



Teacher shortage in the Nordic countries

Comparing the current situation



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Teacher shortage in the Nordic countries. Comparing the current situation. NLS, November 2023



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Preface

The report Om NLS' utvikling, strategi og driftsformer ("The development, strategy and operating methods of NLS") from 2020 indicates a strong desire to establish networks that are able to quickly address issues of interest to NLS member organisations. Similar requests for networks have been expressed during the General Secretary's discussions with the individual organisations, for example during the preparation of NLS's new strategy. In addition, joint investigations have been proposed at NLS Board meetings.

Based on the report and related discussions, NLS's new strategy (2021) now specifies that the Council's task to create the conditions for information and experience exchange between the organisations. The exchange of information and experience, dialogue and cooperation will strengthen Nordic influence in questions concerning education, the profession and teacher's working conditions. Meanwhile, the individual member organisations and NLS must also have the opportunity to exchange experiences within their own operational areas. The Nordic model lays the foundation for the Council's task.

This investigation is the result of the foundation of the network of analysts (*NLS utredningsnettverk*) following the NLS seminar on professional and trade union development of teacher organisations in the Nordic countries which was organised at the end of April 2022. The seminar was a follow-up to the NLS sectoral conference (webinar) on pedagogical research and research collaboration in the Nordic countries which was held in April 2021. One of the goals of the webinar, and the subsequent seminar, was to create a basis for cooperation around a common network with a view to joint investigations coordinated through NLS.

The network has members from six NLS member organisations. The members of the network are Rikke Wettendorff (BUPL), Lars Blom Salmonsén (DLF), Kristina Aaltonen (DLF), Guðjón Hreinn Hauksson (KÍ), Jaakko Salo (OAJ), Pontus Bäckström (Swedish Teachers' Union), Johan Ernestam (Swedish Teachers' Union) and Trond Harsvik (Union of Education Norway).

Two decisions were made at the first meeting in August 2022: i) to conduct a joint investigation and ii) to create a database for the investigations conducted by the organisations.

This report – the first one compiled by the network – focuses on the supply of and demand for qualified teachers and preschool teachers. I hope that this initial investigation will signal the beginning of new NLS joint actions through which cooperation between the organisations lays the foundation for influencing education, the profession and teachers' working conditions.

The investigation was conducted by the Swedish Teachers' Union and the Union of Education Norway, with Ellinor Alvesson, Pontus Bäckström, Johan Ernestam (Swedish Teachers' Union) and Line Gjersø, Trond Harsvik, Eirik Lund, Nicolai Stensig (Union of Education Norway) playing a central role in compiling the report. Within the network, we also agreed to conduct the investigation in English, largely because it served as a common language for us, but also to because it enabled us to present the results outside the Nordic countries.

Many thanks to the Swedish Teachers' Union and the Union of Education Norway for their contribution to this report. I would also like to thank the network for the commitment it showed in establishing the basis for the investigation as well as the organisations that took the time to answer the questions.

Introduction

The Nordic countries have a unique kinship. It rests upon a shared foundation of history, culture, and similar political institutions. But it is also has deep roots in shared values and both linguistic and geographical proximity.

NLS is a co-operative organisation consisting of 16 different teacher unions in seven different Nordic countries and territories. NLS is thereby deeply rooted in – but also a central part of – the Nordic model.

We, the organisations within NLS, hold that one important explanation for the success of the Nordic model can be found in our likewise similar, and somewhat unique, way of organizing education for our children and adolescents. The Nordic model orbits around an intricate mutual dependence between economic policy, the functioning of the labour market and the public welfare systems. The educational system is placed at heart of all this. Indeed, in our view, one of the most important tasks for the state within the Nordic model is the creation of comprehensive education system for all citizens, preceded by a universal early childhood education (ECE), that combined and to the furthest extent possible together can compensate for children's different backgrounds and thus provide equitable life chances for all.¹

The most important resource for the successful implementation of such an ambitious goal is teachers. It is only through their work that such objectives can be reached.

This conclusion is the reason behind this report. A shared problem for the Nordic countries and territories is the extensive shortage of teachers. There are not enough young people who want, or get the chance, to be teachers, while, at the same time, too many in service qualified teachers consider leaving, or actually

choose to leave, the profession. How can that be? How have we all ended up with the same teacher recruitment and retention problems?

In order to highlight the shared problems of teacher supply and demand, NLS has written this report. Its aim is to illuminate the distinct characteristics of teacher shortages in the different countries and territories e.g. How big are the shortages? In which parts of the

education systems are the problems greatest? And, perhaps most importantly, what are the underlying factors that contribute to these shortages?

“A shared problem is an extensive shortage of teachers

Each chapter has been written by analysts in the different organisations in the different

countries. Data has been collected from both international sources such as Education at a Glance and from the different national statistics bureaus. In both cases, we have striven to use the same statistical definitions in the indicators to facilitate comparisons and interpretation. In some cases, this has not been possible.

The report is structured in separate chapters for each country. The result from each chapter is then summarized and discussed in the final chapter, alongside shared policy recommendations.

NLS policy recommendations for the Nordic countries can be summarized as follows:

- Teachers' salaries are below comparable graduate groups in several Nordic countries. Competitive salaries are an important tool for recruiting and retaining teachers and it contributes to increasing the status and attractiveness of the teaching profession.
- Teachers in the Nordic countries have a heavy workload and demanding working conditions. Teachers' working conditions must be improved and professional autonomy respected.
- Nordic countries must strengthen teachers' opportunities for continuous professional development. Strengthening teacher training and induction for new graduates are important measures.
- Relevant authorities must ensure clear qualification requirements for teacher positions and monitor the local compliance. This, amongst many things, requires a systematic review of the number of teachers in- and out of service and teacher shortages.



Chapter 1: Denmark

Problems and challenges

Early childhood education (henceforth, ECE) is challenged by staff shortages, which are exacerbated by the current failure to recruit qualified candidates to 32 per cent of posts. Additionally, the number of applicants to the Bachelor's of Social Education programme (leading to the profession of "pedagogue" or kindergarten teacher) is declining. At the same time, a number of pedagogues are choosing to leave the profession. In 2018, 11 000 pedagogues chose to work outside the ECE and school sectors?²

Furthermore, pedagogues retire approximately one year earlier than the average Danish worker. Within the next 5-10 years, 25 per cent may retire³.

Over the next ten years, the number of small children in Denmark is expected to increase by 60 000. Simultaneously new legislation, which regulates the child-adult ratio will come into effect by 1 January 2024, increasing the demand for qualified ECE-teachers (henceforth pedagogues). In 2030, Denmark will face a total shortage of 8 000 pedagogues⁴.

Public primary and lower secondary education (folkeskolen) and private/independent schools (friskoler og private grundskoler) are regulated respectively by the laws "Lov om folkeskolen" and "Lov om friskoler og private grundskoler". There is an increasing teacher shortage in Denmark. By 2030, it is estimated that Denmark will have a shortage of 13 000 teachers. In 2022, approximately 19 per cent of teachers in public schools were unqualified teachers. Denmark seem to be facing a "perfect storm", since there is simultaneously a declining number of applicants for teacher education, a high teacher trainee dropout rate, a growing number of newly qualified and employed teachers who are

leaving or considering leaving the public school (and the profession) and an increasing number of experienced teachers who are leaving public schools (and the profession).

At the same time, there are 28,000 qualified teachers who are not working as teachers anymore⁵. This could lead to the conclusion, that Denmark is not suffering from a shortage of teachers, but from a shortage of qualified teachers who want to teach in public schools.

In private/independent schools⁶, there are no specific requirements regarding teacher education. Hence, the teacher shortage seen in public schools does not directly impose challenges in private/ independent schools. However, a large proportion of teachers in private/independent schools do in fact hold a teacher education, and thus the private/independent schools might face a future teacher shortage too due to the decline in applicants for initial teacher education.

In 2012, the total number of teachers in Danish gymnasiums (general upper secondary school) was approximately 13 600. In general, there is almost no teacher shortage in general upper secondary schools. That said, the demand for teachers in certain subjects (natural sciences, mathematics, and information technology) has in recent years exceeded supply, but the reverse mismatch is certainly the case in almost all subjects related to arts and humanities subjects. It is fairly common to see more than 200 applicants for a position in subjects such as History, Danish, Religious studies etc, especially in the university cities. The moderate shortage of applicants for positions in certain subjects – for instance in mathematics or information technology – in some cases drive schools to hire staff without the required qualifications on short-term contracts and creates a political demand from school leaders to lower the standards. Certain upper secondary programmes, – the higher

commercial examination programme (hvx) and the higher technical examination programme (htx), experience some difficulties when recruiting new teachers. This is due to several different factors but, among them, is the often unclear connection between university programmes and qualification standards, the high demand for labour in other sectors and the deteriorating working conditions in upper secondary schools. As a direct result of general cuts in school budgets and massive demographic changes, the last six years have been characterised by the termination of contracts and dismissals. The upper secondary schools have 10 per cent fewer teachers today compared to 2016. Prior to this period, dismissals were rare and almost never the result of rationalization processes.

In general, there are large geographical differences in the shortage of pedagogues and teachers at all education levels. More information in Appendix A (Denmark). As with the other Nordic countries, Denmark also exhibits differences in the gender composition of the teaching profession. For pedagogues, the proportion of women is the highest at 81 per cent across sectors and 91 per cent in ECE. In primary and lower secondary schools 70 per cent are women and, in general upper secondary schools, 53 per cent are women.

Different conditions for different teachers

A relatively high number of pedagogues work part-time, particularly in ECE, where 64 per cent work part-time, compared to 50 per cent in the school sector and after-school programmes.⁷ BUPL's member survey from 2021 indicates that pedagogues would be inclined to increase their working hours if working conditions were to be improved and a higher degree of professional autonomy were guaranteed.

Pedagogues earn the least of all public sector professional groups with a bachelor's degree (ISCED 6). On average they earn DKK 4,000 less per month than other public employees with similar educational attainment levels. Recently, the Wage Structure Committee in Denmark has assessed the salaries of the public personnel groups, and the Danish government has called for tripartite negotiations to mitigate some of the disparities identified in the Wage

Structure Committee; pedagogues are named as one of the four specific groups the government wishes to discuss.

In comparison, the average salary of teachers in public primary and lower secondary is higher than that of other groups working in the public sector with a similar level of education (pedagogues, nurses, social workers), the salary of teachers is higher. However, it is marginally lower than the salary of building constructors (bachelor's degree) and significantly lower than machinists (bachelor's degree) working in the Danish municipalities. The average salary of a grade 1-9 teacher in 2021 was 551 412 DKK including pensions. This represents an increase of 48 252 DKK or 9,5 per cent since 2016.

On average, teachers in private/independent primary and lower secondary schools receive a lower salary than their public school counterparts. The average salary per year of a grade 1-10 teacher was 507 372 DKK including pensions in 2021. This represents an increase of 54 120 DKK or 12 per cent since 2016.⁸

The average salary of general upper secondary teachers (general programme), in comparison to that of other groups with similar level of education (eg. engineers, lawyers and economists employed in the state), is marginally lower. If the management level of these groups is excluded, the average salary of upper secondary teachers (general programme) is higher than that of state-employed engineers, lawyers and economists. The average salary of an upper secondary teacher in 2021 was 611 948 DKK. This represents an increase of 46 784 DKK or 8,3 per cent since 2016.⁹

There are three different initial teacher education programmes for qualification to the teaching professions in the Danish general education system¹⁰, covering early childhood education, public primary and lower secondary and general upper secondary. For more detailed information, read chapter *Regulation and the appointment process*.

- A Bachelor's in Social Education (pædagoguddannelsen)¹¹ qualifies candidates for the early childhood education teacher profession (pedagogue) in "vuggestue" (0-2 year old children), børnehave 3-5 year old children) and after-school programmes. This education also qualifies candidates to teach at grade 0¹² (børnehaveklasseleder) as well as teach a limited range of tasks (within the individual's level of competence and qualification)¹³ of grades 1-3. The Minister of Children and Education has the capacity to define qualification requirements for specific areas of teaching¹⁴
- A Bachelor's in Education (folkeskolelæreruddannelsen)¹⁵ qualifies candidates for public primary and lower secondary education grades 1-10 (folkeskolelærer, folkeskolen)¹⁶
- There are no statutory qualification requirements for the teaching profession in private/independent primary and lower secondary schools (friskoler og private grundskoler¹⁷)
- A Master's Degree (MA) in one or more teaching subjects in general upper secondary and a Diploma of Education (pædagogikum)¹⁸ qualifies candidates for the teaching profession in general upper secondary.

In ECE, the recruitment, selection, and allocation of pedagogues is officially the responsibility of the head of the institution, the institution board or the municipality. The voice of employees in this process is not formalized; however, the rules on trade union representation state that the representative must be kept as informed as possible about upcoming appointments within the area of the collective agreement. When hiring for permanent positions, an employment committee can be established, in which the union representative and the employee(s) who will work most closely with the new employee participate. In private institutions, it is the board that has the formal right to hire and fire employees, although the task is typically delegated to the manager. The board may be represented in an appointment committee.

In public primary and lower secondary schools, it is the municipal board which is responsible for hiring teachers and school leaders (according to § 40.6 of the Public School Act) However, in practice, it is most often delegated to the head of the individual school to hire teachers at the school level. It is stipulated in the Public School Act that the school board must give

its opinion on the employment of teachers (and pedagogues) to the municipal board. In practice, this means that the school board is offered the possibility to take part in the local recruitment process. The employee influence is not formalized but the local representative of DLF takes part in 88 per cent of recruitment interviews at the school level. The formal place of employment for teachers is the municipal school system with their service at a given local school. This means that teachers can be transferred to other schools within the municipality.

The recruitment process for teachers in the Danish gymnasium is similar to that of other sectors. The schools normally recruit the most during late spring and they often post positions on the basis of expected activity in specific subjects. Formal subject education is therefore an essential criterion for the employers. It is required by law to advertise all vacant positions. Normally a board of school leaders, subject teachers and union representatives conduct the employment interviews. There are no formal rules for this process apart from the competence requirements mentioned above. Unfortunately – and despite the rules – it is quite normal that new teachers in permanent positions do not meet the formal qualifications requirements and are not they registered for the formal pedagogical training programme immediately after employment. More than 90 per cent of the most recently employed teachers have taught for several years before they are permanently employed and registered for the formal pedagogical training.

Measures that must be taken to counteract teacher shortages

To effectively cope with staff shortages in ECE, it is necessary to address issues relating to working conditions, pay and training¹⁹.

1. Pedagogues' wages must increase to match their educational level. Salaries play an important role in young people's decisions over their choice of higher education programme. Current salary levels deter young people from entering the BA-programme in Social Education²⁰.
2. Better funding of the BA-programme in Social Education is needed. This BA-program has more students than any other BA-program in Denmark,

yet it is not adequately funded. A permanent increase in taximeters is crucial to ensuring a higher quality educational experience for students; more time for teaching and improved conditions for feedback to students on their work.

3. It must be made easier and more attractive to train as a "meritpædagog"²¹. 3000 pedagogical assistants and unskilled staff" already meet the entry requirements for the meritpædagog programme, making this a fast and effective way to alleviate some of the current staffing problems. Doubling the State's Educational Support for Adults is one of several measures to attain this.
4. A stronger focus on retaining pedagogues is critical, for instance by ensuring continuing professional development (CPD) and proper life-long learning, and improving the conditions for preparing and developing activities with children. The dramatic decline in recent years in the proportion of pedagogues who participate in formal continuing education needs to be addressed. Up until 2015-16, around one in three pedagogues (27-33 per cent) had participated in formal continuing education within the past three years. In 2018-19, this number had decreased to 17 percent²².

When it comes to primary and lower secondary schools, there are many reasons for the teacher shortage in Denmark. These include demographic, historical, economic, and professional factors. There are no easy answers to meet the teacher shortage challenges, and the problem requires a national action plan, focusing on at least five different levels:

- increased recruitment initiatives for teacher education
- initiatives to retain teacher students at the teacher education
- better support for newly qualified teachers
- retention initiatives for trained teachers
- re-recruitment initiatives for teachers who have left the profession in order to "get them back to schools"

The proportion of unqualified personnel

Table 1.1 describes the change in the proportion of pedagogues employed in the early years sector (from grades 0-6). The table consists of 3 categories: pedagogues, pedagogical assistants and unskilled workers.

Table 1.1. Proportion of pedagogues in ECE

	2018	2019	2020	2021	2022
Pedagogues	58 %	58 %	56 %	55 %	54 %
Pedagogical assistants	7 %	8 %	7 %	8 %	8 %
Others (unskilled)	35 %	34 %	37 %	37 %	38 %

Source: Office for Municipal and Regional Wage Data, krl.dk

The proportion of employees working as teachers without a teacher education in primary and lower secondary is increasing. In 2012, approximately 1 out of 10 teachers (10,3 per cent) did not have a teacher education. In 2021, the proportion of teachers without a teacher education was 19 per cent.

Table 1.2. Proportion of teachers in primary and lower secondary education without initial teacher education

Year	Teachers without initial teacher education
2012	10,30 %
2013	11,30 %
2014	12,20 %
2015	15,50 %
2016	17 %
2017	17,60 %
2018	17,90 %
2019	18,10 %

The proportion of employees without a teacher education is even higher for newly recruited teachers. Approximately one third of teachers recruited in the school year of 2020/2021 did not have a teacher education. In the previous year, the proportion was slightly larger. This is shown in table 1.3.

Table 1.3. Proportion of newly recruited teachers with and without a teacher education

Education	2019/2020	2020/2021
Teachers with a teacher education	62,50 %	64,40 %
Teachers without a teacher education	37,50 %	35,60 %

According to a recent inquiry among teachers in general upper secondary education employed within the last five years approx. 30 per cent lack the required pedagogical training. 56 per cent of them cannot be registered for the training programme as they are employed on short term contracts but 44 per cent of them are permanently employed.

A simple estimate is that approx. 600 teachers in upper secondary education to some extent lack the appropriate subject and/or pedagogical education. This is equivalent to 4,4 per cent of the total number of teachers.

Prognosis of future teacher demand

The demand for pedagogues is expected to increase by almost 15 per cent up to 2030 due to an increase in the number of 0–6-year-olds. By contrast, the supply of pedagogues is expected to increase by 0,3 per cent. This means that the demand will far exceed supply with a national estimated shortage of 14,000 pedagogues by 2030. The shortage will be further exacerbated by the statutory minimum child-to-adult-ratio, which is to be fully implemented by 2024. The shortage of pedagogues will be country-wide.

The predicted teacher shortage defined as the difference between the predicted demand and supply of teachers in public primary and lower secondary education in 2030 is 35,600 (with predicted supply estimated at 250,000 qualified teachers and predicted demand at 285,600).

Development in number of applications and admissions to the pedagogue and teacher initial education programmes

Table 1.4 provides an overview of 1st priority applications and admissions to the BA-programme in Social Education from 2018 to 2022. The last five years have seen a decline in admissions except for 2020, when an increase was observed. Most markedly is the decline in 2022 when there was a drop of more than 600 admissions.

Table 1.4. Development in the number of applications and admissions to the BA-programme in Social Education

	2018	2019	2020	2021	2022
1st priority applications	6 382	5 957	5 909	5 647	4 608
Admissions as pr. 28th July	4 957	4 869	4 955	4 781	4 155
Change in admissions from previous year	-143	-88	86	-174	-626

Source: UFM datavarehus: <https://datavarehus.ufm.dk/rapporter/sogning-og-optag>

The number of applicants to the initial teacher education (primary and lower secondary education) is declining. Table 1.5. lists the number of first priority applicants from 2012 to 2022.

Table 1.5. Number of 1. Priority applications to Danish teacher education

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1. Priority applications	3482	2975	2512	2775	3226	3 146	3112	3001	3049	2957	2586

Teacher shortage – a national problem with regional differences

In ECE, the failure to appoint qualified candidates to 27 per cent of vacant positions corresponds to 3900 unsuccessful recruitments in the period December 2021 to May 2022.²³ There are relatively large geographical differences, with the proportion of unsuccessful recruitments highest in the capital (38 per cent) and lowest in Western Jutland (5 per cent).

In public primary and lower secondary education there are large geographical differences in the proportion of unqualified teachers. The municipality Frederikssund has the highest proportion of unqualified teachers (34 per cent), Silkeborg has the lowest proportion of unqualified teachers (6 per cent). There are also large geographical differences in predicted teacher shortages. The shortages are expected to be largest in West- and South and North Zealand, which are estimated to be 2,200 and 2,100 teachers short in 2030 respectively.

In general upper secondary the distribution of teachers by region tells us that the largest proportion of teachers works in the capital region. The second largest proportion works in Central Jutland. The northern and southernmost parts of the country and the least populated areas are expected to experience the worst decline in student applications during the coming 5-10 years.

Regulation and the appointment process

In the ECE sector (including schools and leisure schemes), there is no requirement for "competence/skills coverage". However, the recent agreement on minimum standards stipulates that the educational composition/rate of qualified teachers in daycare must not deteriorate in line with the implementation of the Minimum Standards Act.

The basic requirement for primary and lower-secondary teachers is to have a formal teacher education which will give them general "educational competence" (undervisningskompetence).

It is stipulated in the Folkeskole Act that you must be educated as a teacher to teach in the public school:

§ 28. In order to be able to take care of teaching in the primary school's grades 1-10. class, the teacher must have completed the teacher training that has been approved by the Minister for Children and Education in this regard, cf. however subsection 2 and §§ 29 a, 30 and 30 c.

§ 28.2: "Persons with special qualifications may be employed to teach individual subjects."

Additionally, there is a specific demand that all teachers must have specific competences in the subjects they teach (§ 40.7). The municipal board ensures that teachers in the municipal school system have teaching competence from teacher education – or equivalent professional competence – in the compulsory subjects they teach (competency coverage).

For the youngest school-pupils, age 5-6, (= børnehavestruktur ell. 0. klasse) the following is stipulated in the Act:

§ 29: "In order to teach in the kindergarten class, the teacher must have completed the training as a pedagogue."

In private/independent schools, there are no specific requirements regarding education apply for teachers. The teaching must however be equivalent to what is

generally expected in the public school. Thus a large proportion, about 80 percent, of teachers in private/independent schools do in fact have a teacher education.

The basic requirement for general upper-secondary teachers is to have a formal education in a subject taught in the gymnasium and additional pedagogical competence. Specific subject education and pedagogical education and training combined is called "educational competence" (undervisningskompetence).

The competence requirements are specified in chapter 7 in the law for upper secondary education (Lov om de gymnasiale uddannelser).

Specific subject-oriented education at Master's level is required. In addition the education must have the content and methodological scope described in the so called "Faglige mindstekrav" – that is, the guidelines for university-level education designed to educate upper secondary teachers.

Teachers in technical and technological subjects, subjects within the natural sciences and business subjects can obtain the necessary level of education when combining formal education with relevant professional experience.

For teachers in some business subjects two years of relevant professional experience (not teaching) is also required.

Officially, it is the school leader who determines the required level of subject education when employing the teacher, but teachers can only be employed in a permanent position if the formal requirements are met.

If a teacher, who does not meet the requirements is recruited anyway, the mandatory pedagogical training will be stopped and subsequently the basis for continued employment will be void.

All permanently employed teachers must complete the pedagogical education and training programme – called *Pædagogikum* – within the first years of employment. It is not possible to access the required

programme without a permanent employment contract.

Pædagogikum is a 60 ECTS programme, which is part theoretical and part practical. The teacher will receive normal pay while he or she participates in the programme, which is also financed by a specific subsidy given by the state to the employing school.

All the rules concerning Pædagogikum can be found in *"Bekendtgørelse om pædagogikum i de gymnasiale uddannelser"*.



Chapter 2: Finland

Regulation and the appointment process

Teacher qualifications in Finland are defined in the Decree for qualification requirements for personnel in the teaching profession (1998). The decree defines the required education and other requirements for specific types of teachers (class-, subject-, special-, vocational teacher), principals and study counsellors for example, in basic education and upper secondary school. The qualifications for early childhood education are defined in the Act for Early Childhood Education (2018).

In brief, the qualification requirements in Finland are:

- Early childhood education teacher: bachelor's degree in pedagogy (including teacher studies for ECE)
- Head of day care centre: Qualified ECE teacher with master's degree in pedagogy
- Class teacher (primary school): master's degree in pedagogy (including class teacher studies)
- Subject teacher (primary school): master's degree (usually in the teaching subject); subject studies, min. 60 study credits in each teaching subject; teacher studies (60 study credits)
- Subject teacher (upper secondary school): master's degree (usually in the teaching subject); subject studies: 120 study credits in one subject and min. 60 study credits in each teaching subject; teacher studies (60 study credits)
- Vocational teacher: applicable bachelor's degree, teacher studies (60 study credits); min. 3 years' experience in a profession in the same field

- Principal: Qualified teacher for the same school level with master's degree, adequate teacher experience and min. 60 study credits of studies in educational management
- There are separate studies (60 study credits) for special education teachers and study counsellors.

There are some gaps in the qualification requirements, and there are not qualification requirements for every teacher position. The OAJ is demanding that qualification requirements should also be defined for these positions.

Only a qualified teacher can be appointed to a permanent teacher position in Finland. Unqualified teaching personnel can only be used only for shorter (less than 12 months), temporary positions. Temporary positions of 6 months or longer must be advertised publicly to see if qualified applicants are available for the position.

The principals/heads of day care centres represent the employer in the recruitment process. They usually choose the applicants for an interview and carry out the interviews and make the recruitment decisions for temporary positions. Usually, for permanent positions, the decisions are made by the education board (in municipalities) or administrative board (in private schools) in accordance with the principal's recommendation. The employees' representatives are not involved in the process.

The lack of hard teacher-data in Finland

One of the biggest challenges to discussing issues of teachers supply in Finland is the lack of data. There is no hard data on the overall number of in-service teachers or the qualification rates of Finnish teachers. For years, the OAJ has demanded a national teacher register be established in Finland. Currently, the Ministry of Education is preparing such a register, but it will not be in use for a couple of years at the earliest. Without this register, there is only second-hand data on teacher demand, shortages or qualification rates in Finland.

The current data on teachers in Finland is based on the report of a quantitative survey, which is conducted every three years (*Teachers and principals in Finland*; National Agency for Education and Statistics in Finland; <https://www.oph.fi/fi/tilastot/tilastoja-opettajista-ja-rehtoreista>). However, the reliability and usability of this survey has declined in the past decade, especially due to the lower response rate. This survey has not been updated since 2019 because the national register is in preparation. The following data are based on this report, and there are major worries about the reliability of these statistics.

Indicators

Traditionally, both the rates of teacher qualification and the attractiveness of teacher education have been very high in Finland. The biggest shortages have been in specific subjects or sectors, for example, special education teachers, early childhood education teachers, certain subject teachers (math) and vocational teachers (tech).

The majority female workforce in the Finnish teaching profession is somewhat higher than that of the other Nordic countries. While the percentages are fairly close to each other, the proportion is the highest in Finland, especially in pre-primary education (cf. appendix).

There is not a big age difference between teachers in the Nordic countries, but Finland stands out (with Iceland) in that there is a lower percentage of teachers under 30 years. This is explained by the length of the teacher education (cf. appendix).

Based on the latest data (*Teachers and principals in Finland 2019*; National Agency for Education and Statistics in Finland; <https://www.oph.fi/fi/tilastot/tilastoja-opettajista-ja-rehtoreista>), the qualification rates are very high in Finland:

- Basic education is 95 per cent overall; somewhat lower (90 per cent) for special education teachers and also for Swedish-speaking teachers (91 per cent)
- Upper secondary school 97 per cent overall, somewhat lower for part time teachers (90 per cent)
- Vocational education is 93 percent, significantly lower for part time teachers (70 percent)

Shortages of teachers

The biggest teacher shortages in Finland are in early childhood education. The education of ECE teachers has been under-dimensioned since the 1990s. The percentage of children who participate in ECE has risen for years which has caused a major shortage of ECE teachers. The new ECE legislation in Finland (2018) defines a staff ratio which emphasizes education. Two thirds of personnel must have a higher education, of which at least one has to be qualified ECE teacher).

The current level of early childhood education teacher education in Finland is inadequate to meet current demand and, or especially, the new demand from 2030 onwards.

Currently, about 16 per cent (more than 3000) of early childhood education teachers are unqualified. The demand is highest in the most densely populated cities and, for example, in the Helsinki area, more than 40 per cent of ECE teacher positions are either unfilled or filled by unqualified teachers.

There have been several temporary measures to increase the number of places for ECE-teacher education in universities. This has helped to a degree, but, to correct the shortage, the permanent intake to ECE-teacher education must be lifted from 850 (yearly intake) to 1400 to meet the demand from 2030 onwards.

Prognosis of future teacher demand

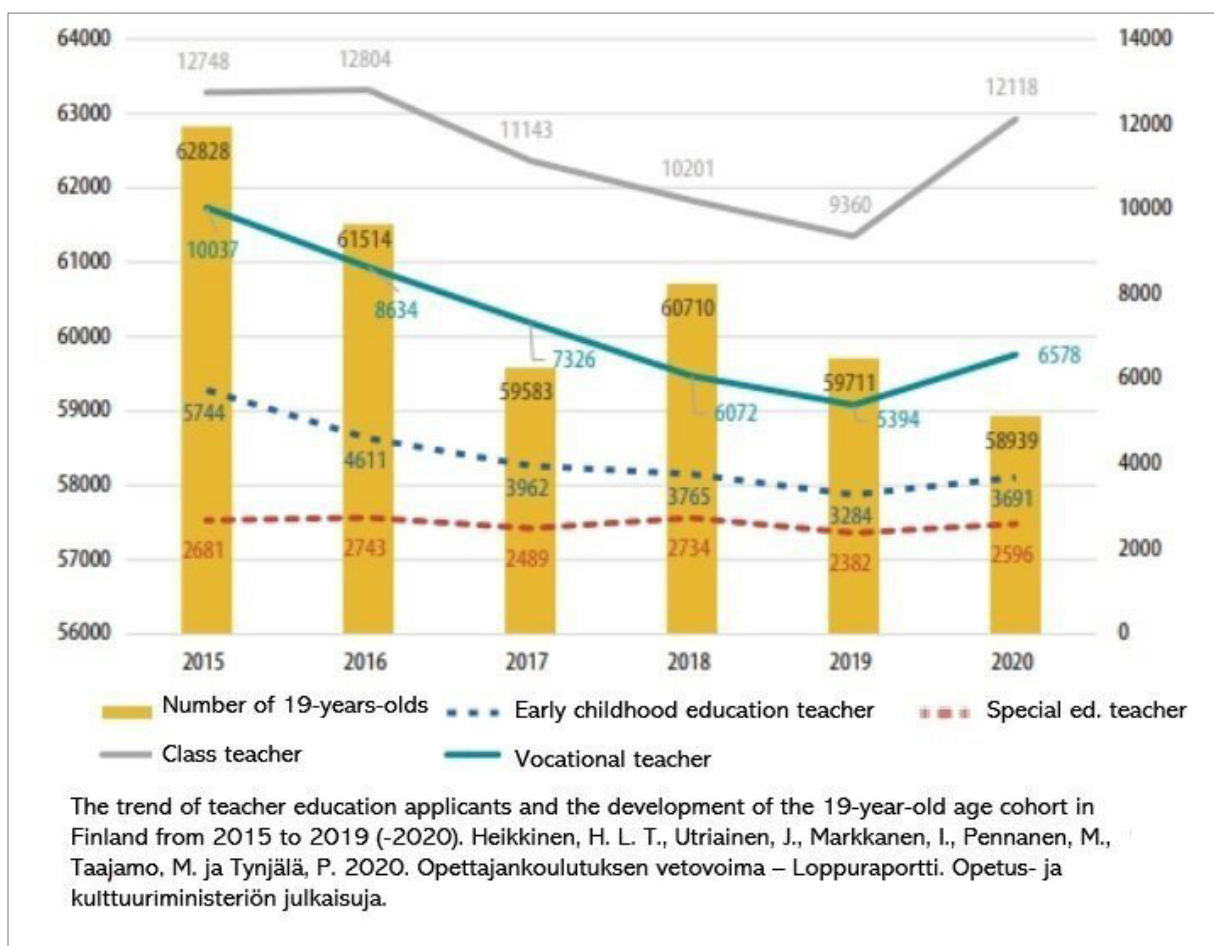
Currently, the Finnish population is declining rapidly, and the number of pupils/students may decrease dramatically. In some municipalities, it may decrease by 15-30 per cent until 2040s, which will affect teacher demand. The population and the number of pupils will increase only in some of the largest cities.

Even if the demand for teachers is decreasing outside these growing cities, there have been difficulties recruiting teachers in shrinking municipalities. It seems to be more difficult to attract teachers to municipalities and schools where populations are in decline.

In Finland, the number of applicants for teacher education has always been very high. Traditionally, the best applicants from secondary education have applied to teacher education in Finland. There have been 8-10 applicants for one place of study.

Nevertheless, there has been a worrisome development in the number of applicants for different teacher education programmes since 2015. In 2015 the number of applicants was still high but, after that, the number of applicants started to decline. In 2019, the number of applicants was at their lowest level. OAJ has campaigned for the attractiveness of the teaching profession and teacher education and, fortunately the situation has improved in recent years.

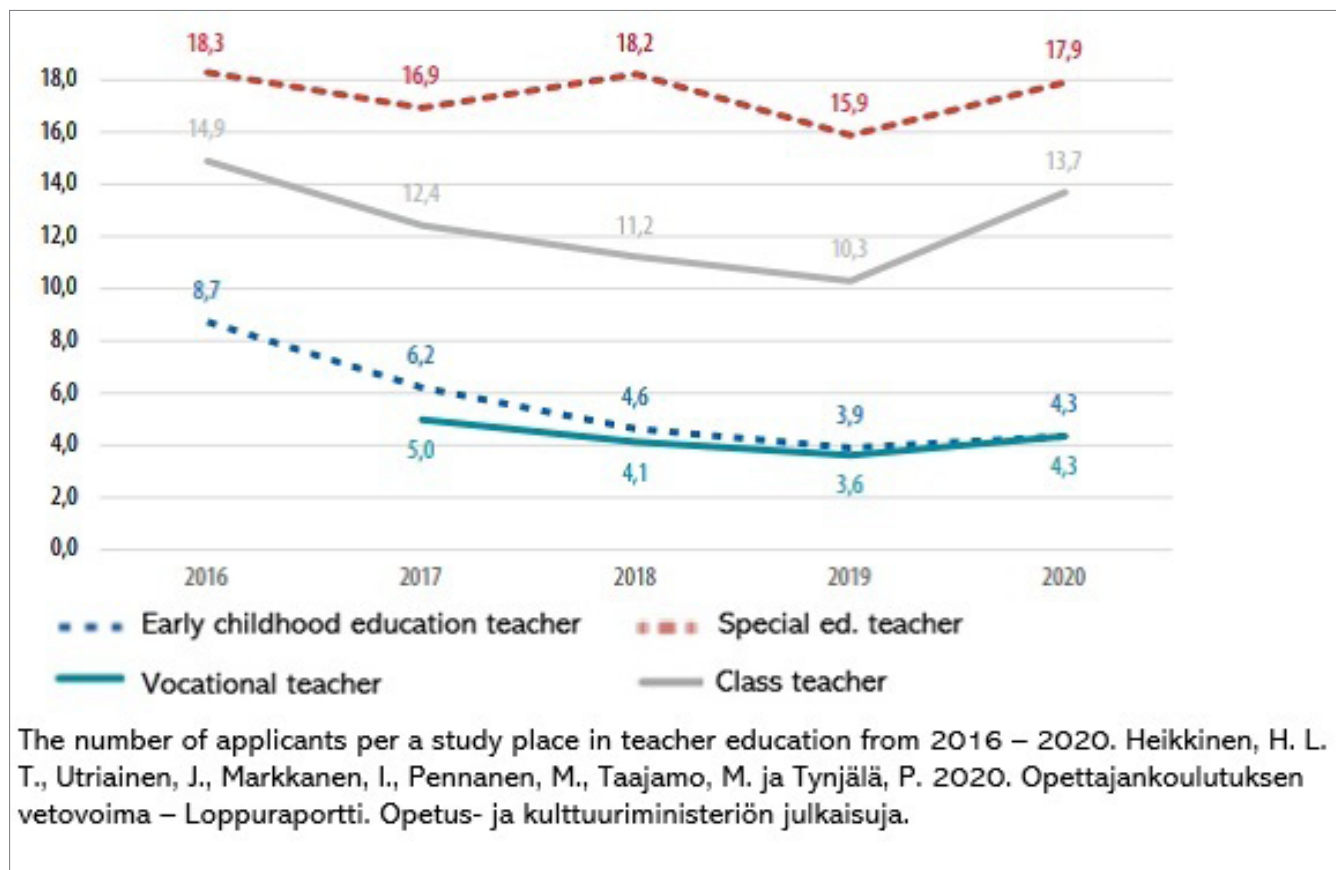
Figure 2.1. Number of applicants per place in teacher education in Finland 2016-2020



Class teacher education applicants began to decline in 2016 and the number was almost 30 per cent less in 2019. Similar dramatic changes were seen in vocational teacher education.

In 2020, the number of applicants increased to almost to the same level as before 2015. The situation is the same today. The decrease is partly linked to the decreasing number of 19-year-olds in the Finnish population. Since the increase in 2019, teacher education remains very attractive, and there are still several applicants for every place in teacher education.

Figure 2.2. Number of applicants per study place in teacher education in Finland 2016-2020



Teacher attrition rate

The attrition of Finnish teachers has not been statistically significant(cf. appendix) but the OAJ has been concerned about the attractiveness of the teaching profession in the future. For several years now, a number of surveys (such as OAJ's Teachers' Working Conditions Barometer 2021)²⁴ have shown that teachers are experiencing increasing work stress and less job satisfaction and enjoyment. During the Covid-19 pandemic, 3-6 out of 10 teachers stated that they were considering leaving the profession according to OAJ's surveys.

Teacher salaries in Finland

Compared to other tertiary educated workers, teachers in pre-primary schools (and in all early childhood education) have lower salaries in all the Nordic countries. This is also the situation in Finland. Lower secondary school teacher's salaries are very close to, and in general upper secondary school they are somewhat higher than, the tertiary educated workers salaries (cf. appendix).



Chapter 3: Iceland

Problems and challenges

Teacher shortage is a persistent problem in Iceland and has been for years. In short, not enough students choose teacher education, while a good many of those who do never make it to graduation. Moreover, a large proportion of the teacher education graduates never actually enter the profession, and many of those who do end up leaving within the first few years of their teaching careers.

From 2008 to 2018, enrollment in teacher education programmes fell by about 40 per cent and the number of graduate teachers went down by roughly 50 percent.²⁵ According to a 2016 study, almost 5 000 educated qualified teachers were not employed as such.²⁶

This, along with the increasing average age of teachers – or *the greying of the teacher workforce*, and the *brain drain*, is part of the reason for why recruitment at every school level is one of the biggest challenges that the Icelandic Teachers' Union (ITU) faces. In 2019, the Icelandic government predicted that Icelandic compulsory schools will have a shortage of 1 500 to 2 270 qualified teachers by 2032. That means that up to 49 per cent of teaching personnel would not have the appropriate teaching qualifications.²⁷

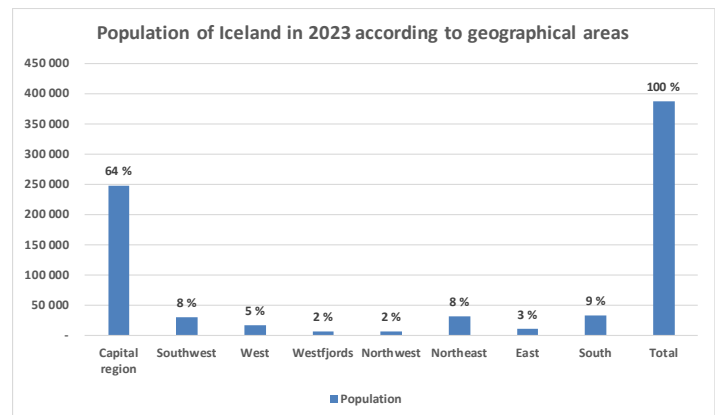
As the shortage persists, the proportion of unqualified or unauthorized persons working within the education system grows and students are left without a sufficient supply of well-educated people with the required qualifications to teach, advise, and administer at all school levels. The situation is especially dire at the pre school level.

Geographical differences

In general, the difference in the ratio of qualified to unqualified teachers at every school level varies according to geographical area, with the best ratio found in the capital area and the worst within the most rural, sparsely populated, and isolated areas of the country, especially in the North West of Iceland and the Westfjords.²⁸

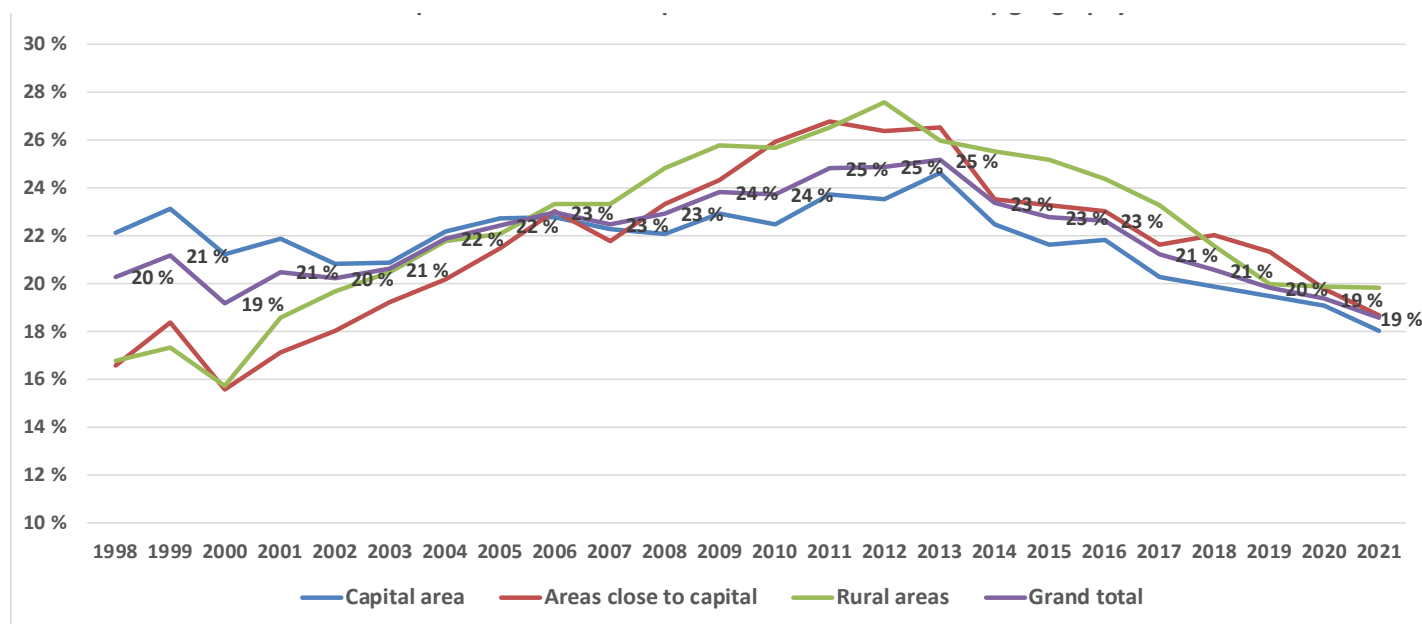
The capital area is the most densely populated, with 247 533 residents, compared to 140 225 residents that inhabit areas outside the capital (as of 1 January 2023).²⁹

Figure 3.1. Population of Iceland in 2023 by geographical area



At the pre-school level, however, the ratio shifted around 2006 when, from then on, the ratio of qualified teachers became better in areas outside the capital, rather than in the capital area.

Figure 3.2. Percentage of qualified teachers at preschool level 1998-2021 by geographical area



This could be due to differing employment conditions in the two different areas – with less competition in the rural area than the capital, fewer job opportunities and more equal pay between different occupations in more sparsely populated regions.

At the compulsory level, the proportion of qualified teachers was far better in the capital area between 1998 and 2021, with an average of around 93 per cent qualified teachers in the capital area compared to 82 per cent in other areas of Iceland. The situation is similar at the upper secondary level.

Figure 3.3. Percentage of qualified teachers at compulsory level 1998-2021 by geographical area

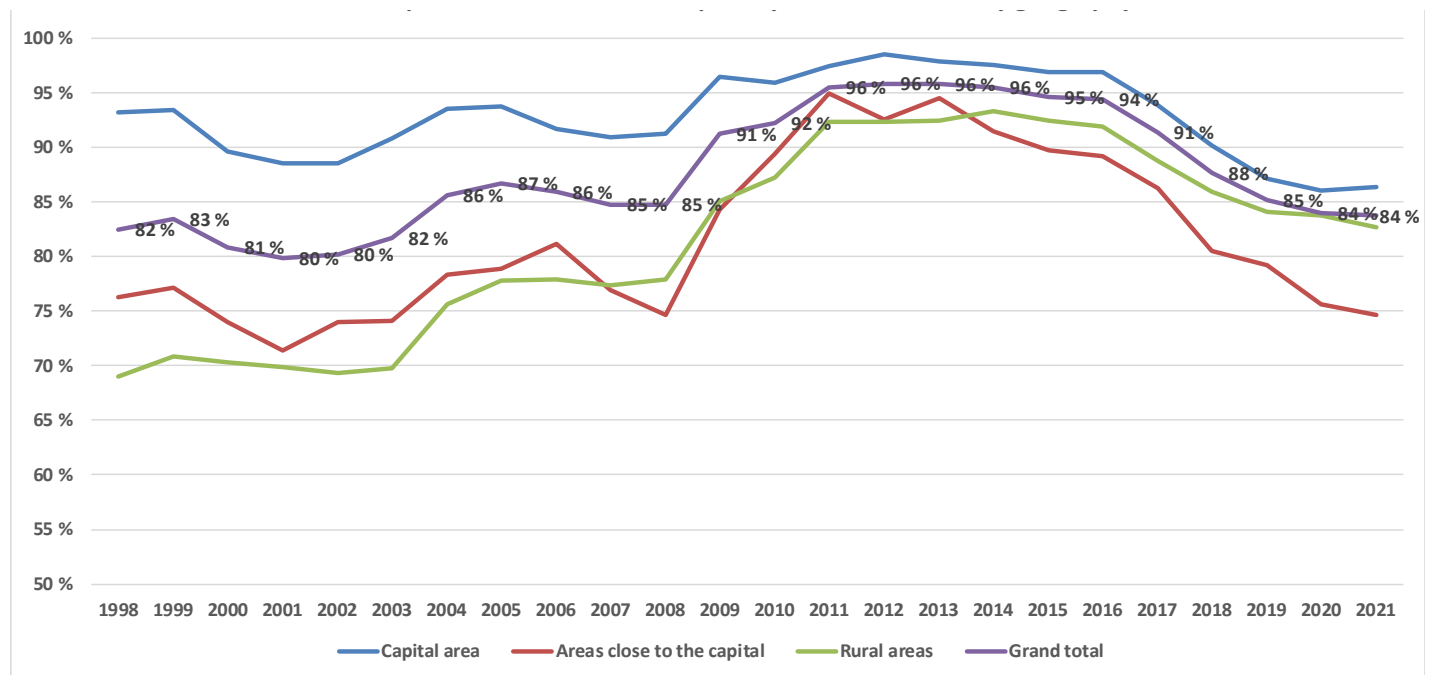
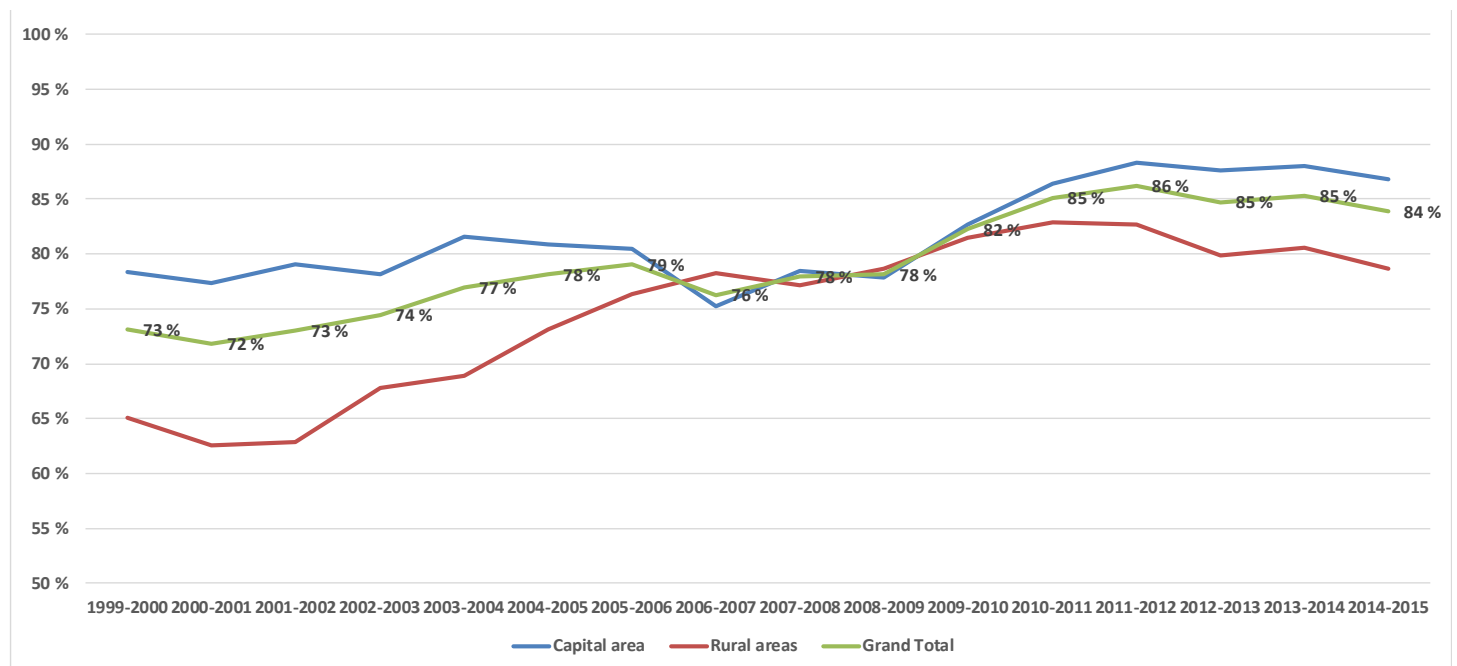


Figure 3.4. Percentage of qualified teachers on upper secondary level by geographical area 1999-2015



However, it should be noted that statistical data from Statistics Iceland are only available for the years 1999 to 2015 at the upper secondary level and from 1998 to 2021 at the other two levels, making it harder to evaluate differences and progression.

This is unfortunate to not be able to see the progression after new collective pay agreements were made for upper secondary teachers in 2014. Before that, between 2011 and 2014, salaries for upper secondary teachers were proportionally about 17 per cent lower than the average salaries of university-educated government employees.

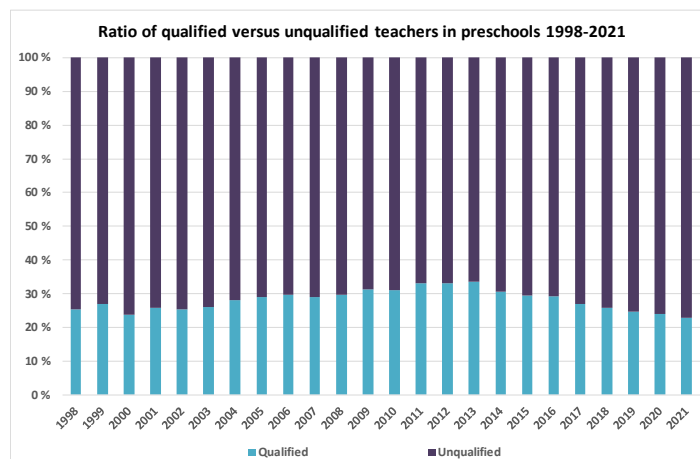
The proportion of unqualified personnel

The proportion of qualified teachers differ between school stages, and varies greatly between the first school stage, preschool, and the upper two stages.

Pres-school

According to Statistics Iceland, 28 per cent of pre-school employees are qualified teachers and 72 per cent are unqualified (based on the average percentage from 1998 to 2021). Around 11 per cent of staff on average has a degree in some other area of pedagogical education on average. This is far below the legal requirements that state that qualified teachers should constitute two thirds of pre-school staff at a minimum.³⁰

Figure 3.5. Ratio of qualified to unqualified teachers in pre-schools 1998-2021

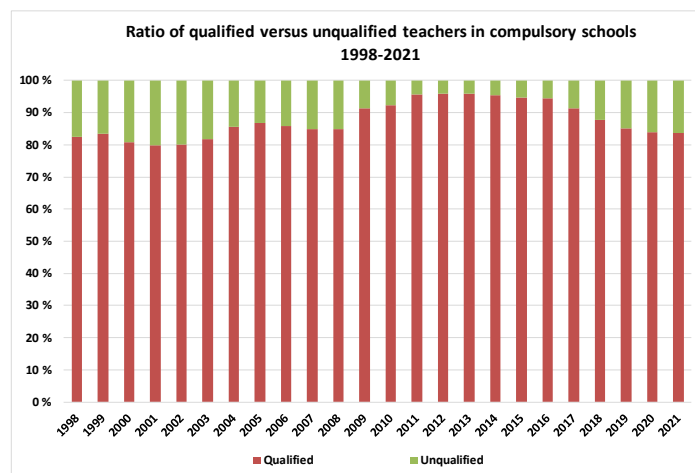


Although the number of qualified teachers in pre-schools has increased steadily over the years, going from 930 in 1998 to 1 572 in 2021, the ratio of qualified to unqualified employees has not improved, with the number of unqualified teachers going from 2 723 in 1998 to 5 322 in 2021. This is partly due to the continual expansion of the first school stage.

Compulsory school

The ratio of qualified to unqualified teachers vastly improves at the compulsory school level. Between 1998 and 2021 there were on average 88 per cent qualified teachers compared to 12 per cent unqualified.

Figure 3.6. Ratio of qualified to unqualified teachers in compulsory schools 1998-2021

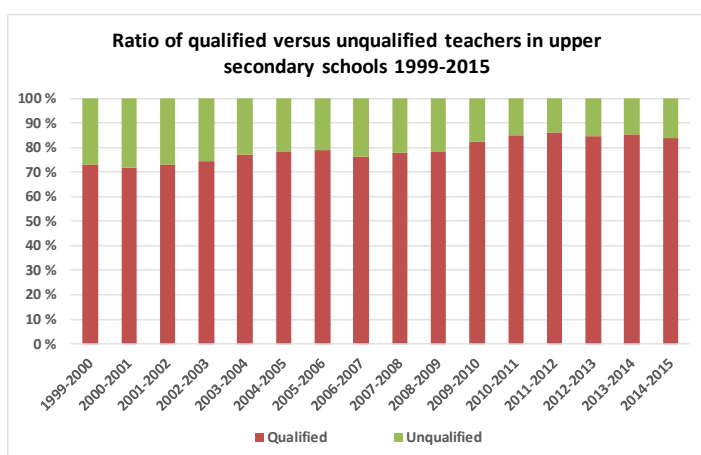


Iceland currently lacks statistics or data which measure the difference in the ratio of qualified to unqualified teachers in relation to different subjects, specializations or grades, the government is now placing a specific emphasis on increasing the number of qualified teachers at the lower secondary level, i.e. for children between the ages of fourteen and sixteen, and within certain subjects, specifically the so-called STEM subjects, which indicates a shortage in these areas.

Upper secondary school

On average, 78,3 per cent of upper secondary school teachers were qualified, in the years 1999 to 2021. At the beginning of the century only about 72 per cent were qualified. The situation improved in the next decade with as much as 86 per cent of teachers qualified but, since then teacher quality supply been on the decline. In 2021, there were only 75,4 per cent of teachers were qualified to teach in the upper secondary schools.

Figure 3.7. Ratio of qualified versus unqualified teachers in upper secondary schools 1999-2015

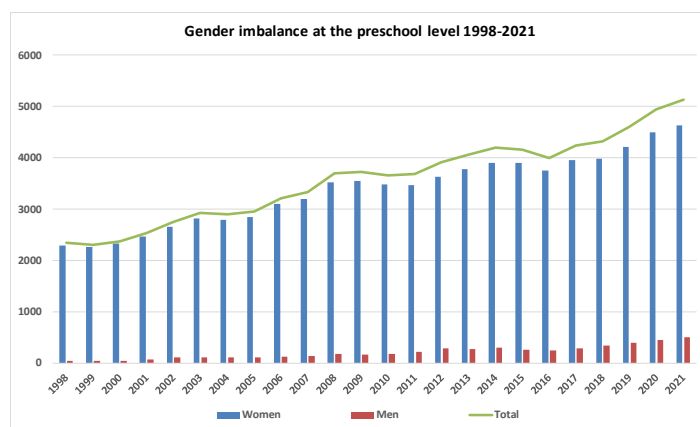


Differences between men and women

Usually regarded as a “women’s profession”, there is an obvious gender imbalance within the occupation in Iceland, with women vastly outnumbering men in general. However, the difference in the ratio varies greatly according to the school level, with the most substantial difference at the preschool level and the least difference.

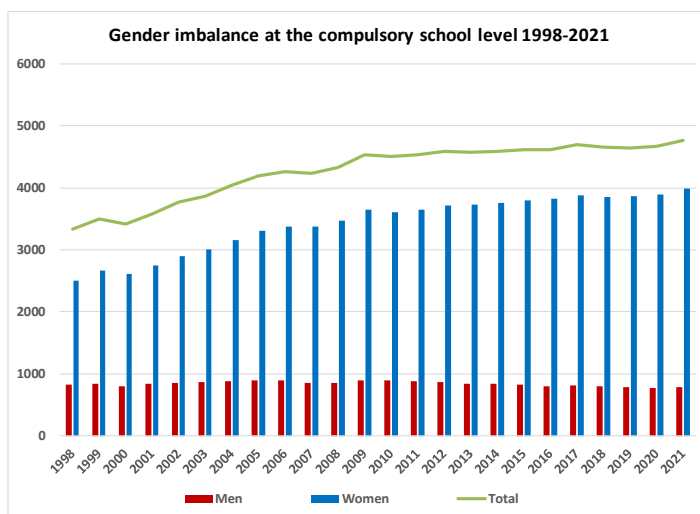
At the pre-school level, women represented 95 per cent of personnel on average between 1998-2021, but the proportion of men steadily increased in the right direction over the years from only 2 per cent men in 1998 to 10 per cent in 2021.³¹

Figure 3.8. Gender imbalance at the pre-school level 1998-2021



On average, between the years of 1998 and 2021, about 80 per cent of qualified teachers working at the compulsory level were women, compared to 20 per cent men. While this represents a more positive difference than that of the pre-school level, it is not balanced enough.

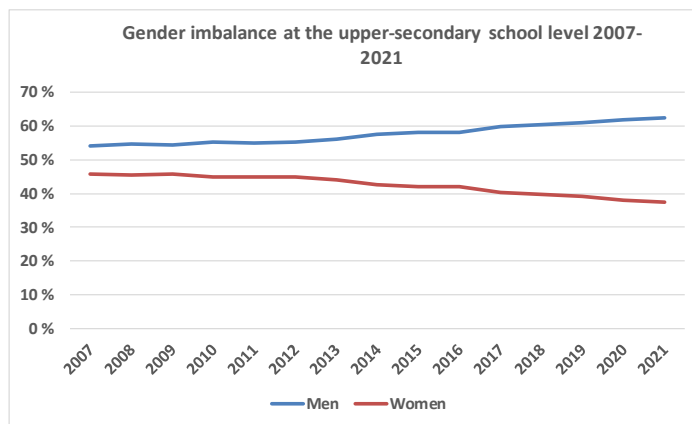
Figure 3.9. Gender imbalance at the compulsory school level 1998-2021



Unlike the pre-school level, however, the gender ratio has been growing more and more towards a greater imbalance at the compulsory school level, steadily increasing from 75 per cent women in 1998 to 84 per cent in 2021. One possible explanation for this could be that male teachers at the compulsory level are 62 per cent more likely to leave the profession than female teachers, according to a study from 2016.³²

The average ratio is more satisfactory at the upper secondary level, with women representing an average of 58 per cent of teachers in the years 2007 to 2021. However, at the upper-secondary level the trend is the same as at the compulsory level, with the percentage of female teachers increasing and male teachers decreasing in recent years. In 1999, there were actually more male than female teachers, or 54 per cent men, compared to 38 per cent men in 2021.

Figure 3.10. Gender imbalance at the upper-secondary school level 2007-2021

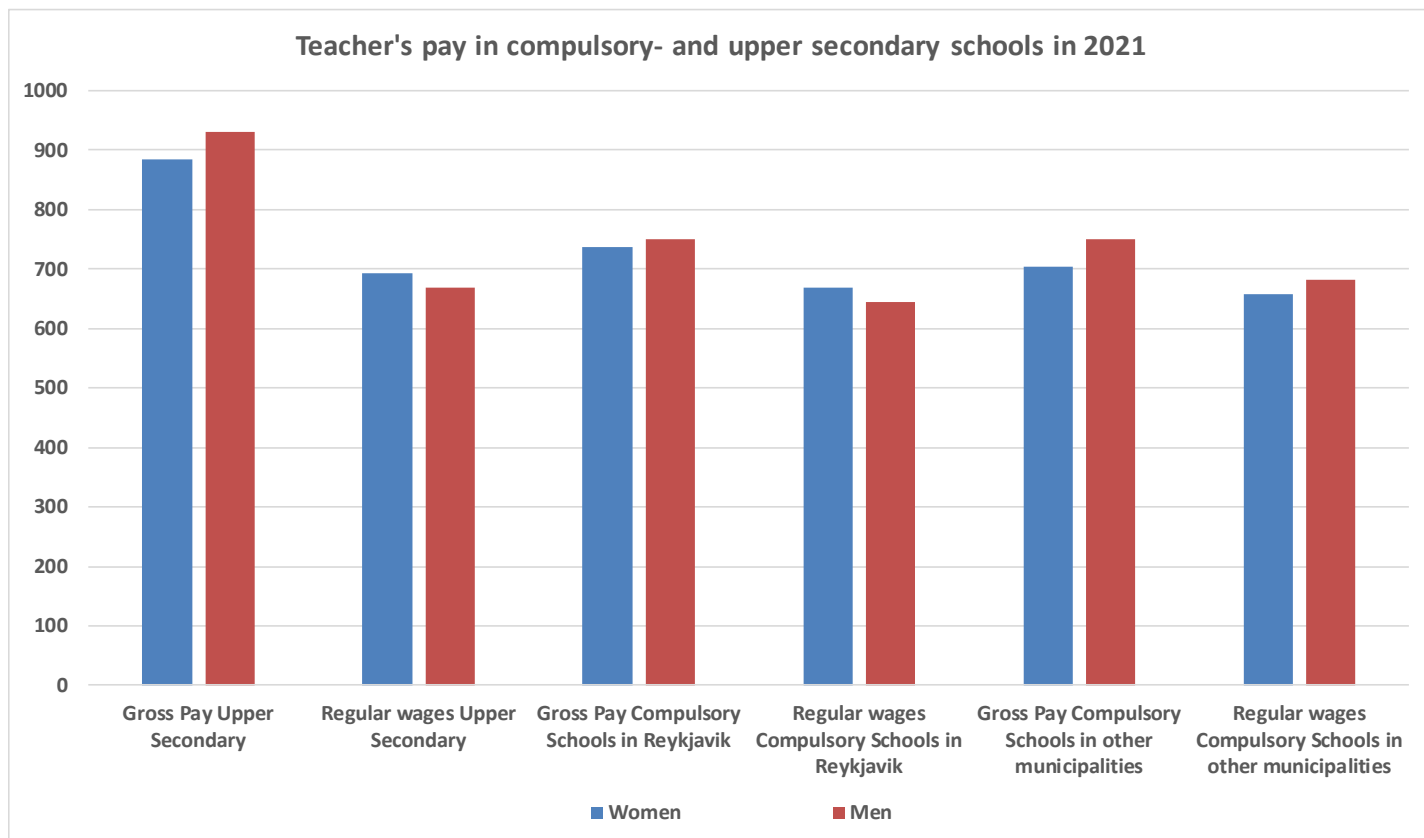


Wage discrimination based on gender

Gender does not factor into decisions on remuneration within the teaching profession as everyone gets paid according to the ITU collective pay agreements which vary between school levels. However, experience and additional education does.

According to statistics from 2021, the regular monthly salaries of female ITU members, working in compulsory schools in Reykjavík and in upper-secondary schools, were higher than the those of male ITU members. In the municipalities outside Reykjavík, the regular monthly salaries of men were slightly higher.

Figure 3.11. Teacher's pay in compulsory- and upper secondary schools in 2021



However, gross pay, or total salaries, are higher for men within the field than for women, possibly indicating that men put in, or are in the position to put in, in more overtime than women. Alternatively, men perhaps receive, or are in a better position to receive, higher incidental income, additional tasks, and responsibilities than women. That raises questions regarding the distribution of assets and liabilities, both within the education system and society as a whole, whether, for example, unpaid workload, duties, and responsibilities disproportionately fall on women.³³

Teacher exodus

A qualified teacher exodus exists in the profession, mostly among part-time employees. At the pre-school level, an average of 11 per cent of qualified teachers left teaching each between 1998 and 2021.

At the compulsory level, the average was 12 per cent each year over the same period, for all contract types, i.e., part time and full-time, and 10 per cent when only full-time teachers are included. The exodus is consistently higher when all contract types are considered.

Unfortunately, there are no available statistics on the teacher exodus at the upper-secondary level.

There are various factors that contribute to and compound the issue of teacher shortages, and problems with teacher education is one of them.

Enrollment in teacher education fell by about 40 per cent from 2008-2018 and the number of graduate teachers went down by roughly 50 per cent, a development which is bound to affect teacher shortages.³⁴ This decrease is in no small part due to a change in the law in 2008 which lengthened the former 3-4-year teacher education programme to a 5-year teacher education programme (a 3-year B.Ed. and a 2-year M.Ed.), a prerequisite for teacher qualifications across all school stages. The Icelandic government took further extensive action in 2019, launching a 5-year campaign to attract more people to the profession and teacher education. In the three or so years since, the campaign has yielded some positive results, increasing the number of teacher education graduates by about 160 per cent in 2022 from the average in 2015-2019. However, the long-term effect of the action remains to be seen.

Compounding this issue is *the greying of the teacher workforce*. According to reports from the Teaching and Learning International Survey (TALIS), the average age of employed teachers has increased over the years in Iceland, with many experienced teachers due to retire soon.^{35,36} TALIS reports show that, in 2014, only 6 per cent of employed compulsory school teachers in Iceland were under thirty years of age, compared to 13 per cent in 2008.³⁷

According to a 2018 TALIS report, the average age of Icelandic teachers is 46 years, and 38 per cent of them are aged 50 or above, which is higher than the OECD average.³⁸ This indicates that Iceland will have to replace about two out of five members of its teaching workforce over the next decade or so.³⁹

Regulation and the appointment process

In 2019, the Icelandic Parliament passed an act on the education, competency and recruitment of teachers and administrators of the first three school levels; pre-schools, compulsory schools, and upper secondary schools.

The act is based on a single licence for all the levels, which is a change from the previous legislation where individual licences permitted teaching at a specific school level.

The act addresses two sets of competencies. Firstly, general competencies in pedagogy, including knowledge and skills to follow the national curriculum, professional assessment, communication skills, classroom leadership etc. A teacher needs to have completed at least 60 ECTS credits combined at both undergraduate and graduate levels in pedagogy and educational studies.

Secondly, there are guidelines in the act addressing subject-based competencies. They are not compulsory but vary according to the school level at which the teacher is recruited. The level of subject-specific and age-specific set of guidelines varies significantly according to the level at which teachers are recruited, from a 90 ECTS specification in at least one learning area for pre-school teachers to a bachelor's or master's in a subject specialism for teachers at the upper secondary level.

These two areas are required to attain a general license as a teacher in Iceland.

In addition, applicants for a teacher position must provide a criminal record which states that they have not been convicted of violating the chapter of the criminal law that deals with sexual offences.

Teachers recruitment process

Evaluation

School administrators assess the need for recruitment in their institutions. A job vacancy must be well defined and indicate whether it is on a short-term or on a permanent basis. A job description must include a general description of the tasks involved, the placement of the position in the organizational chart of the institution, and the competencies and education required.

Advertising

Public schools are required to advertise in "general media", usually a national newspaper or, at the very least, a regional publication. State-run upper secondary schools are required to use a standard website for the employment of civil servants. The advertisement must include the general job description, employment ratio, required education, terms of employment, whether it is short-term or permanent etc. The wording is important. Some competencies are compulsory but others can be put forward as preferable. An application period is at least 14 days.

Evaluation of applications

After receiving applications, school administrators evaluate them based on the description in the advertisement. A teacher's licence is always a requirement.

All applicants should receive a response which includes information about who was hired. Since staff recruitment is an authoritative decision, strict rules apply, including the right for those who are not hired to inquire about the decision.

Exemptions

If no applicants with a teacher licence apply, the institution may recruit an unlicensed instructor on a short-term contract of no longer than a year. However, it needs to apply to a special national exemption committee before completing the recruitment process.



Chapter 4: Norway

Regulation and the recruitment process

In Norway, there are two different acts that regulate the level of qualifications and experience for persons appointed to teaching positions in both kindergartens and different types of schools: the Education Act and the Kindergarten Act.

Formally, it is the municipal administration which appoints and is the employer of teachers. In most municipalities, it is the head of the kindergarten or school who is delegated the responsibility to appoint teachers. It is regulated in these Acts that all teaching positions must be publicly advertised. During the recruitment process, the recruitment board (made up of employer and employee representatives) makes decisions on the appointment and, normally, the ranking of qualified candidates.

Kindergarten Act

In the Kindergarten Act, it is regulated that kindergartens must have adequate pedagogical and administrative leadership. Kindergartens must have a head teacher who is a trained kindergarten teacher or has another tertiary-level education that qualifies them to work with children as well as pedagogical expertise. Furthermore, it is regulated that pedagogical leaders must be trained kindergarten teachers. A three-year pedagogical education at tertiary level with further education in kindergarten pedagogy is equivalent to a kindergarten teacher education.⁴⁰

According to the Regulations on Teaching Staff (introduced on 1 August 2018), there must be at least one pedagogical leader for every 14 children over the age of 3. Pedagogical leaders must be qualified kindergarten teachers or equivalent. The local authority may grant a dispensation from the qualification requirement for up to one year at a time so that someone who does not meet the requirement can still work as a pedagogical leader.

Education Act

Qualification requirements for entering the teaching profession in Norway are regulated in an act relating to primary and secondary education (Education Act). In this Act, there are both requirements for employment in a teaching position and further qualification requirements to teach certain subjects. Below we describe the qualification requirements for persons appointed to a teaching position.

Persons appointed to teaching positions in primary, lower secondary and upper secondary education must have relevant professional and educational qualifications. The Ministry issues further regulations concerning the educational qualifications and experience requirements for persons appointed to teaching positions in different grades and different types of school. These additional regulations from the Ministry state that persons appointed to a teaching position must have a teacher education or an equivalent educational competence. If no applicants satisfy the qualification requirements for teaching staff laid down in the Education Act, a temporary appointment may be made.⁴¹

In 2017, parliament voted to introduce an upper limit on the number of pupils assigned to each teacher. From autumn 2018, the aim was to reduce class sizes to a maximum of 16 pupils per teacher in mainstream

classes in years 1–4 and a maximum of 21 pupils in years 5–10. Starting in August 2019, the ratio was reduced to 15 pupils in years 1–4 and 20 pupils in years 5–10.

The pupil-to-teacher ratio does not apply to special Norwegian language tuition and special needs education. The statutory ratio applies to public schools, and the statistics only cover public schools.

Level of fully qualified teachers

There are different sources for statistics regarding the qualifications and experience of persons appointed to teaching positions in both kindergartens and different types of schools. The Norwegian Directorate for Education and Training is responsible for all national statistics concerning kindergarten, primary and secondary education.⁴² On the basis of these statistics it initiates, develops and monitors research and development. In addition, Statistics Norway uses employment data and records in the National Education Database (NUDB) to present statistics on characteristics such as occupation, age and educational background.⁴³ The statistics complement but do not replace the statistics on employees provided, for example, by the Directorate of Education.

Kindergarten

Kindergartens employed 78 100 FTEs (full time equivalents) in 2022, of which 64 500 are pedagogical leaders and other staff who work directly with children. Staff who work directly with children are referred to as contact/core staff. In addition to these, there are the heads of kindergartens, special educational needs staff and staff providing accelerated language learning, while 3 100 FTE posts are filled by administrative staff, caretakers, cleaners, and cooks. 43 per cent of core staff are qualified kindergarten teachers or hold equivalent qualifications. 23 per cent are qualified childcarers and youth workers. The proportion of staff with a kindergarten teaching qualification or equivalent rose from 38 per cent in 2016 to 43 per cent in 2021.⁴⁴

Since 2016, the number of children per pedagogical leader has fallen from 15.8 to 13.3 in 2021. This is probably due to the implementation of stricter regulations on teacher-to-child-ratio in 2018.

Kindergarten teaching is heavily dominated by female employees' 90,4 per cent of kindergarten teachers working in kindergartens are women. The proportion of men is increasing very slowly.

Between 2013 and 2017, staffing levels nationally remained largely unchanged at 6.0 children for every staff member. In 2018, staffing levels increased to 5.8 children for every staff member.

Municipal kindergartens have a higher density of pedagogical leaders than private kindergartens. Municipal kindergartens have an average of 13.2 children for every pedagogical leader, while private kindergartens have an average of 13.5 children for every pedagogical leader. These differences have been quite stable over time.

The proportion of educational leaders with a dispensation is greatest in Oslo and the surrounding areas, and in Rogaland County. This includes some large cities, however, it is not the case that all large cities have the same recruitment challenges. For instance, Bergen and Trondheim do better than the national average.

Recruitment to the distinctly rural counties in the north is about average but some municipalities in these regions have a significant shortage of qualified pedagogical staff.

The new regulations on teaching staff have led to a need for significantly more pedagogical leaders. Some of the kindergartens that are unable to achieve the required ratio apply for dispensation. In 2011, a total of 5,9 per cent of FTEs working as pedagogical leaders had dispensations from the qualification requirements. The percentage of FTEs working as pedagogical leaders with dispensation was falling slowly up to 2021, following the introduction of stricter requirements in 2018, but increased slightly in 2022.

Kindergarten staff have the lowest retirement age of all municipal employee groups. The average retirement age of kindergarten staff is 62,3 while the average for all municipal employees is 63,4. The average retirement age is lower for men than women.

Compulsory education

To gain permanent employment as a teacher in compulsory education, applicants must hold a teaching qualification or another approved qualification. Currently, 4,1 per cent of teachers do not meet this requirement. This number has been stable at around 4 per cent for many years. The proportion of unqualified teachers is largest in the two most northern counties, however, Oslo and the surrounding areas also have a high proportion of teachers who do not fulfill the requirements to be employed in a teaching position.

There are 78 600 FTEs working as teaching staff in compulsory education. This number has increased somewhat over several years.

The proportion of FTEs who do not hold a teaching qualification or another approved qualification is highest in the 1st to 4th. grades at 4,8 per cent, but falls in the higher grades, reaching 2,9 per cent in the 8th to 10th grades.

Teachers must also obtain a certain number of ECTS credits in order to teach certain subjects. Many teachers with an approved teaching qualification do not meet the qualifications requirement in the subjects they teach. The percentage is highest in English, where 31 per cent of teachers do not meet the qualifications requirement. In mathematics, the figure is 19 per cent, while it is lowest in Norwegian at 14 per cent. These numbers have been falling slowly for several years. The percentage of teachers who fail to meet the qualifications requirement is especially high in English in grades 1 to 7 where 39 per cent of teachers do not have the required ECTS credits.

The Education Act allows municipalities to employ unqualified teachers. These staff have an approved education in accordance with the Education Act but are not trained teachers. Unqualified teachers make up a significant proportion of the teacher workforce. In 2021, they represented almost 18 per cent of FTE teaching staff. This number has been quite stable for several years. The proportion of teaching personnel without a teacher education is largest in Oslo and the surrounding areas, but the counties in northern Norway also have a large number of unqualified teachers. Fewer women than men are employed

without a teacher education; 17 per cent of women employe as teaching personnel have no teacher education compared to 21 per cent of men.

Upper secondary education

23 870 FTEs are employed as teaching staff in upper secondary education and 44 per cent of the teaching staff are men. There are no available statistics on what proportions of these fulfill the requirements in the Education Act.

The quality of statistical data for upper secondary education is worse than that for kindergarten and primary education. This means that, among other things, there are no data on the differences between private and public schools.

Available data from Statistics Norway show that about 20 per cent of FTEs do not have a teacher education. This number has been quite stable for several years. The same statistics also reveal that about 9 per cent of FTEs do not hold any pedagogical education whatsoever. The proportion of FTE who doesn't have a teaching degree is higher among male employees (23 per cent), than female employees (18 per cent).

The proportion of FTEs without a teacher education is highest in the two most northernly counties and Oslo. The proportion in Troms and Finnmark is 24 per cent, while in Agder, the county with lowest proportion, 17 per cent have no teaching degree.

Since 2019, there has been four a decline in teacher training courses for four consecutive years, and the number of applicants fell significantly between 2022 and 2023. In total, there were 21.9 per cent fewer first-choice applicants for teacher training courses in 2023 than in 2022.

Notably, the number of applicants for kindergarten teacher education and primary school teacher education for the oldest children fell dramatically; here there is fewer than one applicant per study place. The greatest decline is found in kindergarten teacher education which has fallen by 25,6 per cent.⁴⁵

Prognosis of future teacher demand

The projections for teacher shortages are based on the situation in 2019 and thus do not capture the fall in the number of new students in 2022⁴⁶. In addition, the figures are based on the assumption that the children/student-to-teacher ratio remains constant. So, the current shortage of teachers in kindergartens and schools does not change in these calculations. A surplus of qualified teachers must therefore be read as an opportunity to replace unqualified teachers; only when this issue is resolved will it be possible to talk about teacher oversupply. The figures show that it will be possible to increase the supply of kindergarten teachers. This is largely due to the fall in the number of children in the coming years. However, it will also be possible to employ more teachers with a full university degree and vocational education teachers.

Teacher recruitment, retention and turnover

94 per cent of those who have an education as a kindergarten teacher and are under the age of 62 are in work but many of them do not work in a kindergarten. Among those under 30, over 80 per cent work in a kindergarten, while among those aged 50-61 the figure has fallen to 47 per cent. This suggests that kindergarten teachers are gradually disappearing from the sector. Many kindergarten teachers who do not work in kindergartens work in primary schools. There are also many in the health and care sector.

Of the 180 456 employed people with a teacher education in Norway, nearly 80 per cent work in a primary or secondary school, in the school sector or in other industries where pedagogical training is directly relevant. There are quite large differences between the different kinds of teacher education. Only about half of those who are educated as vocational teachers are working in the school sector. This may be because their specific teacher training courses require further education or an additional qualification which is often aimed at professions and industries other than teaching. About 75 per cent of those with a 4-year degree in primary school teacher education are working in primary or secondary schools.

Register data analysed by Statistics Norway shows that about 1 in 5 newly qualified teachers is not working as a teacher 3 years after they finished their teacher education. A large proportion of these are working in other parts of the public sector. Statistics Norway has not found a clear connection between the overall economic situation and the proportion of newly qualified teachers that start to work as teachers.

Unqualified teachers are generally appointed to teaching positions when there are no applicants who satisfy the qualification requirements for teaching staff laid down in the Education Act. In Norway, the teacher shortage is mainly due to attrition from teacher education programmes, the decision of many graduate teachers not to enter the teaching profession upon graduation, and the one third of newly qualified teachers who leave the profession within just five years. According to research, an initial teacher education that does not prepare candidates well enough for the teaching role, a lack of guidance for newly qualified teachers and poor cooperation between the head of school and teaching staff are some of the main reasons why they leave their teaching position.

Furthermore, representatives from the teaching profession underline several factors which contribute to teacher attrition. Salary levels, challenging working conditions and lack of career opportunities are just some of the reasons highlighted.

Union of Education Norway underlines several measures that national and local school authorities must focus on in the years to come. For example, recruitment and retention can be improved by creating good and interesting workplaces with opportunities for professional development, showing good leadership and appreciating the individual employee. Additionally, a good physical and psychological working environment should be combined with the development of professional competence through supplementary and further training options for teachers. Beyond this, Union of Education Norway stresses that it is necessary to have both a senior policy and to make a particular effort to prevent worn-out teachers from being forced to leave school. For a long time, it has been important to improve teacher salaries and demand that national and local school authorities take action against job strain in the working environment.



Chapter 5: Sweden

Problems and challenges

The teacher shortage is one of the biggest challenges of the Swedish school system. There is an extensive teacher shortage in several teacher categories and, overall, the proportion of qualified teachers in schools is low and varies a lot between stages and subjects. On average, 73 per cent of teachers are qualified (this figure does not include the pre-school). According to the prognosis of the Swedish National Agency for Education, the shortage will continue in the future, even though it is expected to decrease somewhat due to lower birthrates and less immigration.

The consequences of the teacher shortage are larger class sizes of children and students for teachers and pre-school teachers and more unauthorized personnel in the classrooms. In the long run, it will damage Sweden as a country because the quality of education will be compromised.

During the autumn of 2022, two schools in the north of Sweden had to close due to a shortage of qualified teachers.⁴⁷ For a long period, teacher understaffing and workload were so high that it was no longer possible to ensure a safe working environment for the staff. The percentage of qualified teachers at the two schools were 15.4 and 39.8 per cent. During the academic year 2021/2022, 214 schools – that is, 4 per cent of all compulsory schools in Sweden had fewer than 39.8 per cent of staff who were qualified teachers. According to statistics from the Swedish National Agency for Education, in the academic year of 2021/2022, Swedish compulsory schools alone had a shortage of 22 500 qualified teachers.

Geographical differences

There are large geographical differences. Schools located in sparsely populated areas and schools that are located far from institutions of higher education which offer teacher training tend to have lower levels of qualified teachers. According to Statistics Sweden, the number of qualified teachers will not increase enough by 2035 to meet the demand.⁴⁸ In several regions, the supply of candidates with a teacher education is estimated to be largely unchanged or even decrease until 2035, whilst the demand will increase.

By 2035, there is a risk of qualified preschool teacher shortages in two-thirds of Sweden's regions in 2035 and an estimated shortage of qualified teachers for grades 1-3 and 4-6 of the compulsory school in 19 out of 21 regions, i.e. basically the whole country.

All regions except Region Stockholm risk a shortage of qualified teachers in the upper secondary school and compulsory school's grades 7-9 of the compulsory school.

Statistic Sweden estimates that all regions will have a very extensive shortage of qualified vocational teachers, with half of the regions at risk of a severe shortage.

Differences between stages

The proportion of qualified teachers differs between the school stages and subjects. The biggest challenge is in vocational education, where the teacher qualification rate already is quite low and is expected to fall even further.

Gender differences

There has long been a gender imbalance in the teaching profession. Women represent a majority in almost all the teaching professions, except for upper secondary school where the gender distribution is overall even. Generally, the younger the children or students are, the greater the number of female teachers employed. In both the pre-school and the pre-school class, over 90 per cent of personnel are women, while the corresponding proportion in upper secondary school is 52 per cent. There is no obvious wage discrimination within the teacher profession between men and women.

Teacher exodus

According to Statistics Sweden, most new graduates start working as teachers and pre-school teachers within two years of graduation.⁴⁹ However, it varies between the different teaching professions; for example, graduates with a vocational teacher education have the lowest employment rate at 83 per cent, while those with a pre-school teacher degree have the highest rate at 96 per cent. Almost 80 per cent of teacher education graduates still work within the teaching profession five years after graduation, but some of these individuals are on parental leave and thus are expected to return at a later date.

In total, approximately 47 000 people aged 20 to 60 have a teacher education but were neither on the teacher register nor on the register of personnel in pre-school from 2018 to 2020. Roughly 18 000 of these qualified teachers worked in the education system but outside schools. Of the approximately 29 000 people who did not work in the field of education, the most common sectors of their employment were care, social care and public administration.

The proportion of trained teachers who do not work in the teaching profession, or related professions such as school leadership, and instead work in other professions is 15 per cent. Vocational teachers represent the highest proportion of this figure and primary teachers the lowest.⁵⁰

To conclude, in Sweden there is not a huge exodus of teachers. The larger challenge lies in attracting students to teacher education and raising the graduation rate.

The public and private sector

There are large differences between the proportion of qualified teachers employed in independent schools and municipal schools. Independently organised schools tend to circumvent the regulations and recruit unauthorized personnel. One reason for this seems to be because it is cheaper; the salary is lower for unauthorized personnel.⁵¹

Regulation and the appointment process

The main rule in Sweden is that only qualified teachers and pre-school teachers who have their professional status qualification can get permanent employment as teachers and preschool teachers in schools.⁵² They must be qualified in the subject they teach, but there are several exceptions to the rules.

The School Act contains basic rules for professional status qualification, and, in addition, there are rules in the eligibility regulation and the Swedish National Agency for Education regulations. These are the legislations and requirements for the employment of teachers and preschool teachers.

There are different requirements for the professional status qualification; a qualified teacher education is mandatory and the orientation of the education determines what subjects and grades you are qualified for.⁵³ A teacher can be qualified to teach in one subject or grade and unauthorized in another.

A qualifying degree is a degree issued by a higher education institution with degree-awarding powers for teacher education or pre-school teacher education. Overseas teacher training and pre-school teacher training can also be classified as a qualifying degree; in such cases, the teacher education, alone or together with professional experience, must correspond to a Swedish qualifying teacher education degree or pre-school teacher education degree.

There are no requirements for public job advertisements. When it does happen, it is common to include the contact information of union representatives. The employer must have the authority to make decisions on salary and terms of employment, and it is usually a line manager, who also is responsible for the work environment.

There is no obvious role for union representatives in the interview process, but teachers at a school can appoint someone to take part in the interviews.

Measures that must be taken to counteract the teacher shortage

There are several reforms that are needed to counteract the teacher shortage. Two major reasons why many potential candidates hesitate to start teacher training and become a teacher are the work environment and workload for teachers. The administrative burden must be reduced, and the work environment must improve.

Teachers' professional freedom must also be respected to ensure that teachers can be teachers and nothing else. Today, however, teachers have to spend too much time on tasks such as administration or parental communication. Thus, unfortunately, teachers now have less rather than more professional freedom.

In recent years, teacher salaries have increased considerably, but since the upturn started from low levels, this development has mainly been about recovery. Swedish teacher salaries are lower than the average salary for tertiary-level educated professionals in Sweden and need to increase to attract more people to the profession.

To restore teachers' status and authority, and thus improve the attractiveness of the teaching profession, the state must take responsibility for educational funding and resource allocation to guarantee equity in and between Swedish schools. This is also needed to improve teachers' work environment and workload. The state also needs to take responsibility for quality supply and the continuous professional development way, among others, is through a national professional programme that includes a national structure for continuous professional development for principals,

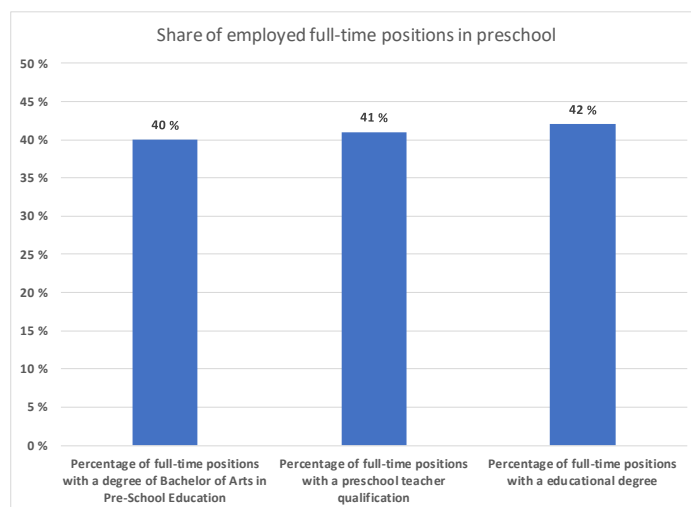
teachers and pre-school teachers, and a national qualification system for certified teachers and pre-school teachers.

The proportion of unqualified personnel⁵⁴

Pre-school

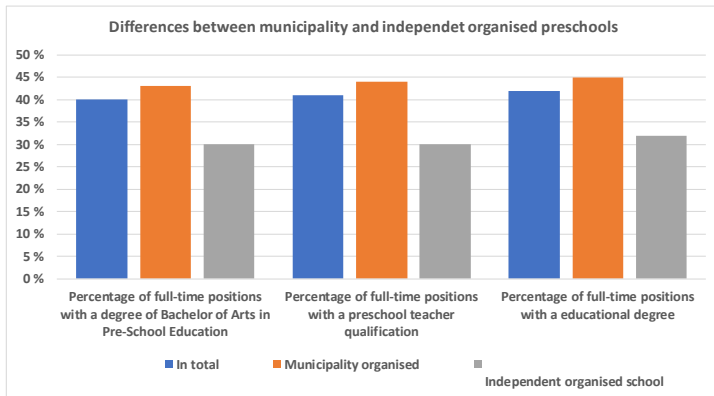
In pre-school, about 40 per cent of employees have a pre-school teacher degree and 41 per cent are qualified pre-school teachers. In 2011, qualification requirements were implemented for pre-school teachers and teachers. There are still some pre-school teachers who have the former pre-school teaching degree but no professional status qualification. Therefore, both sets of data are presented herewith. In total, 42 per cent have an educational degree of some sort. The Swedish Teachers' Union considers this to be far too low and maintains that it should be 70 per cent instead.

Figure 5.1. Percentage of full-time employees in pre-school



The proportion of qualified pre-school teachers varies widely depending on whether the educational provider is a municipality or a private organiser of independent schools. In municipal pre-schools, 43 per cent of employees have a pre-school teacher degree and 44 per cent are qualified pre-school teachers. In independent pre-schools, 30 per cent of employees are qualified pre-school teachers and have a pre-school teacher degree.

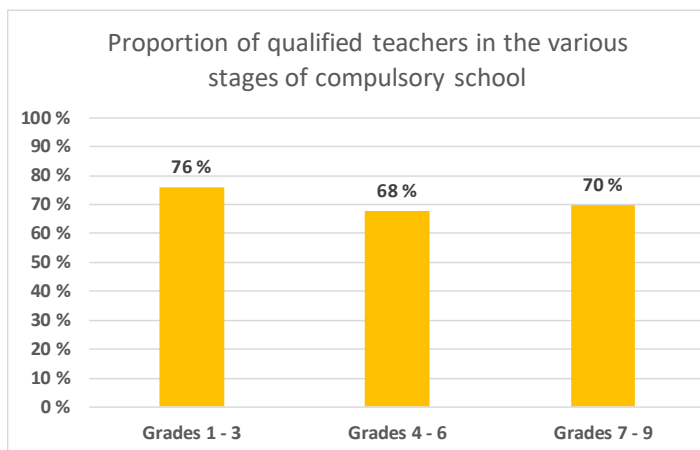
Figure 5.2. Differences between municipal and independent pre-schools



Compulsory school

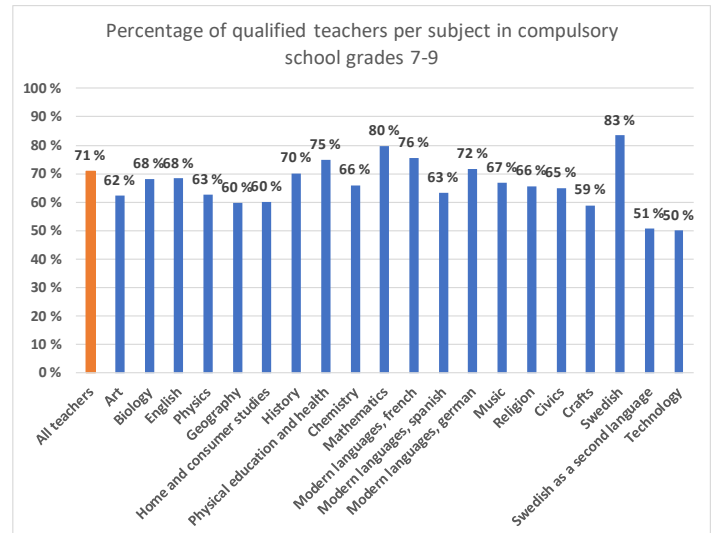
In the various stages and different subjects of the compulsory school, the level of qualified teachers varies. To be a qualified teacher, you must be qualified for both the specific school years and specific subjects you teach. In the later years of compulsory school, more extensive subject studies are required to be qualified.

Figure 5.3. Percentage of qualified teachers in the various stages of compulsory school



There are major differences in the levels of qualified teachers in the different subjects in grades 7 to 9. The proportion of qualified teachers is higher in subjects such as history, physical education and health, Swedish and art. On the other hand, the proportion of qualified teachers is significantly lower in subjects such as crafts, Spanish, technology, and physics.

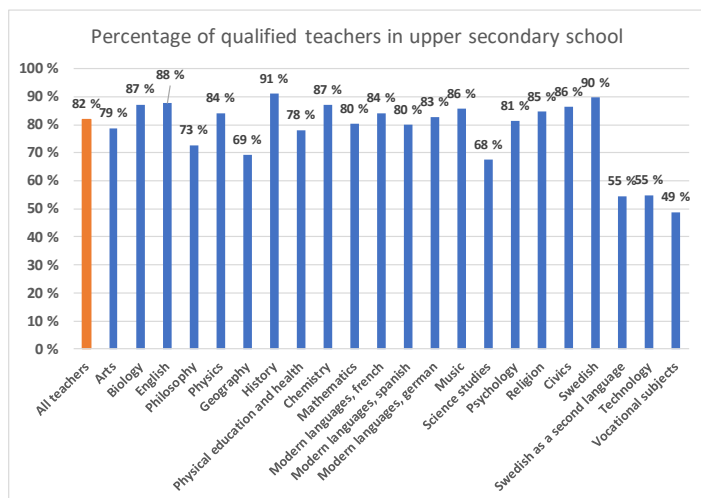
Figure 5.4. Percentage of qualified teachers by subject in compulsory school grades 7-9



Upper secondary school

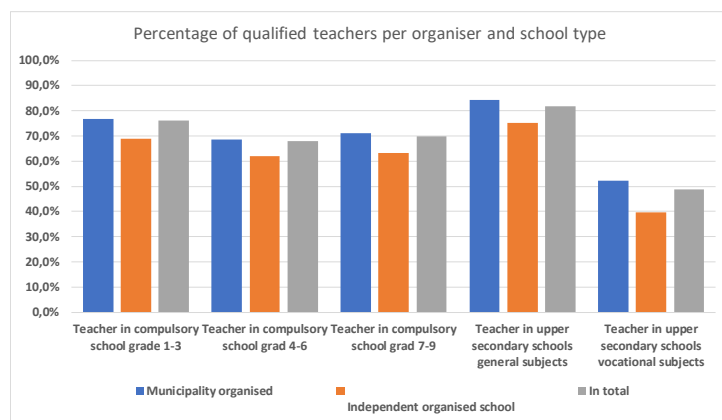
In upper secondary school, the proportion of qualified teachers is significantly lower in the vocational education programmes (49 per cent) than in the university preparatory programmes (79 per cent). Among teachers of vocational subjects, just over 31 per cent are not qualified but have a permanent employment contract. As with grades 7 to 9 of the compulsory school, there are major differences in the percentage of qualified teachers between the different subjects in upper secondary school. History, Swedish, German and French are subjects where the proportion of qualified teachers is relatively high.

Figure 5.5. Percentage of qualified teachers in upper secondary school



As mentioned earlier there is a large difference between the proportion of qualified teachers in municipal and independent schools.

Figure 5.6. Percentage of qualified teachers by provider and school type



Prognosis of the future teacher shortage

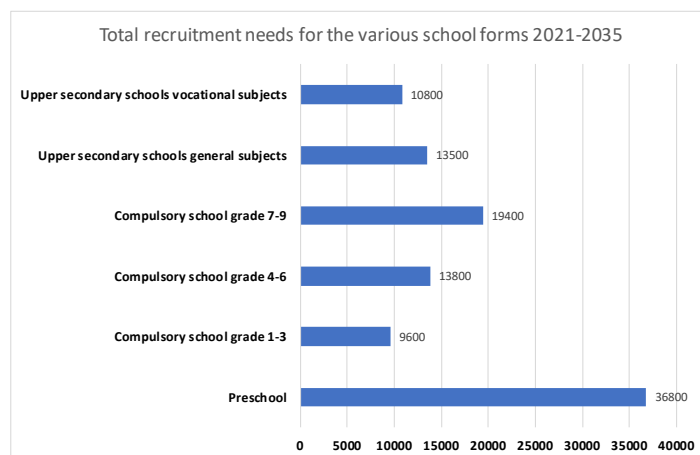
The Swedish National Agency for Education regularly releases a teacher prognosis. According to most recent from 2021, there will be a need for 153 000 newly trained qualified teachers and pre-school teachers by 2035. If the current levels of student intake and graduates in teacher education hold, there will only be about 141 000 newly trained qualified teachers in 2035. This means that there will be a shortage of 12 000 newly graduated teachers and pre-school teachers by 2035. They base this

calculation on recruitment needs and graduation frequencies in 2020. The prognosis is divided in to three five-year periods.

The Swedish Teachers' Union maintains that there are several flaws in the prognosis and that the shortage will be much greater. The National Agency for Education assumes that 19 per cent of employees that teach will become qualified by 2035. This is because they currently either have an educational degree, have started to study for one but have not yet finished, or are in permanent employment, This corresponds to about 24 000 full-time positions. In addition, there are also 2 400 unauthorized in pre-school that will need further education. The Swedish Teachers' Union questions the likelihood that all 19 per cent will become qualified teachers and therefore believes that there will actually be a shortage of 38 400 newly qualified teachers and pre-school teachers by 2035.

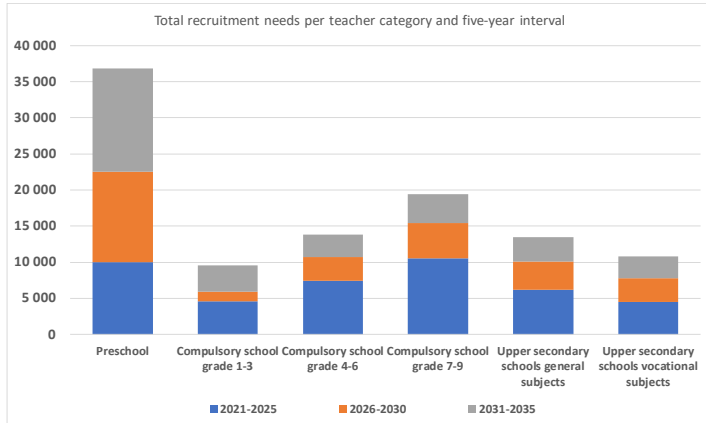
Based on the prognosis of the Swedish National Agency for Education, the recruitment needs for pre-school, compulsory school and upper secondary school are:

Figure 5.7. Total recruitment needs for the various school forms 2021-2035



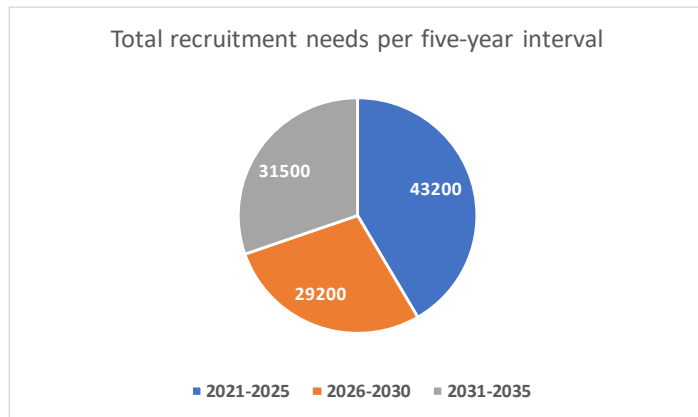
Divided into five-year intervals and teacher category:

Figure 5.8. Total recruitment needs by teacher category and five-year interval



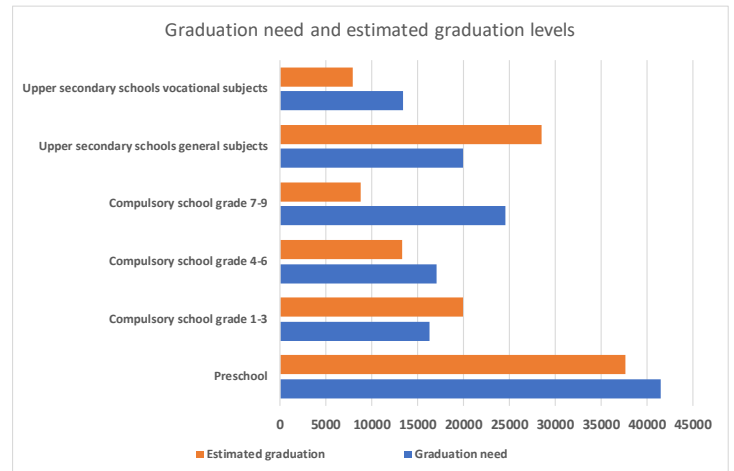
The Swedish Teachers' Union sees that the recruitment need is assessed to be the greatest in the period 2021–2025. The reason for this is that, during this time period, the Agency expects that all those 24 000 unqualified teachers in full-time positions will become qualified.

Figure 5.9. Total recruitment needs by five-year interval



This means that the estimated demand for and supply of teacher education grades will be:

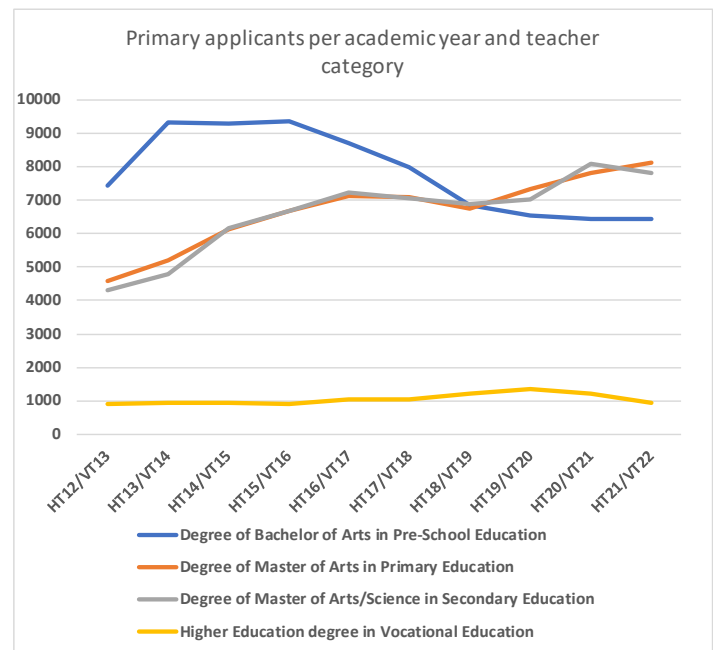
Figure 5.10. Estimated demand for [blue] and supply of [orange] teacher education graduates



Applicants for teacher education in the past 10 years

The figures show the number of first-choice applicants for teacher education per academic year since the autumn semester of 2012. There are thus more applicants that did not have this as their first-hand choice.

Figure 5.11. Primary applicants per academic year and teacher category



Chapter 6: Discussion and policy recommendations

The previous chapters of this report describe the current patterns of qualified teacher supply and demand at different levels of the education system in Denmark, Finland, Iceland, Norway, and Sweden. In this concluding chapter, we will compare and discuss the situation across these Nordic countries.

As we conduct this comparison, we are aware that certain key terms might not have exactly the same meaning in the different countries and that data interpretations may be based on slightly different contextual premises. Nevertheless, by highlighting the similarities and differences across the countries, such a comparison can provide new insights and new perspectives on the teacher recruitment and retention crisis in the education sector.

Similarities and differences

The report documents a common challenge across all the represented Nordic countries.

Based on the analyses presented in the previous chapters we can conclude that there is a shortage of qualified teachers in the Nordic region. However, the teacher shortage manifests itself somewhat differently from country to country. While some countries have a significant shortage of qualified teachers at almost all levels and in all subjects, some countries have better coverage in some parts of the education system or for some school subjects. The Nordic countries share a common challenge with a larger shortage of qualified teachers in rural areas.

In several of the Nordic countries, the number of applicants for initial teacher education are below the capacity available, and there has been a decline in qualified applicants in recent years. There are also fewer students who have teacher education as their first choice when applying for higher education. The exception is Finland, where there is a high number of

applicants to teacher education courses, even though there was a significant decrease in the number of applicants in the period 2015–2019.

Some new graduates do not start working as teachers and more experienced teachers are also leaving the profession at various stages of their teaching career. This implies that there is a relatively large number of teachers who do not work as teachers.

Overall, the salary for teachers in the Nordic countries is lower than that of other tertiary-educated employees. The relative salary level is lowest for teachers in early childhood education and highest for those in upper secondary. In Iceland, pre-school and lower secondary teachers' salaries have remained the same since 2014.

Projections from national authorities of the demand for qualified teachers indicate that, for some countries, there may be a lower demand for qualified teachers in the years to come. For other countries, the demand will increase. It is important to underline that there is great uncertainty attached to these figures. For instance, in Norway, a new regulation in the Education Act will increase the need for teachers with a teacher education. Furthermore, the declining number of applicants for teacher education, alongside the fact that there are currently many people working as teachers without an approved teacher education, suggests that there is an increased need for national measures to increase the supply of qualified teachers. In Sweden, the authorities assume in their estimates that those people who currently work as teachers without an approved teaching education will become

qualified teachers. In Finland, where the number of applicants for teacher education has increased again after a few years of decline, it appears that there may still be challenges in recruiting qualified teachers to areas outside the big cities and within early childhood education. In Denmark, the shortage of qualified teachers is likely to increase most significantly in early childhood education and primary education, while in upper secondary there will be enough qualified teachers in some subjects but a shortage in others. In Iceland, the aging teaching profession, together with a decrease in the number of applicants for teacher education, represents a particular challenge which could mean that nearly half of all teaching staff would be without a proper teacher qualification within ten years. It is important to note that national projections of future demand for qualified teachers from the educational authorities often deviate from the teacher organizations' view on appropriate teacher-student ratios, class- or group sizes and such.

In all the Nordic countries, qualification requirements for a teaching position are regulated in national legislation, with only pedagogues in Denmark an exception. The extent to which applicants who do not satisfy the qualification requirements can be employed in a teacher position varies between countries. Most national legislation in the Nordic countries has an opening for temporary appointments, but there are different requirements in such cases. For example, in Denmark, all permanently appointed teachers in general upper secondary must complete pedagogical education and training within the first year of employment.

Although it is not formalized in legislation, it is common practice in all the Nordic countries that union representatives are, to some extent, involved in the recruitment process.

Finally, it is important to mention that there is a lack of official statistics from the Finnish authorities regarding an overview of qualified teachers, and there are some shortcomings in the official statistics from Iceland.

Policy recommendations

The situation described in this report documents a teacher recruitment and retention crisis in all Nordic countries. The need to find the right measures to

counter these developments is urgent. To some extent, different solutions must be found for the different countries. However, the similarities also indicate that some common recommendations will be applicable across the countries.

The teacher unions in the various Nordic countries have paid attention to the shortage of qualified teachers over time and have communicated measures that can help to solve the problem.

“the most important resource in education is qualified teachers

Salary is one important tool for recruiting and retaining teachers. Improved salaries will also contribute to increasing the status and attractiveness of the teaching profession.

Teachers' working conditions must also be improved. The large workload and demanding working conditions must be dealt with.

Many teachers experience micromanagement from local and central authorities which comes at the expense of the teachers' professional autonomy and the opportunity to exercise professional judgement. In such cases, teachers may also experience that this is in conflict with professional standards and ethics.

Teachers are also calling for better opportunities for continuous professional development. Strengthening initial teacher education and induction for new graduates are important measures. At the same time, there must also be a senior policy in place which helps to ensure that teachers do not leave the profession before retirement.

It is important that educational authorities take a leading role in meeting the significant challenge of recruiting and retaining qualified teachers. Among other measures, legislation must set clear qualification requirements for teaching positions. Furthermore, temporary appointments to teaching positions should only be made on the condition that qualification requirements will be met within a certain period of time.

To solve the qualified teacher shortage problem, it is important that this topic is high on the policy agenda of the authorities and employers as well as the teacher unions. Education plays a key role in maintaining and developing the Nordic model, and the most important resource in education is qualified teachers.

Notes

Introduction

¹ Compare with Elstad, Eyvind. (2023). "The Evolution of Extending Universal Compulsory Schooling in Sweden, Norway and Denmark: Policy Borrowing and Path-dependent Processes" in *Nordic Studies in Education*, (43) nr 1, p. 94-110.

Denmark

² https://ae.dk/files/dokumenter/analyse/ae_11000-paedagoger-arbejder-uden-for-faget_0.pdf

³ Calculation by PBU – The Pension Fund of Early Childhood and Youth Educators, 2022

⁴ Projection of the pedagogical labourmarket, The Economic Council of the Labour Movement, September 2023

⁵ Out of the total of 71 200 educated teachers, 28 400 work outside primary school. That corresponds to 4 out of 10.

⁶ The term private/independent school is used throughout the report, which calls for a brief explanation. The private/independent schools in Denmark are in OECD terms 'government-dependent private schools' since they receive substantial government financing (equivalent to 76 percent of the gross budget of a public school). The schools are supported regardless of the ideological, religious, political or ethnic motivations behind their existence and their freedom is founded on the constitutionally guaranteed right saying that parents in Denmark are free to choose an alternative education for their children provided that compliance with the standards of the public primary and lower secondary school is met. The 550 independent schools and 250 boarding schools (efterskoler) differ substantially in terms of educational practice etc. letting parents choose (or establish) a school that matches their perspective on life and the specific needs of their children.

⁷ KRL, 2022 (Office for Municipal and Regional Wage Data)

⁸ Finansministeriets forhandlingsdatabase www.loenoverblik.dk – Data collected Q2.

⁹ Forhandlingsdatabasen – Q2 2021.

¹⁰ [Link](#) to a description of the Danish education system in English from the Danish Ministry of Children and Education

¹¹ Executive Order on the Bachelor in Social Education. [Link](#)

¹² Grade 0 is part of primary school and is mandatory. Children start school the year they turn six.

¹³ Lov om folkeskolen, chapter 4. [Link](#)

¹⁴ §30a in Lov om folkeskolen. [Link](#)

¹⁵ Executive order on the Bachelor of Education. [Link](#)

¹⁶ Lov om folkeskolen, chapter 4. [Link](#)

¹⁷ Lov om friskoler og private grundskoler m.v. [Link](#)

¹⁸ Lov om de gymnasiale uddannelser, chapter 7. [Link](#)

¹⁹ For a more comprehensive list of ways to target the challenge see <https://bupl.dk/pjece/bupls-rekrutterings-og-fastholdelsesudspil-okt-2022>

²⁰ "Rekruttering til fremtidens velfærd", Epinion 2021, and "Valg og fravalg af velfærdsuddannelserne", The Danish Evaluation Institute (EVA) 2022 (only available in Danish).

²¹ "Meritpædagog" is an accelerated programme of learning for students awarded credits for prior learning experience which leads to the bachelor's degree in social education.

²² Damvad Analytics based on Statistic Denmark, Ministry of Finance and DREAM's education model

²³ Recruitment surveys, Danish Agency for Labour Market and Recruitment, September 2022 available in Danish: <https://star.dk/media/21590/rekrutteringssurvey-september-2022.pdf>

Finland

²⁴ <https://www.oaj.fi/arjessa/tyohyvinvointi/tutkimustietoa-opetusalan-tyooloista/#tyokyky-ja-tyostressi>

Iceland

²⁵ Aðgerðir í menntamálum – Nýliðun kennara 2019. <https://www.stjornarradid.is/lisalib/getfile.aspx?itemid=2d8cee62-3f5b-11e9-9436-005056bc530c> 8-9.

Aðgerðir í menntamálum – Fjölgum kennurum – Lilja Alfreðsdóttir þáv. mennta- og menningarmálaráðherra. Glærugynning 2019.

²⁶ Nýliðun og bætt starfsumhverfi grunnskólakennara 2017. https://reykjavik.is/sites/default/files/skjol_borgarstjornarfundur/skyrsla_nyliidun_grunnskolakenn.pdf 3.

²⁷ Aðgerðir í menntamálum – Nýliðun kennara 2019. <https://www.stjornarradid.is/lisalib/getfile.aspx?itemid=2d8cee62-3f5b-11e9-9436-005056bc530c> 8-9.

Aðgerðir í menntamálum – Fjölgum kennurum – Lilja Alfreðsdóttir þáv. mennta- og menningarmálaráðherra. Glærugynning 2019.

²⁸ Statistics Iceland.

²⁹ Statistics Iceland.

³⁰ Lög númer 95/2019 um menntun, hæfni og ráðningu kennara og skólastjórnaenda við leikskóla, grunnskóla og framhaldsskóla

³¹ All teachers, both qualified and unqualified are included in the only available statistics on gender ratio at the preschool level.

³² Tímaatburðagreining á ferli nýútskrifaðra grunnskólakennara, Helgi Eiríkur Eyjólfsson 2017. 41, 44.

³³ Laun kvenna og karla árið 2020 á grunn- og framhaldsskólastigi, <https://www.ki.is/um-ki/utgafa/talnaefni/>

³⁴ Aðgerðir í menntamálum – Nýliðun kennara 2019. <https://www.stjornarradid.is/lisalib/getfile.aspx?itemid=2d8cee62-3f5b-11e9-9436-005056bc530c> 8-9.

Aðgerðir í menntamálum – Fjölgum kennurum – Lilja Alfreðsdóttir páv. mennta- og menningarmálaráðherra. Glærukynning 2019.

³⁵ OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/1d0bc92a-en>. 1.

³⁶ Skýrsla mennta og menningarmálaráðherra til Alþingis um framkvæmd skólastarfs í grunnskólum skólaárin 2007-2008, 2008-2009 og 2009-2010.

³⁷ Mat nýliða á gagnsemi leiðsagnar í starfi kennara, María Steingrímsdóttir og Guðmundur Engilbertsson, 2018. 2.

³⁸ OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/1d0bc92a-en>. 1.

³⁹ OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/1d0bc92a-en>. 1

Norway

⁴⁰ [Lov om barnehager \(barnehageloven\) - Lovdata](#)

⁴¹ [Lov om grunnskolen og den vidaregåande opplæringa \(opplæringslova\) - Lovdata](#)

⁴² [Informasjon \(udir.no\)](#)

⁴³ [Nasjonal utdanningsdatabase \(ssb.no\)](#)

⁴⁴ <https://www.udir.no/tall-og-forskning/publikasjoner/utdanningsspeilet/utdanningsspeilet-2022/>

⁴⁵ <https://www.samordnaopptak.no/info/om/sokertall/sluttstatistikker/>

⁴⁶ Teacher Projections 2020-2040 (only in Norwegian): [LÆRERMED 2020-2040. Tilbud og etterspørsel for fem grupper av lærerutdanninger](#)

Sweden

⁴⁷ <https://lararforbundet.newsroom.cision.com/Share/245DEFA8A9374D9D>

⁴⁸ [Regionala utbildnings- och arbetsmarknadsprognoser - Med sikte på år 2035 \(scb.se\)](#)

⁴⁹ <https://www.scb.se/hitta-statistik/artiklar/2022/de-flesta-larare-jobbar-kvar-fem-ar-efter-examen>

⁵⁰ Sveriges Lärare, Sökes: fler lärarkollegor (2023), <https://www.sverigeslarare.se/om-oss/opinion-debatt/undersokningar/larare-flyr-yrket/>

⁵¹ <https://www.lr.se/opinion--debatt/undersokningar/2021/2021-05-30-vem-vill-anstalla-en-behorig-larare>

⁵² <https://www.skolverket.se/regler-och-ansvar/lararlegitimation-och-forskollarlegitimation>

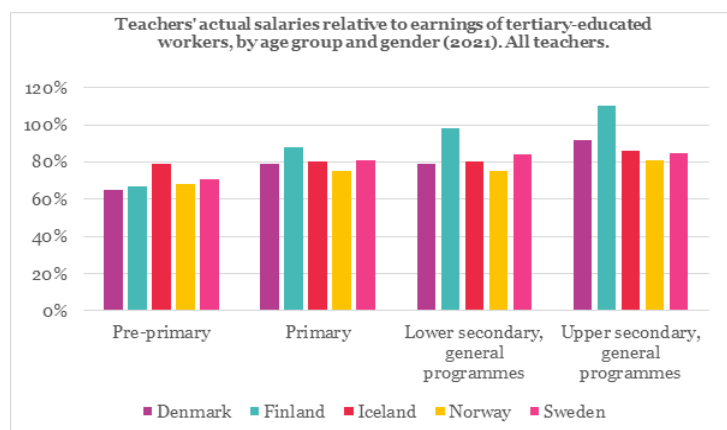
⁵³ <https://www.skolverket.se/regler-och-ansvar/lararlegitimation-och-forskollarlegitimation/regler-och-krav-for-lararlegitimation>

⁵⁴ All statistics are converted to full-time positions from the number of teachers in service.

Appendix: Tables and figures*

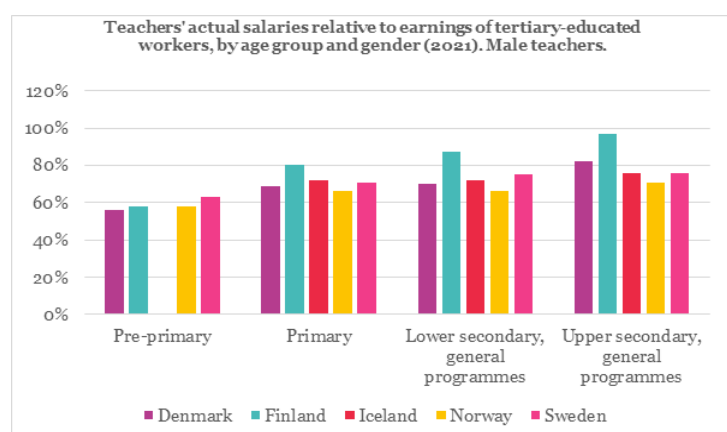
Relative earnings for teachers in the Nordic countries

Figure C.1. Teachers' actual salaries relative to earnings of tertiary-educated workers, by age group and gender (2021). All teachers



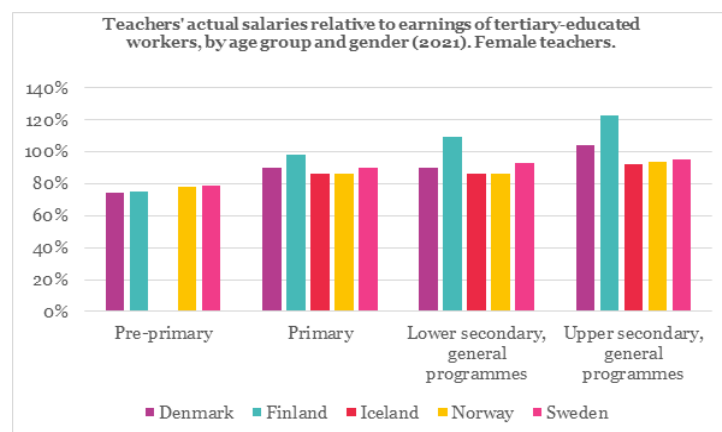
Source: Education at a Glance 2022 (Table D 3.5), except for Iceland. For Iceland it is our own calculations based on figures from Statistics Iceland.

Figure C.2. Teachers' actual salaries relative to earnings of tertiary-educated workers, by age group and gender (2021). Male teachers.



Source: Education at a Glance 2022 (Table D 3.5), except for Iceland. For Iceland it is our own calculations based on figures from Statistics Iceland.

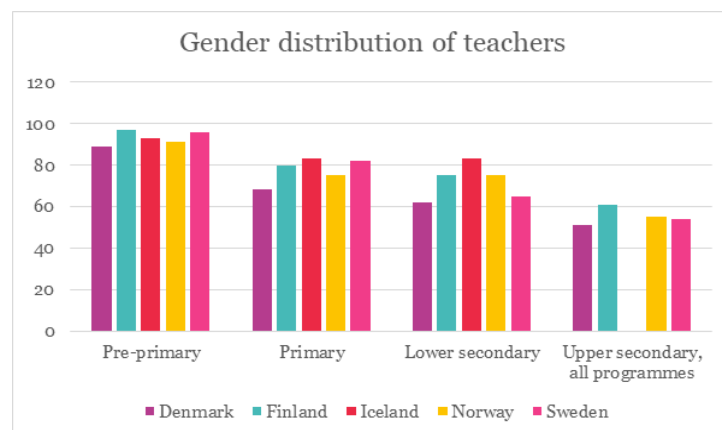
Figure C.3. Teachers' actual salaries relative to earnings of tertiary-educated workers, by age group and gender (2021). Female teachers.



Source: Education at a Glance 2022 (Table D 3.5), except for Iceland. For Iceland it is our own calculations based on figures from Statistics Iceland.

Gender distribution of teachers in the Nordic countries

Figure C.4. Gender distribution of teachers in the Nordic countries



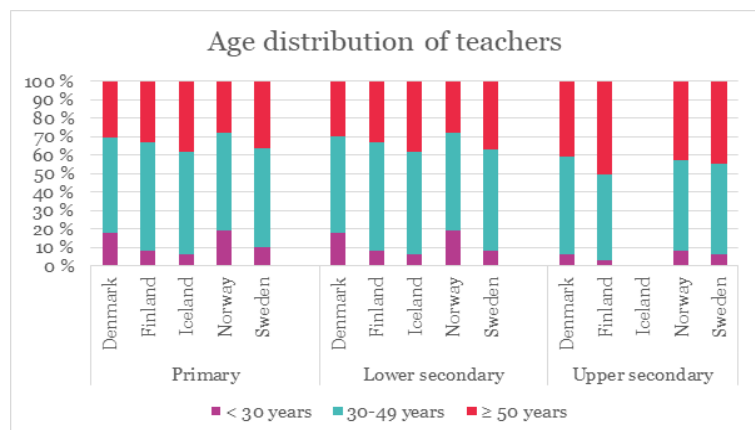
Source: Education at a Glance 2021 (Table D 5.2).

* All data is gathered from OECD Education at a Glance. Please note that these can vary from country specific statistics.

Age distribution of teachers in the Nordic countries

Primary to upper-secondary teachers

Figure C.5. Age distribution of teachers



Source: Education at a Glance 2021 (Table D 5.3)

