Facts and analyses of kindergartens, primary and secondary education in Norway

- **283,600** children attend kindergarten
- **624,000** pupils attend primary and lower secondary school
- **191,000** pupils and **41,000** apprentices attend secondary education
The Education Mirror provides facts and analyses of kindergartens, primary and secondary education in Norway.

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The Norwegian Education System
– from kindergarten to upper secondary education and training

Policy goals

The Norwegian Directorate for Education and Training should contribute to reaching the policy goals for kindergartens, primary and secondary schools set out in White Paper 1 S (2015–2016) from the Ministry of Education and Research. The policy goals are:

POLICY GOALS FOR KINDERGARTENS:
› kindergartens of a high standard that promote well-being, playing and learning
› accessible kindergartens for all children
› predictable framework conditions to help ensure diversity and equity in the kindergarten sector

POLICY GOALS FOR PRIMARY AND SECONDARY SCHOOLS:
› pupils should master core skills and have good subject knowledge
› pupils should experience a good and inclusive learning environment
› more pupils and apprentices should complete upper secondary education or training
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The Education Mirror is an annual publication presenting statistics and analyses of kindergartens, primary and secondary education in Norway. It provides an up-to-date picture of figures and research on key issues surrounding these educational institutions.

Those of us tasked with developing and shaping today’s and tomorrow’s kindergartens, schools and vocational training programmes, need to learn more about the nature of these institutions. The Education Mirror offers an insight into significant trends in our area of work.

For example, you can learn more about the qualifications held by kindergarten staff, special educational needs provision, and about how much Norway spends on its kindergartens and schools. We also take a closer look at the many factors that impact well-being and learning, we investigate the reasons behind differences in completion rates and how newly qualified skilled workers fare in the labour market.

We receive increasing amounts of information from various sources; statistics, research and experience from professional practice. Most of us need help to sort all this information and to put individual fragments of knowledge into a wider context. We hope that The Education Mirror will help you to do just that.

Hege Nilssen
Director of the Norwegian Directorate for Education and Training
The Education Mirror offers an insight into significant trends in our area of work.
9 out of 10 children of kindergarten age attend kindergarten. A total of 283,600 children are enrolled in kindergarten. The proportion of children attending kindergarten varies between 68 and 100 per cent across municipalities.

The pupil-teacher ratio in primary and lower secondary schools is 17 pupils per teacher. Schools with fewer than 100 pupils have an average of 11 pupils per teacher. In the largest schools the pupil-teacher ratio is 19.

The majority of pupils have a good relationship with their teachers. This is an important factor for their motivation to learn.

Pupils with high absence rates obtain considerably lower grades. For instance, pupils with an absence rate of more than 20 per cent receive a grade 1 or 2 in their final assessment in the subject applied mathematics.
Local authorities allocate almost 40 per cent of their total spending to kindergartens, primary and lower secondary education. For local authorities, the average cost of a kindergarten place is NOK 143,600 per annum. 

A child in primary or lower secondary education costs NOK 105,500.

7 per cent of apprentices are in employment within one year of obtaining their trade certificate or journeyman’s certificate.
Kindergartens

Kindergarten is an arena for play and learning that most children will encounter. 9 out of 10 children in Norway aged between 1 and 5 attend kindergarten.

This chapter contains data from research on kindergartens, the children who attend kindergartens and the people who work there. Among other topics, you can read about the qualifications held by kindergarten staff and the work they do on language skills and special needs provision.
Chapter 1
Kindergarten

There are 6,087 kindergartens in Norway. 46 per cent of these are municipal kindergartens, while 54 per cent are privately owned.

9 out of 10 children of kindergarten age attend kindergarten. A total of 283,600 children are enrolled in kindergarten.

The proportion of children attending kindergarten varies between 68 and 100 per cent across municipalities.

Between 2011 and 2015 the proportion of kindergarten staff with a kindergarten teaching qualification increased from 35 to 41 per cent.

In the same period the proportion of staff with a childcare and youth work qualification increased from 14 to 18 per cent.
Almost 1 out of 10 kindergartens is an outdoor kindergarten or has an outdoor group.

70 per cent of kindergartens meet the minimum teacher-to-child ratio without a dispensation.

This is an increase of 15 percentage points on 2014.

Almost 60 per cent of kindergartens use language screening when required.

Language screening of all children has become less common since 2003.

2.8 per cent of kindergarten children receive special needs support.

There has been a steady yet modest increase over the last five years.
1.1 Children in kindergarten

In Norway 90.4 per cent of children in the age group 1–5 years attend kindergarten – a high number in an international perspective. A total of 283,600 children are enrolled in kindergarten.

The enrolment rate for children varies from 66 to 100 per cent across municipalities.

Table 1.1 Children enrolled in kindergarten. 2015. Per cent and numbers.

<table>
<thead>
<tr>
<th>Age</th>
<th>Enrolment rate</th>
<th>Number of children</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 year</td>
<td>3,7</td>
<td>2 201</td>
</tr>
<tr>
<td>1 year</td>
<td>69,7</td>
<td>41 895</td>
</tr>
<tr>
<td>2 years</td>
<td>91,5</td>
<td>55 363</td>
</tr>
<tr>
<td>3 years</td>
<td>95,7</td>
<td>59 775</td>
</tr>
<tr>
<td>4 years</td>
<td>96,6</td>
<td>61 036</td>
</tr>
<tr>
<td>5 years</td>
<td>97,3</td>
<td>62 972</td>
</tr>
<tr>
<td>6 years</td>
<td>-</td>
<td>366</td>
</tr>
</tbody>
</table>

| 1-5 years| 90,4          | 281 041            |
| 1-2 years| 80,7          | 97 258             |
| 3-5 years| 96,5          | 183 783            |
| 0-6 years| -             | 283 608            |

Source: Directorate for Education and Training

Glossary

Translation and brief information about some specific Norwegian terms:

**Kindergarten (barnehage):**
A direct translation of the German word Kindergarten (Barn = Kinder, hage = garten). A common term for different types of Early Childhood Education and Care (ECEC) under the provisions of the Norwegian Kindergarten Act, covering the age group 0–5 years.

**Family kindergarten (familiebarnehage):**
Family kindergarten/family day care, where assistants work in private homes with up to five children below school age, supervised and mentored by a qualified kindergarten teacher.

**Open kindergarten (åpen barnehage):**
Open kindergarten is a part-time drop-in centre for parents/care givers and children, led by a qualified kindergarten teacher. Parents/caregivers stay with their child and participate in the programme together with the child.

**Kindergarten teacher (barnehagelærer):**
Kindergarten teacher, formerly called pre-school teacher (førskolelærer). Teachers working at pre-primary level with a tertiary bachelor’s degree from university/university college.

**Pedagogical leader (pedagogisk leder):**
Pedagogical leader, a qualified kindergarten teacher
8 out of 10 minority language children attend kindergarten

There were 43,450 minority language children enrolled in kindergarten in 2015. This is 2,200 more than in 2014 – an increase of 5 per cent. This increase follows a rise in the number of minority language children in the general population, and applies for all age groups. The enrolment rate has remained relatively stable since 2014 (Figure 1.2).

Kindergarten enrolment in 1990

In 1990, 36 per cent of children below compulsory school age attended kindergarten. Among 1 and 2-year-olds the figure was 15 per cent (Gulbrandsen 2007). A total of 135,000 children were enrolled in kindergarten in 1990 – less than half the 2015 figure.
1.2 Kindergarten staff

Kindergartens employed some 75,500 full-time equivalents (FTEs) in 2015. Pedagogical leaders made up 24,700 FTEs, childcare and youth workers 11,600 FTEs, and kindergarten assistants 26,100 FTEs. These staff categories work directly with the children and are often referred to as core staff.

Increased staff-child ratio

There is an average of six children for each core staff member. This means that there is a pedagogical leader, childcare and youth worker or assistant for every six children.

Definitions of children and personnel

To be able to compare kindergartens with different categories of children, we make adjustments for age and length of stay. Children under the age of three are given a double weighting. When calculating the number of children per staff member, we use the number of core staff FTEs. Core staff include pedagogical leaders, other kindergarten teachers, childcare and youth workers, and assistants. We also include head teachers when evaluating the educational qualifications of the staff.
More kindergarten teachers and childcare and youth workers
Between 2011 and 2015 the proportion of kindergarten staff with a kindergarten teaching qualification increased from 35 to 41 per cent. In the same period the proportion of staff with a childcare and youth work qualification increased from 13 to 18 per cent (see Figure 1.4).

70 per cent of kindergartens meet the minimum teacher-to-child ratio
70 per cent of kindergartens meet the minimum teacher-to-child ratio without a dispensation from the qualifications requirement – an increase of 15 percentage points on 2014. 10 per cent of kindergartens do not meet the

Figure 1.3 Staff-child ratio by owner. 2011-2015. Numbers.

The Regulations on Teaching Staff stipulate that there must be at least one pedagogical leader per 14–18 children if the children are older than three years of age. If the children are younger than three and their daily length of stay exceeds six hours, there should be one pedagogical leader for every 7–9 children. The number of children per pedagogical leader may be increased in kindergartens where the children’s daily length of stay is shorter.

Pedagogical leaders must be qualified kindergarten teachers. A three-year teacher training qualification at university level with additional qualifications in early childhood education is also acceptable.

The local authority may grant a dispensation from the qualification requirements to allow candidates who do not meet the criteria to work as pedagogical leaders. This should only be done in exceptional circumstances.

Family day care centres and open kindergartens have separate requirements for teaching staff levels and supervision.

20,000 children attend kindergartens that do not meet the teacher-to-child ratio, while 20 per cent meet the ratio with a dispensation from the qualifications requirement.

20,000 children attend kindergartens that do not meet the teacher-to-child ratio. This is 7.5 per cent of the children (see Figure 1.5).
Less than half of all kindergartens have male staff
9 per cent of core staff are male, and 8 per cent of kindergarten heads are men. Most men working directly with the children in kindergarten are assistants. In 2015 there were 3,160 kindergartens without male employees amongst their core staff, which means that fewer than half of all kindergartens have male staff. In 1,400 kindergartens there is only one man in the core staff. Kindergartens with male head teachers are more likely to have male core staff.
1.3 Kindergartens

There are 6,087 kindergartens in Norway. 46 per cent of them are municipal kindergartens, while 54 per cent are privately owned. Private kindergartens tend to be smaller, which means 51 per cent of children attend municipal kindergartens and 49 per cent private kindergartens. The total number of kindergartens has fallen over the last few years, primarily because of the decline in family kindergartens and open kindergartens.

Fewer family kindergartens and open kindergartens

In 2015 there was a total of 632 family kindergartens, almost all of them privately owned. Nearly 250 family kindergartens have closed since 2011 (Figure 1.6). As a result, 4,300 fewer children are now attending family...
Kindergartens. 2 per cent of kindergarten children currently attend family kindergartens and most of them are under the age of three (Figure 1.7).

There is now a total of 171 open kindergartens, almost 100 fewer than in 2011. Open kindergartens are most common in the largest municipalities.

**Most kindergartens are organised into departments**
89 per cent of all kindergartens have organised their children into departments or are so small that all the children are in a single group. Over the last few years kindergartens have been taking an increasingly flexible approach to grouping the children.

**Stable group sizes**
For the youngest children (0–2 years) the most common group size is 9 children, and for the oldest children (3–5 years) it is 18 children. 18 children is also the most common

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**Figure 1.8** Children by kindergarten size. 2011-2015. Numbers.

**Figure 1.9** Kindergartens by organisation form and size. 2015. Per cent.

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Source: Directorate for Education and Training
Sweden introduces recommendations on group size

In 2016 Sweden issued a recommendation on group size of 6–12 for the younger children (1–3 years) and 9–15 for the older children (4–5 years). The recommendation is based on a review of recent research. The research emphasises that group size should be seen in relation to staff qualifications, staff-child ratio, make-up of the group of children, and the physical environment in the kindergarten (Swedish National Agency for Education 2016a). Norway has not made any recommendations on group sizes.

The average group size in Sweden is 16.7 children. For children aged 1–3 it is 13.2 children (Swedish National Agency for Education 2016b).

Almost all kindergartens meet the floor space recommendations for play and common areas

The average floor space ratio in 2015 was 5.5 m² per child, a figure that has remained relatively stable since 2008. Almost all kindergartens meet the floor space recommendations for play and common areas.

A large number of outdoor kindergartens

1,617 kindergartens report that they have adopted a distinct profile. Outdoor kindergartens are the most common type. Almost 500 kindergartens report that they are outdoor kindergartens or have an outdoor group. This is just under 10 per cent of all kindergartens (see Figure 1.10).

A profile in this context is a sustained approach that is reflected in the kindergarten’s annual plan and/or statutes and which provides direction for the kindergarten’s pedagogical practices.

In 2015 there were 23 Sami kindergartens in Norway, attended by 523 children.

Floor space ratio

The recommended indoor play space ratio is 4 m² net per child older than three years of age and just over 5 m² per child under the age of three. The outdoor space should be around six times bigger than the indoor play space.

Entitlement to a kindergarten place

All children turning one year of age before the end of October in the year in which an application is made, is entitled to a kindergarten place.
1.4 Well-being and development

The Kindergarten Act states that kindergartens shall “contribute to well-being and joy in play and learning, and shall be a challenging and safe place for community life and friendship”. Kindergarten is one of the public services that consumers are most satisfied with. Parents are especially satisfied with the care given to their children by kindergarten staff (Agency for Public Management and Government 2015).

**Parents with children in small kindergartens are more satisfied**

In-depth interviews indicate that parents value security and care for their children in kindergartens, and further that they associate small kindergartens with security and
familiarity. Parents with children in small kindergartens are more satisfied with the kindergarten provision than parents with children in medium-sized and large kindergartens. “Large kindergartens are often not considered the safer option; they have to prove themselves through their practices” (Bråten et al. 2015:9).

1.5 Language in kindergarten

Early and appropriate language stimulation is an important element in kindergartens. Communication, Language and Text is the subject area in the Framework Plan that kindergartens dedicate most time to (Sivertsen et al. 2015).

Fewer kindergartens screen the language skills of all children

Almost 60 per cent of kindergartens carry out language screening of children when parents or staff find this necessary, while 35 per cent routinely screen the language skills of all children (Table 1.2) (Haugset et al. 2015).

Well-being in Oslo kindergartens

Most children are content, have friends and think kindergarten is a good place to be. Most of them also feel that they are being seen, heard and understood by kindergarten staff and that they have a say in kindergarten life. However, almost 40 per cent of children find kindergarten just “tolerable”, and a few are unhappy. A small number of children are harassed by other children. This data comes from a well-being survey of kindergartens in Oslo in autumn 2015 (Sandseter and Seland). The findings are largely consistent with past surveys (Bratterud et al. 2012).

Children are content when:
- they engage in everyday activities such as outings, group time and meals.
- they have good friends and someone to play with in kindergarten.
- they have a favourite adult in kindergarten and feel that they know all the adults well.
- staff do fun things together with them and play with them when they are indoors.
- the adults are available and nearby to provide help when they need it.

A total of 283 children aged 3–5 and 19 kindergarten teachers from 17 kindergartens participated in the pilot survey. The researchers used an online survey tool comprising 50 questions about how the children perceived day-to-day life in kindergarten. A kindergarten employee talked to the children about the different topics and questions posed by the tool and then coded the answers in accordance with the given answer categories.

Source: Sandseter and Seland 2015
1.6 Special educational needs

More children are receiving special educational needs support

7,950 children received special educational needs support in kindergarten in 2015 (see Table 1.3). This is an increase since 2014, and there has been a steady rise in special needs provision over the last few years. These children are allocated an average of 15 hours of special needs support every week, divided between teachers and assistants. Assistants and teachers are assigned more or less the same number of special needs hours.

It is mainly older children who receive special needs support (Figure 1.11). This may be because special needs support often is intended to prepare the children for school and because challenges often only begin to surface after a few years of attending kindergarten (Wendelborg et al. 2015).

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Table 1.2  Routines for screening language skills in kindergarten. 2008–2015. Per cent.

<table>
<thead>
<tr>
<th>Routines for screening language skills</th>
<th>2008</th>
<th>2012</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routinely screen all children</td>
<td>60</td>
<td>50</td>
<td>36</td>
</tr>
<tr>
<td>Routinely screen all children with a different language background than Norwegian</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Screen the children’s language if parents and/or staff believe it is necessary*</td>
<td>33</td>
<td>42</td>
<td>58</td>
</tr>
<tr>
<td>Rarely screen children using language screening tools*</td>
<td>2</td>
<td>2</td>
<td>1,3</td>
</tr>
<tr>
<td>Never screen children using language screening tools*</td>
<td>**</td>
<td>**</td>
<td>0,3</td>
</tr>
<tr>
<td>Don’t know</td>
<td>**</td>
<td>**</td>
<td>0,2</td>
</tr>
</tbody>
</table>

Source: Haugset et al. 2015, Gulbrandsen and Eliassen 2013

* The following answer categories were used in Gulbrandsen and Eliassen: “No fixed routines applying to all children, but children are often selected on the basis of observation and evaluation by staff or parents” and “no fixed routines applying to all children, and only sporadic (infrequent) screening of the children’s language skills”.

** These questions have not been asked previously
## Special educational needs support

Section 5-7 of the Education Act states that children below compulsory school age are entitled to special educational needs support if they require it. The support may be given in kindergartens, schools, social and medical institutions, or by the educational psychology service.

### Parents experience that their children receive the assistance they need

Around three quarters of parents of children who receive special educational needs support, are satisfied with the special needs provision their children receive. Those who are not satisfied report that their children receive too few hours with a special needs teacher or assistant, and that there is inadequate expertise and too high staff turnover amongst assistants (Wendelborg et al. 2015).

<table>
<thead>
<tr>
<th>Year</th>
<th>Children receiving special educational support</th>
<th>Proportion of all kindergarten children</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>6 482</td>
<td>2.3%</td>
</tr>
<tr>
<td>2012</td>
<td>6 577</td>
<td>2.3%</td>
</tr>
<tr>
<td>2013</td>
<td>6 959</td>
<td>2.4%</td>
</tr>
<tr>
<td>2014</td>
<td>7 799</td>
<td>2.7%</td>
</tr>
<tr>
<td>2015</td>
<td>7 950</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Source: Directorate for Education and Training

### Figure 1.11

Children with an individual decision on special educational needs support. 2015. Numbers.

Source: Directorate for Education and Training
1.7 Kindergarten-home cooperation

According to the Kindergarten Act, kindergartens should work in cooperation and close agreement with the home to safeguard the children's needs for care and play, and promote learning and formative education as a basis for their all-round development. To ensure such cooperation with the home, every kindergarten should have a parents’ committee and a co-ordinating committee.

97 per cent of kindergartens conduct informal parent-teacher conferences at least twice a year (see Table 1.4). 78 per cent of kindergartens also hold formal parents’ meetings at least twice a year (Haugset et al. 2015).

1.8 Transition from kindergarten to school

Collaborating with the school, the kindergarten should facilitate the children’s transition from kindergarten to Year 1 of school (The Framework Plan for the Content and Tasks of Kindergartens). It is common for kindergartens to run dedicated preschool groups. In-depth interviews have also revealed that kindergartens focus on social and language skills when preparing the children for school (Zambrana 2015, Rambøll 2010).

Table 1.4 Parent involving activities in kindergartens. 2002–2015. Per cent.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The kindergarten holds parents’ conferences at least twice a year</td>
<td>88</td>
<td>88</td>
<td>86</td>
<td>94</td>
<td>97</td>
</tr>
<tr>
<td>The kindergarten holds parents’ meetings at least twice a year</td>
<td>87</td>
<td>90</td>
<td>80</td>
<td>85</td>
<td>78</td>
</tr>
<tr>
<td>The co-ordinating committee meets at least twice a year</td>
<td>78</td>
<td>83</td>
<td>80</td>
<td>86</td>
<td>91</td>
</tr>
</tbody>
</table>

Source: Gulbrandsen and Eliassen 2013 and Haugset et al. 2015
Recommended activities for succeeding with the transition from kindergarten to school

Following a research review, the Knowledge Centre for Education has recommended the following activities:

- **Cooperation between the kindergarten and the home:**

- **Cooperation between the parents and the school:**
  Open two-way dialogue with parents before, during and after the transition.

- **Measures that could be initiated by the kindergarten:**
  Let the children familiarise themselves with the school. Establish a joint forum for information and discussion involving both kindergarten and school staff.

- **Measures that could be initiated by the school:**
  Induction programmes. Clearly defined goals and expectations. Flexible and dynamic transition practices (the school must allow for the fact that the children need time to deal with the transition).

Source: Lillejord et al. 2015
Facts about primary and lower secondary education

Compulsory education in Norway lasts 10 years. There are currently 624,000 pupils enrolled in public and private primary and lower secondary schools.

This chapter provides facts and figures on school structures, the distribution of teaching hours, special needs education, pupil-teacher ratios and teacher qualifications, among other things.
In 2015 624,000 pupils are enrolled in primary and lower secondary schools in Norway.

That is almost 4,800 more than the previous year.

31 new primary and lower secondary schools opened in the same period – 17 of them are private schools.

50 primary and lower secondary schools have closed down since the 2014-15 school year.

Norwegian and maths are the subjects covering the most teaching hours at the primary and lower secondary levels. They make up almost 40 per cent of the total number of teaching hours.

The pupil-teacher ratio in primary and lower secondary schools is 17 pupils per teacher. Schools with fewer than 100 pupils have an average of 11 pupils per teacher.

In the largest schools the average is 19 pupils.
7 per cent of pupils in primary and lower secondary schools receive special tuition in Norwegian language. In Oslo 22 per cent of pupils receive special tuition in Norwegian language.

Physical activity and health is the most popular optional subject. 43 per cent of boys and 23 per cent of girls choose this subject.

7 out of 10 lower secondary pupils choose a foreign language. 44 per cent of these pupils study Spanish.

12,400 maths teachers do not have enough credits to fully qualify them to teach maths. They make up 38 per cent of all maths teachers.
Chapter 2

Facts about primary and lower secondary education

Compulsory education

Compulsory education is divided into two main levels: Primary school (grades 1–7) and lower secondary school (grades 8–10). The compulsory education system is based on the principle of equitable education for all. Compulsory education is free and primarily financed by the local authority.

2.1 Pupil and school numbers

In autumn 2015 (1 October) there are 624,000 pupils enrolled in primary and lower secondary schools in Norway. That is 4,800 more than at the same time in 2014. Pupil numbers have remained relatively stable in the past decade, but there are significant geographical variations. For example, pupil numbers in Oslo have risen by 21 per cent in the last ten years whereas the northern part of Norway see a decrease.

The number of primary and lower secondary school pupils will rise sharply until 2025

Statistics Norway expects the number of children of primary and lower secondary school age to rise to 664,000 by 2025, an increase of 6 per cent when compared to today’s figure. Pupil numbers are expected to rise by around 5,000 annually from 2015 and by around 3,000 annually from 2020 (Statistics Norway 2015).

Figure 2.1 Pupils and primary and lower secondary schools by school size. 2005-2015. Per cent.
Fewer and larger schools
There is a tendency towards fewer and larger schools in Norway. In 2015 there are 2,867 primary and lower secondary schools. This is 19 fewer than in 2014 and almost 400 fewer than in 2005. In the autumn of 2015 there is an average of 218 pupils per school – 26 more than a decade ago.

In 2015 there are 160 schools with more than 500 pupils in Norway. More than 90,000 of all pupils attend these schools. Ten years ago there were 117 schools with the same high pupil numbers, and 65,000 pupils were enrolled in these schools. In addition to schools becoming larger, the average number of pupils enrolled in these schools has risen from 556 to 589.

Conversely, the number of small schools has decreased. In 2005 almost 1,200 schools had fewer than 100 pupils. Today the figure has dropped to below 900. 30 per cent of schools have fewer than 100 pupils, but fewer than 10 per cent of pupils attend the smallest schools, as shown in Figure 2.1.

More private primary and lower secondary schools
The number of private primary and lower secondary schools has risen by 45 per cent since 2005, and there are now 224 approved private schools in Norway (see Figure 2.2). This is 69 more than in 2005, and most of them are private government-dependent schools. Almost 22,000 pupils currently attend private schools. This is 3.5 per cent of all primary/lower secondary pupils and an increase of 1.1 percentage points when compared to 2005. On average, private schools have fewer pupils than public schools. In the autumn of 2015 private schools have on
average 97 pupils compared to 229 pupils in municipal schools.

The key trend is that few pupils attend private schools in Norway compared to the other Nordic countries. In Denmark as many as 15 per cent of primary school pupils and 27 per cent of lower secondary pupils attend private schools. Sweden also has more pupils enrolled in private schools than Norway (see Figure 2.3).

2.2 Distribution of teaching hours in primary and lower secondary school

Norwegian and maths are the subjects with the highest number of teaching hours at the primary and lower secondary levels. Together they make up almost 40 per cent of the total number of teaching hours, which is 5,234 hours at the primary level and 2,622 hours at the lower secondary level. Following these, are physical education and social studies (see Figure 2.4).

The number of teaching hours has increased in the last decade

Norway has increased the overall number of teaching hours on several occasions over the last decade, and in 2015 it surpassed the OECD average (OECD 2015). In 2005 Norway provided well below the average number of teaching hours in the OECD. Only Finland provided less hours of instruction than Norway (OECD 2007).

Norway spends more time on reading, writing, maths and science than other OECD countries

Most OECD countries allocate around half the total number of teaching hours at the primary level to reading, writing and literature, maths and science, but since the total number of teaching hours varies, there are considerable differences in overall teaching hours. Norwegian pupils receive a total of 2,588 teaching hours in reading, writing and literature, maths and science. Canada is the only OECD country offering more hours than Norway in these subject areas.

Norway allocates a total of 427 teaching hours to the subject area religion, ethics and moral education, almost twice as many as the OECD average. Only Israel and Ireland provide more teaching hours in this subject area than Norway.
2.3 Adapted education and special needs education

Under the Education Act, all education must be adapted to each pupil’s abilities and aptitudes. The principle of adapted education applies to all pupils, including those who need additional academic challenges.

Pupils who do not benefit sufficiently from ordinary education are entitled to special needs education. Subject to a professional assessment, the school should decide whether an individual pupil is entitled to special needs education or not. The decision should specify which type of special educational needs support the pupil is entitled to.

Fewer pupils receive special needs education

In 2015, 7.9 per cent of Norwegian pupils were subject to an individual decision about special educational needs provision. This is just under 50,000 pupils. Almost half of pupils receiving special needs education have been granted more than 7 hours per week. 68 per cent of pupils receiving special needs education are boys. This figure has remained relatively stable over time.

17.7 per cent of all teaching hours were spent on special needs education in the 2015-16 school year – an increase of 14.6 per cent since 2005. The figure has remained relatively stable since 2011-12.
Almost three times as many pupils receive special needs education in Year 10 as in Year 1

The per cent of pupils receiving special needs education increases as the pupils get older. 3.8 per cent of Year 1 pupils receive special needs education, while in Year 10 the figure is 10.6 per cent, i.e. almost three times higher. One reason for this increase could be that academic demands intensify as pupils get older.

More pupils receive special needs education in ordinary classes

Special needs education should be provided within the pupil’s ordinary class insofar as it is possible and sufficient. 35 per cent primarily school pupils receive special needs education in ordinary classes. The remainder receive most of their special needs education in groups or alone. This represents a significant increase since 2013-14, when 28 per cent received special needs education within their ordinary class.

Almost 4,000 pupils attend dedicated special needs schools or schools with a dedicated, permanent special needs unit. A further 1,700 pupils are on placements in alternative learning environments for one day or more every week with timetables including activities such as outdoor pursuits, farm work or car mechanics.

2.4 Special language tuition

7 per cent of pupils receive special Norwegian language tuition

In the 2015-16 school year more than 43,000 pupils received special Norwegian language tuition, equivalent to 7 per cent of all pupils (see Figure 2.6). This figure has remained stable in recent years, possibly because the number of children aged 0–15 immigrating to Norway has remained stable (Statistics Norway).

As of 1 January 2015 a total of 14.3 per cent of children in primary and lower secondary education came from immigrant backgrounds, and around half of them received special tuition in the Norwegian language. By immigrant background we mean children who have immigrated to Norway and Norwegian-born children of two immigrant parents.
Entitlement to special Norwegian language tuition

Pupils with a mother tongue other than Norwegian or Sami are entitled to special Norwegian tuition until they are fluent enough in Norwegian to be able to follow ordinary tuition.

Oslo has the largest number of pupils receiving special Norwegian language tuition

Oslo stands out as the municipality with the largest number of pupils receiving special tuition in the Norwegian language. 22 per cent of pupils in Oslo receive special Norwegian language tuition.

Fewer pupils receive other special language tuition

33 per cent of pupils who received special Norwegian language tuition in the 2015-16 school year also received other special language tuition. This is a reduction of 7 per cent when compared to the previous year and of 35 per cent since 2010-11. Mother tongue tuition has halved during this period.

Of the pupils receiving other special language tuition, 5 per cent receive both mother tongue tuition and bilingual subject tuition, 20 per cent only receive bilingual subject tuition.

Entitlement to other special language tuition

Pupils who are entitled to special Norwegian language tuition are also entitled to tuition in their mother tongue and/or to bilingual subject tuition if needed. Mother tongue tuition is provided in addition to ordinary teaching hours. Bilingual subject tuition involves tuition within ordinary teaching hours where the pupil’s mother tongue is used, either alone or in combination with Norwegian. If staff are unable to provide mother tongue tuition or bilingual tuition, the local authority must arrange for other adapted tuition to be provided insofar as it is possible.
tuition, and 4 per cent only receive mother tongue tuition. 4 per cent receive adapted tuition. Most of the pupils receiving mother tongue tuition and/or bilingual subject tuition do so in Somali, Polish or Arabic.

2.5 Elective subjects and foreign languages in lower secondary school

At the lower secondary level pupils can choose between different elective subjects and foreign languages. The pupils' options are in practice restricted by what is offered by the school in question, and the range of subjects varies considerably from school to school.

7 out of 10 lower secondary school pupils study a foreign language

Secondary school pupils should either study a foreign language or pursue in-depth studies in English, Norwegian or Sami. The pupils may study working life skills instead, if the school offers this. In 2015, 74 per cent of pupils chose to study a foreign language. 18 per cent chose in-depth language studies and 7 per cent chose working life skills.

Spanish is the most popular foreign language. 44 per cent of pupils who study a foreign language choose Spanish. 38 per cent choose German, and 17 per cent choose French. Less than 1 per cent of pupils study languages other than German, French and Spanish.

Almost 60 per cent of pupils choose one of the three most popular elective subjects

Pupils in Years 8–10 can choose at least 2 out of 14 different elective subjects.

Physical activity and health is the most popular elective subject followed by music and stage production, and design and redesign. Almost 60 per cent of pupils choose one of these elective subjects. 43 per cent of boys choose physical activity and health, while girls' choices are spread more evenly across the three most popular elective subjects. (see Figure 2.7).

More pupils in lower secondary take subjects from the upper secondary curriculum

Lower secondary pupils with sufficient background knowledge may follow tuition in one or more subjects from the upper secondary curriculum. Pursuing upper secondary subjects is
one of the few formal arrangements available at the lower secondary level for pupils seeking additional challenges. In the 2015-16 school year 1,600 pupils take subjects from the upper secondary curriculum – 600 more than in 2011-12.
2.6 Out-of-school care

The local authority should provide out-of-school care (known as SFO) before and after ordinary school hours for pupils in Years 1–4 and for pupils with special needs in Years 1–7. The arrangements should provide care and supervision and offer the children opportunities for play, cultural and leisure activities.

Almost 160,000 pupils attend SFO. 90,000 of them have a full-time SFO place. The proportion of children attending SFO has risen by 8 percentage points in the last decade, and 62 per cent of all pupils now attend SFO.

The older the children become, the less they participate in SFO. 80 per cent of Year 1 pupils attend SFO, while in Year 4 the figure is 33 per cent (see Figure 2.8).

2.7 Staff resources

Little change in the pupil-teacher ratio

The pupil-teacher ratio tells us how many pupils there are for every teacher in a teaching situation. Only ordinary teaching situations are measured, and hours spent on special Norwegian language tuition and special needs education are not included. In 2015-16 the average pupil-teacher ratio in ordinary teaching situations was 16.8. The pupil-teacher ratio has changed little in the last five years.

23 per cent of pupils attend schools with 20 or more pupils per teacher in ordinary teaching situations. This is an increase from 14 per cent in 2001-02. There may be several reasons for this increase. For instance, earlier in this chapter we learnt that there are now 100 fewer primary
Chapter 2  Facts about primary and lower secondary education

and lower secondary schools today than a decade ago, and there are more large schools now than before. There is significant covariation between school size and pupil-teacher ratio. The greater the average school size in a municipality, the more pupils per teacher, see Figure 2.9.

**Figure 2.9** Average pupil-teacher ratio by school size. 2015-16. Numbers.

<table>
<thead>
<tr>
<th>School Size</th>
<th>Pupil-Teacher Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-99 pupils</td>
<td>10.6</td>
</tr>
<tr>
<td>100-149 pupils</td>
<td>14.8</td>
</tr>
<tr>
<td>150-199 pupils</td>
<td>16.0</td>
</tr>
<tr>
<td>200-249 pupils</td>
<td>16.9</td>
</tr>
<tr>
<td>250-299 pupils</td>
<td>17.3</td>
</tr>
<tr>
<td>300 or more pupils</td>
<td>18.9</td>
</tr>
</tbody>
</table>

Source: Directorate for Education and Training

2.8 Teachers’ qualifications

Applicants must hold a teaching qualification or other approved qualifications before they can take up permanent employment in a primary or lower secondary school. In addition, there are criteria regarding study credits in the subjects they teach.

5 per cent of teachers do not hold the required qualifications for employment. These teachers are employed either on a temporary basis or on the condition that they complete their teacher’s degree within a specified timeframe.

Many teachers do not meet the new criteria on study credits in the subjects they teach

Teachers of Norwegian, maths, English, Sami and Norwegian Sign Language must have obtained 30 study
credits to teach at the primary level and 60 credits to teach at the lower secondary level.

Out of the 95 per cent of teachers who are qualified to be employed as teachers, many do not hold the necessary specific qualifications for the actual subjects they teach. 9,500 Norwegian teachers, 12,400 maths teachers and 11,300 English teachers do not have sufficient study credits to meet the qualifications criteria. This applies to 26 per cent of all Norwegian teachers, 38 per cent of maths teachers and 48 per cent of English teachers.

There are differences between the primary and lower secondary levels. The per cent of teachers who do not meet the qualifications criteria for teaching Norwegian and maths is higher at lower secondary level. For English, it is higher at primary level (see figure 2.10).

Figure 2.10 Teachers not having sufficient study credits for the subject they teach by subject and level. 2015-16. Per cent.
Facts about upper secondary education

92 per cent of all 16 to 18-year-olds are enrolled in upper secondary education or training.

In this chapter you can find out which study programmes and programme subjects they pursue and how many of them receive special needs education.

You can also read about how many applicants obtain apprenticeship contracts, and in which trades.
191,100 pupils are enrolled in upper secondary education in autumn 2015.

In addition there are 39,000 apprentices and 2,000 training candidates.

There are significant differences between boys and girls in terms of the study programmes they choose. Girls make up 85 per cent of all pupils following the Healthcare, Childhood and Youth Development programme.

96 per cent of pupils following the Building and Construction programme are boys.

The most popular study programme is Specialisation in General Studies. 41 per cent of all pupils at Vg1 level follow this study programme.

53 per cent of pupils on the Specialisation in General Studies programme choose languages, social sciences and economics, while 41 per cent choose maths, sciences and technology.
Chapter 3

Facts about upper secondary education

There were 19,800 new apprenticeship contracts in 2015 – an increase of 8 per cent since 2011.

The Healthcare, Childhood and Youth Development programme saw the largest increase with almost 1,000 more contracts than in 2011.

There are 423 upper secondary schools in Norway – 92 of them are privately owned. Private schools tend to be smaller than public schools.

Private schools have an average of 162 pupils.

The average in public schools is 529 pupils.

25,700 teachers work in public upper secondary schools. 53 per cent of them are female.
3.1 Pupils in upper secondary education and training

191,100 pupils were enrolled in upper secondary education and training in autumn 2015. In addition, there are 39,000 apprentices and 2,000 training candidates. 59 per cent of pupils are enrolled in general study programmes and 41 per cent are enrolled in vocational study programmes. 92 per cent of all 16 to 18-year-olds were enrolled in upper secondary education or training in autumn 2015 (Statistics Norway).

Most pupils enrol on the programme for specialisation in general studies

Pupils can choose between 12 different study programmes: 3 general study programmes and 9 vocational programmes. Specialisation in general studies is the most popular of all the study programmes, accounting for 41 per cent of all pupils at the Vg1 level. The last two years have seen an increase in the per cent of pupils pursuing general study programmes.

10,800 pupils at Vg3 level follow supplementary studies to qualify for higher education (Table 3.1). Four times as

Table 3.1 Pupils and apprentices in upper secondary education and training\(^1\). 2015. Numbers.

<table>
<thead>
<tr>
<th></th>
<th>Vg1</th>
<th>Vg2</th>
<th>Vg3</th>
<th>Apprentices and training candidates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General study programmes (3 programmes)</td>
<td>37 200</td>
<td>33 100</td>
<td>34 600</td>
<td></td>
<td>104 900</td>
</tr>
<tr>
<td>Supplementary Studies after Vg2 (vocational programmes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 700</td>
</tr>
<tr>
<td>Supplementary Studies after gaining a vocational qualification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 100</td>
</tr>
<tr>
<td>Vocational study programmes (9 programmes)</td>
<td>37 900</td>
<td>31 700</td>
<td>5 800</td>
<td></td>
<td>75 400</td>
</tr>
<tr>
<td>Apprentices and training candidates</td>
<td></td>
<td></td>
<td></td>
<td>41 000</td>
<td>41 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75 100</strong></td>
<td><strong>64 800</strong></td>
<td><strong>51 200</strong></td>
<td></td>
<td><strong>232 100</strong></td>
</tr>
</tbody>
</table>

\(^1\) Vg3 includes vocational training in school

Upper secondary education and training

Upper secondary education and training is non-compulsory. However, every pupil who has completed the lower secondary level is entitled to upper secondary education or training leading to university and college admissions certification or to a vocational qualification.
many pupils choose supplementary studies after completing Vg2 level as after completing their full vocational qualification. In the autumn 2015, 600 more pupils than in the previous year chose supplementary studies after completing their vocational qualifications.

### Almost 1 out of 4 vocational pupils study Healthcare, Childhood and Youth Development

Healthcare, Childhood and Youth Development is the most popular vocational study programme at Vg1 level, attracting almost a quarter of all vocational pupils in autumn 2015 (see table 3.2). This is also where we find the greatest relative increase in pupils at almost 8 per cent on the previous year. Technical and industrial production and Electrical and Electronic Engineering are the second and third most popular programmes with 17 and 13 per cent respectively of all vocational pupils at Vg1 level.

### Significant gender variations between vocational study programmes

There are significant differences between boys and girls in terms of the study programmes they choose. Girls make up 87 per cent of all pupils on Design, Arts and Crafts and 85 per cent on Healthcare, Childhood and Youth Development programmes. Boys, on the other hand, make up 73 per cent of all pupils on Technical and Industrial Production and Electrical and Electronic Engineering programmes.

---

**Table 3.2** Pupils and apprentices by study programme and level. 2015-16. Numbers.

<table>
<thead>
<tr>
<th>Study Programme</th>
<th>VG1</th>
<th>VG2</th>
<th>VG3</th>
<th>Apprentices and training candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialisation in General Studies</td>
<td>30 594</td>
<td>27 440</td>
<td>28 825</td>
<td></td>
</tr>
<tr>
<td>Supplementary Studies</td>
<td>10 832</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports and Physical Education</td>
<td>4 236</td>
<td>3 743</td>
<td>3 816</td>
<td></td>
</tr>
<tr>
<td>Music, Dance and Drama</td>
<td>2 323</td>
<td>1 927</td>
<td>1 950</td>
<td></td>
</tr>
<tr>
<td>Building and Construction</td>
<td>4 336</td>
<td>3 384</td>
<td>128</td>
<td>8 371</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>2 165</td>
<td>1 482</td>
<td>287</td>
<td>2 009</td>
</tr>
<tr>
<td>Electrical and Electronic Engineering</td>
<td>5 117</td>
<td>4 414</td>
<td>1 128</td>
<td>7 893</td>
</tr>
<tr>
<td>Healthcare, Childhood and Youth Development</td>
<td>8 902</td>
<td>7 245</td>
<td>899</td>
<td>6 583</td>
</tr>
<tr>
<td>Media and Communication</td>
<td>3 194</td>
<td>2 811</td>
<td>1 957</td>
<td>169</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>1 835</td>
<td>1 515</td>
<td>751</td>
<td>1 043</td>
</tr>
<tr>
<td>Restaurant Management and Food Processing</td>
<td>2 321</td>
<td>1 450</td>
<td>26</td>
<td>2 176</td>
</tr>
<tr>
<td>Services and Transport</td>
<td>3 515</td>
<td>3 859</td>
<td>162</td>
<td>4 515</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>6 564</td>
<td>5 530</td>
<td>424</td>
<td>8 214</td>
</tr>
</tbody>
</table>

Source: Directorate for Education and Training, preliminary figures
Facts about upper secondary education

Chapter 3

3.2 Programme areas and subjects

At Vg2 level, pupils choose which programme area they wish to pursue within their wider study programme.

The programme area for languages, social sciences and economics is most popular

53 per cent of pupils on the Specialisation in General Studies programme choose the programme area for languages, social sciences and economics, 41 per cent choose maths, sciences and technology, and 3 per cent choose arts, crafts and design.

The largest programme area on the Healthcare, Childhood and Youth Development programme is healthcare followed...
Figure 3.2 Boys and girls by selected scientific subjects. 2015-16. Per cent.

Source: Directorate for Education and Training
by childcare and youth work. 83 per cent of pupils enrolled on the Healthcare, Childhood and Youth Development programme have chosen one of these programme areas. There are 3,200 pupils studying healthcare at Vg2 level, making it the largest vocational programme area.

**More boys than girls study physics and maths for the natural sciences**
Maths is one of the core sciences and consequently attracts the largest number of pupils of all the science subjects. Other major science subjects are physics with 14,000 pupils, chemistry with 14,400 pupils and biology with 11,400 pupils. There are considerable gender differences between the science subjects. More boys do physics and mathematics for the natural sciences, while girls are more likely to choose biology and chemistry.

### 3.3 Upper secondary schools

There are 423 upper secondary schools in Norway. The average pupil number is 449. 22 per cent of upper secondary schools are privately owned. Private schools tend to be smaller than public schools. Public upper secondary schools have an average of 529 pupils, while the average in private schools is 162. 43 per cent of private upper secondary schools have fewer than 100 pupils.

Most private upper secondary schools are government dependent schools. Dependent schools receive government funding and must meet certain criteria in order to be approved.

In 2015, there were 90 approved private upper secondary schools in Norway. Most schools approved under the Independent Schools Act are schools with an alternative philosophical or religious orientation.

**Large number of private school pupils in Oslo**

Some 14,900 upper secondary pupils were attending private schools in autumn 2015. They make up 8 per cent of all pupils. Oslo has the highest proportion at 16 per cent. 3 out of 4 pupils attending private upper secondary schools follow a general study programme.

Although the per cent of pupils attending private schools is higher at the upper secondary stage than at the primary and lower secondary stages, it is still low when compared to other countries. OECD figures place Norway well below the OECD average of 19 per cent (Figure 3.3). At 11 per cent, Norway is also below Iceland, Finland and Sweden but well above Denmark.
3.4 Apprentices in upper secondary training

An apprentice is someone who has taken up an apprenticeship contract with an enterprise, aiming to obtain a trade or journeyman’s certificate. There were 39,000 registered apprentices as of 1 October 2015. That is 600 more than in 2014. 71 per cent of apprentices are male.

In addition to the apprentices, there were 2,000 training candidates and more than 1,000 pupils receiving in-school vocational training.

Increasing the number of apprenticeship contracts has been a goal for a number of years. 19,800 apprenticeship contracts were taken up in 2015 – an increase of 8 per cent since 2011.

7 out of 10 applicants get an apprenticeship contract

28,000 pupils applied for apprenticeship places in 2015. This is 1,100 more than in 2014. The number of applicants has increased in recent years and is now around 14 per cent higher than four years ago.

Most new apprenticeship contracts in Healthcare, Childhood and Youth development

6 out of 9 study programmes have seen an increase in the number of new apprenticeship contracts since 2011, while numbers have dropped for the other programmes, see Table 3.3. The Healthcare, Childhood and Youth Development programme saw the largest increase with almost 1,000 more contracts. Meanwhile, there were 250 fewer new apprentices on the Design, Arts and Crafts programme.

Training candidates

The training candidature scheme targets pupils that for various reasons struggles to achieve the requirements in the trade or journeyman's certificate. The training candidate signs a training contract with an enterprise, which will lead to a competence exam. This is a less comprehensive exam than the apprenticeship and journeyman's examinations. There were 2,000 registered training candidates in autumn 2015. The training candidature scheme is particularly commonplace on the programmes for Services and Transport; Building and Construction; and Healthcare, Childhood and Youth Development.
Table 3.3 New apprenticeship contracts by study programme. Changes from 2011 to 2015. Numbers.

<table>
<thead>
<tr>
<th>Study Programme</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>3 746</td>
<td>3 702</td>
<td>3 667</td>
<td>3 760</td>
<td>3 820</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>1 319</td>
<td>1 166</td>
<td>1 127</td>
<td>1 095</td>
<td>1 069</td>
</tr>
<tr>
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<td>1 841</td>
<td>1 960</td>
<td>2 091</td>
<td>2 318</td>
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<tr>
<td>Technical and Industrial Production</td>
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<td>4 049</td>
<td>4 146</td>
<td>4 280</td>
<td>4 071</td>
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<td><strong>18 283</strong></td>
<td><strong>18 523</strong></td>
<td><strong>18 679</strong></td>
<td><strong>19 253</strong></td>
<td><strong>19 829</strong></td>
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</table>

Source: Directorate for Education and Training

Figure 3.4 Training candidates by study programme. 2014 and 2015. Numbers.
3.5 Adults in upper secondary education or training

Adults who have completed lower secondary school are entitled to free upper secondary education. This entitlement applies from the year the person turns 25 years of age.

More adults in upper secondary education or training

The number of adults in upper secondary education has risen in recent years (see Table 3.4). In 2014 there were almost 23,800 adult apprentices, training candidates, candidates for experience based trade certification and school participants. School participants make up the largest group.

Candidates for experience-based trade certification are not enrolled in upper secondary vocational training, but are included in the statistics in order to identify the number of adults obtaining formal qualifications at upper secondary level.

3.6 Personnel and qualifications

25,700 teachers currently work in public upper secondary schools. 53 per cent of them are female, but males are in a majority among older teachers. 57 per cent of teachers over the age of 55 are men (see Figure 3.5).

Few changes in teachers’ qualifications

In the past four years, there has been few changes in the level of education among teachers (Figure 3.6). More than half of all teachers hold undergraduate qualifications with a teaching qualification. The per cent of teachers holding postgraduate qualifications with a teaching qualification increased from 23 per cent 2011 to almost 26 per cent in 2014.

80 per cent of upper secondary school teachers hold a teaching qualification in addition to a university-level education. The per cent of teachers without a teaching qualification fell from 22 per cent in 2011 to 20 per cent in 2014.

Table 3.4 Adults (aged 25 and over) in upper secondary education and training. 2011-12 to 2014-15. Numbers.

<table>
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<td>4 085</td>
<td>4 230</td>
</tr>
<tr>
<td>Experience based candidates</td>
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<td>6 504</td>
<td>7 894</td>
<td>7 974</td>
</tr>
<tr>
<td>School participants</td>
<td>8 526</td>
<td>10 835</td>
<td>10 681</td>
<td>11 547</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19 347</strong></td>
<td><strong>21 005</strong></td>
<td><strong>22 660</strong></td>
<td><strong>23 751</strong></td>
</tr>
</tbody>
</table>

Source: Statistics Norway and Directorate for Education and Training
Figure 3.5 Teachers employed in upper secondary by gender and age. 2014. Per cent.

Source: Statistics Norway

Figure 3.6 Teachers by level of education. 2011-2014. Per cent.

Source: Statistics Norway
Financial resources

In 2015 Norway spent NOK 150 billion on kindergartens, primary and secondary education. We spend more per pupil than most comparable countries.

In this chapter you can find out more about what the money is spent on. You can also read about local variations and which factors have the greatest impact on spending.
Norway spent a total of NOK 150 million on kindergartens, primary and secondary education in 2015.

Almost 40 per cent of local authority expenses are allocated to kindergartens, primary and lower secondary schools.

A kindergarten place costs an average of NOK 143,600 per annum, while a pupil in primary or lower secondary education costs NOK 105,500.

Just over 35,000 children benefit from reduced kindergarten fees because their parents have low incomes.
NOK 4.2 billion was spent on out-of-school care in 2015.

Parents cover more than 70 per cent of the costs.

A pupil in upper secondary education costs an average of NOK 155,100.

Vocational study programmes are more expensive than general study programmes.

Government funding for private upper secondary schools increased by 7 per cent between 2014 and 2015.

170,000 pupils in upper secondary education receive grants from the Norwegian State Educational Loan Fund.

They receive an average of NOK 15,900 each.
4 The cost of kindergartens, primary and secondary education

Every year Norway spends large sums on its kindergartens and schools. In 2015, we spent around NOK 150 billion. The largest proportion of money (NOK 65.2 billion) is spent on primary and lower secondary education. NOK 48.1 billion went to kindergartens, while NOK 37 billion was spent on upper secondary education and training. Norwegian kindergartens and schools are mostly publicly funded. However, parents contribute around 15 per cent of the cost of running kindergartens and more than 70 per cent of the cost of out-of-school schemes (SFO).

4.1 The cost of kindergartens

Local authorities spent a total of NOK 40.9 billion on kindergartens in 2015 – a reduction of just over 2 per cent since 2014. This figure includes the cost of running municipal kindergartens and grants for private kindergartens, but it excludes parental contributions.

An average of 15 per cent of all spending on municipal services was allocated to kindergartens in 2015. Only primary and lower secondary education and healthcare received more funding than kindergartens.

The total cost, including parental contributions, was NOK 48.1 billion in 2014 (Lunder et al. 2016).

Sources

KOSTRA (Municipality-State-Reporting, Statistics Norway) collects and publishes statistics on what local authorities and county councils spend on kindergartens, primary and secondary education.

Education at a Glance is an annual report published by the OECD, providing information about compulsory and upper secondary education in OECD countries.

Costs increase in real terms

The cost of providing public services increases every year due to general inflation and wage growth. In order to measure real-term growth in spending, all figures in this chapter have been adjusted to reflect such changes.

Municipal grants and parent contributions fund kindergartens

Local authorities meet most of the cost of running both public and private kindergartens. The shortfall is mostly covered by the parents, while public funding and other grants from the local authority or kindergarten owners make up a small part of the funding (Figure 4.1).

Parents should not pay more than the maximum price for a kindergarten place. As of January 2016, the maximum price is NOK 2,655 per month.
Almost half of local authority spending is allocated to private kindergartens

Private kindergartens made up 54 per cent of all kindergartens in 2015. Funding for private kindergartens accounted for 46 per cent of local councils' total spending on kindergartens (KOSTRA, preliminary figures). On average, municipal kindergartens spend 15 per cent more per child compared to private kindergartens (Figure 4.2).

A kindergarten place costs local authorities NOK 143,600 in total

In 2015, local authorities spent an average of NOK 143,600 on each child in kindergarten (KOSTRA, preliminary figures). This figure includes municipal funding of private kindergartens but excludes government funding and parental contributions. Spending ranges from NOK 100,000 to more than NOK 240,000 per child (Figure 4.3).
Financial resources

Chapter 4

Figure 4.3 Local authorities and kindergarten children by municipal operating cost per full-time equivalent. 2015. Per cent.

Source: Directorate for Education and Training and Statistics Norway (KOSTRA), preliminary figures

New national schemes for reducing parental contributions in 2015

Households should not pay more than 6 per cent of their income for a kindergarten place. In 2016, it applies to households with a combined income of less than NOK 486,750 per annum.

All 4 and 5-year-olds living in households with a combined income of less than NOK 405,000 are entitled to 20 hours of free kindergarten time.

NOK 226 million to help reduce parental contributions for low-income households

A total of 20,000 households were granted a reduction in parental contributions due to low incomes in 2015. Altogether 25,000 children had their kindergarten fees reduced because of low incomes, while 10,000 children benefited from the regulations on free core time in kindergarten. Local authorities spent more than NOK 226 million on reducing parental contributions due to low household incomes in 2015.
4.2 The cost of compulsory education

In 2015, municipal primary and lower secondary schools received NOK 63.3 billion in funding. The funding contributes towards running costs, the cost of tuition, materials, premises, school transport and the educational psychology service (PPT).

24 per cent of local authorities’ own funds were spent on compulsory education in 2015. Only healthcare received more municipal funding.

Public primary and lower secondary schools in Norway are primarily funded by the local authorities, in addition to funding through government grant schemes. In addition to local authority funding, the government gives grants to primary and lower secondary schools approved under the Independent Schools Act.

Norway spends more on compulsory education than most other countries

A pupil in a municipal primary or lower secondary school costs an average of NOK 105,500 per annum (KOSTRA, preliminary figures). Out of this, NOK 88,200 is spent on tuition, school materials and similar expenses, while NOK 17,300 is spent on school premises and school transport (Figure 4.5). Norway spends more money per pupil in compulsory education than its neighbouring countries and significantly more than the OECD average (Figure 4.4). The biggest differences in spending are at the primary level. In 2012 Norway spent 54 per cent more on primary schools than the OECD average – an increase of 4 percentage points on 2011. As for the lower secondary level, Norway spent 39 per cent more per pupil than the OECD average in 2012 – an increase of 3 percentage points on 2011. Low population density and small schools contribute to the high cost per pupil in Norway. When we include teacher FTEs for special needs education and

---

**Figure 4.4** Spending per pupil in selected countries*. 2012.

- Norway
- Denmark
- Sweden
- Iceland
- Finland
- OECD average

*Figures in USD adjusted for purchasing power

Source: OECD (2015)
special language tuition, there are around 10 pupils for every teacher in Norway, while the OECD average is 15 (OECD 2015, figures from 2012).

**School size is the most important factor affecting the cost per pupil**
Small schools with relatively few pupils result in small classes and subsequently higher costs per pupil in terms of teachers’ salaries. Even when excluding the cost of school transport, municipalities with small schools incur higher costs per pupil (Fugure 4.5).

**Bigger grants for independent primary and lower secondary schools**
In 2015 just over 7 per cent of all primary and lower secondary school were private schools, and 3 per cent of all pupils attended these schools. Government grants for private primary and lower secondary schools in Norway totalled almost NOK 1.9 billion in 2015. Spending has increased by 11 per cent since 2014. The increase is due both to more pupils and increased costs per pupil.

Primary and lower secondary schools approved under the Independent Schools Act receive government funding equivalent to 85 per cent of the operating costs of public schools. To cover the full costs, schools are allowed to charge school fees of up to 15 per cent of the grant they recieve.

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**Figure 4.5** Local authorities and primary/lower secondary pupils by municipal operating cost per pupil. 2015. Per cent.

Source: Directorate for Education and Training and Statistics Norway (KOSTRA), preliminary figures
4.3 The cost of upper secondary education and training

County councils spent a total of NOK 27.3 billion on upper secondary education in 2015. The figure includes the cost of teaching, premises, specially adapted tuition, the Follow-up Service (Oppfølgingstjenesten), and the educational psychology service (PPT).

County councils spent an additional NOK 2.9 billion on vocational training at workplaces – an increase of more than 7 per cent from 2014. The increase is due to a rise in the number of apprentices and training candidates and to higher grants per apprentice.

**Norway spends more on upper secondary education than most other countries**

County councils spend an average of NOK 155,100 per pupil in upper secondary school (Figure 4.7). This is just over NOK 49,000 more than the cost per primary and lower secondary school pupil. Norway spends over 60 per cent more on upper secondary education than the OECD average (Figure 4.6). It is particularly the number of teaching hours per teacher that increases the cost per pupil in Norway compared with other OECD countries.

**Vocational study programmes are more expensive than general study programmes**

A pupil enrolled in a vocational study programme costs an average of NOK 20,000 more than a pupil enrolled in a general study programme, largely due to smaller classes and more expensive study materials. Expenditure also varies significantly between the different study programmes (Figure 4.7). The average study programme costs almost NOK 100,000 per pupil. The cheapest study programme, the Programme for Specialisation in General Studies, costs NOK 63,500 per pupil, while the most expensive, the Programme for Agriculture, Fishing and Forestry, costs almost NOK 172,000 per pupil.

**NOK 2.5 billion spent on special needs education and specially adapted tuition**

In 2015 county councils spent almost NOK 2.5 billion on special needs education and specially adapted tuition. This is just over 8 per cent of their total spending on upper secondary education and training. The cost of specially adapted tuition includes introduction programmes for

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**Figure 4.6 Spending per upper secondary pupil in selected countries*. 2012. USD.**

![Figure 4.6](source: OECD (2015))

*Figures in USD adjusted for purchasing power.
newly arrived language minority pupils and special Norwegian language tuition. County councils spend an average of NOK 14,000 per pupil on special needs education and specially adapted tuition in upper secondary.

**Grants for upper secondary free schools increased by 7 per cent**

In 2015 approximately 20 per cent of upper secondary schools are private schools receiving government grants. Private upper secondary schools in Norway received NOK 1.5 billion in ordinary government grants in 2015 – an increase of 7 per cent on 2014. The increase was primarily due to increased costs per pupil.
| Chapter 4 | Financial resources |
Learning outcomes

Are today’s schools succeeding in giving pupils adequate subject knowledge and basic skills?

Grades, national tests and the impact of absence rates are some or the things that give us a more complete picture of learning outcomes. In this chapter we present the most recent data and take a closer look at differences in school performance between groups of pupils.
Chapter 5

Learning outcomes

Girls outperform boys in almost all subjects.

15 per cent of lower secondary pupils received a grade 1 in their maths exam.

In 2007-08 the figure was 2 per cent.

Pupils with high absence rates receive much poorer grades.

In applied mathematics at Vg1 level, more than half of pupils with an absence rate of more than 20 per cent receive a grade 1 or 2 for coursework.
Chapter 5 Learning outcomes

The counties Oslo and Akershus perform better than the national average in all national tests.

There is strong correlation between results from national tests and completion rates in upper secondary school.
Sources of information about learning outcomes

A number of sources provide information about learning outcomes. The most important are national tests, exam results, coursework grades and international studies.

National tests are a measure of how well primary and lower secondary pupils perform in reading, numeracy and English.

Exam results and coursework grades are a reflection of the pupils’ attainment level upon completing a course of study.

National tests and international surveys also measure whether the pupils’ skills change over time. International surveys can be used to compare results with other countries.

National tests

The purpose of national tests is to evaluate and improve pupils’ basic skills in reading, numeracy and English. Teachers should use the results to support their pupils, to provide formative assessments, and to give their pupils adapted education. School leaders and local authorities should use the results to make improvements in quality. Pupils take the National tests in Years 5, 8 and 9.

The results are published on a scale on which the 2014-15 average was set to 50 score points and with a standard deviation of 10. We also publish the distribution of pupils across different proficiency levels. There are three proficiency levels in Year 5 and five levels in Years 8 and 9. The thresholds for the different levels in English and numeracy were set in 2014-15. With these tests, it is therefore possible to observe any changes in the percentage of pupils at each level from year to year. This will also be possible for the reading test from 2017-18.

5.1 National tests

Oslo and Akershus perform better than the national average in all tests

There are only minor regional differences in test results. With a few exceptions, pupils in all counties perform close to the national average of 50 score points in all the national tests.

Girls outperform boys in reading

Girls do better than boys in the national reading tests in both Year 5 and Year 8 (see Figure 5.1 and Figure 5.2). As for the other tests, there is more variation between the levels. In Year 5, girls score on average two points more than boys in the reading test, while boys score one point more than girls in the English test.

In Year 8, girls score an average of two points more than boys in reading, while boys score one point more than girls in numeracy. Boys and girls perform equally well in English (see Figure 5.3).
Chapter 5

Learning outcomes

Figure 5.1 Results of national Year 5 tests by proficiency level and county. 2015–16. Per cent and average score points.

Figure 5.2 Results of national Year 8 reading tests by proficiency level and county. 2015–16. Per cent and average score points.
5.2 Average point scores from compulsory education and final grades in Year 10

The average point score from compulsory education has increased from 39.9 to 40.8 points in the last five years (see Figure 5.4). Several subjects have seen an improvement in coursework grades in the same period. On average, girls score 4.4 points higher than boys.

**Poor exam results in maths in Year 10**
The average grade in the written mathematics exam in Year 10 has decreased from 3.2 to 2.9 since the 2007-
08 school year, which was the first cohort to sit the exam after the introduction of the Knowledge Promotion Reform. The proportion of pupils obtaining grade 1 in the maths exam rose from 2 to 15 per cent in the same period, while the proportion of pupils receiving grade 1 for coursework only increased from 2 to 3 per cent. By comparison, only 1 per cent of pupils received a grade 1 in the English and Norwegian (primary language form) exams in Year 10.

**Greatest differences between girls and boys in the Norwegian exam**

On average, girls obtain higher grades than boys in virtually every subject in Year 10. This applies to both coursework grades and exam grades. The only subject boys receive higher grades than girls is in physical education. The greatest difference in written exam results is found in the subject of Norwegian (primary language form), see Figure 5.5. In maths and English there is little to distinguish boys and girls.

**Optional subject grades**

Many pupils obtain high grades in their optional subjects (Figure 5.6). Between 80 and 92 per cent receive a grade 4 or higher. The highest average grades are obtained in the subject volunteering. Just over 80 per cent of pupils taking this subject are girls. Boys make up 82 per cent of pupils taking the optional subject technology in practice – the subject with the lowest average grade.

*Figure 5.4 Average point scores by county. 2014–15.*

*Source: Directorate for Education and Training (Statistikkportalen)*
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Learning outcomes

Figure 5.5  Written exam grades and coursework grades Year 10 by gender. 2014–15. Average.

Source: Directorate for Education and Training (Statistikkportalen)

Figure 5.6  Coursework grades in optional subjects in Year 10. 2014–15. Average.

Source: Directorate for Education and Training (Statistikkportalen)
5.3 Learning outcomes in upper secondary education

Large discrepancy between coursework and exam grades in some subjects
Just as in primary and lower secondary school, coursework and exam grades in upper secondary have remained relatively stable over time. The exception is maths, where the results fluctuate more.

The largest discrepancy between coursework grades and exam grades can be found in applied mathematics at Vg1 level. The difference between the coursework grade and exam grade averages 0.9 points. When comparing the same pupils’ exam and coursework grades, 77 per cent received a lower grade in the applied mathematics exam at Vg1 level than they did for their coursework. In theoretical mathematics [2 P-Y] 46 per cent of pupils received a lower grade in the exam (see Figure 5.7).

Girls obtain higher coursework grades than boys in almost all core subjects, just as in primary and lower secondary school. The discrepancy between girls and boys is greatest in Norwegian and social science. Girls score an average of 0.4–0.5 higher than boys in these subjects.

Correlation between low attendance rates and grades
Pupils with low attendance obtain lower grades on average than pupils with high attendance. However, a considerable proportion of pupils with low attendance also receive good grades.

In Figure 5.8 we have compared total absence rates for

Figure 5.7 Written exam grades and coursework grades in selected core subjects in upper secondary by gender. 2014–15. Average.

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<th>Coursework grade</th>
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<td></td>
<td>Primary Norwegian language form - Supplementary Studies</td>
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</table>

Source: Directorate for Education and Training (Statistikkportalen)
Learning outcomes

all pupils taking applied mathematics at Vg1 level with the coursework grades they received in the subject.

Out of the 18,000 or so pupils studying applied mathematics on a Vg1 general study programme, 17 per cent (3,100 pupils) had an overall absence rate of more than 10 per cent. 82 per cent of these pupils went on to obtain a grade 2 or higher, i.e. a pass. 20 per cent obtained a grade 4 or higher for coursework.

There is similar correlation between absenteeism and grades in both applied mathematics on vocational study programmes and Norwegian (primary language form) on general study programmes. It is worth noting that fail rates among those with low attendance are far lower in Norwegian (primary language form) than in applied mathematics. 24 per cent of pupils with overall absence rates higher than 20 per cent obtained a coursework grade 4 or higher in Norwegian (primary language form).

Absence limit

The Norwegian government has introduced an absence limit of 15 per cent in upper secondary with effect from the 2016-17 school year. The limit applies to absence in individual subjects, not to a pupil’s overall absence. Pupils who are absent from a subject more than 10 per cent of the time will not be assessed in the subject. However, the pupil may be assessed if he or she can prove that the absence limit was exceeded due to health and welfare reasons, work as an elected representative, political work, representation at events on a national or international level, religious holidays etc.
5.4 Correlation between results throughout the pupils’ education

Past performance is the factor that best predicts results and completion in upper secondary education.

**Strong correlation between national tests and coursework grades**

There is a distinct correlation between results in national tests in Year 5 and in Year 8. There is also a strong link between results in national tests in Year 8 and grades in Year 10 (see Figure 5.9).

A total of 82 per cent of those who performed to proficiency level 1 in the numeracy test in Year 8 received a grade 1 or 2 for coursework in maths in Year 10. Of those performing at proficiency level 1 in the English test, 50 per cent received a grade 1 or 2 for coursework in English. The discrepancy between numeracy and English could partly be explained by a stronger tradition of using the full grading scale in maths than in English.

**Figure 5.9** Pupils who sat national tests in English and numeracy in Year 8 in 2013–14 and who received a coursework grade 1–3 in English and mathematics in Year 10 in 2015–16. Per cent.

![Figure 5.9](source: Statistics Norway (Statistikkbanken))
Chapter 5  

Learning outcomes

**Figure 5.10** Pupils completing a general study programme within the theoretical duration, by results on national test 2007–08 and gender. Per cent.

Source: Statistics Norway

**Few pupils who perform at the lowest proficiency level complete their studies within the theoretical duration**

There is a clear correlation between results in national tests and the proportion of pupils who complete upper secondary education within the theoretical duration. The correlation is strongest in numeracy and weakest in English. Less than half of those performing at the lowest proficiency level complete their studies within the theoretical duration. The exception is girls performing at the lowest proficiency level in English. Their completion rates do not differ much from girls who perform at proficiency level 2 in English (see Figure 5.10). Girls are more likely than boys to complete their studies, irrespective of which test or proficiency level we compare.
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<th>Chapter 5</th>
<th>Learning outcomes</th>
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Learning and well-being

Pupils and apprentices need to feel content in order to learn. All pupils and apprentices are entitled to a good learning environment.

A number of factors have an impact on well-being and learning. In this chapter we will take a closer look at the classroom environment, friendships, the role of the teacher, mental health, parent co-operation, bullying and negative behaviour.
Most pupils have a good relationship with their teacher. This is important for their desire to learn.

2 out of 3 apprentices enjoy the company of their colleagues, but many feel that they are not part of the social environment in their workplace.

Pupils with supportive parents are happier and achieve better results.

3.7 per cent of pupils are bullied at 2–3 times or more a month.
Chapter 6 Learning and well-being

9 out of 10 pupils enjoy school.

At the same time, 1 out of 10 lack close friends.

The pupils with the highest and the lowest grades are bullied more often than other pupils.

Many lower secondary pupils suffer mental health issues.

9 out of 10 school leaders follow up on the results from the Pupil Survey.
Chapter 6 Learning and well-being

6.1. Pupils and apprentices’ well-being

The objectives of the education system extend beyond academic learning. Schools should also prepare children and young people for life’s many challenges. The pupils’ well-being and learning are key to reaching this goal.

The overall trend is that pupils are very happy at school. The results of the Pupil Survey show that almost 90 per cent of pupils are “happy” or “very happy” at school. At the same time, 18 per cent respond that they always, often or sometimes feel lonely. Half of all pupils are “very happy” in the company of their classmates, and 40 per cent are “fairly happy” with their classmates (unpublished findings from the Pupil Survey 2015). There is no difference between boys and girls in terms of happiness at school (Wendelborg et al. 2014).

Apprentices enjoy their training, but many feel that they are not part of the social environment in their workplace.

A total of 67 per cent of apprentices report that they are “very often” or “always” happy in the company of their colleagues. However, just over half (56 per cent) of them feel part of the social environment in their workplace. There is little to suggest that the apprentices’ well-being is linked to gender, age or study programme. 38 per cent of apprentices “very often” or “always” enjoy their work, while 48 per cent “fairly often” enjoy it (Caspersen et al. 2015).

6.2 The classroom environment and the role of the teacher

Classroom environment and classroom management create a framework for the pupils’ well-being and routines for learning. Being able to work undisturbed during lessons also has an impact on how pupils experience their school day.

A good working environment in the classroom leads to better results

A total of 64 per cent of pupils “completely” or “slightly” agree that there is a good working environment during lessons (Wendelborg 2016a). The classroom environment has an impact on the academic performance of the class. For example, pupils in classes where there is extensive bullying achieve lower average grades than pupils in classes without similar challenges (Strøm et al. 2013).

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**The Pupil Survey**

Schools must conduct the Pupil Survey every autumn for Year 7, Year 10 and Vg1 level. Schools may also choose to extend the survey to include all years from Year 5 to Vg3 level.

**The Apprentice Survey**

The objective of the Apprentice Survey is to give apprentices an opportunity to voice their opinions on the learning and working environment in their training establishments.
Chapter 6 Learning and well-being

Friendships promote learning
The majority of pupils have good friends at school. 94 per cent report that they always or often have someone to spend time with during break time (Wendelborg 2016a). A total of 90 per cent of lower secondary pupils are absolutely confident that they have at least one friend whom they can trust completely and confide in. Although this figure suggests a positive picture, almost 10 per cent of pupils do not have close friends or do not have anyone they would currently describe as friends. Girls are slightly more likely than boys not to have close friends (NOVA 2015).

Many children and young people feel that the best thing about school is being able to spend time with friends (FUG 2012). The pupils’ social needs are an important element in education. When their needs are met, it becomes easier to focus on learning and on exploiting the learning potential that lies in working together with fellow pupils (Wang and Eccles 2012). Not having friends to lean on and spend time with is a risk factor for developing mental health issues. It is not the number of friends that matters but the quality of the friendships (Holsen 2009, Kvello 2012).

Most pupils have a good relationship with their teachers
On the whole, pupils think that all or most of their teachers care about them and believe that they can do well at school. Yet 14 per cent report that only a few teachers care, and almost 3 per cent report that only one or no teachers care about them. A total of 13 per cent of pupils believe that only a few teachers are confident that they can do well at school, while almost 4 per cent believe that no or only one teacher is confident that they can do well (unpublished findings from the Pupils Survey 2015).

The learning environment
By learning environment we mean the combination of cultural, relational and physical factors in a school that have an impact on the pupils’ learning, health and well-being. There are five key factors:
- The teacher’s ability to manage classes and schemes of work
- Positive relationships between pupils and teacher
- Positive relationships and a culture for learning among the pupils
- Good school-home co-operation
- Good leadership, organisation and culture for learning in the school

Source: The better learning environment initiative 2009-2014, Norwegian Directorate for Education and Training
Chapter 6 Learning and well-being

6.3 The impact of mental health on well-being at school

Many pupils face challenges related to mental health. The school day can be difficult for these pupils. Mental health issues can affect both the pupils’ well-being at school and their academic performance.

Mental health

The WHO defines mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”.

Mental health is part of the education system’s social mandate

Schools should do more than just teach subject knowledge. They should also prepare children and young people for life’s challenges. Ensuring good mental health is an important part of the education system’s mandate (Bru et al. 2016). Academic learning is dependent on the pupils’ ability and opportunity to concentrate on the task at hand and to sustain their learning efforts over time. Mental health is important in achieving this (Richardson et al. 2012, Gustafson et al. 2010, Havik et al. 2015).

Mental health issues at lower secondary level

A relatively large number of lower secondary pupils suffer from various types of mental health issues, according to the Ungdata study (NOVA 2015). These conditions are often linked to stress symptoms. More than 30 per cent of pupils report that they have felt “very” or “fairly” troubled by thoughts such as “everything is a struggle” or “I worry too much about things” during the past week, see Figure 6.2. Around 20 per cent have felt “very” or “fairly” troubled by “hopelessness about the future”, “feeling unhappy, sad or depressed” or “stiffness or tension”. Almost 1 out of 10 girls in Year 10 and in upper secondary education are so affected that they could be deemed

Figure 6.1 Mental health issues amongst lower secondary pupils. 2014. Per cent.

Source: NOVA 2015
to be displaying symptoms of depression (NOVA 2015). More than 20 per cent of pupils experienced problems sleeping during the past week (NOVA 2015). There is close correlation between lack of sleep and grades. Pupils who sleep less have lower grades on average than pupils who sleep more (Hysing et al. 2016).

Some young people also struggle with physical symptoms such as heart palpitations, headaches, nausea, stomach pains and neck and shoulder pains. A total of 22 per cent of girls and 12 per cent of boys take non-prescription drugs such as paracetamol on a weekly or daily basis. Such physical complaints can be the result of a stressful lifestyle with demands and stresses on several fronts (NOVA 2015).

6.4 Parent cooperation

Parents’ attitudes towards school have a major impact on how children cope with school. When parents take an interest in how their children are doing at school, the children are more likely to both enjoy school and achieve good learning outcomes (Nordahl 2007).

Involved parents lead to better well-being and learning outcomes

By and large, today’s pupils experience that they get good support at home. As many as 86 per cent of Year 7 pupils have parents who “always” or “often” show an interest in what they do in school. A similar percentage have parents who “always” or “often” encourage them in their schoolwork. Parents’ interest in their children’s schoolwork diminishes somewhat with age. In Year 10, 75 per cent of pupils have parents who “always” or “often” show an interest in what they are doing at school. Just as many have parents who “always” or “often” encourage them in their schoolwork (unpublished findings from the Pupil Survey 2015).

Pupils with supportive parents are happier and achieve better learning outcomes (Desforges 2003, Nordahl 2007, Hattie 2009). The parents are the pupils’ most important source of support, and they are in a position to motivate, encourage and give their children a positive attitude to school and learning (Haugsbakken and Bruland 2009). When parents speak in positive terms about school and learning it promotes the child’s learning (Nordahl 2007).

The home environment is of particularly great significance in the first few years of school

For children aged seven, the parents are far more important to their learning outcomes than what happens
at school. By the age of 16, however, it appears that the school’s contribution has become more significant to learning outcomes than in the early years (Desforges 2003). It has also transpired that gender, the parents’ education and minority status have less of an impact on pupils in schools where the pupils find the learning environment to be positive (Bakken 2015).

**The importance of getting support from the school**
Some pupils experience difficulties at home. Some reasons may be social and financial problems, or parents with mental health issues or addiction problems. The school and good relationships with teachers and fellow pupils are important to these children. A teacher or another adult who cares, shows attention and interest can make a big difference to a child’s education (Seeberg et al. 2013).

### 6.5 Bullying and negative behaviours

Bullying and other negative behaviours have a negative impact on the pupils’ school life. 3.7 per cent of pupils who report that they are bullied at least 2–3 times a month (The Pupil Survey 2015). 15.1 per cent of pupils said they had been subjected to various types of negative behaviour at school. By 2015 this figure had fallen to 14.3 per cent (Wendelborg 2016a).

**Mostly verbal behaviours**
Negative behaviour among pupils usually involve verbal behaviour. The most common negative behaviour is making fun of or teasing someone so that the recipient gets upset. Next follows exclusion, being lied about and receiving negative comments about appearance. Physical actions such as hitting, kicking, pushing and being held down are also common.

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**Figure 6.2** Pupils subjected to bullying and other negative behaviours. 2015. Per cent.

Source: The Pupil Survey (Wendelborg 2016a)
down are less common. Pupils subjected to these types of behaviour are more likely to say they are being bullied than pupils experiencing other types of negative behaviour (Wendelborg 2016a).

Equal numbers of boys and girls are bullied in lower secondary school
In recent years the Pupil Survey has revealed that bullying diminishes with age during primary school before increasing again in lower secondary school, see Figure 6.5. The proportion of pupils being bullied then drops again throughout upper secondary. In primary and upper secondary it is mostly boys who suffer from bullying, but there are no gender differences at the lower secondary level.

Figure 6.3 Pupils who say they get bullied 2–3 times a month or more. 2015. Per cent.

A positive classroom environment can reduce bullying
Many teachers recognise the importance of a good classroom environment and strive to create social activities to give the class shared, positive experiences (Eriksen and Lyng 2015, Kofoed and Søndergaard 2009, 2013). In classes without a good classroom environment and without a “valid we”, a status hierarchy may arise where some pupils are “in” and others are “out”, and where bullying and other forms of negative behaviour may occur. It can be difficult for a teacher to observe interactions between pupils and between different groups of pupils in the class (Eriksen and Lyng 2015). One challenge is that much of this interaction takes place on social media, which is difficult for the teacher or other adults to observe directly (Staksrud 2013).

Pupils with the lowest and highest grades are bullied the most
The pupils with the highest and the lowest grades are bullied more often than other pupils. 6.5 per cent of pupils with the lowest grades say they are regularly bullied at school, see Figure 6.4. Among pupils with the highest grades the figure is 7.3 per cent. The pattern is the same for other types of negative behaviour. Pupils with the highest and lowest grades are more likely to be made fun of or teased, to be excluded, to be lied about, to receive threats, and to be physically attacked. The differences are less discernible when it comes to negative comments about appearance (Wendelborg and Caspersen 2016).
Figure 6.4 Pupils who are bullied and subjected to negative behaviours according to grades. 2015. Per cent.

Source: The Pupil Survey (Wendelborg and Caspersen 2016)

Figure 6.5 Bullying and negative behaviours by gender. 2015. Per cent.

Source: The Pupil Survey
Completion in upper secondary education

It is important that pupils and apprentices complete their upper secondary education or training in order to prepare and qualify themselves for working life and further studies.

In this chapter, you will discover that most of them do complete their education, although there are significant differences, between general and vocational study programmes, and between the different vocational study programmes. You can also learn how newly qualified skilled workers fare in the labour market.
Completed within the theoretical duration plus two years by group:

- Pupils with an average point score of 30-34: 56%
- Pupils with an average point score of 35-39: 56%
- Girls: 77%
- Boys: 70%
- Immigrants whose parents have a long university-level: 75%
- Immigrant boys: 49%
- Norwegian-born girls with immigrant parents: 77%
- General study programmes: 83%
- Vocational study programmes: 63%
- Restaurant Management and Food Processing: 47%
- Electrical and Electronic Engineering: 74%
- Sports and Physical Education: 86%
- National average after 10 years: 78%
- Iceland: 58%
- Denmark: 73%
- Sweden: 80%
10 per cent of young people aged between 20 and 24 are neither in education nor in employment. This is lower than most Nordic countries. The OECD average is 18 per cent.

Norway has effective schemes in place to allow individuals to return to complete upper secondary education or training as adults. 8,000 people obtained their trade or journeyman’s certificates as candidates for experience-based trade certification in 2015.

Low attainment in primary and lower secondary is the single most important explanation for dropping out. 34 per cent of pupils with an average point score of 25–29 complete upper secondary within the theoretical duration plus two years.

77 per cent of apprentices are in employment within a year of obtaining their trade/journeyman’s certificate. 15 per cent are in education. At 84 per cent, the rate of employment is highest among apprentices on the Building and Construction programme.
7.1 Completion rates

One important educational policy goal is that more pupils and apprentices should complete upper secondary education or training. Completing upper secondary plays a part in preparing to meet employment criteria and improving the chances of actively participating in the labour market.

73 per cent of pupils complete upper secondary within the theoretical duration plus two years

73 per cent of pupils who enrolled in upper secondary education or training in 2008 (the 2008 cohort) completed their education and obtained a diploma, trade certificate or journeyman’s certificate within the theoretical duration plus two years. This percentage has remained stable at between 70 and 74 per cent since the 1998 cohort.

Completion rates are higher on general study programmes than on vocational study programmes. 83 per cent of pupils enrolling on a general study programme in 2008 completed within five years, while 63 per cent of those enrolling on a vocational study programme completed within six years. There are also significant differences between the different vocational study programmes. 74 per cent of those studying Electrical and Electronic Engineering complete their studies and obtain university and college admissions certification or a vocational qualification within six years. On the Restaurant Management and Food Processing programme the figure is 47 per cent.

Good opportunities for completing upper secondary education or training

Norway offers good opportunities for enrolling in upper secondary education or training even after failing to do so immediately after compulsory education. When measuring completion rates ten years later we can therefore see an increase of 6 percentage points in the proportion of pupils who complete upper secondary.

Pupils on vocational study programmes account for the biggest increase in completion rates within ten years. 89 per cent of the 2008 cohort enrolling on a general study programme and 69 per cent enrolling on a vocational study programme had completed within ten years. The increase in completion rates is higher for boys than for girls on both

Definitions

We usually measure completion five or ten years after enrolment at Vg1 level or within the theoretical duration plus two years. In the statistics, within the theoretical duration plus two years (N+2) means after five years on general study programmes and after six years on vocational study programmes.

Within theoretical duration plus 2 years is the measure that best represents the pupils’ entitlement to upper secondary education and training (cf. the Education Act Section 3-1).

This chapter uses the term completed to describe pupils and apprentices who have passed every year of their upper secondary education or training leading to a diploma or a trade or journeyman’s certificate.

Completed but not passed is used in some contexts to describe pupils who have completed Vg3 level and apprentices who have completed their training period but who have failed to obtain grades in one or more subjects. It also applies to those who have completed their planned pathway to a basic qualification.
general and vocational study programmes. Overall, almost 80 per cent obtained a vocational qualification or university and college admissions certification within ten years.

With a completion rate of 73 per cent within the theoretical duration (N+2), Norway is one of the countries with the lowest completion rates in upper secondary education and training. An average of 87 per cent of pupils across the OECD complete their studies the theoretical duration plus 2 years (OECD 2014). Completion rates in Norway are particularly low on vocational study programmes with 63 per cent, while the OECD average is 79 per cent. However, there are variations in what countries report to the OECD. Many countries report two-year pathways as being upper secondary programmes. Norway does not have a two-year pathway. As you will see, the proportion of 20 to 24-year-olds in Norway who are not in education or employment is much lower than the OECD average.

Figure 7.1 Completed upper secondary education or training within the theoretical duration plus two years – by study programme. 1998 cohort to the 2008 cohort. Per cent.

Low completion rates on the Restaurant Management and Food Processing programme

There may be a variety of explanations for the low completion rates on the Restaurant Management and Food Processing programme. Pupils who enter this programme have poor grades from lower secondary school, and there is a large proportion of pupils with special needs. The programme also has weak links to the labour market, especially the food industry, and there is little hope of gaining an apprenticeship place. Furthermore, few pupils apply to for the Supplementary Studies to Qualify for Higher Education programme (Andersen and Andresen 2016).
Figure 7.2 Completed upper secondary education or training within the theoretical duration plus two years – by study programme. 2008 cohort. Per cent.

Source: Statistics Norway
7.2 Reasons for differences in completion rates

Although the proportion of pupils who complete their studies has remained stable for a long time, there are significant discrepancies between different groups of upper secondary pupils.

**Prior achievement predicts completion rates**

Low attainment at the primary and lower secondary levels is by far the single most important reason for failing to complete upper secondary.

77 per cent of girls in the 2008 cohort completed upper secondary within the theoretical duration plus 2 years, while for boys the figure was 70 per cent. The difference is largely due to the fact that boys perform less well in primary and lower secondary school.

**Figure 7.3 Completed upper secondary education or training within the theoretical duration plus two years – by average point score. 2008 cohort. Per cent.**

Young people with immigrant backgrounds are increasingly pursuing an upper secondary education. 78 per cent of immigrants aged 16–18 were in upper secondary education or training in 2015, an increase from 64 per cent in 2010. Among Norwegian-born pupils with immigrant parents the figure is 93 per cent, the same as the general population (Statistics Norway). 74 per cent of Norwegian-born pupils with two immigrant parents were in upper secondary education or training in 1994 (Støren et al. 2007).

Pupils with an immigrant background are slightly less likely to complete their studies at upper secondary level than other pupils. The completion rate (N+2) is 68 per cent for Norwegian-born children of immigrant parents and 56 per cent for pupils who have themselves immigrated.
The longer an immigrant has lived in Norway, the more likely they are to complete upper secondary. Of immigrants aged 25–30, half of those who arrived in Norway at the age of 13–15 have completed upper secondary education or training. The corresponding figure for those who arrived at the age of 16–18 is 40 per cent.

There are greater differences in completion rates between Norwegian-born pupils with immigrant parents and immigrants than between Norwegian-born pupils with immigrant parents and other pupils.

**Girls with immigrant backgrounds are more likely to complete upper secondary than boys with immigrant backgrounds**

Norwegian-born girls with immigrant parents are just as likely to complete as girls in the population as a whole. Norwegian-born boys with immigrant parents, on the other hand, are significantly less likely to complete than both Norwegian-born boys and girls in the overall population. The gender differences are also considerable between immigrant boys and immigrant girls. A qualitative study points out that many boys with an immigrant background do not feel that education will help them enter the job market (Rogstad 2016).

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**Figure 7.4** Completed upper secondary education or training within the theoretical duration plus two years – by immigrant status and gender. 2008 cohort. Per cent.

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**Immigrants and immigrant backgrounds**

Young people with immigrant backgrounds are either immigrants (they have themselves immigrated) or they are born in Norway to two immigrant parents. We do not distinguish between country backgrounds.
7.3 Transitions in upper secondary education and training

Almost all pupils who graduate from lower secondary go straight on to upper secondary education or training. 98 per cent of 16-year-olds who completed lower secondary in spring 2014 were in upper secondary education or training by 1st October the same year. Transitions between the different upper secondary stages pose greater barriers, however.

A small proportion of pupils do not continue upper secondary beyond Vg1 level

8 per cent of pupils are no longer in upper secondary education or training the year after studying on Vg1 level. Among those who enrolled on Vg2 level, 14 per cent are not in upper secondary education or training the following year. We know that some of these individuals return to upper secondary education or training later on.

Most of those who do not continue their upper secondary education or training immediately after Vg2 level are enrolled on vocational study programmes.

Many pupils on vocational study programmes drop out when transferring to apprenticeships

Only 1 out of 3 pupils on vocational study programmes begin workplace training immediately after completing Vg2 level. 48 per cent continue on pathways within the vocational training system, either directly in workplace training or in school. 1 out of 4 pupils on Vg2 level of a vocational study programme was no longer in upper secondary education the following academic year.

20 per cent of pupils on Vg2 level of a vocational study programme proceeded to pursue a general study programme.
Figure 7.6 Transitions through upper secondary education. 2014. Per cent.

Figure 7.7 Transitions from Vg2 on vocational study programmes to the third year. 2014. Per cent.
7.4 Completing the training period

1 out of 3 begins their training period in the year after they were enrolled on Vg2 level of a vocational study programme. In order to obtain a trade or journeyman’s certificate, the apprentices must complete their training period and pass the apprenticeship/journeyman’s examination.

4 out of 5 apprentices obtain trade certificates within 5 years

Many of those who complete a vocational study programme spend longer than the stipulated time frame completing

Figure 7.8 Status of apprentices two to five years after starting their apprenticeship period. 2010 cohort. Per cent.

Source: Directorate for Education and Training

Figure 7.9 Apprentices who have obtained their trade certificates two to five years after starting their apprenticeship period – by study programme. 2010 cohort. Per cent.

Source: Directorate for Education and Training
their training period and obtaining their trade or journeyman’s certificate.

Half of all apprentices in the 2010 cohort had completed their apprenticeship or journeyman’s examination within two years. After three years the figure rises to 75 per cent before levelling off. 81 per cent had obtained a trade or journeyman’s certificate after five years.

**Electrical and Electronic Engineering has the highest completion rate**
There are major differences between different study programmes in terms of how many pupils obtain trade certificates – and how quickly they obtain them. On the Electrical and Electronic Engineering programme, 91 per cent of pupils pass their trade or journeyman’s examination within five years, while in Design Arts and Crafts the figure is 65 per cent.

### 7.5 Employment of newly qualified skilled workers

We have learnt that most apprentices obtain a trade or journeyman’s certificate. We will now look at how many of them are in employment after completing their training period.

**Apprentices on the Building and Construction programme are more likely to find employment immediately after completing their training**
Employment rates are lowest among Services and Transport graduates at 66 per cent and highest for Building and Construction graduates at 84 per cent. 13 per cent of those who obtained a trade certificate in Services and Transport were not in education, employment or training within a year of obtaining their certificate. The equivalent figure for the Electrical and Electronic Engineering programme was 4 per cent.

Norway has a high rate of employment compared with other OECD countries. Norway (alongside Sweden) has the highest rate of employment among 25 to 34-year-olds who have completed a vocational upper secondary study programme. 89 per cent of graduates in this group are in employment compared with 79 per cent across the OECD (OECD 2015).

**Figure 7.10** Employment status as at November 2014 for skilled workers who obtained their trade/journeyman’s certificates in 2013–14 – by candidate category. Per cent.

![Graph showing employment status](source: Statistics Norway)
Definitions of education, employment and training

The “in employment” category does not distinguish between full-time and part-time employment, nor does it specify whether the work is relevant to the skilled worker in question. People who are “in education” may be pursuing higher education, vocational training or upper secondary education. People who are in employment or in education are both included in the category “in education or training” if they have been registered as being in full-time education and in the category “in employment” if registered as being in part-time education.

7.6 Young people not in upper secondary education or training

Young people who do not complete upper secondary education or training are not necessarily inactive. Many of them choose to discontinue their studies in order to work, for example (Reegård and Rogstad 2016).

8 per cent of young people have not completed upper secondary education or training and are not in education, employment or training

17 per cent of Norway’s 16 to 25-year-olds are not enrolled in, and have not completed upper secondary education or training. Just over half of them are in employment. 8 per cent are in a situation where they have not comple-

Figure 7.11. Employment status as at November 2014 for apprentices/pupils who obtained their trade/journeyman’s certificates in 2013–14 – by study programme. Per cent.

Source: Statistics Norway

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Figure 7.12 Young people who have not completed and are not enrolled in upper secondary education or training – by age and employment status. 2014. Per cent.

Norway had a lower percentage of 20 to 24-year-olds not in education, employment or training in 2014 than most other Nordic countries. In Norway the figure was 10 per cent. Iceland came in slightly lower at 9 per cent, while Finland had the highest share in the Nordic region at 16 per cent. The OECD average was 18 per cent (OECD 2015).

Figure 7.13 Employment status of young people aged 16–25 who have not completed and are not enrolled in upper secondary education or training – by immigrant status and gender. 2014. Per cent.

17 per cent of immigrants aged 16–25 have not completed upper secondary education or training and are not in employment. The proportion who are not in education, employment or training is lowest among the youngest age group. The figure is 4 per cent in the 16–18 age group and 9 per cent among young people aged between 19 and 25.

More boys than girls fail to complete upper secondary education or training, although boys are more likely than girls to be in employment. For that reason there are almost equal numbers of boys and girls aged 16–25 who are not in education, employment or training.

17 per cent of immigrants aged 16–25 have not completed upper secondary education or training and are not in education, employment or training. This compares to 6 per cent among the rest of the population in the same age group. In terms of the proportion of pupils who are not in education, employment or training, there is little difference between Norwegian-born children of two immigrant parents and other pupils. The greatest gender differences can be seen among Norwegian-born pupils with immigrant backgrounds, however.
7.7 The Follow-up Service

The Follow-up Service (Oppfølgingstjenesten) is run by county councils for young people who are entitled to upper secondary education or training but who are not in such education or training or in employment.

A total of 19,900 young people made up the target group for the Follow-up Service as at 15 June 2015. This is equivalent to 9 per cent of all young people entitled to upper secondary education or training in this age group.

6 out of 10 are enrolled in upper secondary education or are in employment by the next school year

The key marker for the success of the Follow-up Service is that young people enrol in upper secondary education or

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**Figure 7.14** Status in the following school year of young people referred to the Follow-up Service as at June 2014. Per cent.

Source: Directorate for Education and Training/Statistics Norway
training or take up employment after being in touch with the service. 59 per cent of young people in the Follow-up Service's target group in June of the 2013-14 academic year had commenced education, employment or training by autumn 2014.

### 7.8 Working life and completion rates

73 per cent of pupils who started upper secondary education or training in 2008, completed upper secondary within the theoretical duration plus two years. This figure has remained stable for a long time despite political aims targeted at increasing the completion ration. Completion within two years after the stipulated time frame does not tell the whole story, however. Many young people are still in training at that stage, and after 10 years the completion rate increases to 78 per cent. Norway also offers good opportunities for returning to education and completing the programme as adults. This means there are more 35-year-olds than 25-year-olds in Norway who have completed upper secondary education or training.

Completing upper secondary plays a part in preparing to meet employment criteria and improving the chances of actively participating in the labour market. Those who fail to complete upper secondary education or training find it more difficult to get work. At the same time, Norway is one of the OECD countries with the lowest proportion of young adults not in education, employment or training.

Employment rates in Norway are high, and there is a link between the state of the labour market and drop-out rates on vocational study programmes, according to a new survey (von Simson 2016). The likelihood of upper secondary pupils discontinuing their education is higher during periods when it is easier to find work. In 2014 more than half of all young people not in upper secondary education or training were employed.
“We receive increasing amounts of information from various sources; statistics, research and experience from professional practice. Most of us need help to sort all this information and to put individual fragments of knowledge into a wider context.

We hope that The Education Mirror will help you to do just that!”

Hege Nilssen
Director of the Norwegian Directorate for Education and Training