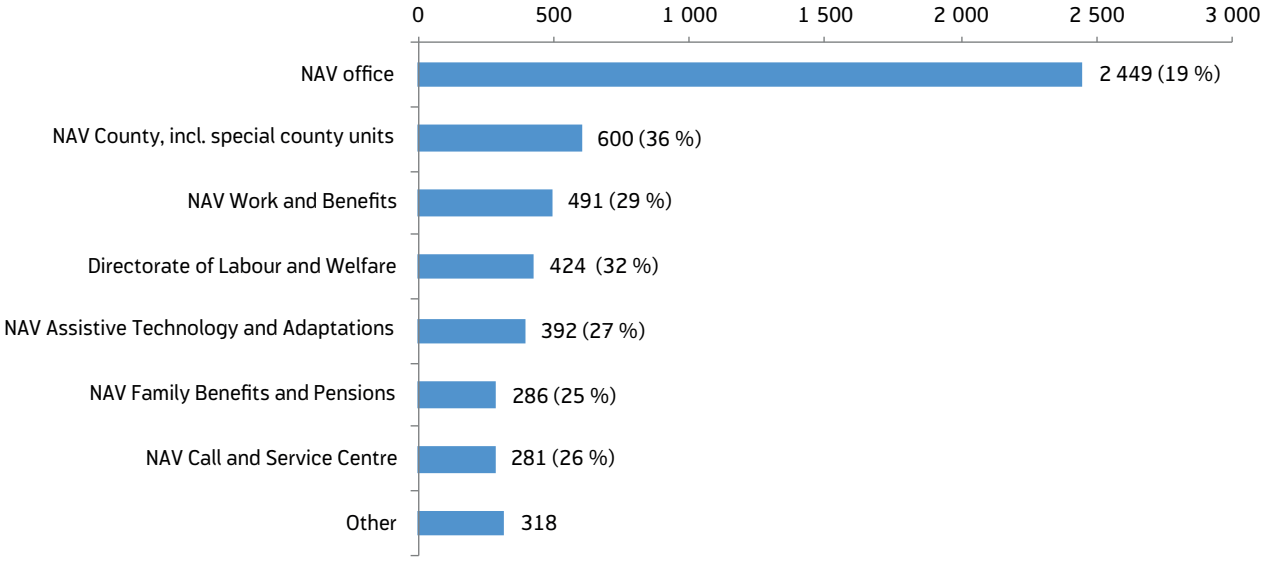
The responses to the survey describe what employees in different parts of NAV envisage being the challenges of the future, but the survey says little about why the employees have answered as they have. This is nonetheless an important source of information, both as regards the weighting of the topics in the Horizon Scan and in the assessment of future strategies and measures.

The survey was distributed by e-mail to 22,253 NAV employees, municipal employees included. We received 5,497 responses, corresponding to response rate of 25 per cent. Figure V.1 shows how the response rates vary between different organisational entities. Automatic replies were also received to 1,972 questionnaires, i.e. 9 per cent of the respondents. These could be employees who have left, are on leave or similar. The NAV offices had the lowest response rate. This is probably because we sent the survey to the NAV email addresses of all employees at the NAV offices, including the municipal employees. There are indications that many employees at NAV offices prefer to use municipal email addresses instead, which explains why the response rate was lowest there.

We have tried to correct for this bias in the material. Employees at NAV offices will in any case have a relatively dominant place in the scan, since they make up almost half of those who have responded. This is fairly close to the actual breakdown of staff in NAV.

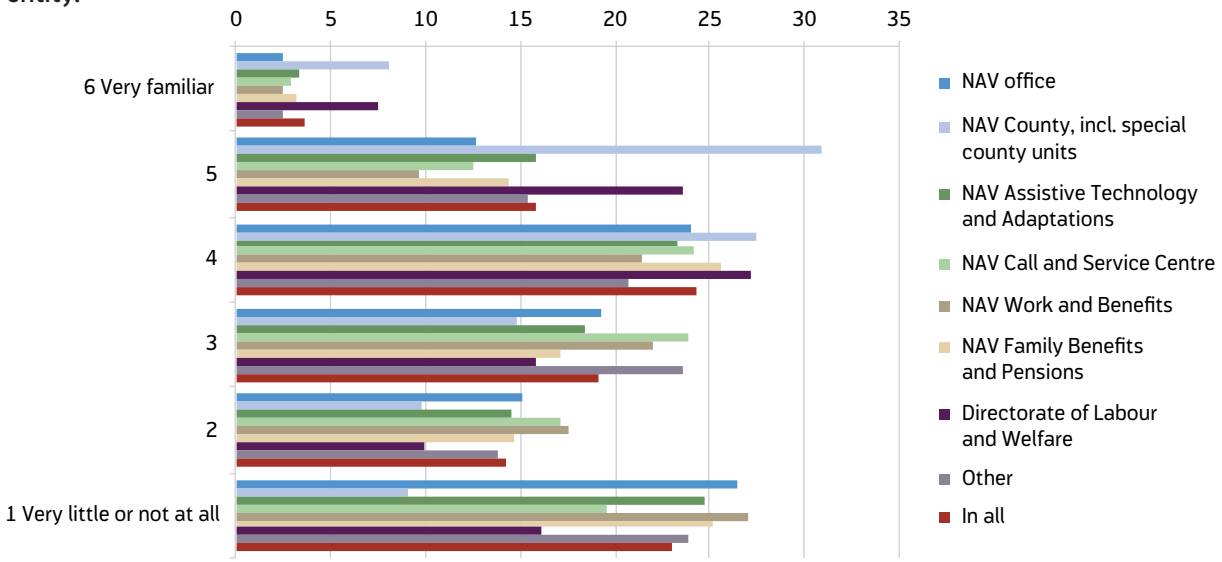
One of the background variables that most influenced the responses was which entity in NAV the employees belonged to. Whether the respondent was a mana-

Figure V.1. **Number of respondents and response rate, by organisational entity.**



Source: **NAV**

Figure V.2. **How familiar are you with NAV's Horizon Scan? Percentage response distribution, by organisational entity.**

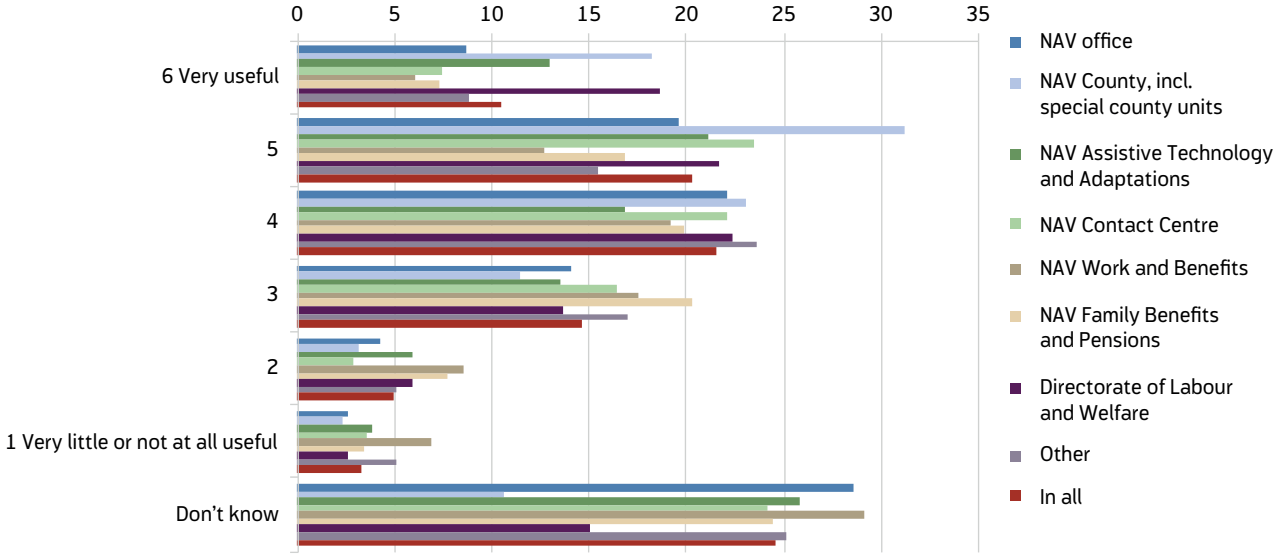


Source: **NAV**

ger or an ordinary employee also influenced their familiarity with and view of how useful the Horizon Scan is. Managers answer more positively as regards the usefulness of the scan, followed by employee representatives and ordinary employees. Gender, geographical location and age had little influence on the responses.

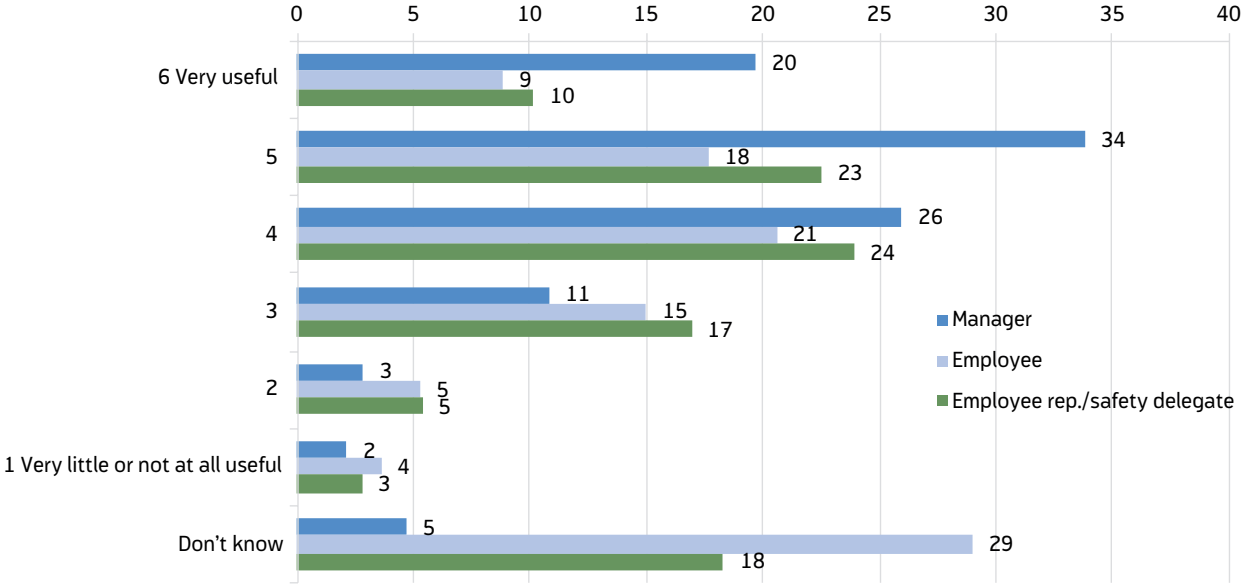
NAV does not have an overview of all the representatives on the user committees, Endeavours were made to reach these representatives by getting the local NAV entities to forward the questionnaires to them. This user survey resulted in 204 responses, which is probably a relatively low response rate. This could be due to the difficulties of distributing the survey to the user representatives.

Figure V.3. **How useful do you believe the Horizon Scan is for your place of work? Percentage response distribution by organisational entity.**



Source: **NAV**

Figure V.4. **How useful do you believe the Horizon Scan is for your place of work? Percentage response distribution by position.**



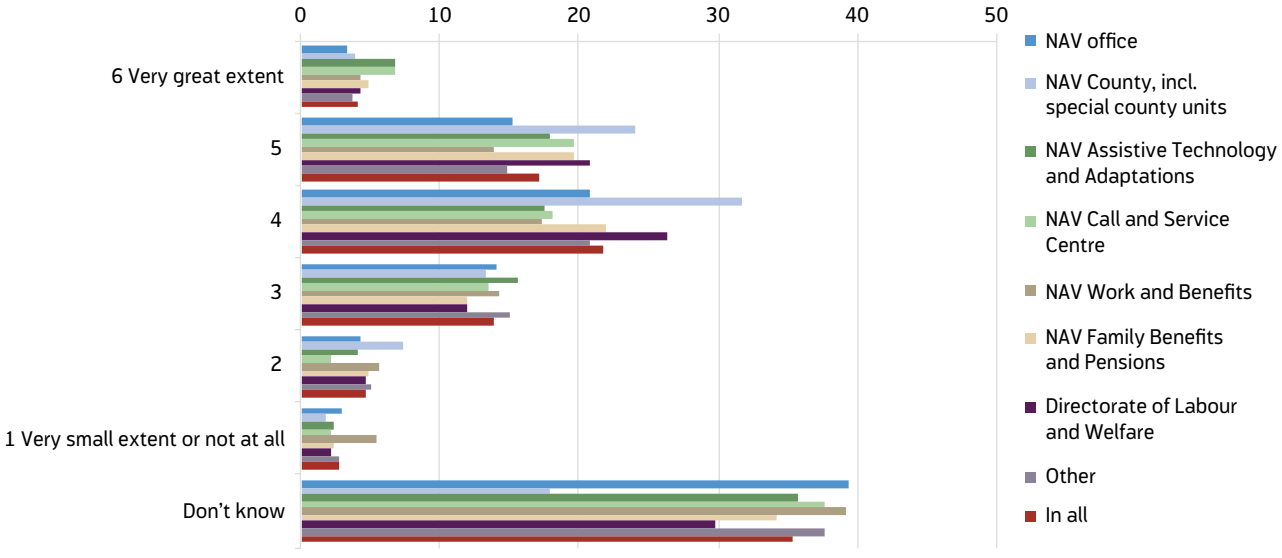
Source: **NAV**

More useful than known

Employees who work in the Directorate of Labour and Welfare and at NAV's county head offices are most familiar with the Horizon Scan. About one out of four respondents knows little or nothing about the scan.

Staff in the Directorate and at county head offices appear to find the scan most useful. A large proportion (almost 30 per cent of respondents) answer 'don't know', which is probably related to the fact that a corresponding proportion has answered that they know very little or nothing about the scan. Among those

Figure V.5. **To what extent do you find that the Horizon Scan affects NAV's priorities? Percentage response distribution by organisational entity**



Source: **NAV**

who know of the scan, a clear majority believe that it is useful or very useful. Figures V.2 and V.3 show that, all in all, the scan can be said to be more useful than known.

Managers find the scan most useful (Figure V4), which could be because managers are somewhat more familiar with the scan than other employees. Almost 30 per cent of employees have answered 'don't know' to the question about how useful the scan is, compared with only 5 per cent of managers. Among managers, the usefulness of the scan probably also has to do with the fact that managers are more involved in developing strategies and in planning processes in which the scan is used.

It is at NAV's county head offices that respondents most strongly believe that the Horizon Scan influences NAV's priorities (Figure V.5). Many believe that the Horizon Scan influences priorities to a greater or lesser extent, although a large proportion also answer 'don't know' (almost 40 per cent).

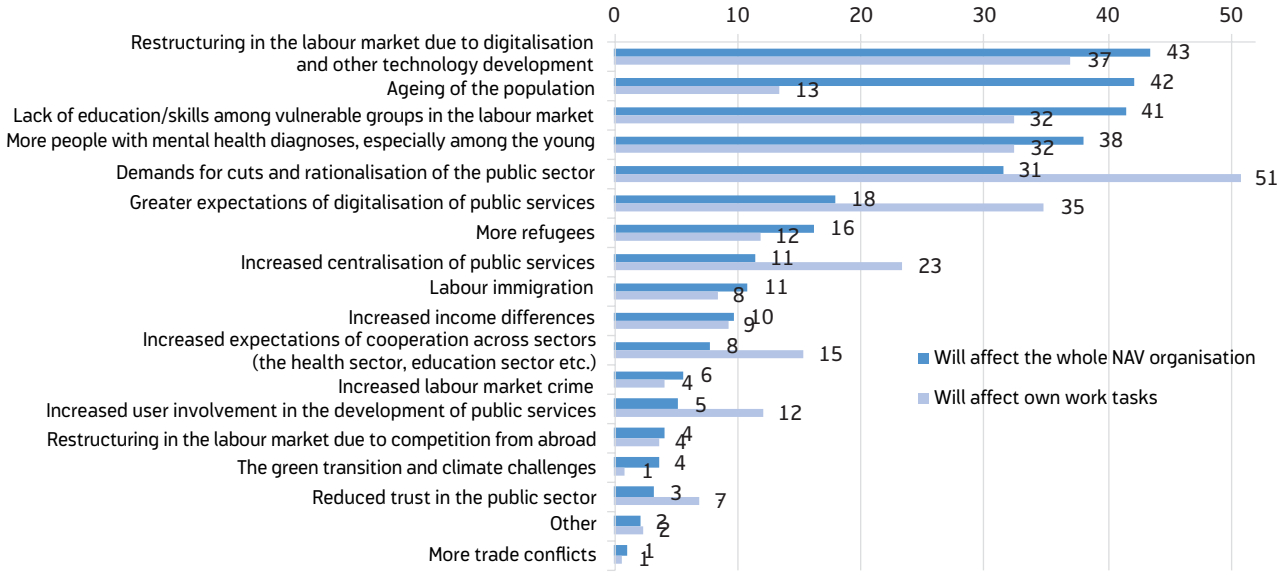
Restructuring in the labour market will have the strongest effect on NAV as a whole

NAV employees believe that developments in the labour market will have the biggest effect on NAV as a whole, while cut-backs and rationalisation will affect their own tasks most.

Restructuring in the labour market, the ageing of the population and lack of education and skills among vulnerable groups are the factors that will most affect NAV as a whole going forward. More young people with mental health problems come in addition.

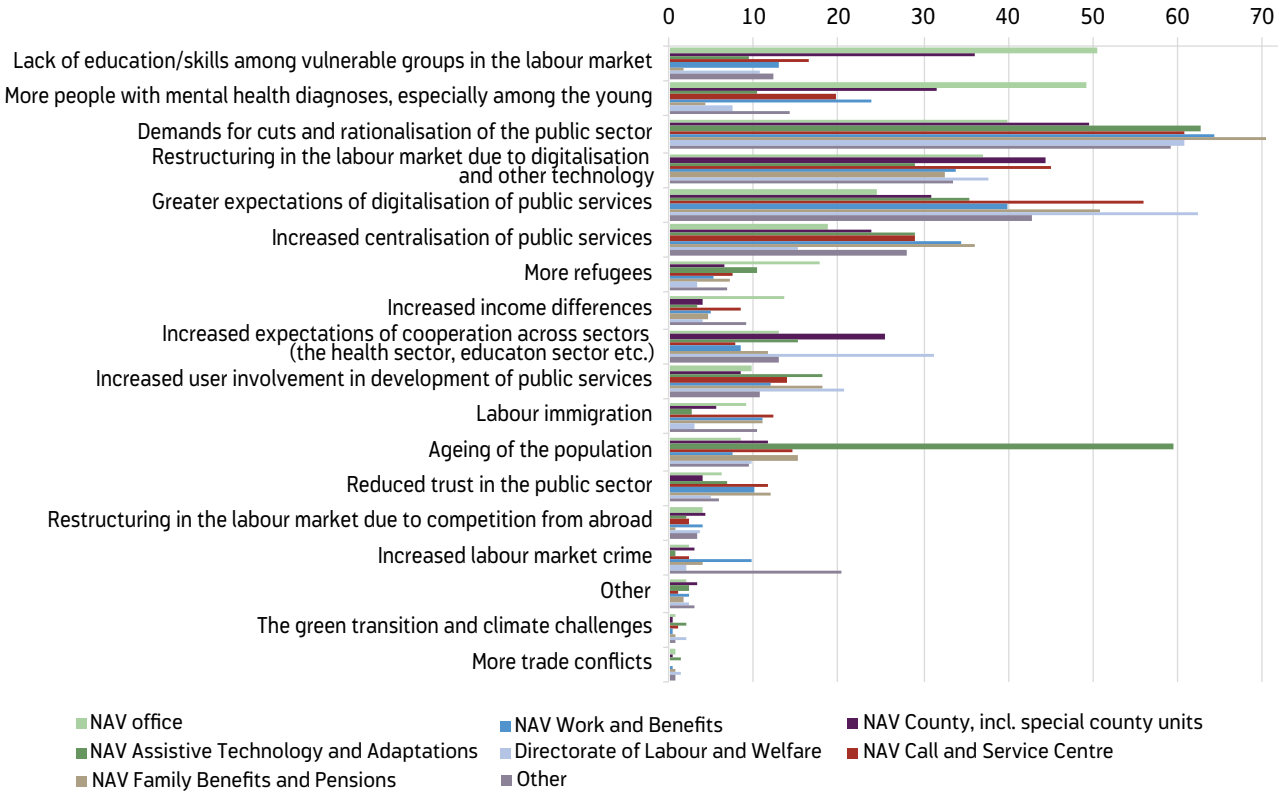
In the respondents' view, demands for rationalisation, restructuring in the labour market and digitalisation will have most effect on employees' own tasks. Among those who work in benefit administration, more employees answer that digitalisation will affect work tasks most, while employees in the NAV offices believe that they will be more affected by a lack of competence among vulnerable groups and by more users with mental health problems.

Figure V.6. **Which of the following trends do you believe will most affect NAV as a whole and your work tasks in the next 10 years? Choose up to three alternatives. Percentage response distribution**



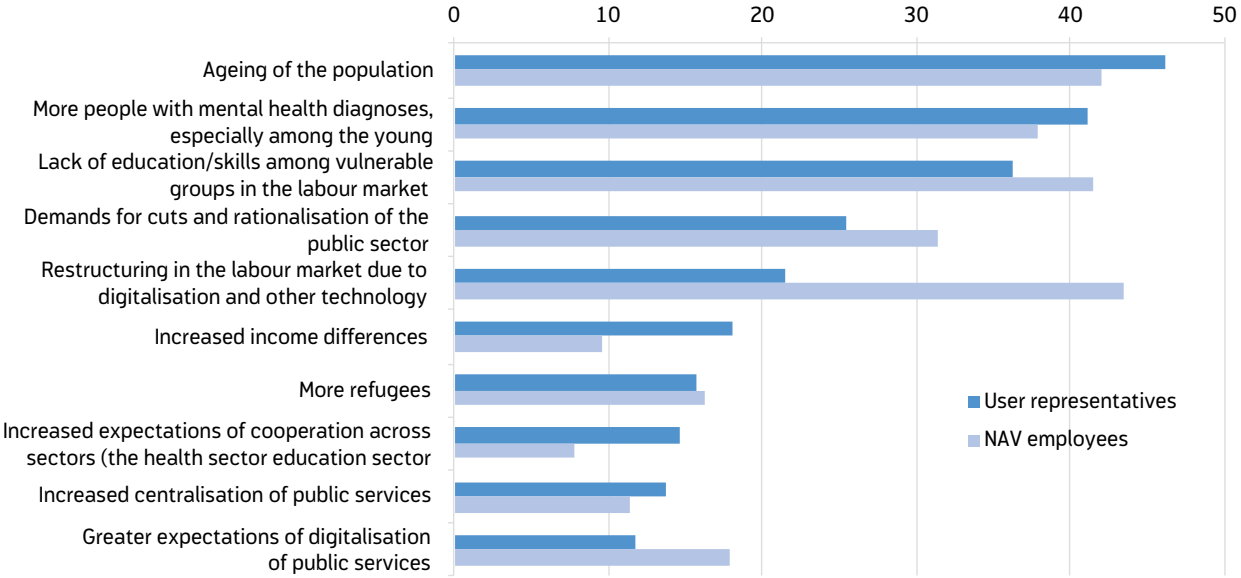
Source: **NAV**

Figure V.7. **Which of the following possible societal trends do you believe will most affect NAV as a whole and your work tasks in the next 10 years? Choose up to three alternatives. Percentage response distribution by organisational entity.**



Source: **NAV**

Figure V.8. **Which of the following possible societal trends do you believe will most affect NAV as a whole in the next 10 years? Choose up to three alternatives. Percentage response distribution for NAV employees and user representatives**



Source: **NAV**

When we break down the responses by which entity employees belong to, we see, for example, that, with the exception of those who administer assistive technology aids, the ageing population has few consequences for employees' work tasks.

Figure V.8 shows how employees in NAV and the user representatives assess which trends will most affect NAV as a whole going forward. NAV employees believe that restructuring in the labour market due to digitalisation will be a more important trend than user representatives believe it will be. The user representatives believe that increasing income differences will be a more important trend than NAV employees do. Both groups are about equally concerned about the ageing of the population and that the number of people with mental illness diagnoses can increase.

What is the most important piece of advice you can give to us who are updating the Horizon Scan?

Employees were asked to give their most important piece of advice in connection with the updating of the Horizon Scan. More than 600 employees (almost 10 per cent of the respondents) availed themselves of this opportunity.

The most frequently offered piece of advice was to make the Horizon Scan better known in NAV. Firstly, it is important to update knowledge in a world where developments are taking place faster and faster. Secondly, the Horizon Scan provides an overall view of the main challenges facing NAV going forward. It is important to describe the big picture in a relatively large and complex organisation like NAV. Knowledge and the user perspective are mentioned as important factors in meeting the challenges of the future, as well as the ability to see differences in users' needs.

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