Towards a Closing of the Gender Pay Gap
Country Report
Norway

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Towards a closing of the gender pay gap.

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Web-site for the project: www.genderpaygap.no
Towards a closing of the Gender Pay Gap
Country report on pay differentials between Men and Women
Norway

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Preface

*Towards a Closing of the Gender Pay Gap* is a European project on wage differences between women and men. The project is funded by the European Commission’s Community Framework Strategy on Gender Equality (2001-2005) and by national authorities. The objective of the project is to examine the gender pay gap in a broad perspective, against the backdrop of wage formation and pay systems. The project aims to identify an efficient mix of tools to close the gender pay gap in the context of each partner country.

There are six partner countries in the project: Austria, Denmark, Greece, Iceland, Norway and the United Kingdom. A *Steering Committee* with members from all the partner countries functions as the governing body for the project. *The Norwegian Centre for Gender Equality* manages the project.

As part of the European project a case study of three occupations is carried out. The study covers teaching associate professional (secondary school teachers), engineering professionals and workers in the food (or preferable fish) processing industry. The case study comprises representative descriptions and statistics as well as local-level examples based on questionnaires and personnel interviews with representatives – employers and employees - for a small number of workplaces that are typical for the three selected occupations.

The case study is conducted in each of the six partner countries. The purpose of the study is to analyse the gender pay gap, and how the pay gap differs across countries and occupations. Based on the results from these national studies a comparative, European level analysis is to be accomplished.

*Institute for Social Research*, Oslo, is engaged by the *Norwegian Centre for Gender Equality* to do the case study in Norway. This report presents the country report from Norway. It relies on various sources of information: Research reports and committee statements; survey data as well as statistical indicators published by *Statistics Norway*, and statistics and documents published by the social partners and other organisations. As part of the case study, representatives for some of the unions covering the three occupations are interviewed. We have also benefited from meeting with the *Norwegian Reference Group* for the project. However, the report presents the views of the authors only.
1. Introduction

In a European perspective Norway is considered as a country with large degree gender equality, also with respect to hourly wages, as least within occupations. If we compare average hourly wages for men and women, and if we condition on level of education and work experience, as well as on occupation - the adjusted wage gap is only about 7-8 per cent.

Norwegian women are just as well educated as men. (22 per cent of the grown population among both men and women have a degree from college or university. In the labour force 34 per cent of both men and women hold a tertiary education.) At present there are more female students and candidates than males in universities and colleges (59 per cent female students). Thus in the future the educational level will be higher among women than among men.

Norwegian women are also very active in the labour market. Labour force participation among women is among the highest in Europe. As many as 78 per cent of all women aged 25-66 are in the labour force (about 87 per cent of all men, 2001). Unemployment is as low as 3.4 per cent of the labour force (2001) (compared with 3.7 per cent for men).

Also in politics women have a strong and increasing presence. In the Norwegian Parliament (Stortinget) women have occupied almost 40 per cent of the seats during the last decade - as an average. At present (2001) 37 per cent of the members are women. The female rate in Government has been even higher. During the 1990's and till now more than 40 per cent of the Ministries have been managed by women - irrespectively of the political colour of the Government. At present 42 per cent of the ministers (the Cabinet) are women.

Still, there are important areas of society where gender differences are quite large. Even though the dual breadwinner family model is dominating, labour market is very gender segregated: Many women are part-time workers (43 per cent of all employed women, 2001), but very few men (11 per cent). As a reflection of this, women spend more time on house work and child care, and women have less time of their own (leisure) even compared to men in the same family position.

Employed men and women work within different occupations (about 40 per cent work within occupations where less than 10 per cent of the employees are of the opposite sex). Male and female students still make very different choices when it comes to fields and subjects.

In private business there are very few female managers: Only 7 per cent of the top managers of companies affiliated to the Confederation of Norwegian Business and Industry (NHO) are women (2001), while 11 per cent of the middle managers are women. The boards of joint stock companies quoted on the stock exchange are also very male dominated. Only 6 per cent of the members are women (2001).

In central government administration 28 per cent of the top managers are women (2001), while 41 per cent of the work force in this sector are women. In local government administration 20 per cent of the top managers are women (2001), while almost 80 per cent of the work force in this sector are women.

Equal pay for men and women has been on the political agenda since the early 1970s. The Act on Gender Equality banning different payment was put into force in 1978. There is, however, no unified way of measuring gender pay gap. Annual earnings depend on working hours - and as women on average work fewer hours than men do, their earnings fall short of men's. Wage per hour vary between sectors and occupations, and as men and women work in different areas and have unequal tasks, their wages may be different - for instance because of differences in competence needed for performing the work, effort, responsibility and working conditions.

Some figures just to fix ideas: Average gross annual earnings for Norwegian female employees are only 66 per cent of that for male employees (2000). If we compare average hourly wages, we find that women earn about 15-25 per cent less than men do - depending on sector and industry.
If we condition the wage comparison on some major human capital indicators – such as level of education and work experience, the average difference is about 15 per cent or less. Adding occupation the difference is reduced to about 8 per cent. If we also condition on workplace and position - the wage gap is only 1-2 per cent. By this measure the gender pay gap is rather small – and not always statistically significant.

The remainder of the report is organised as follows: Section 2 offers some general information on the Norwegian labour market and on the institutional framework including gender equality policy. In section 3 we present the three selected occupations, with emphasis on employment and wage bargaining institutions. Section 4 presents the local workplace study based on interviews with employer’s and employee’s representatives. Section 5 closes the report.
2. Institutional framework: Legislation, tripartite co-operation and wage formation

2.1 Public policy

The *Ministry of Children and Family Affairs* is responsible for the public policy on gender equality. A special department within the Ministry covers gender equality issues as well as family and child-care policies. *Gender mainstreaming* of public policy and social institutions is a major working area for this department (since 1986). In 1999 the Ministry published a *Guide to Gender Impact Assessment*. The Guide refers to the *Instructions for Official Studies and Reports*, and explains when gender impact assessment is necessary and what is expected in terms of content. The same department within the Ministry is responsible for legislation relating to gender, family and children as well as the *Gender Equality Ombudsman* and the *Centre for Gender Equality* as affiliated agencies.

*a) The Gender Equality Act*

The Norwegian *Gender Equality Act* was adopted in 1978, intended as a practical instrument for creating de facto gender equality. In October 1999 the *Ministry of Children and Family Affairs* proposed a total revision of the Act (see section (e) below). The new act passed the Parliament in April 2002 and entered into force July 1st, 2002.

The objectives of the *Gender Equality Act* are two-fold. On one hand, to ensure substantive gender equality in most areas, and on the other, to influence attitudes to the roles of women and men. The Act requires the public authorities to work actively for gender equality in all sectors of society, for instance by drawing up plans or programmes on how to achieve gender equality.

Since women in working life and otherwise are considered to be in a weaker position than men are, it was found necessary to give women certain advantages in an attempt to equalise opportunities for women and men. For this reason the objective of the Act is to promote gender equality, but at the same time to aim particularly at improving the position of women. This was one of the more controversial provisions when the original Act was passed (and still is), as the wording is not completely neutral with respect to gender.

The Act does not only apply to working life, but is more general and covers all sectors, including education, political life and family life. Wherever discriminatory treatment on grounds of gender occurs, it will be in conflict with the law. However, an exception is made for internal conditions in religious communities. Although the *Gender Equality Act* also applies to family life and purely personnel matters, it states that the authorities in this sphere may not enforce the Act.

*b) The Gender Equality Ombudsman*

The primary task of the *Gender Equality Ombudsman* is to ensure that the provisions of the *Gender Equality Act* are followed. The Ombudsman receives complaints on alleged breaches of the provisions and investigates these cases. She may also consider cases on her own initiative. Individuals, groups of people and organisations such as trade unions and employers’ organisations may all bring cases before the Ombudsman. The Ombudsman normally has no power to make binding decisions, but tries to achieve voluntary settlements in cases where a breach of the Act has been found to occur. However, it is expected that her recommendations are to be complied with. If this does not happen, the case may be put before the Gender Equality Board of Appeals. It may be considered a breach of rules of conduct within the administrative authorities to ignore decisions made by the Ombudsman in the absence of an appeal. The first Gender Equality Ombudsman in Norway was appointed by the Government in 1979.
(c) The Gender Equality Board of Appeals
The Gender Equality Board of Appeals is summoned to hear and make rulings on complaints about the decisions of the Ombudsman or on cases submitted by the Ombudsman for consideration. The Board consists of seven members, most of them lawyers.

Unlike the Ombudsman, the Board of Appeals has the power to make binding decisions. The Board may prohibit any action that contravenes the Gender Equality Act and may order any measures necessary to ensure that such action ceases or is not repeated. The Board cannot award damages or other monetary compensation in cases of breach of the law.

The existence of special bodies does not preclude individuals from appealing directly to the courts of law. As procedures involving the Ombudsman are free of charge and may be carried out without the assistance of a lawyer, the courts are seldom used for these matters.

(d) The Centre for Gender Equality
The Centre for Gender Equality was put up in 1997 (to replace the Council for Gender Equality), and works for equality between men and women in all areas of society – founded on the Gender Equality Act (section 9). The main objectives of the Centre are to follow up on developments in society and identify and reveal those conditions in society that work against achieving gender equality and function as a driving force in gender equality related issues. The Centre participate actively in the general public debate and thus function as a focal point for co-operation between organisations and services that work with promoting gender equality. The centre is also a meeting place and an information centre for the public at large.

(e) Revision of the Gender Equality Act (April 2002)
- The revised Act entails that all employers, employers organisations and employees organisations have a duty to actively promote gender equality within its own organisation.
- All businesses should produce an annual report on issues relating to gender equality. The report must include a statement about which efforts have been made or have been planned to obstruct discrimination and promote gender equality.
- Women and men employed by the same employer shall have equal pay for work of equal value. This provision is amended so that employees can demand equal pay without regard to profession and collective agreements.
- If different treatment of men and women can be established in cases concerning recruitment, promotion, notice of leave, temporary lay-offs or in cases of equal pay, the employer bears the burden of proof, and has to demonstrate that this is not due to the sex of the applicants or employees. Thus the burden of proof is reversed.
- The Act allows positive action in favour of women or men when it is clear that this will promote gender equality.
- The revised Act establishes a right to compensation for discrimination, which you have experienced, regardless of fault.
- According to the revised Act the Gender Equality Board of Appeals is given the right to express its opinion regarding the lawfulness of collective agreements in relation to the Gender Equality Act. The Gender Equality Board of Appeals may not adjudicate cases appurtenant to the Norwegian Labour Court, but its statements may create awareness of collective agreements that are not in conformity with the Act.

Equal pay for work of equal value
In 1997 a public commission suggested general guidelines for gender neutral comparisons of work as a basis for equal remuneration for work of equal value (NOU 1997:10). With these guidelines in place, the equal-pay-provision in the Gender Equality Act was revised as to cover work of equal value across professions and occupations. The phrasing in section 5 of the revised act goes like this (non-authorised translation):
“Women and men in the same workplace should have equal pay for equal work or work of equal value. The right to equal pay for equal work or work of equal value is independent on whether the work is within different professions or is regulated by different collective agreements. Whether the work is of equal value should be decided according to a comprehensive assessment, where the competence needed for performing the work is emphasised, as well as other characteristics, such as effort, responsibility and working conditions.”

Thus the right to equal pay is conditional; it only applies within the workplace (the same employer). In this respect the whole central government is considered as one workplace (one employer). The same applies to departments within each local government (municipalities and counties). In private businesses head quarters and branches are considered to be the same workplace (same employer).

(f) Family welfare
The Worker Protection and Working Environment Act states that workers are entitled to 12 weeks of leave in case of maternity. The mother is obliged to take 3 weeks off before the birth (but may take as much as 12 weeks). After the birth she is obliged to take a leave of 6 weeks. A father living together with the mother is entitled to 4 weeks of welfare leave. This is a father's quota, which is not transferable to the mother. In addition the parents are entitled to leave during the first year after birth. The total length of parental leave - including both mother and father - may end up to 52 weeks. Except for the mother’s and father’s quotas, the rest of leave is open for both parents. However, very few men have more than the father’s quota. Similar arrangements apply for adoption of children.

Payment during parental leave is established by the Social Insurance Act. Entitlement for payment during leave before and after the birth is dependent on employment and income: The mother (and the father) should be employed for at least six months during the last ten months before the birth. The parents are compensated 100 per cent (of their former wage income) for a period of 40 weeks or 80 per cent for a period of 52 weeks. As mentioned, four weeks are reserved for the father (the father's quota). If the father chooses not to make use of his four weeks, the weeks are forfeited.

At average the mothers use 44 weeks of the paid parental leave. Fathers use 4 weeks at average. Less than 7 per cent use more than 4 weeks (2000).

The Worker Protection and Working Environment Act states that employees with responsibility for small children (12 years or younger) are entitled to leave during children's illness, 10 days per year per employee with one child, 15 days with more children. Lone parents get 20 respectively 30 days. According to the Social Insurance Act all employees entitled to benefits in case of own sickness (i.e. almost all employees) are also entitled to benefits for absence due to care for sick children.

- Cash Benefits
Since 1998-99 all families in Norway with children aged 1-3 years (i.e. 13-36 months) who do not have a governmentally subsidised child care arrangement (kindergarten), may receive a cash benefit amounting to Nok 3,000 per months (Euro 400, which is about the same as the governmental subsidy). If the child has a part-time governmentally subsidised childcare arrangement, the support is proportionally reduced.

The purpose of the cash benefit is to (i) help parents to spend more time caring for their own children, (ii) to give them a genuine freedom of choice as regards type of care, and (iii) to bring about greater equality in the transfers from the State to families with children. Thus, the supposed effect is that working hours for parents with small children is to be reduced.
At present, about 80 per cent of all children 1-3 years receive the cash benefit. This far it seems as if only mothers - and hardly any fathers - have reduced their working hours. The reduction in working hours is, however, rather small. Labour force participation is estimated to be reduced by about 5 per cent - or less (Langset, Lian and Thoresen 2000, Schøne 2002b). The labour force participation among mothers with small children is still pretty high, almost 70 per cent. Among employed mothers the average reduction in working hours is estimated to be of the same size, about 5 per cent - or less.

- Kindergartens
The high rate of employment among women with small children in Norway is dependent on childcare facilities. The number of children aged 1-5 in kindergartens has increased from less than 20 per cent in 1980 to more than 60 per cent in 2000. These kindergartens are either public, run by the municipalities and subsidised by the State (60 per cent), or they are private, approved by the municipalities and subsidised by the State (40 per cent). In addition some children – and especially the younger (aged 0-1) - are taken care of by child minders etc. (About 10 per cent of all children with some kind of care facilities.) More than 60 per cent of the kindergartens offer full-time care (at least 33 hours per week). 57 per cent offer care for 41 hours per week or more.

(g) Minimum pay
There is no minimum pay legislation in Norway. Minimum wages are bargained just as other wages and are valid for the parties who sign the agreement. In the unionised sector centrally agreed wage represents a floor, which actual, and locally adapted, wages never go below but often above. In the non-unionised sector many firms pay these centrally agreed minimum wages.

In 1993 the Universal Validity of Collective Agreements Act (Lov om allmengjøring av tariffavtaler) was sanctioned by the Parliament. The purpose of the law is to secure all (foreign) workers in Norway (on- and off-shore) payment and working conditions equal to what employees covered by national collective agreement get ("anti dumping" legislation).

Signatories of such an agreement may claim it to cover all employees performing the same kind of work as covered by the agreement. The final decision is taken by the Collective Agreement Board (Lønnsnemda) appointed by the Government. For each case representatives of the party claiming universal validity - and its counterpart in the agreement - enter the Board.

(h) Working time
Working hours are regulated by the Worker Protection and Working Environment Act. Maximum working time is 40 hours weekly or 9 hours daily. Agreed "normal" working time is, however, 37.5 hours a week (since 1986) both in private and public sector (usually 7.5 hours daily, Monday-Friday).

The Act also states an individual right to reduced working hours - temporary or permanent - due to medical, social and other important welfare reasons. The employer is obliged to comply the need of the employee - or otherwise prove it will be of great inconvenience for the company.

Mothers with small children are entitled to one hour per day to nurse the child. The Worker Protection and Working Environment Act also states that employees with responsibility for small children (12 years or younger) are entitled to leave during children's illness; 10 days per year per employee with one child, 15 days with more children, lone parents 20 respectively 30 days.

- Part-time employment
There is no legal definition of part-time work. Thus there are no legal rights associated with work and income that do not apply for part-time workers. Most rights and obligations in the labour
market are proportional to working hours or income. Employers and employees are free to agree on working hours within the legal maximum.

Part-time work is rather widespread among women both in the private and public sectors, and among young persons combining employment with education or care for small children. Many women change from full-time to part-time at the arrival of their first child. Part-time contracts are not in general considered as "atypical" or "non-standardised" contracts. There are of course cases where part-time workers have inferior working conditions compared with full-time workers. There is, however, no empirical evidence that part-time workers are paid less (per hour) than full-time workers are in similar jobs.

Thus, in principle Norwegian working life legislation does not discriminate between full-time and part-time work. By minimum conditions and thresholds some rights and obligations are, however, dependent on duration of employment and more seldom on working hours. The major pensions and benefits within the Norwegian Social Insurance Scheme are proportional to annual earnings, ensuring proportional rights for full-time and part-time workers.

Trade unions are traditionally not in favour of part-time working, especially not the traditional blue-collar union, The Norwegian Confederation of Trade Unions (LO). Unionisation is usually lower among part-time workers than among full-time workers, partly because part-timers mainly work in service industries with a generally low union density (retail trade, hotels and restaurants, personnel services etc). Gradually since 1970 LO and other unions have included part-time work in their negotiating strategies. In this way the unions have contributed to normalising part-time work. Still the rate of union members among part-timers is quite low; about 45 per cent compared with almost 70 per cent among full-timers.

(i) Temporary employment
Temporary employment is restricted by the Worker Protection and Working Environment Act. The general rule is that no contract should be limited in time. Exempt from this general rule are apprentices, trainees, substitutes (for a specific person on leave) and participants in labour market programmes. A time-limited contract is also legal if the work - by its genuine character - is temporary.

Combined with a rather strong protection against unfair dismissals - even in the probationary period (usually 6 months) - these regulations have led to a great deal of controversy. The regulations are promoted by union representatives and strongly opposed by the employers' associations. The wording of the law was recently (1995) made more rigid by the Parliament to exclude any "soft" interpretation of the regulations on temporary employment.

Despite the regulations temporary employment is not insignificant. About 9 per cent of all employees are temporary employed (Labour Force Survey 2001). More women than men are temporarily employed and part-time workers more often than full-time workers. Temporary employment is more common in the public sector than in the private sector.

2.2 Tripartite co-operation

The determination of wages and other employment conditions is the responsibility of the labour market organisations. Tripartite arrangements concerning i.e. income policy have, however, long traditions in Norway. The primary ambition of tripartite co-operation is to reach a common understanding of the actual facts of the economic situation, developments in wages and prices and so on. A common understanding is believed to facilitate later wage negotiations and create a responsible attitude among the parties. One also seeks to reach an agreement on economic policy measures.
Also when it comes to public policy within other areas it is a long tradition for the Government to consult the labour market organisation - as well as other interest organisations, for families, children, the elderly, women, immigrants, handicapped etc.

Formal institutions of tripartite co-operation on wage formation and income policy in Norway date back to the 1960’s. The Contact Committee is the most important body of income policy co-operation. The Prime Minister chairs the committee, where all main organisations for employees and employers are represented as well as the organisations of fishermen and farmers. In these meeting the Government presents its view on the current economic situation. The organisations also present their view and bring up other issues they want to discuss.

The Technical Reporting Committee on the Income Settlement (TBU) serves the purpose of providing unbiased information on economic developments to all parties. It also seeks to reduce disagreements stemming from different perceptions of the current or future economic situation. An independent expert chairs the committee. Presently this position is held by the director of Statistics Norway (SSB). The Committee (TBU) includes members from the main organisations in the labour market as well as members from the Ministry of Finance and the Ministry of Labour and Government Administration. The Committee submits two reports every year.

In addition the Government co-operate with the social partners on specific issues relating to the labour market. Representatives of employees' and employers' organisations are often appointed as members of public commissions.

2.3 Wage formation systems

The bargaining system in Norway is highly centralised compared to other countries. However, there is still ample room for local adjustments in most industries. Also, even in a completely centralised system, the process of assigning workers to jobs determines the wage structure as well. The following is a brief description of the bargaining system in Norway, both in the private sector and in the public sector.

The bargaining system in the private sector

About 60 per cent of private sector employees are covered by collective agreements. About 55 per cent are union members. 85 per cent are employed in establishments where unions are present (Barth 1998). Unions thus have a strong influence on wage setting, even in the private sector. In 1989, 28 per cent of employees worked in establishments with centrally negotiated wages only (national or industry-level), 45 per cent worked in establishments with complementary local bargaining and 28 per cent in establishments with individual contracts only (Barth and Gulbrandsen 1990). Similar figures from 1997 indicate that the rather small fraction working in establishments with only individual wage contracts is stable (about 20 per cent of all employees in establishments with 10 employees or more; see Barth 1998).

For establishments with some kind of collective agreement studies have shown that supplementary bargaining and individual contracts to a large extent add on to the central bargains, - the centrally negotiated levels acts as a floor on wage setting across the board.

Most nation-wide collective agreements in private sector are concluded between national unions affiliated to the Norwegian Confederation of Trade Unions (LO) and their counterparts affiliated to the Confederation of Norwegian Business and Industry (NHO).

In addition to LO there are three other large confederations of employee's organisations – operating both in private and public sector: Norway's Confederation of Vocational Unions (Yrkesorganisasjonenes Sentralforbund, YS), the Confederation of Professionals (Utdanningsgruppes Hovedorganisasjon, UHO), and the Federation of Norwegian Professional Associations (Akademikerne). There are also a number of independent employee’s organisations.
Next to NHO, the Confederation of Norwegian Commercial and Service Enterprises (HSH) is the most important employer’s organisation in private sector.

LO and NHO have a Basic Agreement (Hovedavtalen) which is valid for four years. This is an agreement on the basic rules of the game in the world of work, and does not regulate pay. Other unions and confederations of employers in private and public sector have similar agreements. A separate agreement on equal pay is stated in the Basic Agreement between LO and NHO, as well as in most other basic agreements.

When it comes to agreement on pay, the parties choose to bargain at the industry level (most of the times during the 1990’s) or at the national level (co-ordinated bargaining). Industry bargaining is conducted sequentially, with the competitive industries bargaining first. Arbitration is institutionalised. Strikes may occur at this level.

At the local level, in case of conflicts, there is a peace clause, leaving the parties with work-to rule type of arrangements only as conflict options.

There are no automatic or legalised procedures to extend the collective agreements to non-members or non-covered workers. However, in practice, the collective agreement is extended locally, and at least acts as a floor on wages to any similar employees within the establishments. The role of local bargaining varies, but it seems clear that the central employers’ organisations attempt to co-ordinate the outcomes even at this level. The share of wage increments given at the local level is larger for white collar than blue-collar workers. In the manufacturing sector, over the period from 1996 to 2000, wage drift (local increments plus individual and statistical wage growth) varies from 29 per cent for blue collar workers in 1998 to 66 per cent for white collar workers the same year; see Table 1.

In addition to collective agreements, many establishments use individual payment including incentive pay, piece rates or bonuses. About 40 per cent of the establishments report to use such practices, however, only about 10 per cent of employees are paid according to such schemes (Barth 1998).

**The bargaining system in the public sector**

All employees in central and local governmental sector, with the exception of the very top executives (some hundred in total) are covered by collective agreements. The collective agreements specify a certain wage grid for all occupations, into which each public employee is assigned. Within the grid there are only limited options for individual variation. The unionisation rate is between 85 and 95 per cent. The bargaining system is highly centralised, but since 1991, there has been some room for local bargaining and individual contracts – both in the central and local governmental sector. In 2002 some unions reached an agreement with the Norwegian Association of Local Authorities (KS) to widen the scope for local bargaining.

The bargaining system in public sector is basically a three-tier system. In the central governmental sector it looks like this:

1. Central agreements between all the national unions and the Ministry of Labour and Government Administration. This agreement involves working conditions as well as a general wage increase, almost always in absolute terms (a flat rate increase in kroner, not a relative increase). They also agree on how much to put down to level two in the bargaining process (relative adjustments) and level three (local bargaining). For instance, 0.5% of the total wage bill is allocated to local bargaining. Strike is a possible outcome during this first step bargaining.

2. Central agreement between all the national unions and the Ministry of Labour and Government Administration on wage increases of particular groups, for instance teachers or nurses in particular positions or employees in particular segments of the wage grid. This agreement is either in absolute or in relative terms.

3. Local bargaining between the local union and the local employer over a predetermined per cent of total wage bill. The level of decentralisation varies from ”local bargaining” at the national level for teachers, to really local bargaining at fairly small government agencies. There
are no legal conflict options, a particular committee at central level, with members from both sides, acts as a referee in case of conflict.

Until recently only very small increments have been delegated to the local level. According to the figures in Table 1, only about 10 per cent or less of the wage increments each year has been allocated at the local level.

Since 1991 local employers within the central government have been given the option of putting a small part of their own budgets into the wage bargain. In addition there is an option to loosen the relationship between positions and the predetermined placement in the wage grid. Positions are to a large extent put into a wage range, rather than into the wage grid determined only by position and seniority. So far the local adjustments have been small and there is no tendency towards larger wage dispersion. Gender wage differences adjusted for human capital indicators have for instance not increased (Barth and Yin 1994, 1996, Schøne 2002a).

Table 1. Total wage growth and wage drift by sector, 1996-2000. Per cent

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<tr>
<th></th>
<th>Blue Workers</th>
<th>Collar Workers</th>
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<th>Collar Employees</th>
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<th>Employees</th>
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<td>0.4</td>
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Note: Total Wage Growth includes wage growth on an annual basis due to (i) the impact of the wage increase during the previous year, (ii) wage increase during this year agreed on at the central level (industry or national level), and (iii) Wage Drift, i.e. non-bargained and locally bargained wage increase. Source: Table 3.4 in NOU 2001:26, “Report on the collective bargaining 2000-2001”.
Local governmental sector
In the local governmental sector approximately the same procedures apply. All 19 counties and all 435 municipalities in Norway – except the capital Oslo – are members of, and represented in wage bargaining by, the Norwegian Association of Local Authorities (KS).

Publicly Owned Enterprises
During the 1990’s several large governmental corporations, like the telecom producers (Telenor), the post services (Norway Post) and the railway services (NSB) are turned into stock companies or companies with limited responsibility – completely or partly owned by the central government. These corporations and many other, smaller publicly owned companies are members of the Norwegian Association of Publicly Owned Enterprises (NAVO). Recently, governmental hospitals were re-organised and made into regional health corporations, and became members of NAVO.

In the NAVO-agreement area, the bargaining system has undergone a change from the completely centralised public sector type of bargaining, to a bargaining regime very similar the one in private sector.

Summing up
Bargaining occurs at both the national (complete or industry wise) level as well as at the local level. In the public sector, up till now, only a very small part of wage increments have been decided locally. In the private sector, a larger part is decided locally. For white-collar workers this percentage is even higher. See Table 1.

The wage structure arising from these bargaining arrangements is one with small wage differences in the public sector, and larger wage differences in the private sector. In short, it pays for high-skilled employees to work in the private sector, and for low-skilled employees to work in the public sector.

Also when we compare the Norwegian wage structure to that of other European countries, we find that Norway has a highly compressed wage structure. Norway has low returns to education (Barth and Roed 2001a and 2001b), small industry wage differences and small within group variation in wages.

Agreements on wage increases in absolute terms (flat-rate increases in kroner) which are typical for the central agreements (but not without exempt), tend to make the overall wage dispersion smaller. This also tends to reduce the gender wage differences, as women typically are over-represented among low-wage earners. A development towards more local bargaining and more individual payment may increase the wage dispersion in general and thus also the gender pay gap. However, in local agreements as well, it is possible to give women and male dominated occupations priority.

2.4 What's on?

(a) Shorter working hours
The present debate on working time covers many subjects: not only the daily, weekly and annual working time, but also working time flexibility and the age of retirement. Among those advocating working hours reductions, welfare arguments are dominating: the welfare of families with small children, equal opportunities of men and women, as well as the health and welfare of employees in general. Traditionally men (and their trade unions) have been in favour retirement reforms, while women have been more concerned about the daily working time. Attitudes towards working time reforms are, however, not only a gender issue. Such attitudes seem to reflect occupational characteristics as well. A study by Birkeland and Øverås (1997) found that
women in male-dominated occupations are more concerned with retirement reforms than hours worked per week.

The main argument in favour of shorter daily working hours, for instance 6 hours per day, is that shorter working hours will promote equality between men and women - both in the labour market and in the household. However, if such a large reduction is not compensated by higher wage per hour (as has been the case with previous reductions in standard working hours), it is supposed that very few men will choose the shorter working day. Without compensation many families will not be able to afford the shorter hours. Full compensation is - on the other hand - very expensive, and similar to a 25 per cent increase in wages.

In Europe, a major argument for shorter daily working time has been to achieve job sharing. At present this argument is not very strong in Norway, as unemployment has been rather low since 1997 (4 per cent of the labour force or less) and there is a shortage of labour in many sectors and occupations.

(b) Flexible working arrangements
Reforms directed towards more flexible working hours - concerning both the total number of hours per week and its location in time - seem to be supported by all partners and parties in Norway. More flexibility is supposed to be a welfare gain for the employees. In addition it may probably increase their productivity. Flexible working time arrangements are also supposed to enable more persons to join the labour force and to take part in paid work. Thus such reforms may mobilise some of the labour reserves. With shortage of labour in many occupations this is a quite important issue at present in Norway.

For the same reason (as well as for the concern of public finances) it has been suggested to make some minor changes in the early retirement pension and old age pension schemes. The purpose is to give elderly people economic incentives to work more and beyond the age of 62 (early retirement) – as well as beyond the age of 67 (ordinary retirement).

To improve the competitiveness of Norwegian industry it is also argued that some of the strict working time regulations have to be relaxed; especially those concerning maximum overtime and maximum monthly working hours.

(c) Care and work: The time conflict is still a gender issue
In Norway the work-family time conflicts are modified by state policy: Flexible working time arrangements (of which part-time especially in public sector has been the dominant one), public child care services, public care for the elderly, parental leave arrangements, and lately: the fathers own quota in the parental leave scheme. These arrangements and reforms have facilitated a flexible combination of time in employment and care among parents. Thus Norway has taken considerable steps away from a traditional male breadwinner family model towards dual bread-winning (Ellingsæter 1998).

A problem with these reforms is that they have constructed a two-tier model of parenthood in work life (Ellingsæter 1999). That is, one model for mothers and one model for fathers. The shared work-family practice remains largely a female model. One reason may be that this model conflicts with the structures and cultures in the private sector labour market – where most and mostly men make their career. Female work patterns, the shared career, seem to be difficult to practice in private sector (Hansen 1995).

The public sector accommodates a greater flexibility in its work force. That is may be why it is easier for women to make their career in public sector. Still, even in public sector women are heavily underrepresented in the top and intermediate management (Storvik 1999, 2000, 2002).
(d) Kindergartens
Child-care facilities are at the political agenda at present. Most political parties in the Norwegian Parliament support an action plan gaining at full coverage of kindergartens as well as reduced prices within 2005.

The action plan is rather ambitious. It promises to cut the fee paid by parents (in real terms) by about 50 per cent in 2 years and to introduce a maximum fee. Today the fee paid by parents varies across the country and by family income. Many parents in Oslo pay Nok 3,500 per month or more (Euro 460). According to the action plan the maximum fee is supposed to be Nok 2,500 per month (Euro 330) in 2003 and Nok 1,500 (Euro 200) in 2004. During four years (2002-2005) the capacity is going to increase by more than 20 per cent from 190,000 to 230,000. (At this price level “full coverage” of the demand is estimated to be kindergartens for about 80 per cent of all children).

To reach these ambitious targets without reducing the standard and quality of the kindergartens, public expenditures on child-care facilities will have to increase significantly, related to both investments and annual expenditures.

(e) Positive action
The general clause in the Gender Equality Act provides a legal framework for introducing positive action. Different treatment may be allowed if the treatment promotes gender equality. Since it is not possible to achieve gender equality merely by prohibiting discriminatory treatment, measures which give one sex certain advantages in some areas in the short or the long term are regarded as necessary. In accordance with the objective of the Act, affirmative action is mainly accepted when it is for the benefit of women.

In practice, positive action is currently based mainly upon provisions in collective agreements between the social partners pursuant to the Act. The provisions therefore have to be enforced by the parties to the agreements, and not the Ombudsman. In such cases, the Ombudsman does not initiate affirmative action, but may encourage measures introduced in schools, universities or the workplace. An example of such measures is the use of quotas in cases where women are greatly underrepresented in a particular occupation.

Women have certain special rights in connection with pregnancy, childbirth and breastfeeding. These rights are specifically laid down, and are independent of affirmative action.

- In favour of men
A review of the Gender Equality Act from 1978 led to the conclusion that positive action may be used for the benefit of men. This has been limited to certain professions connected with the teaching of and care of small children. Otherwise positive action in favour of men is normally viewed as being in conflict with the Act and its purpose. The revised Act (2002) opens up for more positive action in favour of men.

(f) Labour market careers
The Gender Equality Act states that no distinction may be made between women and men in connection with appointments. Employers may consider a particular job unsuitable for a woman - for instance because it requires physical strength. This clearly constitutes illegal discrimination.

Men and women are sometimes judged according to different standards in the selection process; they may be asked different questions during job interviews, or their qualification, qualities and other background factors may be assessed differently, often to men's advantage. Different treatment of this kind is normally considered to be in contravention to the Act.

Some of the cases brought before the Ombudsman regarding recruitment or promotion in working life concern pregnant women or women who are about to take maternity leave. In principle it is a breach of the Act to reject an application from a woman on the grounds that she is pregnant, especially if the vacancy is a permanent job. The issue is considered to be a typical field
where women may be discriminated against. The rights of pregnant employees and employees on parental leave – both men and women – are strengthened in the revised Act.

(g) Equal pay for work of equal value
The question of equal pay for work of equal value has been one of the main general issues in the promotion of gender equality. It is still the subject of discussion and disagreement, as men seem to be consistently better paid than women. Even after controlling for differences in age, education or seniority.

Women and men rarely do exactly the same things. Thus implementing equal pay for identical work would not achieve the desired effect. The Gender Equality Act lays down that employees must receive equal pay for work of equal value. This equal remuneration must apply not only to identical jobs, but also to jobs that are apparently different, provided that they are comparable in terms of value. In this connection, all the factors that affect the evaluation of the job must be included: education, skills and experience, responsibility, working conditions, etc. The term «pay» includes ordinary remuneration for work, other supplements or cash bonuses, and other benefits provided by the employer. The term «equal pay» means that the pay is to be determined in the same manner for women and men regardless of gender.

(h) Job-evaluation as a tool in reaching equal pay
At present there is no consistent system for job evaluation in Norway. However, in 2002 the Ministry of Children and Family Affairs initiated a three-year project with the aim of implementing job evaluation in a number of public and private businesses. The project will develop a gender-neutral system and in close cooperation with the selected establishments use the system as to measure the value of women’s and men's work. The job-evaluation will be related to wages and the local wage negotiations.

The Gender Equality Ombudsman will in her enforcement of the new regulations of the Gender Equality Act of 2002 also make use of the job-evaluation system. The new regulations of 2002 will strengthen the right to equal pay by allowing comparisons across occupational boundaries and wage collective agreements. To strengthen the effect of this regulation the Government will point to the use of job evaluation and the new system to be developed.

(i) The Glass Ceiling
Norwegian women take part in the workforce at almost the same rate as men; 76 per cent vs. 84 per cent of total population aged 16-66. Their level of education is just as high as among men. Still there are large differences as to working time and to which positions are held by women and those that are held by men. The Norwegian labour market is gender segregated both horizontally and vertically. Men hold most high positions in private and public sector. As already mentioned in the introduction, the female participation in such positions is only 7 per cent in the private sector, 28 per cent in the central governmental sector and 20 per cent in the local governmental sector. Empirical analyses seem to confirm the theory of a glass ceiling; at least it is hard to invalidate it.

(j) Female representation, campaigns and quotas
Members of the Norwegian Parliament are drawn from all walks of society. A broad recruitment is crucial to the political representation of women, and takes place through the nomination processes in the political parties. The party system is the power base of political life. The political parties control the nomination of candidates to practically all important political appointments. The election system is a proportional list system, rather than single candidate constituencies. The nomination procedure thus becomes important, and this kind of selection process provides a good basis for women seeking political power.
However, experience has shown that the proportion of women in political institutions does not increase unless special measures and methods are employed. Special campaigns and gender quotas have been the methods most used.

**Campaigns** to increase the number of women nominees and elected representatives have primarily been run prior to local elections (where – due to legal regulations of elections - a much greater effect may be achieved than at general elections). One such campaign – supported by most political parties and co-ordinated by the Norwegian Centre for Gender Equality - has encouraged voters and parties to cumulate female candidates. At present 35 per cent of municipal councils are women.

**Quotas** have proved perhaps the most effective means of achieving a more equal distribution of women and men in political bodies. The use of quotas in political parties was highly controversial when first introduced in the 1970s and early 1980s by parties of the left and centre. Today, most large Norwegian parties apply a gender quota system in nominations to elections and the composition of governing bodies of the party at all levels. The first time this was put to the test at Cabinet level, was when the Labour Party, headed by Gro Harlem Brundtland, came to power in 1986 and formed what became known as the "women's government" (8 of 18 ministers were women). Since then most Norwegian Cabinets have had 40 per cent women among their members.

The Women’s Talent Bank (Kvinnebasen) was established in 1999 and is run by the Centre of Gender Equality in Norway. The goal of the women's talent bank is to make women's competence more visible. The main objectives are recruitment of women for management positions and recruitment of women for board positions. The Bank was originally a part of a project Women, Quality and Competence in the central Government (Kvinner, kvalitet og kompetanse i staten). This project was established by the Ministry of Labour and Government Administration in 1997 as to increase the share of women in governmental top and middle management.

The Gender Equality Act section 21 lays down as a general rule that all public boards, committees and commissions are obliged to have at least 40 per cent women and men (the Ministry may make exemptions). Similar rules for the boards of private and public companies have been discussed.

In 2001 the Ministry of Children and Family Affairs proposed rules of gender representation first of all to cover joint stock companies owned by the central government as well as other public companies. The rules of gender representation were also proposed to cover private joint stock companies, but only the large ones. As an alternative it was suggested to introduce a system of candidates for the boards with both men and women among the nominated. And then let the general assembly (or those who are to vote) choose freely among the candidates.

In a decree from March 2002, the Government has decided the following: (a) All state owned companies are to have at least 40 per cent representation of each gender in their boards within 12 months. (b) Also large, private joint stock companies should within three years reach the same gender balance in their boards. (In 2001 these companies had a 6 per cent female share in their boards at average. 80 per cent of the companies had no women in their board.) A legal draft on this is to be developed and presented for the Parliament. (c) The Government will initiate a co-operational agreement with private businesses to increase the female representation in the boards of joint stock companies. If the balanced representation is not reached by 2005, the Government will put the law provisions into force. Thus Norway is about to become the first country in the world to insist on female quotas for company boardrooms!
2.5 Some key labour market statistics

In this section we present some key statistics as to give a brief and general impression of the labour market in Norway. The sources for these statistics are the Norwegian Labour Force Surveys and Surveys of Level of Living, both conducted by Statistics Norway. In addition we use information from administrative registers, such as the Register of Employers and Employees, prepared by Statistics Norway.

- Employment and working hours

From Table 2 we see that labour force participation in Norway (which is quite high by European standards) is somewhat higher among men than among women. The gender difference is decreasing from 1990 to 2000: the participation rate for women aged 16-66 increased from 67 per cent to almost 76 per cent, while it decreased for men from 85 per cent to 84 per cent.

As unemployment is decreasing during this decade, employment rates are increasing. Unemployment is higher among men than among women; 3.7 per cent vs. 3.2 per cent of the labour force aged 16-66. Employment distribution across sectors is quite stable over the period. The majority of women are working in public sector, less than one quarter of the men is doing the same. This is the most prominent gender difference among the figures presented in Table 2.

Tables 3 and 4 present some key figures on employees and wages. As can be seen there are few immigrants in the Norwegian labour market, though the number is increasing - from a total of 66 000 employed persons in 1990 to 102 000 employed persons in 2000 (less than 5 per cent of all employees). About one third of the immigrants are from Africa or Asia, two thirds are from Europe (many Scandinavians) and America etc.

The average usual or contracted working time is about 35 hours per week in Norway. The actual working time is 31 hours per week for women and almost 40 hours per week for men (2000). Thus men work more than women do, at least in terms of paid work among employees. (Adding unpaid work, the difference is very small.) The gender difference in working hours is larger in private sector than in public sector.

According to the Survey of Level of Living 2000, 34 per cent of female employees and 8 per cent of male employees report their actual working time to be less than 30 hours per week. At the other side 6 per cent of female employees and 24 per cent of male employees report their actual working time to be 45 hours per week or more.

More women than men are on fixed term contracts (temporary contracts). Such contracts are more common in public sector than in private sector. The number of employees with temporary contracts is increasing from 1990 to 2000 (but has been stable for last few years), in both sectors and among both men and women.

Unionisation is stronger in public sector than in private sector, and rather stable in both sectors from 1990 to 2000. More women than men are members of unions: 60 per cent vs. 54 per cent of all employees – as a reflection of more women working in public sector.

- Wages

Comparing gross wages for employees, working more than 30 hours per week, we find that the average wage of women is 24 per cent below the average wage of men. The gender pay gap is larger in private sector than in public sector, but is rather stable from 1990 to 2000 (see Tables 3 and 4).

Conditioning on experience, seniority and level of education gives no significant change in the difference. As we do not have exact information on actual working hours in the Register of Employers and Employees, part of this pay gap is due to gender differences in working hours (as we know more men than women are working long hours).

At the bottom of the tables we present similar figures based on survey data, i.e. self reported earnings information from the Survey of Level of Living, but with control for working
hours (self reported actual working hours). As can be seen both the unadjusted pay gap and the adjusted pay gap are less than when using register information (adjusted by controlling for human capital indicators). The pay gap is estimated to be 24 per cent in the private sector and 12 per cent in the public sector (2000). Controlling for experience, seniority and years of education the adjusted pay gap is estimated to be 16 per cent in private sector and 8 per cent in public sector.

Table 5 presents some other estimates of the gender wage gap based on information from the Survey of Level of Living - covering the period 1980-2000. As a general trend the difference in hourly wages is decreasing both in private and public sector. For full-time workers in private sector the unadjusted wage gap is estimated to be 17 per cent in 2000, and in public sector to be 12 per cent.

The adjusted wage gap indicates the percentage differences between male and female hourly wages conditional on year of education, experience and experience squared. This adjusted wage gap is estimated to be 13 per cent in private sector and 8 per cent in public sector. Thus differences between men and women when it comes to level of education and experience “explain” about 25 per cent of the overall wage gap in private sector, and 30 per cent of the overall wage gap in public sector.

The general trend is illustrated in Figure 1. The gender pay gap is decreasing, but rather slowly. The gross wage gap decreases from 21 to 17 per cent. The adjusted wage gap is less and decreases at a somewhat higher speed, form 19 to 13 per cent.

Table 6 presents some figures on relative wages for women based on wage statistics reported by the employer, presented by Statistics Norway (NOU 2002:5). The wage statistics are adjusted for working hours, and do not include payment for extra hours (overtime). Otherwise these figures are comparable with - and also quite similar to - the wage gap in Table 5, based on information from employees (Survey of Level of Living).

For all industries presented there is a small increase in the relative wages for women from 1990 to 2000 - except for the impact of including managers in the statistics since 1998, in retail trade and banking. The highest relative wages are in education (mainly public sector) and among blue-collar workers in private sector. The smallest relative wages are in banking and retail trade (even before including managers in the statistics).

Table 7 presents figures for relative wages of women by education based on the same sources as the figures presented in Table 6. Again the wage statistics reported by the employers are adjusted for working hours, but do not include payment for extra hours. As can be seen the relative wages of women are decreasing by level of education.
### Table 2. Labour force and employment. National level indicators, 1990 and 2000

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<th>Men</th>
<th>2000 All</th>
<th></th>
<th>Men</th>
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<td>Population (1000), persons aged 16-66 (1)</td>
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<td>1 361</td>
<td>2 914</td>
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<td>Labour force (1000), persons aged 16-66 (2)</td>
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<td>947</td>
<td>1 160</td>
<td>2 332</td>
<td>1 085</td>
<td>1 246</td>
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<td>Labour force, per cent (16-66) (2)</td>
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<td>783</td>
<td>967</td>
<td>2 019</td>
<td>938</td>
<td>1 079</td>
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<td>- primary education (ISCED level 0,1)</td>
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<td>Unemployment rate (unempl. / labour force), persons aged 16-66 (per cent), (2)</td>
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<td>901</td>
<td>1 094</td>
<td>2 252</td>
<td>1 050</td>
<td>1 201</td>
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<td>- in private sector (per cent), (4)</td>
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<td>49.0</td>
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<td>- in public sector (per cent), (4)</td>
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Table 3. Employees and wages. National level indicators, 2000

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<th>Women</th>
<th>Men</th>
<th>Private sector</th>
<th>Women</th>
<th>Men</th>
<th>Public sector</th>
<th>Women</th>
<th>Men</th>
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<tbody>
<tr>
<td>Employees (1000), persons aged 16-66, (1)</td>
<td>1 050</td>
<td>1 201</td>
<td>564</td>
<td>938</td>
<td>486</td>
<td>263</td>
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<tr>
<td>Employees (1000), persons aged 25-66 (2)</td>
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<td>Education, (25-66, per cent), (3)</td>
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<tr>
<td>- primary education (ISCED level 0,1)</td>
<td>12.4</td>
<td>9.7</td>
<td>16.8</td>
<td>10.1</td>
<td>8.3</td>
<td>8.8</td>
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<tr>
<td>- secondary education (ISCED level 2,3,4)</td>
<td>54.0</td>
<td>56.3</td>
<td>62.9</td>
<td>63.8</td>
<td>46.0</td>
<td>36.7</td>
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<td>33.7</td>
<td>33.9</td>
<td>20.3</td>
<td>26.1</td>
<td>45.7</td>
<td>54.5</td>
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<td>16</td>
<td>11</td>
<td>12</td>
<td>10</td>
<td>4</td>
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<td>27</td>
<td>14</td>
<td>8</td>
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<tr>
<td>Actual working hours per week (16-66), (3)</td>
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<td>30.7</td>
<td>40.0</td>
<td>31.5</td>
<td>38.0</td>
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</tr>
<tr>
<td>- less than 30 hours per week (per cent)</td>
<td>34</td>
<td>8</td>
<td>35</td>
<td>8</td>
<td>33</td>
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<td></td>
</tr>
<tr>
<td>- less than 20 hours per week (per cent)</td>
<td>19</td>
<td>6</td>
<td>21</td>
<td>6</td>
<td>17</td>
<td>6</td>
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</tr>
<tr>
<td>- 45 hours per week or more (per cent)</td>
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<td>24</td>
<td>8</td>
<td>27</td>
<td>3</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees (16-66), per cent</td>
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<td>9.2</td>
<td>8.4</td>
<td>7.0</td>
<td>16.5</td>
<td>15.1</td>
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<td></td>
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<tr>
<td>- temporary contracts (3)</td>
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<td>54.0</td>
<td>45.1</td>
<td>47.3</td>
<td>80.8</td>
<td>80.7</td>
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<tr>
<td>- members of unions (5A)</td>
<td>--</td>
<td>--</td>
<td>60</td>
<td>60</td>
<td>100</td>
<td>100</td>
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<tr>
<td>- covered by collective agreements (5B)</td>
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<tr>
<td>Wages, all employees</td>
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<td>2024.3</td>
<td>3204.0</td>
<td>2123.6</td>
<td>2994.3</td>
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<td>- average gross earnings per month, Euro (6)</td>
<td>-35</td>
<td>x</td>
<td>-37</td>
<td>x</td>
<td>-29</td>
<td>x</td>
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<tr>
<td>Wages, only full time workers</td>
<td>2551.5</td>
<td>3356.7</td>
<td>2543.4</td>
<td>3394.8</td>
<td>2563.8</td>
<td>3196.9</td>
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<tr>
<td>- average gross earnings per month, Euro (7)</td>
<td>-24</td>
<td>x</td>
<td>-25</td>
<td>x</td>
<td>-20</td>
<td>x</td>
<td></td>
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<tr>
<td>- gender pay gap, per cent (7)</td>
<td>-25</td>
<td>x</td>
<td>-26</td>
<td>x</td>
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<tr>
<td>- adjusted pay gap, per cent (8)</td>
<td>-20</td>
<td>x</td>
<td>-24</td>
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<td>-12</td>
<td>x</td>
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<td>Wages per hour (9)</td>
<td>-15</td>
<td>x</td>
<td>-16</td>
<td>x</td>
<td>-8</td>
<td>x</td>
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<tr>
<td>- gender pay gap, per cent</td>
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<tr>
<td>- adjusted pay gap, per cent</td>
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<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Women</th>
<th>Men</th>
<th>Private sector</th>
<th>Women</th>
<th>Men</th>
<th>Public sector</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees (1000), persons aged 16-66, (1)</td>
<td>902</td>
<td>1092</td>
<td>441</td>
<td>831</td>
<td>461</td>
<td>261</td>
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<tr>
<td>Employees (1000), persons aged 25-66, (1)</td>
<td>755</td>
<td>924</td>
<td>345</td>
<td>713</td>
<td>410</td>
<td>211</td>
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<table>
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<tr>
<th>Education, (25-66, per cent), (2)</th>
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</thead>
<tbody>
<tr>
<td>- primary education (ISCED level 0,1)</td>
<td>32.3</td>
<td>26.4</td>
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<td>29.4</td>
<td>15.4</td>
<td>12.5</td>
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</tr>
<tr>
<td>- secondary education (ISCED level 2,3,4)</td>
<td>49.9</td>
<td>54.1</td>
<td>50.1</td>
<td>56.4</td>
<td>49.2</td>
<td>43.4</td>
<td></td>
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</tr>
<tr>
<td>- tertiary education (ISCED level 5,6)</td>
<td>17.8</td>
<td>19.5</td>
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<td>14.2</td>
<td>35.4</td>
<td>44.0</td>
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</table>

<table>
<thead>
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<th></th>
<th></th>
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</thead>
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<tr>
<td>- Africa, Asia</td>
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<td>11</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>3</td>
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<tr>
<td>- Europe, America, Oceania</td>
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<td>9</td>
<td>19</td>
<td>11</td>
<td>6</td>
<td></td>
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</tr>
<tr>
<td>Actual working hours per week (16-66), (2)</td>
<td>29.6</td>
<td>40.4</td>
<td>29.8</td>
<td>41.4</td>
<td>29.4</td>
<td>37.4</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>- less than 30 hours per week (per cent)</td>
<td>11</td>
<td>33</td>
<td>39</td>
<td>10</td>
<td>41</td>
<td>8</td>
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<tr>
<td>- less than 20 hours per week (per cent)</td>
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<td>6</td>
<td>23</td>
<td>6</td>
<td>23</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 45 hours per week or more (per cent)</td>
<td>6</td>
<td>27</td>
<td>8</td>
<td>32</td>
<td>3</td>
<td>12</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Employees (16-66), per cent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- temporary contracts (2)</td>
<td>8.2</td>
<td>7.8</td>
<td>5.8</td>
<td>5.5</td>
<td>10.4</td>
<td>13.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- members of unions (3)</td>
<td>58.8</td>
<td>55.2</td>
<td>46.5</td>
<td>46.8</td>
<td>77.0</td>
<td>81.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- covered by collective agreements</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages, all employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- average gross earnings per month, Euro (4)</td>
<td>1469.4</td>
<td>2281.4</td>
<td>1454.6</td>
<td>2319.5</td>
<td>1491.5</td>
<td>2164.1</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>- gender pay gap, per cent (4)</td>
<td>-36</td>
<td>x</td>
<td>-37</td>
<td>x</td>
<td>-31</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages, only full time workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- average gross earnings per month, Euro (5)</td>
<td>1828.3</td>
<td>2390.1</td>
<td>1827.0</td>
<td>2431.6</td>
<td>1830.3</td>
<td>2259.8</td>
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</tr>
<tr>
<td>- gender pay gap, per cent (5)</td>
<td>-24</td>
<td>x</td>
<td>-25</td>
<td>x</td>
<td>-19</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- adjusted pay gap, per cent (6)</td>
<td>-24</td>
<td>x</td>
<td>-24</td>
<td>x</td>
<td>-19</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages per hour (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gender pay gap, per cent</td>
<td>-21</td>
<td>x</td>
<td>-24</td>
<td>x</td>
<td>-17</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- adjusted pay gap, per cent</td>
<td>-18</td>
<td>x</td>
<td>-18</td>
<td>x</td>
<td>-14</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources and notes: (1) Labour market statistics 1990. Immigrants are defined as persons resident in Norway, born abroad, with a mother born abroad. (2) Survey of Level of Living 1991. (3) Own calculations from the Register of Employers and Employees, 1991. Union membership defined by paying membership dues through employers. (4) Own calculations from the Register of Employers and Employees 1991. (5) Own calculations from the Register of Employers and Employees 1991. Gender specific pay gap is calculated for employees with more than 30 hours, but is not adjusted for variations in hours above this level. (6) Adjusted wage gap estimated for 30+ hrs employees with control for experience, seniority and years of education. (7) Own calculations based on Survey of Level of Living 1991. Adjusted wage gap estimated with control for working hours, experience, seniority and years of education.
Table 5. Gender wage gap. Average hourly wage differences in per cent of average male wage rate. Private and public sector, 1980-2000

<table>
<thead>
<tr>
<th>Sector/Year</th>
<th>Gender wage gap</th>
<th>Full-timers</th>
<th>Adjusted wage gap</th>
<th>gender wage gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>-25</td>
<td>-25</td>
<td>-21</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>-21</td>
<td>-20</td>
<td>-16</td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>-22</td>
<td>-20</td>
<td>-15</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>-21</td>
<td>-20</td>
<td>-15</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>-20</td>
<td>-17</td>
<td>-13</td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>-20</td>
<td>-22</td>
<td>-14</td>
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<tr>
<td>1983</td>
<td>-12</td>
<td>-15</td>
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<td></td>
</tr>
<tr>
<td>1987</td>
<td>-16</td>
<td>-17</td>
<td>-12</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>-16</td>
<td>-15</td>
<td>-12</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>-16</td>
<td>-16</td>
<td>-13</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>-13</td>
<td>-12</td>
<td>-8</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Own calculations based on Survey of Level of Living 1980-2000 (Statistics Norway).
Notes: The gender pay gap indicates the percentage differences between male and female hourly wages - at average. As can be seen the differences for full-time employees are smaller than the differences for all employees. The wage gap is smaller in public sector than in private sector. The trend indicates a decreasing wage gap in both sectors. The adjusted wage gap indicates the percentage differences between male and female hourly wages conditional on working hours (full-time vs. part-time) and year of education, experience and experience squared.


<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue collar workers (NHO)</td>
<td>89.7</td>
<td>90.3</td>
<td>90.5</td>
<td>90.6</td>
<td>90.9</td>
<td>88.4</td>
<td>--</td>
</tr>
<tr>
<td>Retail trade</td>
<td>78.9</td>
<td>79.9</td>
<td>81.4</td>
<td>82.4</td>
<td>80.2*</td>
<td>80.6*</td>
<td>0.34</td>
</tr>
<tr>
<td>Banking</td>
<td>81.4</td>
<td>83.3</td>
<td>84.0</td>
<td>83.5</td>
<td>75.6*</td>
<td>76.7*</td>
<td>0.47</td>
</tr>
<tr>
<td>Central government</td>
<td>84.8</td>
<td>87.0</td>
<td>88.3</td>
<td>89.7</td>
<td>89.0</td>
<td>89.1</td>
<td>0.37</td>
</tr>
<tr>
<td>Education</td>
<td>89.6</td>
<td>90.7</td>
<td>92.5</td>
<td>94.6</td>
<td>93.7</td>
<td>94.0</td>
<td>0.56</td>
</tr>
<tr>
<td>Local government</td>
<td>86.6</td>
<td>87.7</td>
<td>88.4</td>
<td>89.3</td>
<td>88.0</td>
<td>87.6</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Note: Based on information reported by the employer. Figures are corrected for working hours. Payment for extra hours (overtime) is not included. Otherwise all kinds of payment are included. Figures marked * include wage statistics for positions in management. Source: Statistics Norway and the Technical Reporting Committee on the Income Settlement; see Tables 3.13 and 3.14 in NOU 2002:5 and Table 3.13 in NOU 2002:X (unpublished version, June 25th, 2002).
Figure 1. Gender pay gap 1980-2000. Difference in average gross wage rates per hour for men and women in per cent of average male wage rates. Adjusted wage gap: gender pay gap conditional on human capital variables.

Notes: See Table 5.

Table 7. Relative wages of women by level of education. Average earnings of women compared with men. Per cent, 1999. Full time employees

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Wage gap</th>
<th>Rate of women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school</td>
<td>87.0</td>
<td>0.32</td>
</tr>
<tr>
<td>Secondary school</td>
<td>85.8</td>
<td>0.34</td>
</tr>
<tr>
<td>University &amp; college (1-4 years)</td>
<td>78.3</td>
<td>0.52</td>
</tr>
<tr>
<td>University &amp; college (5 years +)</td>
<td>80.7</td>
<td>0.27</td>
</tr>
<tr>
<td>Average of all</td>
<td>85.2</td>
<td>0.38</td>
</tr>
</tbody>
</table>

Note: All sectors and industries included except: Farming, fishing, hotels and restaurants, and the city of Oslo. Based on information on monthly earnings (October) reported by the employer. Figures are corrected for working hours. Payment for extra hours (overtime) is not included. Otherwise all kinds of payment are included. Source: Statistics Norway and the Technical Reporting Committee on the Income Settlement, see Table 3.16 in NOU 2002:5 (revised version, March 20th, 2002) and Table 3.14 in NOU 2002:X (unpublished version, June 25th, 2002).
3. Three selected occupations

3.0 Introduction and definitions

In order to make comparisons of pay systems and gender pay gap – both at the national and the at the European level - three specific occupations were chosen: Fish processing workers, secondary school teachers and chartered (civil) engineers. Below these groups are defined more carefully.

Secondary school teachers
The first occupation to be studied, is teachers, or more precisely, secondary education teaching professionals (defined as close as possible in line with code 232 in the ISCO-88 COM). This occupation was chosen to represent female-dominated profession in public sector.

Fish processing workers
The second occupation is workers in the fish processing industry. (In partner countries without a fish processing industry, the selected occupation is workers in the food processing industry). This occupation was chosen to represent manual workers, within a low-wage industry, and with relatively many workers of foreign origin, either resident immigrants, or guest workers on temporary contracts.

Chartered (civil) engineers
The last occupation to be studied, is engineers with a full university degree, i.e. engineering professionals, working in various businesses, in both private and public sector (as close as possible to code 21 in ISCO-88 COM).

In Norway there are two kinds of engineers, (a) engineers and technicians with 3 years of training at a polytechnic college, and (b) chartered engineers with a full academic degree, i.e. 4-5 years of training at university level. In the case study we focus on the last, chartered (civil) engineers. This occupation was chosen to represent a male-dominated, highly qualified profession.

Manufacturing workers /employees in manufacturing industry
As a basis for comparison we use some key figures for workers in the manufacturing industry. Unfortunately, wage statistics for a specific occupation as blue-collar workers in manufacturing industry (NACE-D, ISCO-88 COM 932) is not available. Thus we present figures for all employees in manufacturing industry. The gender wage gap is estimated for employees with secondary school or less education.
Table 8. Employees in manufacturing industry, key figures 1990 and 2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees, 1000 (per cent), persons aged 16-66, (1)</td>
<td>79 (26%)</td>
<td>222</td>
<td>72 (27%)</td>
<td>195</td>
</tr>
<tr>
<td>Employees, 1000 (per cent), persons aged 25-64, (1)</td>
<td>64 (25%)</td>
<td>189</td>
<td>62 (27%)</td>
<td>170</td>
</tr>
<tr>
<td>Immigrants, per cent of employees (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- from Africa, Asia</td>
<td>1.6</td>
<td>1.9</td>
<td>3.3</td>
<td>2.5</td>
</tr>
<tr>
<td>- from Europe, America, Oceania</td>
<td>3.7</td>
<td>4.5</td>
<td>4.8</td>
<td>5.6</td>
</tr>
<tr>
<td>Actual working hours per week (16-66), (3)</td>
<td>32.2</td>
<td>40.6</td>
<td>32.1</td>
<td>39.1</td>
</tr>
<tr>
<td>- less than 30 hours per week (per cent)</td>
<td>18.6</td>
<td>11.8</td>
<td>15.2</td>
<td>16.1</td>
</tr>
<tr>
<td>- less than 20 hours per week (per cent)</td>
<td>13.7</td>
<td>9.9</td>
<td>9.5</td>
<td>10.3</td>
</tr>
<tr>
<td>- 45 hours per week or more (per cent)</td>
<td>46.7</td>
<td>53.2</td>
<td>46.4</td>
<td>50.4</td>
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<tr>
<td>Employees (16-66) per cent, (3)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- temporary contracts (3)</td>
<td>6.2</td>
<td>5.8</td>
<td>5.8</td>
<td>7.5</td>
</tr>
<tr>
<td>- members of unions (4)</td>
<td>56.3</td>
<td>65.9</td>
<td>56.7</td>
<td>65.2</td>
</tr>
<tr>
<td>- covered by collective agreements</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Wages, all employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- average gross wage rate per month, Euro (5)</td>
<td>1550.5</td>
<td>2273.7</td>
<td>2201.8</td>
<td>3205.5</td>
</tr>
<tr>
<td>- gender pay gap, per cent (5)</td>
<td>-32</td>
<td>x</td>
<td>-31</td>
<td>x</td>
</tr>
<tr>
<td>Wages, only full time workers,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- average gross earnings per month, Euro (6)</td>
<td>1770.3</td>
<td>2312.7</td>
<td>2542.6</td>
<td>3273.9</td>
</tr>
<tr>
<td>- gender pay gap, per cent (6)</td>
<td>-23</td>
<td>x</td>
<td>-22</td>
<td>x</td>
</tr>
<tr>
<td>- adjusted pay gap, per cent (7)</td>
<td>-22</td>
<td>x</td>
<td>-23</td>
<td>x</td>
</tr>
<tr>
<td>Wages per hour (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gender pay gap, per cent</td>
<td>-24</td>
<td>x</td>
<td>-11</td>
<td>x</td>
</tr>
<tr>
<td>- adjusted pay gap, per cent</td>
<td>-15</td>
<td>x</td>
<td>-9</td>
<td>x</td>
</tr>
</tbody>
</table>

Sources: (1) Based on Labour Force Survey 1990, 1997 and 2000. (2) Based on Labour Force Survey 1990, 1997. Immigrants are defined as persons resident in Norway, born abroad, with a mother born abroad. (3) Based on Survey of Level of Living 1991, 1995, 2000. (4) Own calculations from the Register of Employers and Employees, 1991. Union membership defined by paying union dues through the employer. (5) Own calculations from the Register of Employers and Employees 1991. (6) Own calculations from the Register of Employers and Employees 1991. Gender specific pay gap is calculated for employees with more than 30 hours per week, but is not adjusted for variations in hours above this level. (7) Adjuster pay gap is estimated for 30+ hrs employees with upper secondary school or less (as an attempt to identity typical blue-collar workers), with control for experience, seniority and years of education. Note that controlling for 14 different industry-categories does not affect the results in any large degree. (8) Own calculations based on Survey of Level of Living 1991 and 2000. Adjusted pay gap estimated for employees with secondary school or less, with control for working hours, experience, seniority and years of education.
As can be seen from Table 8 the number of employees in manufacturing industry is decreasing – from about 301,000 employees in 1990 to 267,000 in 2000 – i.e. from about 15 to 12 per cent of all employees. Compared with the rest of the labour market, there are fewer women but more immigrants among employees in manufacturing industry.

The estimated gender pay gap (controlling for working hours) is decreasing from 24 in 1991 to 11 per cent in 2000. The figure for 2000 is less than the average for the whole private sector (Table 5) and in line with the gender pay gap for blue collar workers based on statistics from the employers presented in Table 6. The adjusted pay gap (controlling for human capital as well) decreases from 15 per cent in 1991 to 9 per cent in 2000. The figure for 2000 is less than the average for the whole private sector (Table 5).

3.1 Teaching associate professionals

In 2000, about 18,000 teachers were employed in secondary schools in Norway.¹ This constitutes less than 1 per cent of total employment and 15 per cent of all teachers (below university level). Tables 9 and 10 give some summary statistics for this group.

Employment and bargaining institutions.
Almost all secondary schools in Norway are public, owned and run by the local county administration. (There are 19 counties in Norway.) Thus we concentrate on employment and wage bargaining in the public sector. Below, presenting the workplace study, we also give some evidence on the bargaining framework in private sector schools.

88 per cent of the Norwegian teachers are unionised, almost all of which are members of the Union of Teachers (Utdanningsforbundet), organising in total 130,000 teachers spread from kindergartens, primary schools, secondary schools to colleges and universities. The union is affiliated to (and the largest partner of) the Confederation of Professionals (Utdanningsgruppens Hovedorganisasjon). In addition to this union, there is a smaller one within LO, the Norwegian Union of School Employees (Skolenes Landsforbund).

Collective agreements apply to all teachers in the public sector, regardless of union membership. Even though the county (the local government) owns the secondary schools, and the county is thus the employer of the teachers, the central government is the main counterpart of the teacher’s unions when it comes to collective agreements on wages and working conditions.

The bargaining system is a three tier system:

1. Central agreements between the national unions and central government on general issues concerning wages (with the Ministry of Labour and Government Administration as a counterpart) and working conditions (with the Ministry of Education and Research as a counterpart). Any agreement on a general wage increase is almost always in absolute terms (kroner). Strike is a possible outcome during this first step bargaining.

2. Central agreements between the national unions and the central government on wage conditions for special groups, for instance teachers in secondary school. These agreements are either in absolute or relative terms (kroner or per cent).

3. "Local" bargaining at the national level between the national unions and the Ministry of Education. After 2000 "preliminary bargaining" is conducted at the county level (the owner of the school and the employer) before the bargaining at the national level. This opens up for some

¹ See Tables 9 and 10. Figures reported from own calculations below are based on employees with more than 4 years of completed education after high school, working in industry 80.2 (Secondary schools) according to the NACE-V classification.
really local adjustments of the wage system, but national level partners act as "referees" in case of a local conflict.

"Peace clause" ensures that strikes are allowed only in step 1. Only a small fraction of the bargained wage increase has been allocated to step 3. Note that until recently step 3 was also at the national level. This means that the bargaining system in effect is completely centralised, particularly before 2000 when "preliminary bargaining" was introduced. As we discuss below, there are recent developments in the direction of a more decentralised wage setting framework. This development is, however, only in the making.

For teachers there is only a limited scope for individual pay. All are placed in the wage grid based on position (teacher, head master, inspector etc), qualification (years of education) and seniority. Within the grid the possible individual variation is limited – and at many schools not used at all. The additions used are mainly those compensating for particular tasks - on average less than 1 per cent of total wage bill.

Recent changes and debates over the bargaining system

There is a thrust towards decentralisation of authority within the school system. More authority is transferred to county levels and individual schools. Schools are now able to allocate freely a larger part of their own budgets. This development also involves personnel policy and there is a movement of bargaining authority down to the county level and even to individual schools and head masters.

Teachers' unions have vigorously opposed this, and have only since very recently been willing even to discuss the content of local bargaining schemes. They strongly favour equal pay across the nation and are not willing to compete locally for limited local budgets. The unions regard the central government as a better counterpart than local government. Since 2001, a larger role is given to bargaining at the county level. Presently, principles of individual pay are debated, and several counties experiment with individual pay increments in 2002.

The gender issues

Since pay is attached almost completely to qualifications, seniority and position and there are only a few steps on the hierarchical ladder, there is not much scope for adjusted wage differences (i.e. a gender wage gap controlling for relevant human capital indicators) between men and women. Still there is a small wage gap, of about 4 per cent for full time employees in 2000. And the estimated wage gap for full time workers (30+) with the same age and seniority is about 8 per cent (see Table 9). This latter figure, is to some extent a result of differences in working time between teachers who work more than 30 hours a week. Remaining wage differences are due to differences in fringe benefits as well as gender segregation across positions within the school system. The gender pay gap is consistently decreasing within the teaching profession.

In the present debate over bargaining system and local autonomy, there is some fear that local and individual pay implies higher gender pay gap. In particular, some of the fields that are scarce for the moment, like IT and math, are male dominated fields. (Furthermore, there is a worry that men are more active in promoting own pay.) However, experiences with decentralisation from other parts of the state sector, have not proven to disfavour women (Schöne 2002a). Quite on the contrary, women seem to have improved their relative position concurrently with the reforms. Till now only a small part of the total wage increase has been allocated at the local level. In addition the central agreements in public sector often includes guidelines on how the local wage increments are to be distributed. Women and female dominated positions are often given priority in these guidelines.
<table>
<thead>
<tr>
<th>Category</th>
<th>All</th>
<th>Women</th>
<th>Men</th>
<th>Private sector</th>
<th>Women</th>
<th>Men</th>
<th>Public sector</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment, persons aged 16-66 (1)</td>
<td>9000</td>
<td>9000</td>
<td>11.6%</td>
<td>11.5%</td>
<td>88.4%</td>
<td>88.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working time, average</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Usual/contracted working hours</td>
<td>37.5 h</td>
<td>37.5 h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- Actual working hours per week (1)</td>
<td>31.5 h</td>
<td>37.1 h</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>- less than 30 hours (per cent) (2)</td>
<td>22.6</td>
<td>14.0</td>
<td>31.9</td>
<td>18.0</td>
<td>24.6</td>
<td>13.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- less than 20 hours (per cent) (2)</td>
<td>15.0</td>
<td>7.6</td>
<td>15.1</td>
<td>10.8</td>
<td>9.9</td>
<td>7.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members of unions (per cent) (3)</td>
<td>88</td>
<td>87</td>
<td>71</td>
<td>72</td>
<td>89</td>
<td>89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- covered by collective agreements</td>
<td>95+</td>
<td>95+</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wages - only full time workers (4)</td>
<td>3351</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3270</td>
<td>3400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- average monthly earnings, Euro (4)</td>
<td>3181</td>
<td>3305</td>
<td></td>
<td></td>
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<tr>
<td>- gender pay gap 1, per cent (5)</td>
<td></td>
<td></td>
<td></td>
<td>-4</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gender pay gap 2, per cent (6)</td>
<td>-11</td>
<td>x</td>
<td>-15</td>
<td>x</td>
<td>-11</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- adjusted wage gap, per cent (7)</td>
<td>-8</td>
<td>x</td>
<td>-10</td>
<td>x</td>
<td>-8</td>
<td>x</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>- adjusted wage gap, per cent (8)</td>
<td>-6</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Notes: (1) Labour force survey 2000. Per cent private/public. Own calculations based on the Register of Employers and Employees, 1997. (2) Labour force survey 2000, teachers all levels. (3) Own calculations from the Register of Employers and Employees, 1997. (4) Own calculations from the Register of Employers and Employees 1997. Union membership defined by paying membership dues through employers. (4) Wage statistics, 2000. Gender specific pay is a weighted (common weights) average of “lektorer” and “adjukter med opprykk” in all sectors. (5) Average monthly pay, full time workers, from the Register of State Employees, Teachers in Secondary Schools. (6) Own calculations from the Register of Employers and Employees 1997. Gender specific pay gap calculated for employees with more than 30 hours per week, but not adjusted for variations in hours above this level. The figures are thus not comparable to the average, which is full-time pay based on standard hours. (7) Adjusted wage gap estimated for employees with 30+ hrs per week, with control for experience, seniority and years of education. (8) Own calculations from the Level of living survey 1995 and 2000. Secondary school teachers (52 observations only), with control for experience, seniority, education and part-time work.
Table 10. Teaching associate professionals, key figures 1990

<table>
<thead>
<tr>
<th></th>
<th>All Women</th>
<th>All Men</th>
<th>Private sector Women</th>
<th>Private sector Men</th>
<th>Public sector Women</th>
<th>Public sector Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment, persons aged 16-64 (1)</td>
<td>12000</td>
<td>11000</td>
<td>10.6 %</td>
<td>10.9 %</td>
<td>89.4 %</td>
<td>89.1 %</td>
</tr>
<tr>
<td>Actual working hours per week (1)</td>
<td>31.5 h</td>
<td>37.1 h</td>
<td>31.0 %</td>
<td>14.1 %</td>
<td>36.6 %</td>
<td>21.0 %</td>
</tr>
<tr>
<td>- less than 30 hours p w (per cent) (3)</td>
<td>12.6</td>
<td>8.3</td>
<td>15.4 %</td>
<td>13.9 %</td>
<td>12.4 %</td>
<td>7.7 %</td>
</tr>
<tr>
<td>Members of unions, per cent (3)</td>
<td>91.2</td>
<td>89.5</td>
<td>81.3 %</td>
<td>73.6 %</td>
<td>92.2 %</td>
<td>91.0 %</td>
</tr>
<tr>
<td>- covered by collective agreements</td>
<td>95 +</td>
<td>95 +</td>
<td>100 %</td>
<td>100 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages, full time employees</td>
<td>2370</td>
<td></td>
<td>2237</td>
<td>2424</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- average monthly earnings, Euro (4)</td>
<td></td>
<td></td>
<td>2237</td>
<td>2424</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gender pay gap, per cent (5)</td>
<td>-14</td>
<td>x</td>
<td>-17</td>
<td>x</td>
<td>-14</td>
<td>x</td>
</tr>
<tr>
<td>- adjusted wage gap, per cent (6)</td>
<td>-11</td>
<td>x</td>
<td>-11</td>
<td>x</td>
<td>-11</td>
<td>x</td>
</tr>
</tbody>
</table>

Notes: (1) Labour force statistics, 1990. Per cent private/public: Own calculations based on the Register of Employer and Employees, 1990. (2) Labour force statistics, 1990, teachers all levels. (3) Own calculations from the Register of Employer and Employees, 1990. (3) Own calculations from the register of employer and employees 1991. Union membership defined by paying membership dues through employers. (4) Wage statistics, 1990. Gender specific pay is a weighted (common weights) average of “lektor” and “adjunkt med opprykk” in all sectors. (5) Own calculations from the register of employer and employees 1990. Gender specific pay gap is calculated for employees with more than 30 hours, but is not adjusted for variations in hours above this level. The figures are thus not comparable to the average, which is full-time pay based on standard hours. (6) Adjusted wage gap estimated for 30+ hrs employees with control for experience, seniority and years of education.

3.2 Fish processing workers

In 2000, about 14,000 blue-collar workers were employed in the fish process industry in Norway. This constitutes about 0.6 per cent of total employment and slightly less than 5 per cent of all blue-collar workers in Norway. Of this group, approximately one third are skilled workers, with formal training at secondary school level as fish (or food) processing assemblers or machine operators. Table 11 gives some summary statistics for this group.

The fish processing industry includes mostly rather small firms and establishments. Still, in many less densely populated areas in the north of Norway, the local fish producer may play a dominant role in the local labour market.

The fish processing industry is a highly volatile industry, with ups and downs determined by the supply of fresh fish. In good times, the industry has been known to employ many immigrant workers, for instance Finnish workers in the 60's and Tamil workers in the 80's. During downturns, the industry uses temporary lay-offs.

Employment and bargaining institutions
The union membership rate is about 48 per cent for this group (see Table 9). The dominating union is the Norwegian Union of Food and Allied Workers, which is affiliated to the Norwegian Confederation of Trade Unions (LO). Their counterpart is National Organisation of Employers.

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2 Figures reported from own calculations below are based on employees with highest completed level of education at high school level or less, employed in the Fish processing industry according to the NACE-V classification.
within Fishery and Fish Farming (Fiskeri- og havbruksnæringens landsforening) which is affiliated to the Confederation of Norwegian Business and Industry (NHO).

Collective agreements apply for almost all workers, regardless of union membership. The bargaining system is a two-tier system:

1. Central agreements between the national union in LO and their counterpart in NHO. This agreement involves working conditions as well as a general wage increase, almost always in absolute terms (kroner). Agreement in terms of levels or "tariffs" which then constitute a minimum wage for the subsequent local bargaining rounds. At present skilled workers receive an additional 5-6 Norwegian kroner (0.7-0.8 Euro) per hour on top of the agreed tariffs. Strike is a possible outcome during this first step bargaining.

   Twice the last decade (in 1990 and 2000) the agreements have been based on national agreements across all sectors, completely centralised agreements, while the norm has been sector specific agreements. In sector specific bargaining, there is a high level of co-ordination, with the first rounds of bargaining setting the stage for the subsequent bargains. The metal industry generally bargains first, being internationally competitive, followed by the others. Within food processing industries, breweries normally bargain first, setting the stage for this particular sector. There are at least 20 years since the last strike in the fish processing industry. The union aims for a highest possible wage increase centrally, since they do not expect to obtain much at the local level.

2. Local agreements at the firm or establishment level between the local employer and union. This mainly concerns a potential wage increment and local adjustments of compensating wage add-ons. Local increments have been rare and small in this sector over the last 10-15 years. Some employers give more than the national frame in good times or in times where labour is scarce.

"Peace clause" ensures that strikes are allowed only in step 1. Only a small fraction of the bargained wage increase has been allocated to step 2 in this sector. This means that the bargaining system in effect is fairly centralised, at least in terms of the minimum wage. In local bargaining, a work-to-rule practice is invoked in case of a conflict. Non-union members work more or less under the exact same conditions as union members.

A large fraction of the workers in this industry have piece-rate contracts. The tariff rate is agreed upon in the central bargaining rounds, while the outcome in terms of hourly pay is of course a matter of efforts and skills. Also there are compensating add-ons that accrue to workers, for instance for the cold conditions in the freezers or for workers driving trucks. Since 1996 there is a minimum hourly wage, regardless of effort. In particular, some of the dock workers (bryggearbeidere) work on contracts of individual pay according to effort when large shipments are to be handled at more or less odd hours.

Gender issues
Work is highly gender segregated in this industry. Women work on the line, processing the fish, while men work on the key, drive trucks, handle the stocks and work with the freezing process. The overall gender pay gap is large. The average wage of full time working women (30+) is more than 30 per cent lower than the average wage of full time working men. This is partly due to differences in working hours, as men work more extra hours than women, and partly due to differences in jobs and tasks performed by men and women. See the workplace study reported in section 4, for more details.
Table 11. Fish and food processing workers, key figures 2000 and 1990

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th></th>
<th>1990</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td><strong>Food processing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment, persons aged 16-66 (1)</td>
<td>24000</td>
<td>36000</td>
<td>19000</td>
<td>31000</td>
</tr>
<tr>
<td><strong>Fishing industry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment, persons aged 16-66 (2)</td>
<td>5700</td>
<td>8200</td>
<td>5700</td>
<td>6300</td>
</tr>
<tr>
<td>Actual working hours per week (1)</td>
<td>32.6 h</td>
<td>38.7 h</td>
<td>31.8 h</td>
<td>39.6 h</td>
</tr>
<tr>
<td>- less than 30 hours (per cent) (2)</td>
<td>23.1</td>
<td>9.2</td>
<td>26.3</td>
<td>6.3</td>
</tr>
<tr>
<td>- less than 20 hours (per cent) (2)</td>
<td>9.4</td>
<td>4.6</td>
<td>8.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Members of unions (3)</td>
<td>53.4</td>
<td>43.7</td>
<td>51.2</td>
<td>37.5</td>
</tr>
<tr>
<td>Covered by collective agreements</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Wages – monthly earnings, Euro)</td>
<td>2438</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gender pay gap, per cent (4)</td>
<td>-34</td>
<td>x</td>
<td>-37</td>
<td>x</td>
</tr>
<tr>
<td>- adjusted wage gap, per cent (5)</td>
<td>-32</td>
<td>x</td>
<td>-35</td>
<td>x</td>
</tr>
<tr>
<td>- adjusted wage gap, per cent (6)</td>
<td>-15</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### 3.3 Engineering professionals

In 1997 there were about 35,000 engineering professionals employed in Norway.\(^3\) This constitutes 1.6 per cent of the employed and 18 per cent of all employed white-collar professionals in Norway\(^4\). Most engineering professionals work in the private sector (about 73 per cent), but there is also a considerable number working in the public sector. Tables 12 and 13 give some summary statistics for this group.

We do not have exact numbers on what fraction of the engineering professionals that are organised. The most important union for this profession is the **Norwegian Society of Chartered Engineers** (Norske Sivilingeniørers Forening, NIF), which is an independent union not affiliated with any confederation. This union has about 29,000 employed members, of which about 22,000 are engineers as defined in this report (reported by NIF, 2002).

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\(^3\) Figures reported from own calculations from the registers of employers and employees. Figures include wage earners with educational code (ISCO 88) 21.

College engineers are organised in the *Norwegian Organisation of Technicians and Engineers* (NITO), which has almost 40,000 members.

According to the figures in Table 12 about 67 per cent of the chartered engineers are members of a union in 1997.\(^5\)

**Employment and bargaining institutions**

The bargaining system in the public sector follows more or less directly the bargaining systems described for these sectors in section 2.2. First there is a central bargaining over general wage increments, next there is a central bargaining over national adjustments of relative wages and third there is local bargaining. The system in the public sector is highly centralised, but with a shift in weight towards the local level over the last decade, partly due to more large public co-operations being included in the NAVO-agreement area (see section 2.4).

Professionals within the public sector are in the forefront of using the options of "individual direct wage placement" into the wage grid (which is done on the local level) rather than the automatic placing according to education, seniority and position. About 74 per cent of the engineers in the public sector are unionised, and the collective agreement applies to all (with the exception of a very small group of top executives).

The process of employment, promotions etc. gives some leverage in terms of the payments of this group, even within the highly stylised system of pay. Still it seems clear that – among engineers - the public sector employees have been the losers in terms of wages (as is the case for most highly educated personnel in the public sector over the last 20 years).

The engineers, together with most large groups of professionals, want the largest part of the wage increments to be agreed upon locally. They are few in numbers, and generally have a good market position (good options in the private sector) and feels that the large central agreements, that most often have a wage compressing effect, are a hindrance for their own possibilities of obtaining higher pay.

Consider next the private sector. The bargaining system is a two-tier system:

1. Central agreements between the Norwegian Society of Chartered Engineers (NIF) and the Confederation of Norwegian Business and Industry (NHO). This agreement involves working conditions as well as a general wage increase, almost always in absolute terms (kroner). Strike is a possible outcome during this first step bargaining. The engineers' union favours that the larger part of the wage increase is agreed locally, rather than centrally, for the same reasons as in the public sector.

2. Local bargaining at the firm or establishment level. Here a framework is agreed upon in terms of per cent of the wage bill. Local pay negotiations are held every year for about 300 workplace groups of engineers. A "peace clause" ensures that strikes are allowed only in step 1. In case of a conflict, the national partners mediate.

Then the local employer dishes out the agreed amount according their own judgement or the plant's system of pay. This means that there is a high leverage for different outcomes across establishments, as well as between employees within the same plant.

Non-unionised employees are not necessarily paid according to the collective contract. Individual pay is very common among engineers. In several small engineering firms, co-ownership is also common, as in many similar professions.

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\(^5\) In this figure, membership is defined only for those who pay their dues through the employer (which is common practice in Norway, partly because union dues are tax deductible)
<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Private sector</th>
<th>Central government</th>
<th>Local government</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wom</td>
<td>Men</td>
<td>Wom</td>
<td>Men</td>
</tr>
<tr>
<td>Employment, persons aged 16-66 (1)</td>
<td>5700</td>
<td>29300</td>
<td>3500</td>
<td>22000</td>
</tr>
<tr>
<td>Actual working hours per week (per cent) (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- less than 30 hours</td>
<td>8.2</td>
<td>3.0</td>
<td>5.9</td>
<td>2.7</td>
</tr>
<tr>
<td>- less than 20 hours</td>
<td>3.7</td>
<td>2.0</td>
<td>2.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Members of unions (per cent) (2)</td>
<td>68</td>
<td>66</td>
<td>67</td>
<td>62</td>
</tr>
<tr>
<td>Covered by collective agreements</td>
<td>--</td>
<td>--</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Wages – average wage rate, Euro</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gender pay gap, per cent (3)</td>
<td>-21</td>
<td>x</td>
<td>-22</td>
<td>x</td>
</tr>
<tr>
<td>Wages – only full time workers</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- adjusted wage gap, per cent (4)</td>
<td>-16</td>
<td>x</td>
<td>-13</td>
<td>x</td>
</tr>
<tr>
<td>- adjusted wage gap, per cent (5)</td>
<td>-16</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: (1) Own calculations from the register of employer and employees, 1997. Covers wage earners with educational code ISCED 88 - 21. (2) Own calculations from the register of employer and employees, 1997. Per cent of wage earners in ISCED 88 class 21 who pay union dues through employer. (3) Own calculations from the Register of employer and employees, 1997. Average gender pay gap based on weekly pay of full time (30+) employees. (4) Own calculations from the Register of Employers and Employees 1997 with control for years of education, experience and seniority for full time (30+) employees. (5) Own calculations on Survey of level of living 1995, 2000 with control for working hours, education, experience, seniority and public sector. Only 85 observations.
Table 13. Engineering professionals, key figures 1990

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Private sector</th>
<th>Central government</th>
<th>Local government</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wom</td>
<td>Men</td>
<td>Wom</td>
<td>Men</td>
</tr>
<tr>
<td>Employment, persons aged 16-66 (1)</td>
<td>3600</td>
<td>26300</td>
<td>2100</td>
<td>18300</td>
</tr>
<tr>
<td>Actual working hours per week (per cent) (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- less than 30 hours</td>
<td>9.7</td>
<td>3.0</td>
<td>9.2</td>
<td>2.9</td>
</tr>
<tr>
<td>- less than 20 hours</td>
<td>4.0</td>
<td>1.7</td>
<td>4.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Members of unions (per cent) (2)</td>
<td>34</td>
<td>27</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Covered by collective agreements</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages – average wage rate, Euro</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gender pay gap, per cent (3)</td>
<td>-24</td>
<td>x</td>
<td>-26</td>
<td>x</td>
</tr>
<tr>
<td>Wages – only full time workers</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- adjusted wage gap, per cent (4)</td>
<td>-13</td>
<td>x</td>
<td>-15</td>
<td>x</td>
</tr>
</tbody>
</table>

Sources: (1) Own calculations from the Register of employers and employees, 1990. Educational code 21 (ISCED 88). (2) Own calculations from the Register of employer and employees, 1991. Employees paying union dues through employer. (3) Own calculations from the Register of employers and employees, 1990. Gender pay gap for of full time employees (30+). (4) Own calculations from the Register of employers and employees, 1990 with control for years of education, experience and seniority (full time employees, 30+ hours).

Gender pay gap, segregation and gender issues

Consider first gender differences in pay. In 1990 the average weekly pay of women was 75 per cent of average weekly pay of men. In 1997 this figure increased to 78 per cent (Tables 12 and 13). The difference between men and women was smallest in the state sector, where average weekly pay of women was 90 per cent of that of men's in 1997. In 1997, once we control for experience and seniority as well, the weekly, adjusted wage gap for full time employees (30+hours) was between 5 and 7 per cent in the public sector and about 13 per cent in the private sector.

A study conducted by the Norwegian Society of Chartered Engineers (NIF) in 1999 found that average full time earnings of women was 5,4 per cent lower than that of men in the private sector. In the state sector, the difference was 4,3 per cent while in the municipality sector, the difference was 5 per cent. (Report, NIF, January 2000). Figures for 2000 do not seem to vary much from this pattern. There seems to be three factors behind the earnings differences, one is age, women are still considerably younger in this profession, another is job and field segregation, and the third is related to working time and time out of the labour force.

Engineering professionals is a male dominated profession. Only one out of every five engineer is a woman. However, the female per cent is increasing over time, and presently, almost 30 per cent of the students that are members of NIF are women. Even within the profession there is a clear pattern of gender segregation. There is segregation across fields. While only about 10 per cent of Electro and Telecommunications engineers are women, more than 50 per cent of the Biology engineers are women. Again, among students the female figures are higher, with close to
20 per cent of the Electro-engineering students being female and almost 70 per cent of the Biology engineers students being female.

In Table 14, which is taken from NIF's report on gender differences from 1999, we find that women are underrepresented in the higher levels of the hierarchy. It is not clear how much of this under-representation is due to the lower percentage of women of higher age. For example, in 2002, only 5.4 (private) and 6.9 (state) per cent of engineers in the age group 50-54 were women.

Table 14. Job segregation according to responsibility. Women’s share of positions held by NIF-members 1999. Per cent

<table>
<thead>
<tr>
<th>Level of responsibility</th>
<th>Private sector</th>
<th>Central government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top manager (&gt;50 subordinates)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Middle-manger (&lt;50 subordinates)</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td>Group leader</td>
<td>18</td>
<td>34</td>
</tr>
<tr>
<td>All engineers</td>
<td>22</td>
<td>35</td>
</tr>
</tbody>
</table>

The policy of NIF towards gender equality is focused on working time, flexibility and compensation for paid leave. The first two issues on the gender agenda are:

1. To work for a 40 hours week
2. To work for increased flexibility for their members with respect to when, where and how much to work

The background for the 40 hours target may seem strange considering the standard working time of 37.5 hours per week in Norway (see section 2 above). However, most engineers work much more than standard hours, and the line between work and non-work time is getting more and more blurred. This development is viewed as a disadvantage for gender equality.
4. The workplace study

The purpose of the workplace study is to investigate the wage formation at the local level. The key objective is to exemplify mechanisms and procedures that generate gender specific differences in wage rates and annual earnings. At each workplace studied, we focus on the following issues:

- The organisation of the internal labour market; first of all the vertical hierarchy at the workplace, but also to some extent the horizontal division of labour
- Employment contracts and work hours
- Training and educational activity
- Interaction with external labour markets; recruitment and turnover
- The bargaining system and individual wage negotiations

In relation to all these issues we try to uncover mechanisms that may create average differences in wage rates and in annual earnings between men and women in the three occupations.

The study covers six workplaces (cases), two for each of the selected occupation. The workplaces are selected to be typical for the occupations. For each case we have interviewed one representative for the employer (the management) and two representatives for the employees within the selected occupation. The employer’s representative was also asked to fill in a questionnaire, asking for some hard-facts information about the workplace. With regard to the employees’ representatives we have tried to find one male and one female. One of these should preferably have a formal relation to the local union. In five of the cases the interviews were carried out face to face. Due to practical reasons, the interviews were done by telephone in the last case.

In the report, which follows below, we try to express the joint pictures of the workplaces outlined by the three interviewees, in each case. When they disagree in their description or one of the interviewees makes a particular point this is emphasised.

4.1 The public and the private school

Interviews with the teachers and the headmasters were carried out in two secondary schools, both located in relatively big cities – in the Norwegian context. School A is a public school, owned and run by the local county administration. School B is a private, joint stock, company. Private secondary schools are quite uncommon in Norway. In the public schools wages and employment conditions are almost identical all over the country.

School A
The (male) headmaster was interviewed as the employers’ representative. His superior is the head of the school administration in the county. As the employee’s representatives two male teachers were interviewed. One is a board member in the local branch of the Union of Teachers (Utdanningsforbundet). The other is not a union member. 56 per cent of all the employees are women and 83 per cent are teachers. Among the teachers 50 per cent are women.

The hierarchy of the internal labour market
The management of the school consists of – in addition to the headmaster – a female assistant headmaster and two department managers, one male and one female. Below this management level are all the ordinary teachers. Thus, the gender shares in management positions are more or less equal to the gender shares in total employment (Table 15).
Employment contracts and working hours

The majority of the teachers are hired on a permanent basis. Temporary employees are only used as substitutes for permanent employees when these are temporarily absent. However, temporary employees may stay for a long time because there is always someone among the permanent staff that is on leave. Thus, temporary contracts are often renewed. According to the headmaster, there are no gender specific differences with regard to types of employment contracts.

All the teachers have a fixed annual salary. A full position (100 per cent) is defined according to a number of classroom hours that varies across teaching subjects. A teacher may make an agreement with the school to work less than hundred per cent (a part time position). However, on a regular basis, they can not make an agreement, which imply more than a hundred per cent position. Quite often the teachers work more than agreed working hours (overtime) to cover for absent colleagues. When they work overtime the teachers are compensated with 50 per cent higher wage per hour.

The headmaster maintains that females are less eager to work overtime than males. One reason may be that women are more conscientious and do more preparation for every classroom hour. Another reason he suggests is that female teachers - more often than male teachers - have a spouse that provides for the family. Thus, female teachers to a less extent need the extra payment.

Training and educational activity

One of the teachers is employed in a 35 per cent position to guide the others, particularly within computer science. Otherwise no other systematic training activities are offered by school A. However, the school administration in the county offers courses and programs – sometimes in co-operation with the universities in the area. The publishing firms also offer introduction seminars when a new textbook is issued.

The headmaster maintains that the management encourages the staff to take part in training. Often, however, it is difficult to fit this activity in to the schools timetable and to the tight budgetary constraints. The two employee’s representatives emphasise that training takes place at the initiative of the teachers themselves, but that the head of the school has a positive attitude and try to be accommodating. The purposes of the training are mainly updating within educational science. In the recent years education within computer science has also been a main topic. It takes place during work time and/or with financial support from the school.

All the interviewees maintain that men and women seem to be equally interested in taking part in training activities. The headmaster estimates that during the last year about eighty per cent of the staff took part in some kind of training. However, in most cases the programs are very short – like one or two days. Non of the interviewees could identify any private economic returns to training, i.e., improved earnings and career possibilities in the internal or external labour market.

Interaction with the external labour market –recruitment and turnover

The school has recruitment problems with regard to teachers who are educated within science and mathematics. The opposite is true with regard to philologists. During the last years the number of graduating secondary school teachers with a background within science and mathematics has been shrinking. Thus, recruitment problems may increase in the years to come. The headmaster thinks that a less favourable development in the computer business may help to drive the labour market in a more favourable direction, from his point of view. Since few women are educated in science and mathematics and many as philologists this particular recruitment problem clearly has a gender bias.

High turnover is not a problem in School A. Rather the opposite. During the last year nobody was hired. Both the employee's representatives say that a very large share of the teachers has been employed by school A in more than five years. Non of them can, however, say exactly. The interviewees could not identify any gender specific pattern in this regard.
Wage agreements and wage negotiations

Even though the secondary schools are owned by the local county administration, the teachers’ unions carry through wage negotiations at the national level with the Ministry of Labour and Government Administration, representing the employer side (see section 3.1). These negotiations are conducted on behalf of all the teachers employed in public secondary schools.

The predominant part of the teachers’ wages is determined in these negotiations at the national level. However, in the last few years, the local school administrations have been allocated a fund for personnel wage adjustments. It was intended to be local negotiations (at the county level) about the distribution of this fund between individual teachers. Since the teachers’ unions are very much against this system these local negotiations have been boycotted from the employee’s side. Thus, the county school administration (the employer) determines the wage adjustments without negotiations with the employees’ representatives.

The headmasters at each school make a list of the teachers they want to give an individual wage increase. The county school administration decides, in advance, how many teachers at each school who should get a wage increase. The suggestions from the local headmasters are often followed. Since the employees do not take part in this process they do not know to whom, and according to which criteria, the wage increases are given.

There is no element of individual negotiations between the teachers and the management at school A. The headmaster says that he tries to use the local wage fund to retain the teachers who are educated within science and mathematics. The head of the school administration in the county has requested that the “wage-increase” list from the headmasters to be gender balanced. Since nearly all of the employed female teachers are philologists, this has not been the case at School A.

Earnings dispersion - main mechanisms

The following picture is outlined, by the interviewees, with regard to main mechanisms (characteristics) that make earnings; hourly wage and annual earnings, differ between the teachers at school A.

- Responsibility is important, in the sense that, the few positions in the management group are rewarded with a relatively high wage increase.
- Tenure is important and work experience from other schools attribute to your accumulated tenure.
- Formal education and work effort have not been important, but may be (according to the headmaster) if the system with local adjustments starts to work properly.
- With regard to annual earnings working hours (full-time vs. part-time) and overtime are two very important factors.

To summarise: A gender specific pay gap in hourly wage, between the teachers in school A, may to some small extent be the result of formal education. With regard to yearly earnings a pay gap may occur because the female teachers more often than the males are employed in part time position and work less overtime.

School B

The headmaster (who is a woman) represented the employer. Her superior is the managing director of the joint stock company. As representatives for the teachers one woman and one man were interviewed. The male teacher is the leader in the local union and a member of the Union of Teachers (Utdanningsforbundet). The female is a member of the local union, but not a member of any national-wide employee organisation. 25 per cent of all the employees are women and 88 per cent of all the employees are teachers. Among the teachers 20 per cent are women (se Table 15).
The hierarchy of the internal labour market

Like in School A, the headmaster is the top manager of the workplace. Next to her is a group of five vice-principals who are all men. The headmaster and the vice-principals constitute the management of the school. Below this level there is no horizontal division of positions. Table 15 shows that men are over-represented in the management group. However, gender difference in positions is not a question on the agenda in School B.

Employment contracts and working hours

When employed, each teacher makes their individual agreement with the school about the weekly working hours. Different subjects demand different amounts of preparations per classroom hour. Thus, wage per classroom hour is set according to the subject taught. The wage rate is also to some extent affected by tenure, and work experience from other schools adds to your tenure. The permanent employees may receive a bonus (1% of the surplus). But this has only happened once during the last twelve years. In addition the permanent employees have been offered a small stock option program.

Many of the (permanent) teachers employed in School B work more hours each week than the number corresponding to a full position in a public secondary school. As a tendency, the headmaster would say that the female teachers have agreements that imply working hours close to (on the upper edge of) a full position in the public system. The males have in general agreements that correspond to considerably more than a full position in the public school. The headmaster thinks that women work less because they have other preferences and values than men – especially when they have a family. She also has the impression that the female teachers work more per classroom hour; they invest more time in preparations.

Only a little more than half of the teachers are hired on a permanent, full time basis and has School B as their main employer. The others are hired on a part time, temporary basis. However, most of these “part time workers” have another main employer and use School B as a source to earn extra money. Females to a higher degree than men are hired on a permanent, full-time, basis and, thus, to a less degree uses School B as a source of extra money.

Temporary contracts are used because the school is exposed to business cycles. Number of pupils in different subjects may vary a lot between years. Changes in minimum requirements to enter universities and the general labour market situation are two factors that may affect the number of applicants.

Training and educational activity

Different types of seminar activities take place at the same time each week for two hours (90 minutes). This happens, not every week, but quite regularly. The (permanent) teachers are supposed to take part and not make other arrangements at this time of the week.

The leader in the local union says that the teachers quite frequently get offers about courses and seminars and that the management is positive and encouraging in this regard. Such programs may be produced by the public school administration or by the local University. The headmaster, however, confess that the management of the school has not been systematic enough with regard to the professional development and updating of the educational staff. Some effort has been done in relation to computer science. One of the teachers has been given the responsibility to assist and train the others in this skill and a part of his work time has been allocated to this work.

The training mainly takes part during work time and with a financial support from the school. Both the headmaster and the local union leader have the impression that female teachers, compared to males, are just as, and may be even more, interested in taking part in training activities. The training activity, however, has no significance with regard to wage attainments.
Interaction with the external labour market – recruitment and turnover
Recruitment is not a problem. As is apparent from Table 15, the turnover is very low. Due to this situation the headmaster worries about the age profile of the permanent staff in the future. None of the interviewees can identify any gender differences with regard to recruitment and turnover.

Wage agreements and wage negotiations
The teachers have a collective agreement with the school. This agreement is negotiated between the local union and the management once a year, and covers only the workplace. The individual members of the local union may or may not be members of a nation-wide employee organisation. However, except for those in the management, all the teachers working at School B are members of the local union. There are no individual wage adjustments or agreements. The teachers are fully informed about the wage criteria. However, information on earnings of the headmaster and the vice-principals is not available.

All the interviewees agree that equal pay between men and women is not a question on the agenda.

Earnings disparities – main mechanisms
The following picture is outlined, by the interviewees, with regard to main mechanisms (characteristics) that make earnings; hourly wage and annual earnings differ between the teachers employed in School B:

- Responsibility is important. That is, to become a part of the management affects the wage rate considerably. Since the ordinary employees are not informed about earnings conditions in the management, this statement is according to the headmaster.
- Work effort, that is the agreed classroom hours per week and overtime, heavily effects differences in annual earnings between the teachers.
- Tenure is of some importance with regard to individual differences the wage rate.

To summarise: The gender gap in annual earnings among the permanent teachers in School B is primarily a result of differences in paid hours. The male teachers have contracts that imply a higher number of weekly classroom hours. In addition they work more overtime.

4.2 Working with salmon and trout

The interviews where carried out in two medium sized private firms, both located close to a relatively big city. Firm A is a joint-stock company. It is part of a Norwegian group of companies, which was recently merged with a foreign company group. Firm A butchers, freezes and cuts salmon and trout. Firm B also is a joint-stock company that is part of a group of companies. Actually it is only the “freezing department” of the company that is our workplace case B. This department butchers, freezes and pack salmon and trout and is separated geographically from the rest of the company.

Firm A
The managing director, who is a man, was interviewed as the employers’ representative. He is subordinated to the board of the joint stock company. On the employee side, one male and one female fish-processing worker were interviewed. The female is a member of the board in the local union, which is affiliated to the Norwegian Union of Food and Allied Workers. Even though she has a certificate to drive a truck she works in the cutting department. The male interviewee is truck driver and a superior in the storage department. 52 per cent of the employees in Firm A are
men. Among the male employees 80 per cent is fish processing workers. The same is true for 90 per cent of the women.

*The vertical hierarchy and the horizontal division of labour*

Below the managing director in the hierarchy of the firm are three heads of departments and two foremen. In this management group of six persons there are two women. Thus, the female shares in the management the firm is below their shares in the staff. Among the fish- processing workers about 10 per cent are skilled workers. The horizontal division of labour is according to the different tasks performed in the firm. The main tasks are: Butchering and storing which take place when the fish arrive, processing (cutting), storing and freezing.

*Employment contracts and working hours*

The fish processing workers are mainly hired on permanent contracts. In peak periods the firm takes in some students that work on an hourly basis. During production peaks the permanent staff also has to work overtime. Working extra hours they are compensated with a fifty per cent higher wage increase before nine o’clock and a hundred per cent increase after that time. To manage a production peak everybody must work, the managing director maintains. Thus, working extra hours is equally distributed between males and females. The female interviewee has a different opinion in this matter. She asserts that those who carry out butchering and storing when the fish arrive work more overtime than the rest of the staff. They are also compensated for uneasy work and because they have to work very early in the morning. Thus, the employees may increase their earnings quite considerably if they carry out these functions. However, in Firm A only men are employed in this kind of work. To work in the cold storage plant gives you a wage allowance. The same is true if you drive the truck. Men mainly perform these tasks.

Firm A has a bonus system. The employees receive a per cent of the firm’s surplus, which is adjusted according to number of hours worked during the previous year. Since male employees in general work more than females they on average are paid a higher amount of bonus.

The employees are informed about the wage system and information about their co-workers wages is more or less available too.

*Training and educational activity*

The managing director explains that each year the firm arranges a one-day seminar about work environment and sanitation. Since they produce food, these issues are important for safeguarding of the quality. Some courses (one to two hours) are arranged in co-operation with the local branch of the *Directorate for Labour Inspection*. Employee interviewees maintain that the more qualified and experienced workers are, the more necessary is the firm-specific training to enable a newcomer to do the job.

*Interaction with the external labour market – recruitment and turnover*

High turnover is a problem, particularly in the male group. As is reflected in Table 15, the women constitute a more stable part of the work force than the men do. One reason for the high turnover is that the firm does not operate on a stable level of activity. During downturns, the firm is forced to let a part of the staff take an unpaid leave. When the activity has improved some of the employees on leave – and very often the best ones - have got another job. It is not easy to find good, unskilled fish- processing workers. Some of the newcomers have to be fired again after a short time because they can not be trusted. This is also a reason for the high turnover rate.

*Wage agreements and wage negotiations*

The wage negotiations are implemented in two steps - first at the national level and then at the local level. At the national level, the central unit of the Norwegian Union of Food and Allied Workers makes an agreement with the central unit of the employers’ confederation. This
agreement involves a general wage increase, which apply to all food processing workers in Norway. When the central parties have reached an agreement the negotiations may start at the workplace level – between the leadership of the firm and the local union. The local negotiations are based on the economic condition of the firm and firm specific agreements with the local union. The leadership is free to give individual wage adjustments, but such increments are rarely used.

**Earning dispersion – main mechanisms**

The following picture is outlined, by the interviewees, with regard to main mechanisms that make wage rates and annual earnings, differ between the fish processing workers employed in Firm A:

- Responsibility is important for the wage rate and annual earnings of the (few) persons concerned.
- Difference in effort – in the sense number of hours worked – is important for the dispersion in annual earnings, but effort is not important with regard to the differences in the wage rate.
- Formal education affects the difference in wage levels because skilled employees are paid more than unskilled.
- Uneasy work gives a wage rate increment and thus establishes wage differences between those who do and those who not do this kind of work.
- Tenure is an important part of the wage system in the firm and the employees are also rewarded for earlier work experience.

To summarise: A gender specific gap in annual earnings between the fish processing workers in Firm A seem to arise because the male employees work more hours than the females. In addition male employees more often have jobs that entails extra rewards, as for instance driving a truck. On the other hand female employees on average have more tenure.

**Firm B**

The department manager, who is a man, was interviewed as the employers’ representative. He is subordinated to the managing director of the joint stock company. On the employee side, only one female fish processing workers where interviewed. She is member of the local unit of the *Norwegian Union of Food and Allied Workers*. About 50 per cent of the staff in the department are affiliated to this union. 90 per cent of the workers in the department are men.

**The vertical hierarchy and the horizontal division of labour**

The top leader is the managing director of the joint stock company – in which this workplace is a department. The head of the department – the department manager - is a man and the two production managers who are his closest subordinates are men. The technical manager, however, is a woman. Thus, the female share in the management of the department – 25 per cent - is higher than their share in the staff.

Roughly speaking the firm makes two “products”: The fresh fish, which they butcher and pack, and the frozen fish which they butcher, freeze and pack. The workplace is divided in two divisions; one dealing with the fresh fish and one with the frozen fish.

**Employment contracts and working hours**

The majority of the staff is hired on a permanent basis. Only 17 per cent are hired on temporary contracts and they are all men, mainly students who, according to the department manager, prefer a temporary engagement. Only 3 per cent of the staff work less than full position and all of them are men. The staff works overtime on a quite regular basis and are compensated with a 50 per cent higher wage until nine in the evening and 100 per cent after that time. The staff has to work
overtime because the supply of fish is unevenly distributed over time and will be destroyed if it is not taken care of at once. This particularly applies to those who work in the fresh fish division. There are no gender differences with regard to the propensity to work overtime.

The firm has a time-wage system with no element of peace rate or bonus payment in it. The employees are compensated for uneasy work; coldness supplement, dirty work supplement and a butchering supplement. The firm gives a high return to skill, that is, skilled workers are considerably better paid than unskilled workers. Both the interviewees maintain that the supplements for uneasy work are equally distributed between men and women. 60 per cent of the female employees are skilled, while only about 20 per cent of the mail employees are.

Training and educational activity
The firm does not by itself provide any specific courses or training programs. However, according to the department manager the management of the firm encourages their unskilled employees to educate themselves through the apprentice system. The firm even financially supports workers who educate themselves to become skilled workers within the fish processing field. The employers’ main motives in this respect are to increase the supply of skilled workers and make the firm an attractive place to work.

Interaction with the external labour market – recruitment and turnover
High turnover is no problem. This particularly applies to the female employees. Nearly 1/3 of the staff has been employed more than five years. One of the women has been employed in four years while the rest of the female staff has been working in the firm for more the five years. The department manager maintains that the firm does not have recruitment problems and that the supply of labour is sufficient.

Wage agreements and wage negotiations
As in Firm A, the wage negotiations are implemented in two steps - first at the national level and then at the local level. The process the interviewees describe seems to be very similar to the one described in Firm A. With regard to the production workers there are no individual wage adjustments.

Earning dispersion – main mechanisms
The following picture is outlined, by the interviewees, with regard to main mechanisms that make wage rates and annual earnings differ between the fish processing workers employed in Firm B:

- Responsibility is important for the wage rate. Only one of the workers has advanced to the management level. This is one of the skilled female employees.
- Difference in effort – that is, number of hours worked – is important for the dispersion in annual earnings, but effort does not affect the individual wage rates.
- Formal education affects wage; skilled workers are paid a considerably higher rate than unskilled.
- Uneasy work is compensated by a wage supplement and accordingly establishes wage differences between those who do and those who not have this kind of work.
- Tenure is an important part of the wage system in the firm and the employees are also rewarded for earlier work experience.

To summarise: According to the description given by the interviewees the gender specific wage gap in Firm B – if any – should be in favour of the female employees. The females are to a much greater extent skilled, they have accumulated more tenure and are over-represented in the management group. Contrary to all the other cases, the female employees in Firm B does not work fewer hours than the males.
4.3 Two engineering workplaces

Interviews with representatives for the employed engineering professionals and their employers where carried out in two (in the Norwegian context) large firms, located in an urban area. In both these firms the engineering professionals constitute a considerable (important) part of the employees.

*Firm C* is a joint-stock company with both private and public shareholders. It is a part of a big Norwegian based group of companies, which has establishments in many countries and is subjected to international competition. This firm develops, produces and sells products that explore advanced, new and rapidly changing technology.

*Firm D* is the local unit of a nation-wide governmental establishment. The firm is exposed to competition only on a limited part of its operations. The tasks performed, to some extent, require specific competence within a certain field. However, the types of technical skills required are not the kind that has been in growing demand and at the heart of technological development during the last decades.

**Firm C**

The personnel manager – who is a woman - was interviewed as the employer’s representative. A female division engineer and a male senior manager where interviewed as the representatives for the employed civil engineers. The female division engineer is assisting principal in the local unit of the nation-wide union organising the engineering professionals (NIF). The senior manager is a member of this nation-wide union, but not a member of the local unit on the workplace.

56 per cent of the employees in Firm C are men. Among the male employees 18 per cent are engineering professionals. The same is true for 15 per cent of the women.

**The vertical hierarchy and the horizontal division of labour**

At the top of the firm is one female managing director. Just below her in the hierarchy is a group of (6-7) division managers, of which only one is a woman. Four of the division managers are in the top management group. These are all men. One and two steps below this group are the department managers and heads of departments, respectively. None of the interviewees know exactly how many persons who are employed at these levels (between 30 and 40 but not only civil engineers). When asked to express an opinion about the proportion of women in these positions, the two employee representatives say they cannot tell. The personnel manager makes an approximate estimate around 30 per cent.

The positions from head of department and above may be characterised as leadership functions. The main part of the civil engineers in Firm C are employed below this level. According to these numbers, the female shares in both high and medium management positions are smaller than in total employment.

All management positions are open to the engineering professionals. To climb the internal career ladder in Firm C it may be an advantage to be educated as a civil engineer. However, it is not a necessity. As an example, the personnel manager is not herself an engineering professional.

There are also many different designations of posts (positions, titles) below the leadership level. However, these are more horizontally (functionally) divided positions. Two important posts, in this regard, are *project leader* and *scientific adviser*. The former involves a kind of administrative and co-ordinating management (responsibility) in relation to the implementation of projects. The second involves responsibility for the technical solutions within a scientific field (branch). The female division engineer argues that as a scientific adviser you become more indispensable because of the accumulation of technical knowledge. She also maintains that, as a
tendency, women to a greater extent than men choose to be project leaders, while the opposite is true with regard to the position as a scientific adviser.

The personnel manager explains that the top management of the firm is concerned about gender equality with regard to leadership positions. The employees’ representatives argue that gender equality in the leadership would have been a greater – and more problematic - issue if the managing director had been a man.

Wage contracts and working hours
All the civil engineers that are employed by the firm are hired on a permanent base. Peaks in the firms’ activity are covered by overtime and temporary hired consultants who are employed by other firms. Many of the engineers in the firm have a relatively flexible work hour. Individual results are first of all evaluated from achievements not hours worked. The personnel manager maintains that many of the employees work more than a normal week hour. And many of the civil engineers are in positions that are granted exception from the working environment act (article 10 that gives an upper limit to the amount of overtime per month). Her impression is that males generally work more than females, but that age and family situation have a larger impact on working time than gender.

The civil engineers have fixed yearly wage contracts. In some positions people are compensated for overtime, in others not – it depends both on type of job (function) and on level of position.

Training and educational activity
To update and elaborate their skills, it is necessary for the civil engineers to take part in courses and training programs. Mainly, these kind of training take place during work time, but some times also in the evenings and during weekends. Courses are very rarely compulsory. Training programs are organised within the firm and in co-operation with universities (the Norwegian School of Management (BI) and the Norwegian University of Science and Technology (NTNU). The male senior manager maintains that some of the training programs available are very advanced and that number of participants is limited. He says that the allocation of places are used and regarded as a reward.

The interviewees do not have a clear opinion when it comes to gender differences in training participation. The male senior manager has the impression that women are more interested in taking part than men are, while the female division engineer think that the opposite is true. The personnel manager does not have an opinion in this matter.

Interaction with the external labour market – recruitment and turn over
The firm does not have recruitment problems with regard to engineering professionals. It has a good reputation as a workplace both because of the wage level and because of challenging and stimulating work tasks and a good working environment. Nor does the firm have any problems with a high turn over – rather the opposite. All the interviewees describe the work force as very stable and did not find any difference in this respect between female and male employees. Since the firm is rather big, none of the interviewees know the share of civil engineers that has been employed in the firm more than five years. As can be seen from Table 15, during the last year the hiring rate has clearly been higher among male civil engineers compared to the corresponding female rate.

Wage agreements and wage negotiations
Wages for the civil engineers in Firm C are settled by collective agreements combined with individual adjustments (see section 3.3). The main part of the civil engineers employed by the firm are members of NIF (the employee’s representatives estimates between 70 and 80 per cent).
NAVO and NIF through the Federation of Norwegian Professional Associations (Akademikerne) carry out wage negotiations on the national level (every second year). In these negotiations a general increase in wages concerning all NIF members in the country may be decided. Then there are negotiations for a collective agreement on the firm level – between the local NIF union and the management. In the local agreement wage intervals for different positions and functions (established as wage groups) are settled. Within these intervals the employer is free to give individual wage supplements. Such supplements are not a subject in the local negotiations, but may be a part of the discussion in a yearly “career development meeting” which take place (at least once a year) between the individual employee and the head of department where he or she works.

In the local negotiations guidelines with regard to the bonus system are also settled. In recent years 1/3 of the bonus has been paid according to the surplus in the firm, 1/3 according to the surplus in the division on works, and 1/3 according to individual achievements. The individual achievement part is discussed in the yearly “career development meeting”. Formally individual wage negotiations only takes place when a new person is hired and when a person change position within the firm. The male senior manager has the impression that men are harder than women in such negotiations. All the interviewees maintain that the local wage determination processes, both at the firm and the individual level, is more important than the national is.

The employees are informed about the formal structure of the wage system. However, they are not fully informed about the criteria related to individual adjustments and individual wage information is not generally available.

The personnel manager maintains that the leadership in the firm is concerned about wage differences between men and women within the same wage group. And that the heads of department have been asked to observe the development in this regard.

The female division engineer says that the local union is concerned about the gender issue. They follow the wage statistics of the firm very closely, but “.... it does not look too bad, and the issue is not at the agenda in the local negotiations”.

Earnings dispersion - main mechanisms
The following picture is outlined, by the interviewees, with regard to main mechanisms (characteristics) that make earnings, hourly wage and annual income, differ between the engineering professionals employed in the firm:

- Position in the vertical hierarchy is important, that is, to take responsibility for the work of other employees gives a high return.

- Position in the horizontal division of work is also of some importance. To make your self-irreplaceable as a scientific adviser may give a higher return than to develop the type of all-round administrative skills you get as a project leader.

- Both the employees’ representatives maintain that effort and willingness to work are important, while the personnel manager subdues the importance of such characteristics. This also concerns the amount of work hours you put in. Thus, to be away from work for a longer period – for example on parental leave - may slow down individual wage growth.

- In general, to take part in training does not seem to be a good investment with regard to wage attainments. However, some of the more advanced technical programs may be an exception in this regard.

- Formal education is of some importance for wage differences because the firm must pay to be competitive in the labour market with regard to certain types of engineering specialities.

- Work experience and performance in previous job may be important if it is of the right kind, that is, if the employee during earlier assignments has accumulated a type of competence the firm needs.

- Tenure is not important any more.
To summarise: A gender specific pay gap between civil engineers in Firm C may be the result of the following mechanisms: Compared to males, females to a greater extent work as project leaders. In general they work less hours and they also to a greater extent take parental leaves. Women are also to some extent under-represented in the high and medium high management position, that is, compared to their share of employment.

**Firm D**

The personnel manager – a woman - was interviewed as the employer’s representative. A female chief engineer and a male senior engineer where interviewed as the representatives for the employed civil engineers. The male senior engineer is committee member in the local unit of NIF. The chief engineer is a common member of the local union on the workplace. 57 per cent of the employees in Firm D are men. Among both the female and male employees 24 per cent are engineering professionals.

*The hierarchy in the internal labour market*

In the leading position of firm D is a managing director – a man. Just below him is a group of four department directors of which two are women. One step below is a group of 25 to 30 heads of departments. These three levels may be characterised as management positions. All management positions are open to civil engineers.

The personnel manager maintains that the top management is concerned about the gender distribution of these management positions. At least they have to aim at a 22 per cent minimum of each sex, since this is the rule imposed by the government. The male senior engineer does not have the impression that gender differences in positions is a question on the agenda. He, however, emphasis that he works in a very male dominated part of the firm. The female chief engineer says she has the impression that the top management is quite occupied with gender equality in this regard.

*Employment contracts and working hours*

All the civil engineers that are employed by Firm D are hired on a permanent basis and on standardised contracts with a fixed annual salary. They have standard working week of 37,5 hours. Peaks in the firms’ activity are covered by overtime. Overtime is compensated by extra payment according to rates that are standardised throughout the governmental sector.

The personnel manager maintains that position and age affect the amount of overtime each employee put in, but that gender is not significant in this respect.

Among the civil engineers, 17 per cent of the females and 8 per cent of the males work part time.

*Training and educational activity*

The firm provides a wide range of training programs to enhance administrative and technical skills. Both types of programs are attained by the civil engineers. Most of the programs are organised in co-operation with, or by, the governmental “mother” establishment. Most of the courses are short (2-3 days), but some are of considerable length. The employees may apply for a one-year course at the project leader school, which is organised within the “mother” establishment. This school accepts 20 students every year. The civil engineers may also participate in relevant courses at the Norwegian University of Science and Technology (NTNU) and at the Norwegian School of Management (BI). Some of the training programs within the firm are organised in co-operation with these universities. Most of the training takes place during work time, but is not compulsory. The personnel manager estimates that about 80 per cent of the civil engineers took part in some kind of training during the last year.

From the employer’s point of view the purpose of the training is twofold: To acquire necessary firm specific competence – which is not easily available in the external labour market,
and to become an attractive workplace. According to the personnel manager the employees are encouraged to participate in training, men and women are equally offered to take part and they are equally interested.

*Interaction with the external labour market – recruitment and turn over*

Firm D seems to have recruitment problems with regard to the engineering professionals. The number of civil engineers who graduates within the specific subjects (field) needed by the firm has been decreasing. One strategy to cope with this problem has been to educate their staff of civil engineers in these specific fields. High turn over – particularly among the relatively young engineering professionals - is a big problem. The reasons why people leave are related to wage level and personnel professional interests. With regard to wage, the firm can not compete with the private sector.

Among the civil engineers 38 per cent of the females and 66 per cent of the males have been employed in the firm more than five years. During the last year two male civil engineers and two female civil engineers were hired. The personnel manager thinks that female engineering professionals with a relatively long work experience are hard to find.

*Wage agreements and wage negotiations*

Wages for the civil engineers in firm B are settled by collective agreements combined with individual adjustments. The firm takes part in the general wage agreement in the state sector. As in Firm C, the collective agreement is negotiated both at the national and local level. However the process at the national level seems to be more significant with regard to its influence on the wage level. According to the employee’s representatives, between 50 and 60 per cent of the civil engineers employed by the firm are members of NIF.

The union representing the civil engineers in the mother-company (NIF) negotiates with the Ministry of Labour and Government Administration. In these negotiations the size of general wage increases and of the wage fund to be distributed at the local level is determined. At the workplace level the management in Firm D negotiates with the local engineering professional union about the individual wage adjustments. They try to arrive at an agreement about a recommended list of names. The ultimate result about local wage adjustments is settled in negotiations between the management and the union in the “mother”-establishment. However, if the union and the employer in Firm D manage to agree, the parties on the central level very seldom make any objections.

The male senior engineer maintains that the local union tries to give priority to employees who have fallen behind with regard to individual wage growth. Women who have recently come back from parental leave are typical examples. More generally the union try to aim at a relatively just and equal wage development among the civil engineers within the firm. The personnel manager, on the other side, maintains that the local wage fund should be used to keep and recruit employees who have the kinds of skills, which is important to perform the type of business the firm is engaged in.

The individual employees may address both the local union and the management to promote a wage increase. One strategy may be to obtain an external employment offer with a higher wage and give the employer *a fait accompli*. An individual wage negotiation also takes place when a new person is hired. The personnel manager has the general impression that female employees are less persevering in these kinds of negotiations than men are.

According to the personnel manager, the management in the “mother”-establishment has instructed the local leaders to propose men and women equally often for the “wage-raise” list. The employee’s representatives maintain that gender issues are not on the agenda in the local wage negotiations.

In Firm D employees are informed about the formal structure of the wage system and the general adjustments negotiated at the national level. However, they are not fully informed about
the procedure related to individual adjustments and information on individual wages is not generally available.

*Earning dispersion – main mechanisms*

The following picture is outlined by the interviewees with regard to main mechanisms (characteristics) that make earnings and wage rates differ between the engineering professionals employed in Firm D:

- Position in the horizontal hierarchy is important with regard to wage differences.
- Formal education – type of technical specialisation – is of some importance with regard to individual differences the local wage adjustments.
- The same may be true with regard to “on the job” training and work effort.
- Tenure is now longer of any significance in the wage system.
- Work experience and performance in earlier jobs, are important with regard to the wage level people get when they are hired.

To summarise: Based on these interviews it is difficult to identify clear mechanisms which may lead to a gender specific pay gap between civil engineers in Firm D. One point, made by the personnel manager, is that the male civil engineers are older and accordingly have more work experience than the females. Female engineers also to a greater extent work in part time positions and are absent from work due to parental leaves.

**Table 15. Key statistics for the workplaces**

<table>
<thead>
<tr>
<th></th>
<th>School A M</th>
<th>School B M</th>
<th>Firm A M</th>
<th>Firm B M</th>
<th>Firm C M</th>
<th>Firm D M</th>
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<tbody>
<tr>
<td>Number of employees</td>
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<td>0-50</td>
<td>0-50</td>
<td>0-50</td>
<td>1,000-2,000</td>
<td>100-500</td>
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<td>Share of men and women</td>
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<td>.54</td>
<td>.75</td>
<td>.25</td>
<td>.48</td>
<td>.86</td>
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<tr>
<td>Share of men and women in management</td>
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<td>.50</td>
<td>.84</td>
<td>.16</td>
<td>.67</td>
<td>.33</td>
</tr>
<tr>
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<td>.83</td>
<td>.93</td>
<td>.70</td>
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<td>.90</td>
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<td>Share of occupation with part time</td>
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<td>Share of occupation hired last year</td>
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<td>...</td>
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<td>1.00</td>
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<td>.60</td>
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*Notes: M = men, W = women.*
5. Summary and conclusions

In a European perspective Norway is considered as a country with large degree gender equality. Norwegian women are just as well educated as men, and Norwegian women are very active in the labour market. As many as 78 per cent of all women aged 25-66 are in the labour force. Also in politics women have a strong and increasing presence. In the Norwegian Parliament women have occupied almost 40 per cent of the seats during the last decade, and the female rate in Government has been even higher.

Still, there are important areas of society where gender differences are quite large. Even though the dual breadwinner family model is dominating, labour market is gender segregated: Many women are part-time workers and men and women work within different occupations. In private business there are very few female managers: Only 7 per cent of the top managers are women. The boards of joint stock companies quoted on the stock exchange are also very male dominated. Only 6 per cent of the members are women.

*Equal pay and wage formation systems*

Equal pay for men and women has been on the political agenda since the early 1970s. However, already in 1959 Norway signed the ILO Convention No 100 on Equal Pay for Work of Equal Value. At the same time the governmental *Equal Pay Council* was established. In 1972 this council was re-organised and named the *Equal Status Council*.

The *Act on Gender Equality* banning different payment was put into force in 1978. The act was revised in April 2002. Thus now “…the right to equal pay for equal work or work of equal value [will be] independent on whether the work is within different professions or is regulated by different collective agreements”.

Average gross annual earnings for Norwegian female employees are about 66 per cent of that for male employees. Hourly wages differ by about 15 per cent (among full-timers). 17 per cent in private sector and 12 per cent in public sector. Conditional on level of education and work experience the difference is about 13 per cent in private sector and 8 per cent in public sector.

The determination of wages and other employment conditions is the responsibility of the labour market organisations. There is for instance no minimum pay legislation in Norway. Minimum wages are bargained and are valid for the parties who sign the agreement. In the unionised sector centrally agreed wage represents a floor for local agreements, and in the non-unionised sector many firms pay these centrally agreed minimum wages.

Tripartite arrangements concerning i.e. income policy have, however, long traditions in Norway. The experiences with these arrangements are generally good. The primary ambition of tripartite co-operation is to reach a common understanding of the actual facts of the economic situation, developments in wages and prices and so on. A common understanding is believed to facilitate later wage negotiations and create a responsible attitude among the parties.

The bargaining system in Norway is highly centralised compared to other countries. However, there is still ample room for local adjustments in most industries. Bargaining occurs at both the national level (complete or industry wise) as well as at the local level. In the public sector only a very small part of wage increments have been decided locally (less than 10 per cent of the annual wage growth). In the private sector (the NHO-area), a larger part is decided locally (30-50 per cent of the annual wage growth).

The wage structure arising from these bargaining arrangements is one with small wage differences in the public sector, and larger wage differences in the private sector. In short, it pays for high-skilled employees to work in the private sector, and for low-skilled employees to work in the public sector.
Also when we compare the Norwegian wage structure to that of other European countries, we find that Norway has a highly compressed wage structure, and especially return to education is low.

In order to make comparisons of pay systems and gender pay gap at the European level, three specific occupations were chosen: (a) teaching associate professionals, (b) fish (or food) processing workers, and (c) engineering professionals (chartered or civil engineers).

Teaching associate professionals
Almost all secondary schools in Norway are public, owned and run by the county administration. About 50 per cent of the employed teaching associate professionals are women. 88 per cent of the teachers are unionised (same percentage for men and women). Collective agreements apply to all teachers in the public sector, regardless of union membership. Even though the county is the employer of the teachers, the central government is the main counterpart of the teacher’s unions when it comes to collective agreements on wages and working conditions. The bargaining system is a three tier system:

1. The central agreements between the unions and the central government involve working conditions as well as a general wage increase.
2. Central agreements between the unions and the central government on wage conditions for special groups.
3. "Local" bargaining at the national level between the unions and the Ministry of Education. After 2000, "preliminary bargaining" is conducted at the county level before the bargaining at the national level. This opens up for some really local adjustments of the wage system, but national level partners act as "referees" in case of a local conflict. Only a small fraction of the bargained wage increase has been allocated to step 3.

For teachers there is only a limited scope for individual pay. All are placed in the wage grid based on position, qualifications and seniority. Within the grid the possible individual variation is limited. There is a thrust towards decentralisation of authority within the school system. This also involves personnel policy and there is a movement of bargaining authority down to the county level and to individual schools and head masters. Teachers’ unions have vigorously opposed this, and have only since very recently been willing even to discuss the content of local bargaining schemes.

Since pay is attached almost completely to qualifications, seniority and position, there is not much scope for wage differences between men and women with the same – or similar - qualifications. To be trained in different fields and teach in different subjects are not defined as reasons for wage differences. Thus, those who teach mathematics are paid the same hourly wage as those who teach language. Still there is a small wage gap, of about 3.7 per cent for full time employees.

In the present debate over bargaining systems and local autonomy, there is some fear that local and individual pay implies larger gender pay gaps. There is a worry that men are more active in promoting own pay.

To investigate the wage formation at the local level, Interviews with teachers and headmasters were carried out at one public and one private secondary school. The main mechanism generating differences in annual earnings between the male and female teachers in both these schools is a gender gap in working hours. Very few male teachers hold part time positions, and they work more extra hours (overtime) than female teachers do.

The interviewees confirmed that the scope for wage differences between men and women is narrow within the traditional wage grid system. In the public school a new system tolerating individual wage adjustments was introduced lately. So far the influence of these adjustments have been insignificant. However, the headmaster at the public school clearly expressed that he wanted to use these adjustments to reward teachers educated within mathematics and natural science. There is a shortage of this type of secondary teachers in the labour market. Thus, the headmaster
wants to use all the means he has at his disposal to hold on the teachers in mathematics and natural science. In this group there are very few women.

Thus, given the present labour market situation, the wage grid system and the centralised, collective agreements in the public school sector seems to level out wage differences between men and women which may have been significant in a more market-oriented system.

**Fish processing workers**
The fish processing industry in Norway is rather small, and includes mostly rather small firms and establishments. Still, in many less densely populated areas at the coast the local fish producer may play a dominant role in the local labour market. The fish processing industry is a highly volatile industry. During downturns, the industry uses temporary lay-offs.

About 41 per cent of the workers are women, and about 48 per cent of the workers are unionised (more women than men). Collective agreements apply for almost all workers, regardless of union membership. The bargaining system is a two-tier system:

1. Central agreements between the national union and their counterpart. This agreement involves working conditions as well as a general wage increase. The union aims for a highest possible wage increase centrally, since they do not expect to obtain much at the local level.

2. Local agreements at the firm or establishment level between the local employer and union. This mainly concerns a potential wage increment and local adjustments of compensating wage add-ons. Local increments have been rare and small in this sector over the last 10-15 years.

The bargaining system is thus fairly centralised, at least in terms of the minimum wage. Non-union members work more or less under the exact same conditions as union members. A large fraction of the workers in this industry have piece-rate contracts. The tariff rate is agreed upon in the central bargaining rounds, while the outcome in terms of hourly pay is of course a matter of efforts and skills.

Work is highly gender segregated. Women work on the line, processing the fish, while men work on the quay, drive trucks, handle the stocks and work with the freezing process. Gender wage differences are large. The average wage of full time working women is more than 30 per cent lower than the average wage of full time working men. This is partly due to differences in working hours and partly due to differences in jobs and tasks performed by men and women.

To investigate the wage formation at the local level, interviews with managing directors and workers were carried out in two fish processing firms. In both firms work was quite specialised. Thus jobs were heterogeneous and payment varied across jobs. In addition gender segregation in the internal labour market was quite strong, which is common for the industry: Men typically perform the tasks involving much overtime and have jobs entailing extra rewards. Thus, the rather large gender wage gap in the fish processing industry is (as least partly) due to male and female workers doing quite different jobs.

**Engineering professionals**
About 16 per cent of the employed engineers are women. 73 per cent of the engineers work in private sector, 27 per cent in public sector (almost the same percentages for both men and women).

In the public sector there is first a central bargaining over general wage increments, next there is a central bargaining over national adjustments of relative wages and third there is local bargaining. The system in the public sector is highly centralised, but with a shift in weight towards the local level over the last decade. About 74 per cent of the engineers in the public sector are unionised, and the collective agreement applies to all. The engineers, together with most large groups of professionals, want the largest part of the wage increments to be agreed upon locally.

In the private sector the bargaining system is a two-tier system:
1. Central agreements between the Norwegian Society of Chartered Engineers (NIF) and the Confederation of Norwegian Business and Industry (NHO). This agreement involves working conditions as well as a general wage increase. The engineers' union favours that the larger part of the wage increase is agreed locally, rather than centrally, for the same reasons as in the public sector.

2. Local bargaining at the firm or establishment level. Here a frame in terms of per cent of the wage bill is agreed upon. Local pay negotiations are held every year for about 300 workplace groups of engineers. Then the local employer dishes out the agreed amount according to their own judgement or the plant's system of pay. This means that there is a high leverage for different outcomes across establishments, as well as between employees within the same plant.

   Non-unionised employees are not necessarily paid according to the collective contract. Individual pay is very common among engineers.

   In 1997 the average weekly pay of women was 78 per cent of average weekly pay of men (smaller in public sector and somewhat larger in private sector). Controlling for experience and seniority, the weekly adjusted wage gap for full time employees (30 hours +) is about 6 per cent in the public sector and about 13 per cent in the private sector.

   Interviews with personnel managers and civil engineers were carried out in one private firm and one local department of a nation-wide public establishment. At the workplace level, there seem to be three factors behind the earnings differences: age (experience and seniority, jobs and fields of training, and working hours. Women are still considerably younger than men are in this profession. Even though wages are related to positions and achievements, not tenure, it takes time to climb the career ladder and it takes time to gain competence. Men occupy positions where indispensable (technical and scientific) competence is accumulated more often than women do. Many engineers work more than standard hours and men more often than women do.
References


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Towards a Closing of the Gender Pay Gap

"Towards a Closing of the Gender Pay Gap" is a project, which comes under the 5th Action Programme’s Community Framework Strategy on Gender Equality (2001-2005) and deals with gender wage differences. It is funded by the European Commission and by national authorities. There are six partner countries in the project: Austria, Denmark, Greece, Iceland, Norway and the United Kingdom. A Steering Committee with members from all the partner countries functions as the governing body for the project. The Norwegian Centre for Gender Equality manages the project.

The objective of the project is to promote equal pay between men and women for equal work and work of equal value and to identify an efficient mix of tools and instruments for promoting equal pay in the context of each partner country in three target occupations: unskilled workers in the food processing industry, engineers and secondary education teachers. The project partners have produced a national report on these occupations.

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Utdannings- og Forskningsdepartementet
Norwegian Ministry of Education and Research

NHO
Confederation of Norwegian Business and Industry

LO
Norwegian Confederation of Trade Unions