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The Concentration
of Women's Employment
and Relative Occupational
Pay: A Statistical
Framework for Comparative
Analysis

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**THE CONCENTRATION OF WOMEN'S EMPLOYMENT AND RELATIVE OCCUPATIONAL PAY:
A STATISTICAL FRAMEWORK FOR COMPARATIVE ANALYSIS**

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Summary

This report assesses the relation between women's employment in those occupations where they are most concentrated and their relative level of pay. The analysis is applied to seven countries - Australia, Canada, Germany, France, Norway, the United Kingdom and the United States - over a period covering the past ten to fifteen years. An important feature of the study involves the collection and analysis of national earnings data at a detailed level of occupational classification, enabling us to address instances of vertical and horizontal gender segregation that may be obscured by less detailed categories.

As international harmonised earnings data for detailed occupational categories do not exist, it has been necessary to collect data from the different national sources. Given the dangers this presents for an analysis which seeks to make comparisons of occupations across countries, the report details the wide range of different sources of data, as well as the variety of definitions of terms and the different survey methods.

The analysis of the data show that:

- The concentration of women's employment among a handful of occupations has been sustained over the period studied (more than 60 per cent of women's employment can be accounted for by less than ten occupational groups, out of a total number of around 80, in each country). Sales, clerical work, nursing and teaching are among the "top-ten".
- Overall, there is an above-average wage penalty associated with female employment in those occupations where they are most concentrated (the average wage penalty is taken to be the gender hourly pay gap measured over the whole economy). The relative size of the above-average wage penalty, as well as the average wage penalty experienced by all women, varies across countries. The impact of female employment concentration on relative female earnings is relatively low in Norway and Australia and relatively high in the UK and West Germany.
- The relative size of the above-average wage penalty experienced by women also varies across those occupations where women's employment is concentrated. In part this reflects differences in the range of skills associated with each occupation, wage differences between sectors, such as the average pay differential between workers in the public and private sectors, as well as differences in the dispersion of wages within each sector. There is also an important distinction between the wage penalties experienced by women in full-time and part-time work. Among occupations where women's employment is most concentrated, sales, cleaning and catering services are associated with a relatively high above-average wage penalty, whereas nursing and teaching, mainly public services occupations, tend to combine a high level of employment opportunities for women with relatively high earnings (as a matter of fact, a below-average wage penalty).

The implications of these results in light of employment trends and changes in pay strategies in the public and private sectors are discussed.

RESUME

Ce rapport établit la relation entre la concentration de l'emploi des femmes dans quelques professions et le niveau relatif de leur salaire. L'analyse est menée à partir de la situation dans sept pays: l'Australie, l'Allemagne, le Canada, les Etats-Unis, la France, la Norvège et le Royaume-Uni, sur une période qui couvre les dix à quinze dernières années. Une caractéristique particulière de l'étude est que la collecte et l'analyse des données nationales sur les salaires par profession s'est faite à un niveau détaillé de la classification des professions, ce qui permet de repérer des cas de ségrégation horizontale et verticale qui seraient restés masqués à des niveaux de la classification moins détaillés.

Du fait qu'il n'existe pas de données sur les salaires par profession détaillée harmonisées au niveau international, il a fallu collecter les données à partir des différentes sources nationales. Etant donné les risques que cela comporte pour une analyse qui vise à des comparaisons internationales sur la base des professions, le rapport présente une information détaillée sur l'ensemble des différentes sources de données utilisées, de même que sur les diverses définitions des concepts et des méthodes d'enquête.

L'analyse des données permet d'avancer les conclusions suivantes :

- La concentration de l'emploi féminin sur une poignée de professions s'est maintenue sur toute la période à l'étude. Plus de 60% de l'emploi féminin se trouve concentré sur moins de dix catégories professionnelles sur un total d'environ 80, et ceci dans chaque pays. Quatre catégories professionnelles figurent parmi les dix premières dans tous les pays : personnel de vente, employés de bureau, infirmiers et enseignants.
- Une pénalité salariale supérieure à la moyenne est associée à l'emploi féminin dans l'ensemble des professions où il se trouve fortement concentré. (La pénalité salariale moyenne représente l'écart salarial selon le sexe -- sur une base horaire -- pour l'ensemble de l'économie). Le niveau de chacune de ces pénalités grevant les salaires féminins est variable selon le pays. L'impact de la concentration de l'emploi féminin sur les salaires relatifs des femmes est relativement faible en Australie et en Norvège, et relativement élevé en Allemagne et au Royaume-Uni.
- Le niveau de la pénalité salariale due à la concentration de l'emploi féminin varie aussi selon la profession, du fait que les professions en question couvrent des niveaux de qualification très différents. Cela tient aussi pour partie aux écarts de salaire entre secteurs, par exemple l'écart de salaire moyen entre le secteur public et le secteur privé, et pour partie à des différences dans la dispersion des salaires au sein de chaque secteur. On observe par ailleurs des différences significatives dans les pénalités salariales affectant les travailleurs à plein temps et ceux à temps partiel. Parmi les professions où l'emploi féminin est le plus fortement concentré, les services de vente, de nettoyage, et de restauration subissent une pénalité salariale supplémentaire relativement forte, alors que les soins infirmiers et l'enseignement - le plus souvent des services publics - associent des opportunités d'emploi nombreuses pour les femmes et des salaires relativement élevés (de fait une pénalité supplémentaire négative).

Les implications de ces résultats compte tenu des tendances de l'emploi et des politiques salariales dans les secteurs public et privé sont discutées dans le rapport.

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THE CONCENTRATION OF WOMEN'S EMPLOYMENT AND RELATIVE OCCUPATIONAL PAY: A STATISTICAL FRAMEWORK FOR COMPARATIVE ANALYSIS¹

1. Introduction

Despite the progressive integration of women into the labour force, research continues to reveal a strong differentiation in the jobs held by men and women across the OECD countries. Women's employment is still concentrated into a relatively narrow range of occupational groups, as defined in the standard classification of occupations. Moreover, employment remains strongly delineated by sex, involving both horizontal segregation (men and women concentrated in different industries and types of occupations), and vertical segregation (men more likely to work in jobs of a higher grade or occupations of higher status than women).

While the differentiation of occupational employment patterns has been extensively analysed (recent studies include Hakim 1992, Reskin and Roos 1990, Rubery and Fagan 1993), far less attention has been paid to detailed analysis of its impact. It is accepted that the concentration of women's employment in relatively few sectors or types of employment has in fact provided women some protection in recent years against job loss and provided shelter from competition from unemployed male labour. Similarly, the segregation of women within particular types of employment is generally associated with a high incidence of part-time work, relatively low pay, few career opportunities and limited access to further training. However, these potential consequences vary between countries and between sectors of employment, and as yet there have been few attempts to quantify differences in the impact of segregation on women's employment position between countries.

This report focuses on the impact of the concentration of women's employment on relative occupational earnings in a cross-country comparative framework. We use the term female employment concentration to refer to the crowding of women into a narrow range of occupations. This general terminology differs with the focus of other studies where indices of sex segregation have tended to focus on the concentration of women's employment in female-dominated occupations. Here we refer to all occupations which account for a large proportion of total female employment. In fact, as we shall see, most of these occupations are also female-dominated.

The aim of this study is to assess the relation between women's employment in those occupations where they are most concentrated and their relative level of pay, and to assess changes in this relation over the last ten to fifteen years. This raises a number of issues related to broader labour market developments which differ between countries and over time. For example, the public sector provides an important source of employment - particularly high-skill jobs - for women in many countries, but countries may differ in the extent to which public sector employment provides a wage premium or a wage

¹ This study forms part of a broader project on female-dominated occupations of the OECD Working Party on the role of women in the economy. The results presented here are a synthesis of data provided by experts from each country involved in the project. The list of experts is given at the end of the report.

penalty relative to women's earnings opportunities in the private sector. This is particularly relevant in attempting to document the impact of reforms to cut public expenditures, which may have an adverse impact on pay and opportunities for career advancement. Also, in those countries where there is a growing demand for female part-time employment, the distribution of women's employment may become even more narrowly concentrated where part-time jobs are created within already feminised occupations. The impact on gender wage inequalities will depend in part on the extent of differentiation between the pay of full-time and part-time workers. In sum, cross-country comparison of the impact of women's employment concentration reveals the extent to which the consequences differ according to sectoral and societal-specific conditions of employment.²

In the absence of harmonised international occupational pay data, this study has necessarily involved the collection of national pay data for a selection of countries (chosen primarily on the basis of data availability). For seven countries (Australia, Canada, West Germany, France, Norway, the United Kingdom and the United States) we document in this report the concentration of women's employment by occupational group and the relative pay earned by women in those occupations where the female labour force is most concentrated. An important feature of the analysis involves the collection and analysis of data at a detailed level of occupational classification, enabling us to address instances of vertical and horizontal sex segregation that may be obscured by less detailed categories.

The study begins with a discussion of methodological problems encountered when comparing occupational earnings and employment data across countries, each of which relies on different systems of occupational classification and collects earnings data through a different survey method. More detailed information regarding the characteristics of national data is collected in Appendix 1. In section 3, we analyse the degree of female employment concentration within each country in relation to the occupational pay differentials, focusing on those occupational groups where women are most likely to be concentrated. In this section we use data at the intermediary level of the occupational classification. In light of the methodological difficulties, we also draw on evidence on the pattern of female employment concentration by occupation derived from the European Labour Force Survey (ELFS). The ELFS is based on a harmonised system of occupational classification and therefore provides a useful benchmark against which to evaluate some of the occupational employment patterns of the European countries in question. In the fourth section, we consider the evidence from earnings and employment data at a more detailed level of occupational classification (three or four-digit level).

2. Data specification and methodological limitations

In order to research questions relating to cross-country comparisons of female employment concentration and relative occupational pay, it has been necessary to collect data from the different national sources as international harmonised data for detailed occupational categories do not exist. Moreover, whereas detailed occupational employment data are usually available at the national level, they are not always accompanied by similar earnings data. Therefore, the first stage of research involved carrying out a survey of a sample of OECD countries to identify those where occupational earnings data were recorded separately for men and women, and where it was possible to match the pay data with occupational employment data at a detailed level of disaggregation. This survey was by no means exhaustive. As a result of this survey, national employment and earnings data have been collected for seven countries: Australia, Canada, West Germany, France, Norway, the United Kingdom and the United

² The focus of the report is on the relationship between occupational characteristics and relative pay. The impact of changes in individual employee characteristics on relative pay is not considered.

States. Inevitably, if comparisons are made across countries based on evidence collected from a wide range of different sources of data, which use a variety of definitions of terms as well as different survey methods, then a number of potential difficulties must be made clear at the outset. A detailed discussion of the issues involved is to be found in Appendix 1. Here, we summarise the major areas of difference between each source of earnings and employment data and then consider the difficulties in using occupational statistics to explain patterns of occupational earnings both across countries and over time.

2. 1. Characteristics of national earnings and employment data collected

The major characteristics of data collected from each of the seven countries are summarised in Table 1 and discussed in detail in Appendix 1. Although the aim was to collect national data for the most recent year and a year close to 1980, a variety of years were chosen ranging from 1980 and 1990 in Canada and West Germany to 1987 and 1995 in Australia. For France, data for one year only are presented due to the lack of comparable data for previous years. In general, choice of year was constrained by factors such as availability of occupational earnings data and the potential for comparison across years. For four countries (Norway, Australia, the United Kingdom and France), national earnings and employment data derive from two different sources, and for Canada, the United States and West Germany, data have been collected from the same source.³ Also, the survey method and extent of coverage differ across countries. The Canadian and the United States earnings data derive from a survey of households rather than firms, and the French earnings data are estimated from a fusion of two surveys - a survey of employer payroll information and another survey of individual workers. Coverage is incomplete in most cases. Part-time workers are underrepresented in West Germany and the United Kingdom due to minimum earnings thresholds which apply in the collection of earnings data. In the case of the United Kingdom, this leads to an underestimation of the spread of wages among female part-time workers (see Appendix 1). Workers in small firms are underrepresented in the Norwegian earnings survey. Finally, whole sectors of activity are absent from the German and French data. In the case of West Germany, civil servants (*Beamte*) are excluded from the data sample. *Beamte* include central and local government civil servants, police, customs officers and a significant group of teachers in university and secondary school education,. For France, the data exclude agriculture, fishing, postal and telecommunications services as well as public hospitals. In both cases, therefore, given the significance of the public sector as an employer of women it is clear that important occupational groups are excluded from the analysis.

As recognised elsewhere (OECD 1997), there are major differences in national definitions of part-time workers. It is not surprising, therefore, that each of the seven countries has its own definition of the working hours that constitute full or part-time employment. In most cases, the definition is based on the number of hours worked per week. The West German earnings and employment data and the employment data for the United Kingdom apply a definition based on self-assessment whereas in France, the definition of part-time work relies on the employer's assessment. The definition for part-time workers used in the Canadian data conflates part-time weekly work with part-time annual work and part-time work is thus not considered in this study.

Each country applies a different system of occupational classification, although within the country a standard classification is used for both the earnings and employment data. In order to assess the

³ It is certainly possible to collect estimates of employment data from the earnings survey in the United Kingdom. However, unlike the LFS, the New Earnings Survey does not cover a significant proportion of part-timers due to sampling methods (see Appendix 1).

patterns of women's employment concentration and relative pay by occupation, we analyse earnings and employment data at two levels of disaggregation. The first is referred to as the two-digit level of occupational classification and generally includes around 80 categories of occupations (the focus of section 3 below and referred to as "occupational groups"). The second, more detailed classification is referred to as the three-digit or four-digit level, and this includes more than around 300 occupational units (the focus of section 4 below and referred to as "detailed occupations"). Where reference is made to the ELFS, we draw on employment data that classify occupations into around 116 different categories (ISCO 88 [COM]) as this provides the closest comparison with the national data for occupational groups.⁴ The occupational data from all countries except France are broadly comparable in terms of the two levels of disaggregation (Table 1). In France, however, the two-digit occupational classification only involves 28 groups and the next level of disaggregation (the four-digit level) involves 404 occupational units. Unfortunately, therefore, we are not able to incorporate results pertaining to "occupational groups" in France as a similar form of classification (namely around 80 groups) is not available. Nevertheless, we maximise the information provided for "detailed occupations" in France in section 4 of this study, and also use this information to generate results that facilitate some comparison to be made with the other countries in section 3.

Finally, all earnings data presented for the seven countries refer to average gross hourly earnings for employees only. Hourly pay data facilitate comparison between full and part-time workers and also enable comparison of the average pay of female workers with the average pay of men. Average hourly pay of all full-time male workers is the reference we use in this report to establish wage relativities. Consideration of pay differentials between men and women as the result of differential access to overtime payments and shift premia is not possible here due to the unavailability of appropriate data in some countries. Earnings data exclude overtime payments in Australia and the United Kingdom (Table 1) and include them in all other countries. Hence, given that men have greater access to overtime payments compared to women, calculations of the gender pay ratios in the United Kingdom and Australia are likely to be overestimated.

2. 2. *General limitations of the study*

The purpose of this study is to provide quantitative results concerning the relative earnings of women across a range of occupations for a selection of countries. It is not possible to attempt an international comparison of occupational earnings as if earnings were purely a function of the type of work activity per se, such as sales assistant, primary school teacher or public administration work. There are differences in country-specific institutions that require different types of qualifications, training and professional certification for access to particular occupations and may translate into earnings differentials. It is essential, therefore, that the empirical assessment of relative occupational earnings presented here is complemented by more detailed analysis of the institutional construction of occupational groups.

Comparison of the average level of pay in different occupations is made difficult by changes in the employment composition of each occupation, as well as by differences in the relative precision of occupational categories. Changes in the composition of each occupational group may obscure and misrepresent the relative level of pay. For example, where a country expands the level of employment in a particular occupation this is likely to involve an increase in the proportion of less highly paid staff

⁴ Since 1992, the ELFS has categorised occupations according to the International Standard Classification of Occupations (ISCO 88 [COM]). According to this new classification system, the 116 categories we refer to are actually coded at the three-digit level, but match closely to the less recent system of classification used in the national data which categorises occupations at the two-digit level.

(assuming new employees are recruited onto the bottom of the pay scale), and will cause a fall in relative average occupational earnings. Such problems are compounded by the general lack of differentiation of those jobs where women predominate into more detailed occupational categories. In particular, different types of clerical work and sales occupations are often collected together, obscuring highly diverse forms of work. The spread of an occupational group across various industries, or between the public and private sectors, also raises problems of international comparison if the occupational group is concentrated within an industry of relatively high pay in one country and a low-paying industry in another (Garnsey and Tarling 1982).

In the statistics below we present two levels of occupational classification, referred to as “occupational groups” and “detailed occupations” (see above). There are clear advantages of having access to data at the most detailed level. Levels of high female employment concentration among occupational groups may obscure horizontal sex segregation where men and women work in different detailed occupations within the same group. Similarly, disaggregation of the occupational group may demonstrate underlying vertical sex segregation if the detailed occupational categories reveal supervisory and non-supervisory detailed occupations, such that men are present within the same broad occupational group but at higher grades. Also, men and women may work in the same occupational group but across different sectors of industry. This may lead to quite different levels of pay for men and women within the same occupational group, meaning that average earnings may not be representative of female earnings.

The results below involve an assessment of women’s average gross hourly pay within those occupations where they are most likely to be employed, both as a proportion of the average hourly pay of all male full-time workers in all sectors of employment, and as a proportion of the average hourly pay of all women in all sectors. Within a particular country, the average earnings of women in different occupations may be above or below the average level of pay experienced by all women in employment. Considering the economy-wide gender pay gap as the average wage penalty experienced by women, then it is clearly possible for women in different occupations to experience wage penalties that are above or below the average level. Equally, across different countries, women’s employment in similar occupational groups may be associated with above-average wage penalties or below-average wage penalties.

In the following analysis we show that, in each country, when the top-ten occupations where female employment is most concentrated are taken together, women are likely to receive an above-average wage penalty; this, however, does not apply to each individual occupation. The analysis is largely descriptive. Explanation of the variation in wage penalties across occupations and between countries must draw on more detailed qualitative work. It is likely, for example, that variation in wage penalties associated with different occupations is as much a function of the country’s overall wage structure as a reflection of the different levels of qualifications and education required by the particular occupation across different countries. For example, if men and women are concentrated among high skill and low skill occupational groups respectively in two countries, but the return to the high skill occupations is higher in one country, then that country will register wider occupational pay differentials. In particular, centralised wage-setting institutions typical of Norway and Australia, tend to reduce interoccupational wage variation and will therefore raise the relative pay of low-skill workers (Blau and Kahn 1992). In other words, the relative occupational pay of women is a function of the overall shape of the income distribution.⁵

⁵ A final note concerns the methodological problems associated with sample selection bias. Recent research shows that those econometric studies of female labour supply which either systematically omit non-workers, or include the characteristics of non-participants assuming that wages can be matched with the

3. Analysis of results at the two-digit level of occupational classification (occupational groups)

Cross-country comparison of the level of female concentration in employment is hindered by differences in national systems of occupational classification used in each of the seven countries. Differences in the number of occupational groups at the two-digit level, as well as definitional variations preclude precise comparative evaluation of employment patterns. Nevertheless, it is still possible to address the main question driving this study, namely, what are the relative wage penalties experienced by women as the result of the concentration of female employment within a limited range of occupations? Investigation of this question involves both an assessment of the relative degree of concentration within each country, and an analysis of the relative pay differentials of those occupations of most importance to women's employment.

3. 1. *The concentration of women's employment by occupational group*

a) *Concentration in the "top-ten" occupational group*

In each of the seven countries, data for the most recent year available show that employed women are still highly concentrated into a small number of occupational groups. Figure 1 draws on national employment data for each country and shows occupational information for the two-digit level of disaggregation, which includes between 50 and 80 occupational groups. If female employment was evenly distributed over 80 occupations, for example, then each occupation would account for 1.25% of total female employment, and ten occupations no more than 12.5%. But when we rank occupational groups according to the proportion of women employed as a share of total female full and part-time employment, then it is clear that the majority of women's employment in each country can be accounted for by less than ten occupational groups⁶. (Table 2).

The general pattern of female employment concentration is the result of sex segregation rather than simply a reflection of the overall importance of the top-ten occupational groups for each country. This is clear from the much less significant concentration of male employment among these occupations, and the resulting overrepresentation of women in virtually all the top-ten occupations in each country across the time period⁷. The relative concentration of men compared to women differs widely between the

earnings characteristics of participants with similar human capital characteristics, will lead to sample selection bias such that the error distribution of the sample will differ from that for the population (Humphries 1995, Killingsworth and Heckman 1986). Such problems mainly relate to those analyses of women's pay that give primary attention to supply-side characteristics and decisions. In this study, the data collected is concerned with the pay level for particular occupations and does not attempt to estimate the impact of individual characteristics on earnings. In a cross-country comparison of occupational earnings such as the study presented here, even if the level of female participation influences the relative pay in a job, this is only one factor among many institutional factors that shape the inter-occupational wage structure.

⁶. As noted above, there is no equivalent system of occupational classification in France at this level of analysis. Therefore, to facilitate cross-country comparison we refer to the concentration of female employment in the top-forty occupations from the list of around 400 four-digit detailed occupations (see Appendix Table 1); this method provides an approximately similar measure of employment concentration.

⁷. Exceptions include "miscellaneous labourers" in Australia, "other managers and administrators" in Canada, "salaried managers" in the United States and four of the forty detailed occupations in France, see Table 2 and Appendix Table 1.

seven countries. In the United Kingdom, where the difference is most apparent, only 14% of male employment is represented by the occupations shown compared to 60% of female employment (in 1995). This contrasts with Canada, where the concentration of male employment is around half the level of female employment, 32% and 67% respectively (in 1991).

Given that each occupational classification system involves a different number of occupational groups at the two-digit level, as well as a different system of classification, it is not possible to construct a meaningful comparative index of employment concentration. Relying solely on Figure 1, it would seem that women in Norway and West Germany experience relatively high levels of concentration - in both countries, around three quarters of all women employed are categorised within ten occupational groups - and in the United Kingdom, Australia and the United States, the level of concentration appears slightly less pronounced, so that around three fifths of women are employed within ten occupational groups (see also Table 2). This is particularly significant in the case of Australia and the United States given that the systems of occupational classification only include 52 and 51 groups, respectively, compared to the range of 73 to 83 for the other four countries (the exceptional case of France is mentioned above). Simple comparative observations of this sort, however, are not robust. This is made clear by comparing the occupational structure of West Germany, France and the United Kingdom with employment data from the ELFS. Since 1992, occupations in the ELFS have been codified according to ISCO 88 (COM), providing a modern harmonised source of occupational employment data.⁸ Under this new occupational classification system, the best comparator is provided by the revised three-digit level as this includes 116 occupational groups. Analysis of ISCO 88 (COM) data for 1994, shows that women's employment is relatively highly concentrated in France, and follows a very similar pattern of concentration in West Germany and the United Kingdom; results which do not mirror the findings derived from national data. If occupations are ranked in a comparable fashion, then the top-ten occupations account for 62% of female employment in France, and 56% and 58% of all women employed in West Germany and the United Kingdom, respectively. In terms of the top-twenty occupations, these figures increase to 81%, 76% and 78% respectively (Table 3). Hence, although it is not possible to check the national data for non-European Union countries, these alternative results based on harmonised employment data for France, the United Kingdom and West Germany caution against drawing precise cross-country comparisons from the national data.

b) Changes in concentration overtime

In the time period since the 1980s, there has been little change in the proportion of women employed in the top-ten occupational groups in Australia⁹, West Germany and Canada. A reduction in the degree of concentration has occurred in Norway and the United States, and, most significantly, in the United Kingdom where the fraction of women employed in the top-ten occupational groups fell from 69% to 60% between 1986 and 1995 (see Table 2). In the case of Norway, the reduction in female

⁸ The reclassification of occupations from the national characterisation to the international variant has a number of problems. In particular, the ELFS does not apply a standard methodology, nor does it apply a common survey instrument in each member state (Elias and Birch 1995). This clearly raises questions regarding the quality of data comparability between countries, since "there is no guarantee that countries have adopted and implemented a common interpretation of ISCO 88 (COM)" (op. cit.: 11). However, statistical tests do reveal those occupations in a particular country which are potentially problematic in terms of their definitional correspondence with the European average (op. cit.: 13-15).

⁹ A recent Australian study assesses the change in female employment concentration by occupation between 1981 to 1991 (Lewis 1996).

concentration over the period in question has occurred alongside a substantial increase in the level of male concentration, from 22% to 30%, with an associated drop in the female share among the top-ten occupations from 76% to 70%. This evidence suggests a shift towards a process of desegregation. It is interesting to note that this trend has occurred in the context of an overall employment expansion among these ten occupations of around 25% of male and female employment combined, compared to an average increase in the total level of employment of 6.5%. In the United States the pattern of change between 1982 and 1992 is similar to Norway, albeit less striking. Again, male employment concentration rose while female employment concentration declined, leading to a slight drop in women's share of employment among the top-ten occupations.

c) Most common occupational groups

The differences among each country's system of occupational classification preclude precise comparison of particular occupational groups where women in each country are likely to be concentrated. However, putting aside these definitional variations among classification systems, it is in general possible to identify four occupational groups that provide a high level of female employment in each of the seven countries. Clerical work provides an obvious example. Among the top-ten occupations shown in Table 2, clerical work such as book-keeping and cashier work (Norway, Canada and the United States), stenography and typing (Norway, Australia, Canada and the United States), numerical clerks (Australia and the United Kingdom), clerical and secretarial work (West Germany), or other administrative support workers (United States), together account for between 17% and 30% of all female employment in each country (according to figures for the most recent year). Similarly, sales occupational groups rank in the top-three occupational groups in all six countries listed in Table 2, and account for between 7% and 19% of female employment in each country. Forms of nursing care, which include nursing professionals and nursing associate professionals, are common among the top-ten of each country, and finally, teaching professionals rank in the top-ten in all countries except West Germany where, as mentioned above, secondary school teachers are excluded from the data. In France, although the occupational data are not available at an equivalent level of classification, among the top-forty detailed occupations listed in Appendix Table 1, the same four broad occupations are important factors in explaining women's employment concentration. Clerical work, including "secretary", "administrative staff" and "accounts and finance clerks" accounts for 19% of total female employment. Sales occupations account for 11% of the female workforce and teachers and auxiliary nurses also employ a major proportion of women in France (hospital nurses are not included in the French data).

In addition, Table 2 reveals that women are over-represented in each of the occupational groups that approximate these four areas of high female employment concentration - clerical work, sales, nursing and teaching - although nursing and clerical occupations tend to be more highly female-dominated than sales and teaching occupations. For example, in Norway where "nursing care" represents the largest occupational group for female employment, the female share is 93%, and among the different forms of clerical work the female share varies between 75% and 98%. Within sales occupations and "pedagogical work" the female share is 54% and 60% respectively (1993 data). This general pattern holds true for each country. Since the 1980s, the female share among teaching professionals has increased significantly in each of the five countries where it appears among the top-ten occupational groups, marking a widely recognised shift towards an increasingly female-dominated occupation. In some countries, this may reflect the withdrawal of men in favour of alternative, better paid or higher status employment opportunities in the private sector (see below).

Beside these four common areas of employment concentration, there are a number of other occupational groups which are peculiar to each country as an important site for female employment

(Table 2). According to data for the most recent year, “hotel, restaurant and domestic work” in Norway accounted for 9% of female employment, and is strongly female-dominated. Cleaning occupations are listed among the top-ten in Norway (“building caretaking and charwork”), Australia (“cleaners”) and West Germany (“cleaners”), and are female-dominated in each case. Male-dominated management jobs account for a relatively high proportion of women in the United States and Canada, where 6% of women in employment were employed as “salaried managers” and “other managers and administrators”, respectively (1990s data), and in both countries the level of female employment concentration has risen significantly over the period. Also, occupational groups within the manufacturing industry account for a relatively large fraction of female employment in West Germany and the United States. This pattern is most obvious in West Germany where three such occupational groups appear in the top-ten ranking: “other assemblers and metal workers”, “food processing workers” and “quality inspectors and packers”, which together account for more than 8% of female employment. In the United States, the occupational group “machine operators and tenders” accounts for almost 4% of women’s employment.

In order to assess the validity of these general findings, it is useful to compare national patterns of occupational concentration against the ELFS data. If we construct a similar ranking of occupations for the European Union as a whole (E12 as defined in 1992, including the New Länder in Germany), then we find examples of at least one type of work in each of the four broad occupational categories identified above (sales, clerical work, nursing and teaching) among the top-ten occupational groups (Table 4). If we extend the ranking to include the top-twenty occupations (to allow for the fact that the ISCO three-digit occupational classification includes 116 categories), then types of clerical, teaching and nursing occupations appear once more. Moreover, if we rank occupations by the concentration of female employment within each member state, then “shop, stall and market salespersons and demonstrators” and “secretaries and keyboard-operating clerks” appear among the top-ten occupations in each member state, and “other office clerks” and “numerical clerks” appear in the top-ten ranking in 10 and 6 member states respectively (Table 5). Similarly, forms of nursing and teaching occupations are common to the majority of member states. Table 4 shows that each of these occupational groups are female-dominated - nursing and clerical occupations more so than sales and teaching occupations, in line with the pattern of the seven countries assessed above. The lower level of female employment concentration within nursing occupations for the EU(12) as a whole, in comparison with the levels in the seven countries discussed here, is probably a reflection of the slower development of welfare services in the Southern member states rather than indicative of a significant variation in occupational definition.

d) Occupational concentration and part-time work

The role of part-time work within women’s employment adds another dimension to the picture of occupational concentration, although this varies across each country. In terms of the total number of women employed in the top-ten occupations where female employment is most concentrated, there is an overrepresentation of part-time work among women in each of the six countries where data are available (Figure 2). This is particularly evident in the United Kingdom where women in part-time jobs account for 55% of all female employment in the top-ten occupations in 1995, compared to a total share of 44%, although less obvious in Norway, for example, where the figures are 47% and 45% respectively. The absolute contribution of part-time employment to increasing the degree of female employment concentration has declined in Norway and the United States during the period shown. This reflects the growing predominance of full-time employment for all women in both countries - from 45% to 55% of total female employment in Norway, and from 68% to 70% in the United States.

In terms of the particular occupations, there is a high share of part-time employment in those occupational groups which can be broadly classified within clerical work, sales and nursing (Table 6).

Regardless of the overall incidence of part-time work as a share of female employment, one of the highest shares of part-time work within an occupation, measured as the proportion of women's employment, is recorded for the occupational group approximating sales assistants in each country. This is most striking in the United Kingdom and the United States. In the United Kingdom, the vast majority of women working as "sales assistants and check-out operators" or in "other occupations in sales and services" work part-time - shares of 78% and 83% respectively, compared to a total share of 44% (1995 data). In the United States, the proportion of women in part-time positions among "other sales occupations" is almost twice the average share among all female employment - 59% and 30% respectively (1992 data). In fact, the high representation of women in part-time jobs in sales occupations in the United Kingdom is a major factor which explains the high concentration of women in these occupations; female part-time employment in the two sales occupations shown in Table 6 account for almost 16% of all women in employment.

Among nursing staff, classified in various forms across the five countries shown in Table 6, part-time work among female employees is significantly overrepresented in Norway, Australia, and among less skilled nursing staff within "health and related occupations" in the United Kingdom. In contrast, part-time work plays less of a role among nursing professionals in West Germany and the United Kingdom. In the United States, the share of part-time work among women employed either as nursing aides (within the category "health service occupations") or as registered nurses (see below) is equivalent to the average share of part-time work among all female employment. The variation in importance of part-time employment may reflect different forms of employment organisation within health services, or may simply be the result of differences in occupational definitions. The main definitional problem seems to be whether or not the particular classification merges or separates highly trained from less-skilled nursing staff - an issue which is taken up in section 3.3 below. Moreover, the United Kingdom definitions do not separate out qualified nursing from other professional health occupations, or unqualified nurses from other associate health occupations (see below). It is clear, however, that different national forms of work organisation play an important role. For example, if we draw on ELFS data to compare the United Kingdom against the EU12 average (thus controlling for differences in occupational definitions), we find that at the EU12 level 40% of women employed as "nursing and midwifery professionals" and 27% employed as "nursing and midwifery associate professionals" work part-time (Table 4). This contrasts with figures for the United Kingdom which show that the respective shares of female part-time workers are 41% and 57%.

3. 2. *Earnings data for occupational groups*

The aim of this section is to examine whether or not the concentration of female employment within a limited range of occupational groups, as identified above, is associated with lower relative occupational earnings, and the extent to which the range of occupational wage penalties differs across the seven countries. In the analysis of women's occupational earnings, we have chosen to present the relative level of female hourly pay within each occupational group (including full and part-time female employees) as a proportion of average male full-time hourly earnings for all occupations. This measure provides the primary basis on which we assess inter-country differences in women's relative occupational earnings focusing on those occupational groups where they are most concentrated. We also consider the gender pay ratio and the degree of pay dispersion within the occupational group itself, as well as the impact of average pay differentials between broad sectors of employment. Hence, in a comparison between countries of the relative average pay of women employed as nursing professionals, for example, we first aim to identify the level of female hourly earnings in relation to total average male full-time earnings, secondly to examine the level of the gender pay ratio among men and women employed as nursing professionals, thirdly to consider the relative average earnings of public sector nurses in relation

to that of private sector nurses, and finally to assess the degree of wage inequality among female nursing professionals. Throughout the analysis, we identify the changes that have occurred between the period from the 1980s to the early 1990s.

a) Comparing the wage penalties of women's occupational concentration across countries

Women who work within occupational groups which comprise a large proportion of total female employment are, globally, penalised in relation to the average earnings of women in all other occupational groups. This is shown in Figure 3 where the average pay differential between all women employed in the top-five and top-ten occupational groups (ranked according to the concentration of all female employment) and male full-time workers in all sectors is consistently wider than the gender pay gap among workers employed across "all remaining occupations" (defined as all occupational groups except those counted among the top-ten¹⁰). Examination of data for the 1980s reveals just one significant exception to this pattern, that of female full-time workers in the total top-ten occupational groups in Australia according to 1987 data (see Table 7).

Figure 3 shows that the cross-country pattern of relative earnings of women in occupational groups where they are most concentrated mirrors the variation in levels of the total average gender pay ratio. This result is unsurprising as the high proportion of female employment in the top-ten occupations is a major influence on the overall size of the gender pay gap. In general, the lower the level of female relative earnings among the top-five or top-ten occupations, the lower is the total average gender pay ratio. In the United Kingdom and West Germany, low levels of female pay in the top-five occupations (55% and 61%, respectively, as a ratio of average total male earnings) are associated with low total gender pay ratios (71% and 72% respectively). In contrast, in Norway and Australia, the total gender pay ratios are relatively high (81% and 80% respectively) reflecting, in large part, the high relative earnings of women in the top-five occupations (78% and 75% respectively).

Among countries where the total average gender pay ratio is high, namely Norway and Australia, there is a narrow divergence in wage penalties experienced by women employed in occupations where they are most concentrated compared with "all remaining occupations". Conversely, in the other five countries the average wage penalty faced by all women is large and there is a significant spread in above-average and below-average wage penalties experienced by women employed in the different occupational groups. For example, in Norway, the relative hourly pay of women employed among the top-five occupational groups is only seven percentage points less than for those employed in "all remaining occupations" - 78% and 85%, respectively, expressed as a ratio of average hourly pay of all male full-timers in all sectors. In contrast, in the United Kingdom where the total average wage penalty is large, the relative pay of women in the top-five compared with those in "all remaining occupations" is 55% and 77% respectively. Similarly, in West Germany, if we compare women's relative pay among "all remaining occupations" with the relative average female pay among the top-five occupational groups, there is a drop of 31 percentage points from 92% of average male earnings to 61%. In the United States there is a drop of 20 percentage points from 86% to 65% and in France relative earnings are reduced from 94% to 66% (1990s figures, see Table 7).

In general, in those countries where the average total gender pay gap is narrow, any subsequent widening of the wage penalty caused by patterns of female employment concentration is likely to be small

¹⁰ Given the absence of a suitable occupational classification system, data for France derive from the top-twenty and top-forty occupations listed in Appendix Table 1.

and conversely.¹¹ This relationship affects a substantial proportion of women in work in each country. The large above-average wage penalty associated with female employment concentration among the top-five occupations in the United Kingdom, West Germany, Canada, the United States and France affects between two fifths and three fifths of all working women.

Comparison of the trend over the period from the early to mid-1980s to the 1990s reveals a mixed picture (Table 7). Although the total gender pay ratio increased in all countries except Australia (where it decreased from 82% to 80% between 1987 and 1995¹²), the relative earnings position of women employed in the top-five occupations did not follow a uniform pattern of change. It worsened in the United Kingdom and Australia, remained unchanged in West Germany, and improved in Norway, Canada and the United States. Closer inspection reveals that these changes are a function of both changes in the relative earnings of individual occupational groups, as well as changes in the occupational groups that constitute the top-five ranking (see below).

For five of the seven countries (Norway, Australia, the United Kingdom, France and the United States) the availability of comprehensive pay data allows us to distinguish between the relative earnings position of women employed in full-time and part-time jobs (Table 7). In the United Kingdom where women in part-time work earned significantly less on average than women in full-time work throughout the 1980s and 1990s, this differential is significantly compressed within the top-five occupational groups where women's employment is most concentrated. Comparing women's pay among "all remaining occupations" against female pay in the top-five occupations, the gender pay ratio for women in part-time work drops 16 percentage points from 68% to 52%, whereas for full-time work the penalty is more than twice as large - a decline of 36 percentage points from 92% to 56% (1995 data). A similar, although less striking, pattern is found for Norway in 1993. The gender pay ratio of female full-time workers is significantly lower among the top-five occupations where they are most concentrated compared to "all remaining occupations". On the contrary, the gender pay ratio for women in part-time work is very similar between the two sets of occupational groups. In Australia, there is little difference in the wage penalty associated with female employment concentration among the top-five occupations for part-time and for full-time workers. For both groups of workers, there is a drop of around 14 percentage points when comparing women's relative pay in "all remaining occupations" to women's relative pay in the top-five occupational groups. In the United States, the average pay differential that exists between all full-time and part-time female workers is mirrored among women who work in the top-five or top-ten occupations. However, in those occupations where women are less concentrated, women in full and part-time work receive equivalent levels of average pay.

In both Norway and Australia, the data collected for the two periods show that although the average total gender pay ratio in part-time work was higher than in full-time work in the 1980s, by the 1990s this situation was reversed (Table 7). In Norway, the hourly pay of all female part-timers relative to the average earnings of male full-time workers dropped from 80% to 78% whereas for full-timers the ratio increased from 77% to 83%. Similarly, in Australia, the gender pay ratio for part-time work dropped substantially from 85% to 75%, while women in full-time work improved their relative position slightly

¹¹ A recent OECD study on earnings inequality finds that the relative incidence of low pay in a country is highly correlated with earnings inequality. The incidence of low pay and the inter-decile ratio are high in the United States, Canada and the United Kingdom, and relatively low in Australia, France and Germany (OECD 1996).

¹² The widening of the total gender pay gap in Australia reflects a massive drop in the relative pay of women in part-time jobs (from 85% to 75%); the relative pay of female full-time workers actually increased slightly (see Table 7).

from 81% to 82%. Curiously, however, this trend does not apply to average full and part-time earnings among the top-five occupational groups where women's employment is concentrated. In both countries, the gender pay ratio for female part-time workers remains higher in comparison to the pay ratio for full-time workers.

b) Comparing inter-occupational pay penalties

At aggregate level there seems to be a risk to women of lower earnings through employment in those occupational groups of high female concentration. However, when looking at a more detailed level this risk does not apply to all groups (Table 8; see Appendix Table 1 for France). In each country, clustered among those occupational groups at the bottom of the pay range are occupations in sales, and among those where women receive relatively higher pay are teaching professionals and some groups of nursing staff. The high concentration of women employed in sales occupations in each country is consistently accompanied by one of the highest gender pay differentials, although this varies in scale. In comparison to the average hourly pay of all male full-time workers in each country, female sales assistants earn least in the United Kingdom (45%) and the United States (48%) and earn the most in Norway (66%) (1990s data). The position of women in clerical work has a similar variation across countries. In the United Kingdom, women employed as "clerks n.e.c" and "numerical clerks etc." earn 62% and 69% of total male average hourly pay. In Norway, the relative earnings position of clerical staff is far more advantageous: women working in "other clerical work", "book-keeping and cashier work" and "stenography and typing work" earn 80%, 94% and 83% respectively (1990s data). This is more than simply a reflection of differences in the overall gender pay gap since in the United Kingdom women in clerical work receive less than average female earnings, whereas in Norway for two of the three categories of clerical work the opposite is true.

In Norway, Australia, West Germany and France, a type of cleaning occupation occurs among the top-ten (or top-forty in the case of France) occupational groups where women are most concentrated (classified as "building caretaking and charwork" in Norway). In France, around 3% of women work as cleaners, four out of five in part-time jobs, and the relative pay is among the lowest (Appendix Table 1). In West Germany, of those occupational groups where women are concentrated, cleaning is by far the lowest paid. Table 7 shows that 6% of all women in employment work as "cleaners", yet the average female full-time pay is just 40% of the average male full-time hourly wage in all sectors (a decline from 43% in 1980). In Norway and Australia, average earnings among women employed as cleaners rank higher than among sales assistants and the relative earnings penalty is far less than in West Germany. The pay ratio is 70% in Norway and 62% in Australia, compared with average total gender pay ratios of 81% and 80% respectively. Again, the smaller gender pay gap for all women in Norway and Australia, compared to West Germany, appears to correlate with narrower gender pay gaps for women employed in low skilled occupations.

There are also some occupational groups among those identified as important for women's employment, which do not penalise women in relation to the average relative position of all women in employment. These occupational groups include the highly skilled categories of teaching and nursing, generally found within the public services, as well as managerial and administrative positions and groups within financial services. The occupational group representing teaching in schools appears in the top-ten ranking for each country (and the top-forty ranking for France), with the exception of West Germany due to the exclusion of secondary school teachers from the earnings data (see above). Teaching has maintained its position as the highest paid occupational group for women (in terms of the top-ten occupations) in Australia, the United Kingdom and Canada over the last ten to fifteen years. Moreover, in Australia and Canada, the average pay of female teachers is higher than the average pay of all male full-

time employment throughout the period. In Norway, where teaching accounts for 9% of all female employment compared to between 5% and 6% in Australia, the United Kingdom, Canada and the United States, women earn less than the average level of pay of all male full-time workers in all sectors. This has not always been the case. Data for 1980 show that the gender pay differential (as defined in Table 8) for women in “pedagogical work” was 108%. The decline since then is primarily due to the substantial drop in the relative earnings of women in part-time teaching positions, from 128% to 101%. In addition, the difference between countries in the relative earnings position of women in teaching occupations also reflects the broader inter-sectoral pay differential between public and private sector pay (Table 9).

Employees in the public sector in Norway have experienced a massive drop in earnings relative to the private sector. Between 1980 and 1993, the average wage premium of 5% received by all public sector employees has been transformed to a penalty of almost 7%. It is this factor which helps explain the relatively low average pay of female teachers in Norway in the 1990s. In Australia, the United Kingdom, Canada and the United States, the public sector still commands a significant premium for women, in comparison to the average earnings of female employment in the private sector. This evidence supports other studies that point to the positive wage premium associated with women’s employment in the public sector (see, for example, Whitehouse 1992), and also reflects the fact that the public sector provides important employment opportunities for highly skilled women. In the United States, wage opportunities in the public sector have improved for both men and women between 1982 and 1992. This reflects the rise in the relative pay of female teachers over the period, from 80% to 92% of all male average hourly earnings. In this case, then, it is the broad inter-sectoral pay differentials, as well as differences in skills, that account for the different relative earnings position of a particular occupational group between countries, rather than differences in the average earnings of all female employment in relation to men. In the analysis of more detailed occupational earnings data below, we compare the relative earnings of women in similarly skilled occupations in the public and private sectors in order to identify the contribution of public sector employment *per se* to the size of the wage penalty of each detailed occupation¹³.

Nursing provides the other example of a mainly public service occupation which accounts for a large proportion of women’s employment and is relatively well paid. However, a comparative assessment of the relative hourly pay of women in nursing occupations requires recognition of the different levels of skills and training that accompany the various occupational classifications. For example, “registered nurses” (Australia) and “health associate professionals” (United Kingdom) refer to higher paid qualified nursing staff, whereas the classifications of “nursing care” (Norway), “nursing, therapy and related assisting occupations” (Canada) cover the whole range of nursing staff from lower paid nursing assistants to qualified staff. Analysis of the relative earnings is therefore presented below in section 4, where we present the results for the more detailed three-digit level of occupational classifications.

In order to control for inter-country differences between relative earnings in the public and private sectors, Table 10 presents the relative pay of women in each occupation as a proportion of the average hourly pay of female full-time workers in public sector employment (data are only available for Norway, Australia, the United Kingdom and the United States). Here we see that the relative pay of women in teaching occupations is now more similar in Norway and Australia, compared to the results of Table 8 above, reflecting a comparable wage premium in relation to average public sector employment opportunities for women. In addition, Table 10 shows clearly that, among the top-ten most concentrated occupations in Australia and the United Kingdom, only those women who work in public sector occupations receive pay above the average earnings of female full-time workers in the public sector. In

¹³. See also OECD (1995).

contrast, it is possible for women in Norway, Canada and the United States to earn pay above average female public sector earnings in occupational groups which are not necessarily confined to the public sector: in Norway these groups are “other work in major group Technical work, physical science, humanistic and artistic work” (which includes auditors, social workers, librarians, economists, statisticians, psychologists and personnel specialists), “book-keeping and cashier work” and “stenography and typing work” (1990s data); in Canada the occupational group outside the public sector is “other managers and administrators”, and in the United States women working as “salaried managers” earn more than the average wage of female full-timers in public sector employment.

c) Comparing the relative impact of intra-occupational gender pay inequality

Differences in the relative occupational earnings of women are also related to the earnings position of women compared to men within the occupation. It is necessary therefore, to distinguish whether women’s average pay within an occupational group is primarily a reflection of the relative level of occupational pay in comparison to all employment, or a function of gender pay inequality within the occupation itself. Gender pay inequality within the occupational group may reflect instances of vertical or horizontal sex segregation. It is also possible that gender differences in pay within the occupation reflect average wage differences between sectors, since the same occupational group may be segregated by sex across different industries. Where the intra-occupational gender pay gap is small, policies to improve women’s earnings position need to concentrate either on changing the average pay associated with the occupation itself relative to other occupational groups, or on changing the broader pay differentials between sectors (such as between the public and private sectors). In contrast, where the gender pay gap is large within an occupational group, policies need to focus either on the differential employment opportunities of men and women classified within the same broad occupational group in order to reduce barriers to equitable career mobility, or to reverse trends of sex segregation between detailed occupations within the broader occupational group where men predominate within the high-paid detailed occupation.

The results presented in Table 11 show that the intra-occupational gender pay differentials for those occupational groups where women are most likely to be employed are relatively similar for each occupation in the United Kingdom and in Australia, where gender pay differentials range from 77% to 91% and 86% to 99% respectively (1990s data). In contrast, the relative position of women compared to men within each occupational group in Canada, the United States and Norway varies much more, from 67% to 104%, from 59% to 96%, and from 71% to 108%, respectively. Hence, in this respect, there is no simple relation between the overall gender pay ratio and the size of gender pay ratios within occupations. For example, among employees in sales occupations, the gender pay ratio is 71% in Norway and 82% in the United Kingdom. Gender pay ratios within other occupational groups, however, confirm expectations. For example, among teaching professionals the gender pay ratio is 96% in Australia and 89% in the United Kingdom, and among cleaners the gender pay ratio is 99% in Australia and only 51% in West Germany. Also, the comparable level of the total average gender pay ratio in the United States and Canada is matched by similar intra-occupational gender pay ratios among managerial occupational groups and school teachers.

d) Pay dispersion within occupational groups of high female employment concentration

Analysis of women’s relative occupational pay based only on average earnings may obscure significant variation across countries in the level of wage inequality among women in similar occupational groups. Hence, comparison of the degree of intra-occupational pay dispersion is an important dimension to the analysis. Reliance on quantitative assessment *per se* does not allow unambiguous interpretation.

For example, where the level of wage dispersion is relatively high this may indicate a polarisation of wage opportunities among women, segmenting those in low-paid and high paid positions. Alternatively, however, it may indicate a high level of potential earnings mobility for women employed in the particular occupational group, providing a wage structure along which women may progress through promotion, training, or experience.

The dispersion of earnings is expressed here as the ratio between the median hourly wage and the highest or lowest decile earnings. The exception is Canada, where data refers to weekly earnings and are thus not strictly comparable to the data from other countries. Highest decile earnings is defined as the amount at which 10% of employees have earnings above this level, and lowest decile earnings is the amount at which 10% have earnings below. The most compressed range of intra-occupational decile ratios is found in Norway where, in relation to the median earnings of women within each occupation, women's pay lies within limits of 0.68 in terms of lowest decile earnings and 1.48 at the highest end (1990s data, Table 12 and Appendix Table 2; data for France are unavailable). Two occupational groups stand out as having relatively high wage dispersion within Norway: "other work in major group Technical work, physical science, humanistic and artistic work" and "book-keeping and cashier work," where in both cases there is a wider differential between women earning relatively high pay and the median wage compared to the relative position of the lowest paid. In the case of the former occupational group the high wage dispersion is likely to reflect a wide variety of wage structures across a set of diverse detailed occupations, ranging from auditors to social workers and psychologists.

The pattern of intra-occupational decile ratios in Australia reflects a similar degree of wage dispersion among women earning above-median wages, but a wider divergence between those in low paid positions and those earning the median wage within each occupational group; for the top-ten occupations listed, decile earnings lie between 0.59 and 1.42 of median female earnings within each occupation. In the United Kingdom and West Germany and, in particular, in Canada and the United States, patterns of inter-decile pay ratios are more dispersed. In the United Kingdom, decile ratios range between 0.56 and 1.54. The most extreme examples of inter-decile pay dispersion include "health, related occupations", "numerical clerks, etc", childcare and related occupations" and "secretaries, personal assistants, typists". The pattern of inter-decile pay ratios in West Germany is notable for the relatively low earnings position of women in a number of occupational groups. In six out of ten occupational groups, the ratio of lowest decile earnings to median pay is between 0.42 and 0.49, a level which does not occur for any of the top-ten occupational groups in either Norway, Australia or the United Kingdom. Levels of intra-occupational pay dispersion are relatively more extreme in Canada and the United States. In these two countries, the top-ten occupations listed record both the lowest and the highest relative earnings position of female employees compared to the other four countries. The ratio of lowest decile earnings to median pay among women employed in personal service occupations is just 38% in the United States and 40% in Canada. In the same occupational group, the ratio of highest decile to median earnings among women is 2.39 in the United States and 2.03 in Canada (1990s data). Indeed, the extent of pay dispersion in the United States, in particular, reaches new dimensions. For example, whereas the ratio of the highest-decile group to median earnings is less than 1.7 for each occupation in the other countries, in the United States this ratio is greater than 1.7 in nine occupations out of ten.

Women employed in cleaning occupations experience a divergence in the range of pay between different countries (Table 12 and Appendix Table 2). There is a remarkably high level of income inequality among female cleaners in West Germany, where decile ratios range from 0.42 to 1.40, in comparison to Australia, where figures range from 0.79 to 1.28. In contrast, the category of teaching professionals provides an example of remarkable similarity in pay dispersion across countries, with the exception of Canada and the United States. In Norway, Australia and the United Kingdom, the lowest decile ratios are between 0.66 and 0.79, and the highest decile ratios are between 1.26 and 1.30.

The occupational group of sales work provides a similar example to cleaning occupations. The highest levels of pay inequality among women employed within sales occupations occurs in West Germany, Canada and the United States, where inter-decile ratios range from 0.47 to 1.69, 0.50 to 1.99 and from 0.54 to 2.16, respectively. Hence, although the average relative pay of women employed in sales occupations in West Germany, Canada and the United States is high in comparison to the United Kingdom, for example, (51%, 55% and 48% compared with 45%, Table 8), attention to relative levels of average pay obscures the greater dispersion of earnings in West Germany, Canada and the United States, particularly among low paid sales staff, which causes many women to earn relatively low pay. In addition, however, the distribution of earnings among sales staff in the United Kingdom is skewed; at the lower end of the pay scale, female pay is clustered close to the median wage, whereas the 10% at the highest end earn more than 40% of the median level of occupational pay. This may reflect the concentration of a large proportion of female sales staff in low paid positions with relatively few opportunities for advancement.

Although the range of intra-occupational wage dispersion is relatively high in West Germany, if occupational wage dispersion is assessed in relation to average male full-time earnings for all sectors, the distribution of wages in West Germany appears relatively compressed (Figure 4; data for Canada are excluded here to avoid problems of inter-country comparison caused by the unavailability of hourly earnings data). In terms of the relative lowest and highest decile earnings position of the top-ten occupational groups in relation to average male full-time hourly earnings in all sectors, Figure 4 shows that decile ratios in West Germany fall within a similar range as those in Australia and the United Kingdom. In West Germany, decile ratios range between around 25% and 120%, compared to an approximate range of 30% to 140% in Australia and the United Kingdom. This suggests quite clearly that the overall impact of relatively high levels of pay dispersion within occupational groups in West Germany is partly offset by a relatively compressed structure of inter-occupational average earnings. A similar transformation is not apparent in the case of the United States. Expressing the inter-decile ratios as a percentage of average male earnings in all sectors reinforces the comparative differences between the United States wage structure and the other countries shown. The positions of the lowest and highest paid decile income groups range from less than 20% to around 190% of average male full-time earnings, thus registering a far greater dispersion in wages among the top-ten occupations compared with other countries.

Figure 4 also shows that in those occupations where the relative level of female average earnings is high in comparison with average hourly earnings of male full-time workers in all sectors, pay dispersion among women in the occupation is also relatively high. This is true, for example, for occupational code 12 in Norway (“other work in major group Technical, physical science, etc.”), occupational code 34 in Australia (“registered nurses”), code 23 in the United Kingdom (“teaching professionals”), code 69 in West Germany (“financial institution officers”) and code 03 in the United States (“salaried managers”). In contrast, where female average occupational earnings are relatively low, the wages of women employed in the occupation tend to be clustered around a relatively compressed wage structure. Examples include codes 91 and 93 in Norway (“hotel, restaurant and domestic work” and “building, caretaking and charwork”), code 83 in Australia (“cleaners”), codes 72 and 95 in the United Kingdom (“sales assistants, etc.” and “other occupations in sales and services”), code 93 in West Germany (“cleaners”) and, at least in comparison with the average range of pay within other top-ten occupations, code 29 in the United States (“food service occupations”).

4. Analysis of more disaggregated occupational pay data (detailed occupations)

In this final section of the report we consider the evidence revealed from more disaggregated data. If we draw on a more detailed system of occupational classification, it is possible to provide deeper insights into the nature of women's relative occupational pay. For Norway, the United Kingdom, West Germany and the United States, the next level of disaggregation is the three-digit level, and in Australia, Canada and France the closest comparable system of classification is the four-digit level (see Table 1). At this higher level of disaggregation we begin with an analysis of the data focusing on the top-ten detailed occupations where women's employment is most concentrated. Then, in section 4.2, we explore the characteristics of female employment within the four occupational groups (sales, clerical work, nursing and teaching - as classified at the two-digit level), which were identified in section 3 above as areas of high levels of female employment in each of the seven countries.

4. 1. Ranking of occupations at the three or four-digit level (top-ten detailed occupations)

In the following discussion we construct a ranking of detailed occupations using three-digit data (or the four-digit level where appropriate) following the same method as we used in the analysis of two-digit occupational groups above. At this more detailed level, it is possible to assess, with a greater degree of precision, the relationship between the concentration of female employment among a small number of detailed occupations and women's relative average occupational earnings. In general terms, the results using two-digit data are repeated at the three-digit level of occupational classification. If detailed occupations are ranked according to the concentration of female employment, then we find that, globally, those occupations where women's employment is most heavily concentrated are, if taken together, associated with an above-average wage penalty (a lower level of average female occupational earnings compared to the average relative pay of all women in all sectors); again, this general relation does not hold for individual detailed occupations. Throughout the following discussion, we present women's occupational pay as a proportion of average male hourly earnings in all sectors, as we did in Section 3.

Tables 13 and 14 show the employment and earnings characteristics, respectively, of the top-ten detailed occupations. At this level of classification, between 32% and 56% of female employment within each country can be found within just ten detailed occupations out of 300-400 (1990s data). The majority of detailed occupations listed fall within the four occupational groups analysed in detail above - sales, clerical work, nursing and teaching - and they are all female-dominated with the exception of "janitors, charworkers and cleaners" in Canada, and "managers and administrators, n.e.c." and "supervisors and proprietors" in the United States. Sales and/or clerical occupations appear among the top-three detailed occupations in all countries. The category approximating sales assistants accounts for between 2% and 11% of all female employment in each country where it appears among the top-ten, and the largest category of clerical workers accounts for between 5% and 18% (1990s data). Aside from the four broad occupational groups mentioned, there is one additional detailed occupation that is an important employer of women - cleaners or charworkers. It is listed among the top-ten in all countries except the United States and accounts for between 2% and 7% of female employment in each country. Moreover, the occupation of cleaning has one of the highest shares of women working part-time in each country for which part-time employment data are available.

In each country, evidence for the 1990s shows that the wage penalty associated with the top-ten detailed occupations is higher than the wage penalty we saw for the top-ten occupational groups (Figure 5 and Tables 8 and 14). This might be expected, given the potential for the wider definition of occupational groups to include a variety of detailed occupations, some of which may include a low, but significant,

share of female employment earning significantly higher female average earnings. The difference is most evident in the United Kingdom and only marginally significant in West Germany.

The wage penalty at this level of analysis is largest in the United States where women employed in the top-ten detailed occupations earn just 56% of the average male hourly wage, compared to a total gender pay ratio of 73%. The size of the above-average wage penalty is also relatively large in France, where relative female pay among the top-ten occupations is 64% - 13 percentage points lower than the total average gender pay ratio of 77%. In Norway and Canada, although there is also an above-average wage penalty associated with female employment concentration, the penalty is significantly less. In Norway, the pay ratio for the top-ten detailed occupations is 77% compared to a total pay ratio of 81%, and in Canada the pay ratios are 68% and 73% respectively. The wage penalty is also relatively large in the United Kingdom. Women in the top-ten detailed occupations earn just 59% of average male full-time earnings compared to an average gender pay ratio of 71%.

Unlike the United States or France, the strong relationship between female employment concentration and lower occupational earnings in the United Kingdom is largely explained by the over-representation of low paid part-time workers among the top-ten detailed occupations. Part-time workers make up 76% and 88% of women employed as “sales assistants” and “cleaners”, the two occupations where women are both most heavily concentrated (8% and 6% of all women in employment, respectively) and where the relative average female pay is the lowest among the top-ten detailed occupations. In fact, in terms of full-time workers only, the wage penalty associated with female employment concentration is far greater in the United States or France than in the United Kingdom. The relative average pay of all female full-time workers and those employed in the top-ten detailed occupations in the United States, for example, drops 18 percentage points from 75% to 58% compared with a drop of eight percentage points from 80% to 72% in the United Kingdom (1990s data).

Examining the range of pay among each of the top-ten detailed occupations within each country, it is clear from Figure 5 that for women in the vast majority of occupations, the level of relative pay is less than the total average gender pay ratio (depicted by the heavy dotted line). There is a particularly large above-average wage penalty for women employed in sales occupations and as cleaners across all countries. The relative earnings of women employed as cleaners, for example, varies from 38% of total average male earnings in West Germany to 62% in Australia. There are exceptions, however, including occupations where women’s average pay exceeds the average hourly pay of male full-time workers in all sectors; examples include registered nurses in Australia (code 3401), full-time primary school teachers in the United Kingdom (code 234), elementary and kindergarten teachers in Canada (code 2731) and managers and administrators in the United States (code 022). In general, relative pay ratios among the different detailed occupations follow a similar pattern as identified at the two-digit level (see above) with earnings in the highly skilled public sector occupations - nursing and teaching - relatively high compared with those in sales and clerical work.

It is not altogether clear to what extent the lower wage penalty in public sector occupations is due to specific advantages offered by employment in the public sector or due to the relatively high skills required in occupations such as nursing or teaching. A rough assessment of the benefits of public sector employment *per se* can be made by comparing the relative pay of women in similarly low-skilled occupations such as sales assistants and nursing auxiliaries. In the four countries where data availability facilitates such a comparison, the relative earnings of women employed as nurse auxiliaries are higher than sales assistants. In Norway, for example, the pay ratios are 77% and 63% respectively, and in the United Kingdom the pay ratios are 63% and 44%. In both countries, the vast majority of unqualified nurses work in the public sector; there does appear to be some evidence therefore of a public sector wage premium for jobs of similar skill levels. In the United States, where unqualified nurses are less

concentrated in the public sector there is little difference in the relative pay of women in the two occupations (female “nursing aides” earn 55% of total average male pay and female “sales workers, etc.” 52%).

4. 2. Women’s relative pay and employment concentration in selected occupations at the three-digit level

The analysis of two-digit level data in section 3 revealed four occupational groups which are common to each country as major areas of female employment: sales, clerical work, nursing and teaching. The aim here is to explore each of these occupational groups in turn, drawing, where possible, on more detailed occupational data for each country.

Sales occupations

It is possible to provide more detailed information for the occupational group of sales in all seven countries (Figure 6, Appendix Table 3). In some countries, disaggregated data reveal that women’s employment in sales is concentrated within the least paid detailed occupation while male employment is more evenly distributed. Moreover, this pattern has proven to be resilient over the time period shown. In Norway, for example, around 80% of women employed in sales in 1993 work as “shop assistants”. Within this female-dominated detailed occupation, women earn, on average, 63% of the average hourly pay of all male full-time workers. In contrast, where women are employed within the male-dominated category of “shop managers” they can expect to earn around 72% of male average hourly pay. West Germany, Canada and the United States also illustrate this pattern of uneven employment distribution and a crowding of women into the lowest paid category of sales occupations. The high pay dispersion among female workers in sales in West Germany is revealed clearly by the three-digit data. Women’s relative pay varies from 46% for “sales occupations” to 104% for “sales representatives”. Inequality among women is overshadowed, however, by gender inequality since the female share is 80% in the former detailed occupation yet just 10% in the latter.

The disaggregated data for sales occupations provide a better basis for comparison of similar detailed occupations across countries. Across the variety of different detailed occupations included at the three-digit level of classification, the lowest paid category of sales assistants/cashiers is, perhaps, the most comparable. This is advantageous since, in most countries shown, this category also represents the largest concentration of female employment within sales occupations. Hence, if we compare, as we do in Figure 6, “shop assistants” (Norway), “sales assistants” (Australia and the United Kingdom), “sales occupations” (West Germany), “sales clerks and salespersons etc.” (Canada), “cashiers” (France) and “cashiers” (United States), we find that the relative earnings penalty for female full-time employment is highest in the United Kingdom and the United States (with pay ratios of 47% and 43%) and lowest in Norway and France (where the pay ratios are 64% and 59%). The inclusion of part-time workers does not significantly affect these ratios in the United States and France, but reduces the level of relative pay in the United Kingdom, from 47% to 44%, as well as the ratio in Norway, from 64% to 63%. Across the seven countries, this category accounts for between 2% and 10% of all female employment, and in each case there is an overrepresentation of women in employment

Clerical work

Examination of the disaggregated occupational employment data for clerical work reveals that almost all detailed occupations are female-dominated for all countries across the time period shown (Appendix Table 4). The three exceptions are “computer associate professionals” in West Germany, “mail carriers, mail and postal clerks” in Canada and “stock and inventory clerks” in the United States -

although the latter transformed from male-dominated to female-dominated between 1982 and 1992. Despite a variety of detailed occupations within each country's classification system there is a certain degree of homogeneity in terms of those detailed occupations where women's employment is most concentrated. In fact, three detailed occupations can be approximately identified and compared across the seven countries: secretaries (and stenographers); book-keeping and accounting clerks; and cashiers (and tellers). The category "administrative associate professionals" in West Germany which accounts for 20% of female employment (1990s data) is the only case where comparison is rather difficult.

In terms of these three approximate categories of clerical work, the highest levels of relative female pay are found in Norway (between 80% and 92% of male average hourly pay), and the lowest levels in Canada and the United States (between 50% and 71% and between 55% and 75%, respectively). Notably, Canada and the United States are the only countries where women's relative pay in clerical work has, for the majority of detailed occupations, increased since the 1980s, but the wage penalties still remain among the highest. By contrast, the relative pay of all detailed categories of female clerical workers (except telephonists) in Australia has slipped substantially during the period shown, shifting the levels of relative pay from a position similar to Norway closer to those found in the United Kingdom. Indeed, in terms of relative full-time earnings in 1995, women in clerical work earn similar levels of relative pay in Australia and the United Kingdom. If we include part-time hourly earnings, however, there is a negative impact on overall female relative pay in the United Kingdom (since part-time workers in clerical work tend to earn at least 10% less than their full-time counterparts), but no change in overall female relative pay in Australia (since full and part-time earnings are similar).

The relative hourly pay of women employed as secretaries (and stenographers) varies between 70% in the United States and 84% in Norway. In relation to the average relative earnings of all women (as a proportion of male average pay, 1990s data), women employed in this category experience an above-average wage penalty in Australia, Canada, France and the United States (Appendix Table 4b and Table 8). In Norway, the pay ratio of 84% compares with an overall gender pay ratio of 81% (1990s data), and for women employed as part-time secretarial staff, the effective wage premium is even higher, since their relative pay is 90% of total average male earnings. Among the approximate detailed category of book-keepers and accounting-clerks, the highest relative pay is again found in Norway (92%) and the lowest levels in the United Kingdom (67%) and Canada (71%). Finally, among cashiers/bank counter clerks there is a broad spread of relative earnings ranging from a relative pay ratio of 50% in Canada to 88% in France. Reasons for the apparent divergence in relative occupational earnings are likely to include differences in occupational definitions. The quantitative nature of this report, however, precludes further investigation of these issues.

Nursing

Not surprisingly, there is an overrepresentation of women employed among all detailed occupations included within the occupational group of nursing in each country (Figure 8 and Appendix Table 5). Some classification systems include dental assistants, nurse secretaries, or other professional groups such as physiotherapists among the disaggregation of nursing as a generic occupational group. To avoid unnecessary complication, we focus here only on the more common detailed occupations within nursing. In four countries (Norway, the United Kingdom, Canada and the United States), there is a clear distinction between qualified (or registered) nurses and less skilled nursing assistants. In Australia, data are only available for "registered nurses", and in West Germany, it appears that the category "nursing associate professionals" includes both qualified and unqualified nursing staff. The data for France exclude employees in public hospitals and therefore vastly understates the concentration of female employment in nursing occupations.

It is possible to make an approximate comparison of the relative pay of qualified nurses in Norway (“professional nurses”), Australia (“registered nurses”), the United Kingdom (“nurses”), Canada (“nurses, registered, graduate and nurses-in-training”) and the United States (“registered nurses”). According to the most recent data, the highest level of relative pay is found in the United States, where female qualified nurses earn 31% more than the average hourly pay of all male full-time workers in all sectors. In Australia, qualified nurses also earn more than total average male full-time pay, with a pay ratio of 104%. In the United Kingdom and Canada the level of relative occupational pay is slightly below total average male full-time earnings - 94% and 97% respectively - and the lowest level is found in Norway at 88%. Compared to the 1980s, the position of qualified nurses has fallen in Australia from 111% to 104%, and risen from 83% to 94% in the United Kingdom and from 99% to 131% in the United States. In contrast to the example of clerical work above, the average pay of women employed part-time as qualified nurses in the United Kingdom is comparable to those working full-time, and therefore, does not have a significant negative influence on overall rates of pay.

Comparison of unqualified nurses is possible for Norway (“other practical nurses”), the United Kingdom (assistant nurses, nursing auxiliaries”), Canada (“registered nursing assistants” and “nursing attendants”), France (“auxiliary nurse, etc.”) and the United States (“nursing aides, etc.”). Data which are available for the United Kingdom and Norway show that the majority of women employed as unqualified nurses work part-time - 54% and 63% respectively (1990s data). Compared to average male earnings, the pay ratio of unqualified female nurses varies across countries from 77% in Norway to 55% in the United States. Comparison of the relative pay differential between unqualified and qualified female nursing staff across the countries gives some indication of differences in the length of the payscale among nurses. The widest pay differential is in the United States, where “nursing aides” earn less than half of the average pay of “registered nurses”. In Canada and the United Kingdom, “nursing attendants” and “assistant nurses, nursing auxiliaries” earn around two thirds of the pay of registered nurses. Finally, in Norway, the pay differential is far more compressed; “other practical nurses” earn close to 90% of the pay of “professional nurses”.

In West Germany, the relative pay of “nursing associate professionals” has fallen from 79% to 75% between 1980 and 1990 (full-time workers only). At this level it stands far lower than average pay ratios for nursing in the other countries. If we calculate the average relative level of female pay for qualified and unqualified nursing combined, we find that the pay ratio in Norway is around 83%, in the United Kingdom 86%, in Canada 88% and in the United States 92% (no data for unqualified nurses in Australia or for qualified nurses in France). The relatively low position of nursing in West Germany is also true in the case of “midwives”. In comparison to the United Kingdom, women working full-time as a midwife earn just 65% of average male full-time earnings in West Germany and 113% in the United Kingdom (1990s data).

Teaching

For five countries, the system of occupational classification divides the occupational group of teaching by level of education. In France, earnings data are only available for the broad occupational category of “primary school teachers and others” (Figure 9 and Appendix Table 6; data for West Germany are not reported here as many groups of teachers are excluded from the data, leading to a significant underestimation of the level of employment concentration, see Appendix 1). In general, the disaggregation of teaching includes three levels: secondary school, primary school and nursery school. In each country, the female share of each detailed occupation increases as the level of education decreases. For example, in Norway, the female share among secondary school teachers is 53% compared with 98% among nursery school teachers, and in the United Kingdom these figures are 52% and 84% respectively. Part-time work accounts for a significant level of female employment in teaching in most countries where

data are available. In Australia and the United States, part-time work is more common at lower levels of school education, whereas in the United Kingdom it is more common at higher levels of education (Appendix Table 6a).

In terms of the relative pay of female teachers, the cross-country pattern varies according to the level of education (Figure 9). For teachers in nursery and/or primary education, the lowest levels are recorded in the United States, Norway and Canada, and the highest in the United Kingdom and Australia. For secondary school teachers, the highest level of relative female pay is in Canada, and only Norway records a level of relative pay that is below the average earnings of all male workers in all sectors (disaggregated data for France are unavailable). Levels of pay among the different detailed teaching occupations are compressed within a relatively narrow range in Norway, Australia and the United Kingdom, but are relatively dispersed in Canada and the United States. Considering all levels of teaching, female teachers in Australia, for example, earn between 91% and 110% of total average male full-time earnings, whereas in the United States women earn between 66% and 104% of total male full-time earnings. Explanation for the difference in wage structure among female teachers in each country is likely to depend upon the particular national system of pay determination; an issue which is beyond the scope of the present study.

5. Main results and conclusions

On the basis of the results presented in this study, it is possible to assess the implications for the future earnings opportunities for women in those occupations which have, over the last ten to fifteen years, provided an important site of employment for women. The study has assessed patterns of female employment concentration among the broad categories of “occupational groups” as well as the finer classification of “detailed occupations” in association with an examination of women’s relative occupational earnings. This has been carried out for seven countries: Norway, Australia, the United Kingdom, West Germany, Canada, France and the United States. Two general observations are made. First, the concentration of women’s employment among a handful of occupations has been sustained over the period studied. Secondly, women who work within these occupations, on average, earn less in relation to the average earnings of all women.

Drawing on the national system of occupational classification for each country, we found that more than 60 per cent of women’s employment can be accounted for by less than ten occupational groups, out of a total number of between 50 and 80 groups, in each country (again, the results for France refer to the top-forty detailed occupations out of a total 400 categories). During the last ten to fifteen years, there is no clear sign that this trend of high female employment concentration is lessening, although the relative levels vary between countries. Four occupational groups stand out as providing important sources of employment opportunities for women in each of the seven countries: sales, clerical work, nursing care and teaching professionals. Together, these occupational groups account for around half of all female employment in each country and, in each occupational group, women’s employment is overrepresented. In terms of the top-ten occupational groups where female employment is most concentrated, there is an overrepresentation of part-time work in all countries where data are available. The role of part-time work is particularly evident in Norway, West Germany, and especially in the United Kingdom.

Over the period examined, the average wage penalty of all women (full and part-time female workers combined), or the total gender wage gap, decreased only marginally for most countries for which data are available. In the United States between 1982 and 1992, however, women’s average pay increased significantly from 63 per cent to 73 per cent of male average hourly earnings. There was some deterioration in the gender pay gap in Australia, where the average gender pay ration fell from 82 per cent

to 80 per cent between 1987 and 1995. Considering the average earnings of all women in the ten occupations where female employment is most concentrated, evidence for the seven countries shows that their relative pay is lower than the average pay of women employed across all occupations. In all countries except Norway, the difference between the total average wage penalty and the above-average wage penalty experienced by women employed in the ten occupations where female employment is most concentrated has increased in magnitude over the period studied (1980s data for France are unavailable). In the United States, for example, the levels of the total average gender pay ratio and the relative female pay among the top-ten occupational groups changed from 63% and 59% to 73% and 66%, respectively, between 1982 and 1992 - a widening between the average wage penalty and the above-average penalty from four to seven percentage points. Moreover, the difference between the size of the above-average wage penalty and the below-average wage penalty received by women employed in those occupations where they are least concentrated is indicative of the degree of polarisation between women in different occupational classes. In this sense, polarisation is high in West Germany and France, and far lower in Norway.

The relative size of the average wage penalty and the above-average wage penalty varies between countries. The average wage penalty experienced by all women in employment is relatively small in Norway and Australia, and relatively large in the United Kingdom and West Germany. In terms of the above-average wage penalty, there is a relatively low impact of female employment concentration in Norway and Australia, and a relatively high effect in the United Kingdom and West Germany, and to a lesser extent in the United States and France. It would seem, therefore, that there is an approximate linkage between the relative size of the average gender pay ratio in a particular country and the magnitude of the above-average wage penalty associated with female employment concentration. In addition, however, variation in average and above-average wage penalties among countries also reflects differences in inter-sectoral wage differences, such as the average pay differential between workers in the public and private sectors, as well as differences in the dispersion of wages within each sector. Finally, there is an important distinction between the wage penalties experienced by women in full-time and part-time work. In the United Kingdom and Norway, the difference between the above-average wage penalty (associated with high female employment concentration) and the below-average wage penalty (associated with low female employment concentration) is relatively small among female part-time workers compared with full-timers. In both cases, however, the greater compression of earnings among female part-timers is offset by a larger average wage penalty among all women in part-time work compared to those in full-time work. In the United States, the average earnings of female part-timers is also less than female full-timers, but there is a greater difference between the size of above and below-average wage penalties among female part-time workers compared with female full-time workers. Hence, in the United States, women in part-time work experience both a relatively high level of polarisation in relative pay and a high average wage penalty compared with women in full-time work. In France, the polarisation in earnings among women in full-time or part-time work is very similar.

Among those occupations most important for female employment opportunities, some occupations are associated with a far higher above-average wage penalty than others. These include occupations within sales, cleaning and catering services. This is of particular interest as these occupational groups represent major growth areas of female employment during the 1980s, reflecting the importance of the private services sector (OECD 1994). Moreover, the distribution of wages among women is highly compressed within these occupations, thus offering, it would seem, little chance of earnings mobility as a means of escaping the relatively low level of average occupational earnings.¹⁴ In

¹⁴ An assessment of this hypothesis requires, of course, collection of longitudinal occupational earnings data. A recent study of the earnings mobility in seven OECD countries shows, however, that there is no apparent

Norway and West Germany, the wage structure for some of these relatively low paid occupational groups has, in fact, become more compressed over the period shown, unaccompanied by a rise in the relative average earnings position. In the near future, the earnings prospects of occupations in cleaning and catering, as well as those in personal and private services, depend in part on policies in large manufacturing firms or public sector organisations within each country to subcontract job tasks. In those countries where this practice has already been established, the result has been a shift in the employment of women to small private service firms, which generally offer less shelter from the turbulence of competitive pressures and pay lower relative wages.

This situation contrasts with the high-skilled occupations found mainly within public sector employment, such as nursing or teaching professionals, as well as managerial and high-level administrative positions in some countries. These occupational groups tend to combine a high level of employment opportunities for women with a below-average wage penalty - that is, a wage premium in comparison to the average gender pay ratio. Given the importance of the public sector as a site of employment opportunities for highly skilled women, whether or not this situation is sustained in the near future depends on the impact of government expenditure policies, or changes in centralised wage bargaining strategies, which may reverse the wage premium attached to public sector employment (OECD 1994). This has already occurred in Norway, where, on average, the wage premium in the public sector in 1980 was reversed to a wage penalty by 1993 for all groups of workers with the exception of female part-time workers. This provides the main explanation for the reduction in the relative earnings of women employed as teachers, from 108% to 92% of the average male wage in all sectors during the period.

This study has involved a largely quantitative evaluation of results and suffers from reliance on national data-sets which differ widely in systems of occupational classification, sampling methods and information collected. The implications of the results presented in this report are contingent on insights gained from the accompanying case-study investigation of the occupational groups and detailed occupations highlighted here, undertaken as part of the broader OECD project. Further research on the issues raised here would clearly benefit from more extensive national and cross-national efforts to collect occupational earnings data for men and women. Attempts to collect pay data according to a harmonised system of occupational classification would provide a basis, accompanied by appropriate case-study and historical analyses, on which to explain cross-country differences in women's occupational employment concentration and relative pay.

relationship at the economy-wide level between earnings dispersion in a single year and mobility across income quintiles (OECD 1996: 83-84).

APPENDIX 1

DESCRIPTION OF NATIONAL EMPLOYMENT AND EARNINGS DATA

Years chosen for data provision

For each country, earnings and employment data are presented for the most recent year and a year close to 1980. Owing to various obstacles such as the unavailability of data for certain years, or changes in the occupational classification system, the actual years for the data varies across countries. In Norway, although earnings data are presented for 1980 and 1993, employment data refer to 1981 and 1993 because 1981 is the first year that the Labour Force Survey (LFS) collected occupational data at the three-digit level. Similarly, for Canada earnings data refer to 1980 and 1990 and employment data refer to 1981 and 1991. In Australia, 1987 and 1995 are the most suitable years for comparison due to a change in the occupational classification system in 1986. In the United Kingdom, 1986 is selected as this is the earliest year for which two-digit and three-digit occupational employment data are available from the LFS database. The data for France presented the greatest problem. Data for one year only have been collected as from 1992, the national institute that collects earnings data (INSEE) adopted a new approach by fusing two surveys (an employer-based and an individual-based survey) and providing far more detailed information. Data for previous years are thus not comparable.

Source and sampling method of national earnings and employment surveys

The earnings data for all countries except Canada and the United States derive from representative samples of employees with information collected within the firm rather than from within the household. In West Germany and the United Kingdom (excluding Northern Ireland), earnings estimates are based on a one percent random sample of the annual social insurance register (in the case of the German "IAB-Beschäftigtenstichprobe") and the pay-as-you-earn income tax schemes (in the case of the British "New Earnings Survey"). Earnings data for the United Kingdom exclude employees whose pay was affected by absence (where absence may refer to holidays, sickness, leave, absenteeism, short-time working or industrial disputes). In both cases, information from employers is only obtained in practice relating to employees whose pay is above the minimum threshold for social security contributions. In West Germany, it is estimated that the register represents only 80% of total employment, with a sample size of around 200,000 cases for each year. Excluded groups consist of civil servants (*Beamte*), the self employed, unpaid family workers, and persons who fall below the minimum social insurance level. Groups classified as *Beamte* include employees in central and local government, police, armed forces, customs officers and many groups of teachers (including some teachers in universities, secondary schools, vocational schools or art/ music schools).

In both the United Kingdom and West Germany, there is an incomplete coverage of part-time workers as the weekly earnings of a significant share of this group will tend to fall below the social insurance or National Insurance threshold. In West Germany, the minimum monthly earnings limit was 470DM in 1990. In the United Kingdom, the 1995 earnings threshold was £68 per week and it is estimated that around one fifth of all part-time employees are excluded from the pay data as a result. Moreover, no pay data are reported for male part-time employees in the United Kingdom. As a partial remedy for the limited coverage of part-time employment in the British earnings data, we calculate all combined full and part-time earnings using LFS employment figures together with NES hourly pay data. This is only a partial remedy as we have to assume that the average occupational pay is unaffected by those part-timers excluded due to low weekly average earnings (i.e. that the hourly rate of those excluded from the survey is equivalent to the average pay of sampled part-time workers).¹⁵

In Australia, the source used for pay data is the Australian Bureau of Statistics "Survey of Employee Earnings and Hours" which is based on a representative sample of 9,000 employers and provides a total sample of 73,000 employees paid at adult rates in 1995. In Norway, the pay data derive from two different sources for 1981 and 1993. 1993 earnings data are drawn from the Norwegian Survey of Organisations and Employees (1993) which involves a representative survey of employees working in establishments with two or more employees - although employees working in establishments of less than ten employees are known to be underrepresented. The actual sample of individuals with hourly wage information is relatively small, at around 3,600. For 1980, the pay data derive from the Norwegian Level of Living Survey (1980), which is representative of the population, and provides hourly information for a sample of around 1,700 individuals. Earnings information for Canada and the United States derives from census data for each year. In Canada, the survey covers 20% of the working-age population in the labour force,¹⁶ and in the United States the sample for earnings data covers 78,779 workers for the 1992 data and 80,087 workers for the 1982 data. The French data do not reflect complete coverage of all economic sectors. As with the West German data, a major part of the public sector is excluded from the survey, thus adversely affecting our ability to assess women's pay and employment opportunities as many public sector occupations are important for female employment. In particular, the French earnings data exclude agriculture, fishing, public hospitals and the postal and telecommunications services.

The employment data for Australia, France, Norway and the United Kingdom derive from the national Labour Force Survey. Information for Canada and the United States is collected from census results, and data for Germany derive from the Employment Statistics of the Federal Employment Services. In Australia, the LFS is based on a survey of around 30,000 households plus a sample of non-private dwellings and covers all persons over the age of 15. In the United Kingdom, the sample for both the quarterly survey of 1995 and the annual survey of 1986 covers around 120,000 people aged 16 and over within about 60,000 households (around one in 350 households). In contrast to the British earnings data which exclude Northern Ireland, the sample for the LFS employment data covers the whole of the United Kingdom. Throughout this study we have chosen to refer to the United Kingdom rather than Britain in order to be consistent with the standard notation of cross-country research. The survey in Norway is

¹⁵ Earnings data from the LFS which does not exclude workers on low weekly earnings suggest that although the average level of hourly pay for part-time workers is similar to the NES estimate, lower decile levels are significantly less. For example, NES data for 1995 show that the average hourly wage of female part-time workers is £5.35 and the lowest decile wage is £3.06; the ratio between lowest decile earnings and average pay is therefore 0.57. In contrast, LFS data for Spring 1995 record an average of £5.61 and lowest decile earnings of £2.58; this gives a corresponding ratio of 0.46.

¹⁶ The unweighted sample sizes for Canada are massive: 1,777,657 for the 1981 survey and 2,032,727 for 1991.

based on a sample of around 11,000 persons in 1981 and 24,000 persons in 1993, representative of people aged between 16 and 74 years old. In West Germany there is a problem regarding underestimation of part-time workers. For example, in comparison to the ELFS the share of part-time employment among total female employment is given as 21.2% (1980) and 25.8% (1990) according to the national data, and 30.7% (1989) and 36.4% (1994) according to the ELFS.

Classification of full and part-time employees

The national data apply a variety of definitions of part-time and full-time work. The difference is most striking with respect to the Canadian census data which distinguish between workers on the basis of weeks in employment during the reference year, as well as the number of hours worked per week. Data for 1990 classify work as full-time if it involves at least 30 hours of work per week and between 49 and 52 weeks of work during the reference year. Work is defined as part-time if it involves a working week of less than 30 hours or an annual working time of less than 49 weeks. The latter definition is problematic as it includes all workers (full and part-time) who worked less than 49 weeks during the reference year. It is not possible to collect data from the Canadian census which separate out the variable regarding annual weeks worked in order to provide earnings and employment data for full and part-time workers based on average weekly hours only. Consequently, the Canadian data for part-time workers have not been used in this study as they are not comparable with usual national definitions of part-time workers based solely upon an hours worked per week definition.

Australia, Norway, and the United States classify full and part-time work according to hours worked during the reference week. In Australia, employees are regarded as full-time if they work the agreed or “award” hours for a full-time worker in their occupations, or if they work at least 35 hours per week. Full-time work in Norway is defined as at least 30 basic hours per week. The census data for the United States classify full and part-timers similar to Australia - work is full-time if it involves at least 35 weekly hours for the majority of weeks worked in the reference year. In the United Kingdom, the definition differs between the earnings and employment data. The earnings data define full-time work as more than 30 basic hours per week (except teachers and academics who must have normal hours of 25 or more), unless no specified hours exist, in which case the classification relies on the employer's description. Part-time refers to an employee with 30 hours or less as the basic week (with the same exceptions as above). In contrast, the employment data rely on self-assessment in determining full or part-time status. Similarly, in France, the definition of part-time work is based on assessment by the employer, although this is likely to be influenced by the legal definition of part-time work which states that a job is part-time if it involves less than 80% of the legal or conventional number of full-time weekly hours. Finally, the classification system used in the data for West Germany relies on self-assessment.

The system of occupational classification

Within each country, the earnings and employment data presented for the most recent year and for a year in the early to mid-1980s rely on a standard classification system for occupations. In Australia, data are classified according to the Australian Standard Classification of Occupations (ASCO 1986) which details 52 groups at the two-digit level. ASCO does not have a three-digit level of classification and therefore, four-digit data are presented here (around 280 detailed occupational categories). In Norway, occupations are coded according to the Nordic Occupational Classification system (NYK) which is based on ISCO (1958), although it has been somewhat revised. In West Germany, the occupational coding structure is given by the “Bundesanstalt für Arbeit” (the “BA Classification”) and includes 83 occupational groups at the two-digit level and 311 detailed occupations at the three-digit level. Occupations in the Canadian data follow the SOC (1980) classification system. This involves 22 major occupational categories, sub-divided into 80 occupational groups and 514 detailed occupations.

Census data for the United States apply the SOC system which involves 51 groups at the two-digit level and around 500 categories at the three-digit level of disaggregation. The occupational data presented for the United Kingdom follow the Standard Occupational Classification system (SOC 1990) which includes 77 occupational groups at the two-digit level and around 370 detailed occupational categories. The classification systems in both the United States and the United Kingdom are not perfectly comparable between the two years for which data have been collected. Regarding the United States data, two occupations where employment expanded over the period have been further disaggregated: the 1982 category of “managers and administrators not elsewhere classified” (code 019) was split into “managers in food serving and lodging establishments” (017), “managers in service organisations” (021) and “other managers and administrators” (022); and the 1982 category of “childcare workers” (code 468) was split into “family childcare providers” (466), “early childhood teacher’s assistants” (467) and “other childcare workers” (468). Also, the 1982 category of “telegraphers” (code 349), which declined in employment over the period, was fused with the already existing category of “other communications equipment operators” (353) in the 1992 data. In terms of the United Kingdom data, we have attempted to minimise problems of comparability. In its original form, the British earnings and employment data prior to 1992 follow an entirely different system of occupational classification. Consequently, in order to facilitate inter-temporal comparison, we have transformed the 1986 data in line with the SOC codes used after 1992 (see Appendix 2 for details of this method).

Only France presents difficulties in access to comparable levels of occupational data. Occupations are classified according to “Professions et Catégories Socioprofessionnelles” (PCS) which only has two levels of analysis - the two-digit level involving just 28 occupational groups and the four-digit level consisting of 404 categories (excluding non-workforce occupations). Occupational data classified according to just 28 groups are not comparable to the two-digit data collected for the other six countries which involve around 80 occupational categories. In this study, therefore, the French data are only effectively utilised in section 4 where we consider detailed occupations.

Earnings data

Earnings information for the seven countries covers employees only. We analyse average gross earnings rather than net earnings in order to avoid the impact of different systems of taxation across countries. In order to assess the various issues surrounding women’s relative pay, we collected pay data in such a way as to enable comparison of the earnings of full and part-time work, as well as the differential between male and female earnings. With these considerations in mind, we collected average gross hourly earnings for men and women in each occupational group. The collection of hourly pay data is necessary in order to be able to integrate the average earnings of women in full-time and part-time work within each occupation. Our original intention was to collect hourly pay data that excluded overtime payments, in order to ensure that the differential between full-time and part-time hourly pay would not be the result of full-time workers’ greater access to overtime payments, and to collect weekly average earnings that included overtime payments, since overtime pay (and other allowances) do constitute an important component of the gender pay differential. Due to problems of data availability, however, the hourly pay data presented are a mixed picture between countries where overtime pay is excluded (Australia and the United Kingdom) and countries where overtime payments are included (Canada, France, Norway, West Germany and the United States).

The earnings data for the United Kingdom exclude overtime payments, except for information regarding pay dispersion. The United Kingdom New Earnings Survey calculates hourly earnings by dividing the total weekly earnings of employees in the sample by the total weekly hours worked. This method minimises the bias caused by taking an arithmetic average of all hourly earnings which may give disproportionate weight to those workers in the sample who have relatively high hourly pay and who work

few hours. In Australia, where overtime payments are excluded from all hourly pay data presented here, the Australian survey of Employee Earnings and Hours calculates average gross hourly pay in a similar manner. In Norway and Canada, all hourly pay reported here includes overtime payments. In Norway, hourly pay is calculated in a similar manner to the United Kingdom data, by dividing the weekly or monthly earnings by the appropriate number of hours worked. Also, hourly data in the United States are calculated from the given estimates of annual earnings, number of weeks worked and the number of weekly hours usually worked in the reference year. Hourly pay data for Canada, however, are somewhat problematic since they are estimated by dividing the annual earnings data of a reference year by the product of the actual number of hours worked in a reference week and the number of weeks worked in a reference year. For the census data published in 1981 and 1991, the reference year refers to 1980 and 1990, respectively, whereas the reference week refers to the last week of May 1981 and 1991, respectively. It is possible, therefore, that the reference week may record information for a job which differs to the job (or jobs) held during the reference year. Estimates for weekly earnings in Canada, which are used for the information regarding pay dispersion, are more suitable as they refer to variables that are both defined over the reference year. This does mean, however that data on occupational pay dispersion is not directly comparable with the results from other countries. Finally, there is a major problem regarding the West German pay data as no hourly pay data are available for part-time workers, and the earnings data for full-time workers are in the form of average daily earnings.

Although the use of average hourly earnings enables the integration of full-time and part-time pay, there are difficulties in relying on hourly wage data. For example, in the case of teaching professionals, average hourly pay may in some cases reflect the level of pay earned for one hour spent in the classroom, rather than the average hourly pay across the whole working week. As a result, if the average weekly wage is divided by the average hourly wage, the number of hours worked per week is underestimated. This is the case in the United Kingdom. Earnings data for 1995 show that teaching professionals earned, on average, £436.52 per week or £13.88 per hour, giving an average working week of 31.4 hours. Calculation of the relative pay of teachers also illuminates this problem. Teachers in the United Kingdom earn 67 per cent more, on average, than all workers in all sectors in terms of average hourly earnings, yet only 30 per cent more on the basis of weekly earnings. These differences are not significant for the other countries analysed here.¹⁷ It would seem, therefore, that the hourly pay for teaching professionals in the United Kingdom is overestimated.

¹⁷ Calculations for the other four countries, using 1990s data, reveal the following pay ratios in terms of hourly pay and weekly pay respectively: 107 per cent and 104 per cent for Norway; 118 per cent and 120 per cent for Australia; 132 per cent and 126 per cent for Canada (full-time workers only); and for Germany it is not possible to make the comparison as earnings data has been provided on the basis of average daily pay only (the pay ratio is 104 per cent).

APPENDIX 2

THE TRANSFORMATION OF 1986 EMPLOYMENT AND EARNINGS DATA FOR OCCUPATIONS IN THE UNITED KINGDOM TO THE STANDARD OCCUPATIONAL CLASSIFICATION (1990) SYSTEM.

In the United Kingdom, the collection of data has involved a transformation of occupational information from one system of classification to another in order to facilitate comparison between 1986 and 1995. Prior to 1991, the earnings and employment data each used a slightly different system of occupational classification, hindering a simple cross-matching of employment and earnings data. Then, from 1992, both the earnings and employment data have followed the Standard Occupational Classification system (SOC 1990), which facilitates cross-matching between earnings and employment data, but obviously obstructs comparisons with earlier years. In its original form, the 1986 earnings data classify occupations according to a unique coding which, although distinct, is actually closely based on the "List of Key Occupations for Statistical Purposes" (KOS), (first published in volume 1 of "Classification of Occupations and Directory of Occupational Titles", HMSO 1972) that provides the basis for occupational coding used in the 1986 employment data. In practice, the close similarity between the occupational codes used in the earnings and employment data for 1986 facilitates a relatively straight-forward process of cross-matching. The rather more difficult process is to transform the 1986 occupational earnings and employment data into a form comparable to the 1995 data which are based on SOC. Comparison of the KOS and SOC classification systems showed that it is feasible to rearrange the 440 categories used in the 1986 occupational data into the 77 minor (two-digit) groups of SOC. Hence, both the 1986 and 1995 data are presented in a form which allows comparison according to the SOC classification. Data are presented at both the two-digit level (77 occupational groups) and the three-digit level (374 detailed occupations).

Transformation of the 1986 occupational information to SOC was not entirely a neat matching process. In terms of the earnings data, at the two-digit SOC level, the category "public health and other inspectors" (1986 NES code 118-119) divides between SOC 34 (which includes "environmental health officers", SOC 348) and SOC 39 (which includes "inspectors of factories..." SOC 394 and "other inspectors..." SOC 395). In the recoding, we have classified the 1986 group into SOC 34. Also, the 1986 category of "catering supervisors" does not clearly fit into a SOC (1990) two-digit group; we have therefore excluded it from the analysis. Transformation of earnings statistics to the SOC three-digit level reveals three major discrepancies. First, nurses and midwives are not distinguished in the 1986 pay data and therefore presented here as the combination of SOC (1990) codes 340 and 341. Second, shelf-fillers are included in the category for sales assistants in the 1986 grouping, but differentiated in the SOC (1990) codes. Finally, the 1986 data separate school teachers into secondary, primary, and other teachers, whereas the SOC codes differentiate between secondary, primary and nursery, special education, and

other teachers. There were also a number of difficulties concerning transformation of the 1986 employment data to SOC codes. We have assumed that all categories of supervisory staff, which are differentiated in the KOS system but not in SOC, can be assimilated within the same two-digit SOC code to which the non-supervisory staff are grouped. For example, supervisors of hospital porters are grouped together with hospital porters, and so on. Also, we have been unable to regroup three 1986 occupational categories: “paper, paperboard and leatherboard workers”, “foremen of carpet fitters” and “carpet fitters” and “fettlers and dressers”. This problem is unlikely to affect the ranking of occupations according to female concentration. At the three-digit level, four main problems arise. First, KOS does not distinguish between teachers in different sectors of non-higher education, so it is impossible to disentangle SOC groups 233, 234, 235 and 239. Second, as with the 1986 earnings data, nurses and midwives are not distinguished, so SOC codes 340 and 341 are combined together. Third, the clerical groups “typist and word processor operators” (SOC 452) and “other secretaries, personal assistants, etc.” (SOC 459) are grouped together in the LFS 1986 data as “typists, short-hand writers, secretaries”. Finally, the SOC three-digit groupings for “window cleaners” (code 956), “road sweepers” (code 957) and “cleaners, domestics” (code 958) are also collected together in the 1986 employment data.

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TABLES AND FIGURES

Table 1. Summary of information regarding national data sources

	NORWAY	AUSTRALIA	UK	US
a) Years chosen for data	Employment: 1981 and 1993 Earnings: 1980 and 1993	1987 and 1995	1986 and 1995	1982 and 1992
b) Source of earnings data	1980: Norwegian Level of Living Survey 1993: Norwegian Survey of Organisations and Employers	Survey of Employee Earnings and Hours	New Earnings Survey (NES) - covers Britain	Current Population Survey (March Supplement)
c) Source of employment data	National Labour Force Survey (AKU)	National Labour Force Survey	National Labour Force Survey - UK	Same
d) Groups excluded or underrepresented in data	Workers in small firms are underrepresented		Part-time workers underrepresented	
e) Classification of full and part-timers	FT: at least 30 hours per week	FT: at least 35 hours p.w. or the FT "Award" hours	NES: FT is more than 30 hours p.w., except teachers and academics, 25+ LFS: self-assessment	FT: at least 35 hours per week for the majority of weeks worked in the year
f) Occupational classification - name of classification	Nordic Occupational Classification (NYK) loosely based on ISCO (1958) - somewhat revised	Australian Standard Classification of Occupations (ASCO 1986)	Standard Occupational Classification, (SOC 1990)	Census Occupational Classification based on Standard Occupational Classification (SOC 1980)
- number of 2-digit occupational groups	73	52	77	51
- is a 3-digit breakdown available?	Yes	No, 4-digit breakdown provided with approximately 280 categories	Yes, with around 370 categories	Yes, with around 500 categories
g) Earnings data - does hourly pay exclude overtime payments? - is pay data available for full and part-timers?	No Yes	Yes Yes	Yes, except pay dispersion data Female part-timers only	No Yes
	WEST GERMANY	CANADA	FRANCE	
a) Years chosen for data	1980 and 1990	1980 and 1990 1981 and 1991 (employment data)	1992 (lack of adequate data for 1980s)	
b) Source of earnings data	Beschäftigtenstatistik der Bundesanstalt für Arbeit (Employment Statistics of the Federal Employment Services)	Census of Population Statistics, Statistics Canada	Structure of Earnings Survey (INSEE)	
c) Source of employment data	same	same	National Labour Force Survey	
d) Groups excluded or underrepresented in data	Part-time workers are underrepresented Beamte excluded (police, central and local government civil servants, some teachers)		Sectors excluded are agriculture, fishing, postal/telecommunications, public hospitals	
e) Classification of full and part-timers	Self-assessment	1990 data - FT: at least 30 hours per week and 49-52 weeks per year - PT: less than 30 hours per week or less than 49 weeks per year 1980 data - FT: at least as many as normally scheduled hours and 49-52 weeks per year	Based on employer assessment	
f) Occupational classification - name of classification	Bundesanstalt für Arbeit	Standard Occupational Classification (1980) for Canada	Professions et Catégories Socio-professionnelles (PCS)	
- number of 2-digit occupational groups	83	The 3-digit classification is used, 80 groups	Only 28 groups, therefore not utilised	
- is a 3-digit breakdown available?	Yes, with 311 categories	4-digit is used, with 514 categories	4-digit is used, with 404 categories	
g) Earnings data - does hourly pay exclude overtime payments? - is pay data available for full and part-timers?	No Daily pay data is available for both full and part-time workers, but no hourly information is	No, Yes, but part-time data is not utilised in this study	No Yes	

Table 2. Top-ten occupational groups ranked by concentration of all female workers

Male and Female employment concentration and female share in each occupational group

All figures expressed as percentages															
NORWAY						All workers (Full and part-time)									
1980			1993			1980			1993						
Occupational group	NYK code	male conc.	female conc.	female share	Occupational group	NYK code	male conc.	female conc.	female share	Occupational group	NYK code	male conc.	female conc.	female share	
Other clerical work	29	3.5	14.6	76.2	Nursing care	04	1.0	14.1	92.8	Sales work from offices and retail sales work	33	8.2	10.6	54.2	
Nursing care	4	0.6	13.5	94.8	Other clerical work	29	3.3	10.5	74.5	Hotel, restaurant and domestic work	91	1.5	9.4	85.0	
Sales work from offices and retail sales work	33	5.7	13.5	64.8	Hotel, restaurant and domestic work	06	5.7	9.2	59.8	Pedagogical work	93	2.7	7.5	71.5	
Building caretaking and charwork	93	1.9	10.0	80.1	Building caretaking and charwork	93	2.7	7.5	71.5	Other work in group "Technical, physical science etc"	12	3.9	4.7	52.5	
Hotel, restaurant and domestic work	91	1.1	9.9	87.0	Other work in group "Technical, physical science etc"	12	3.9	4.7	52.5	Book-keeping and cashier work	20	1.1	4.3	78.7	
Pedagogical work	6	4.9	6.2	49.7	Book-keeping and cashier work	20	1.1	4.3	78.7	Postal and telecommunication work	67	1.0	3.0	69.1	
Farmwork and livestock work	41	2.3	4.6	60.5	Postal and telecommunication work	67	1.0	3.0	69.1	Stenography and typing work	21	*	3.7	97.9	
Book-keeping and cashier work	20	1.2	3.2	67.7	Stenography and typing work	21	*	3.7	97.9	Public administration	10	2.8	3.0	49.6	
Postal and telecommunication work	67	1.0	3.0	69.1	Public administration	10	2.8	3.0	49.6	Total top-ten	22.2	81.1	76.3	77.0	70.0
Stenography and typing work	21	*	2.6	95.4	Total top-ten	30.2	77.0	70.0	47.8	Total (73)	100.0	100.0	43.7	47.8	
Total top-ten	22.2	81.1	76.3	77.0	Total (73)	100.0	100.0	43.7	47.8						
Total (73)	100.0	100.0	43.7	47.8											

All figures expressed as percentages														
AUSTRALIA						All workers (Full and part-time)								
1987			1995			1987			1995					
Occupational group	ASCO code	male conc.	female conc.	female share	Occupational group	ASCO code	male conc.	female conc.	female share	Occupational group	ASCO code	male conc.	female conc.	female share
Stenographers and typists	51	0.1	10.3	98.3	Sales assistants	63	4.5	10.8	66.3	Numerical clerks	53	2.6	9.7	75.1
Sales assistants	63	3.5	10.2	66.9	Numerical clerks	53	2.6	9.7	75.1	Stenographers and typists	51	0.2	7.2	97.3
Numerical clerks	53	3.3	8.3	63.9	Stenographers and typists	51	0.2	7.2	97.3	Receptionists, telephonists and messengers	56	0.7	6.0	86.8
School teachers	24	2.3	6.3	65.1	Receptionists, telephonists and messengers	56	0.7	6.0	86.8	School teachers	24	1.9	5.9	71.8
Receptionists, telephonists and messengers	56	0.7	5.4	83.9	School teachers	24	1.9	5.9	71.8	Registered nurses	34	0.3	4.7	91.7
Registered nurses	34	0.3	5.3	92.1	Registered nurses	34	0.3	4.7	91.7	Personal service workers	66	0.5	5.1	89.6
Cleaners	83	1.6	4.9	69.0	Personal service workers	66	0.5	5.1	89.6	Miscellaneous labourers etc	89	6.9	4.9	36.4
Miscellaneous labourers etc	89	6.9	4.9	33.0	Miscellaneous labourers etc	89	6.9	4.9	36.4	Tellers, cashiers, ticket salespersons	64	0.8	4.7	82.0
Miscellaneous clerks	59	1.9	4.3	61.9	Tellers, cashiers, ticket salespersons	64	0.8	4.7	82.0	Registered nurses	34	0.3	4.7	91.7
Tellers, cashiers, ticket salespersons	64	0.6	3.9	81.8	Registered nurses	34	0.3	4.7	91.7	Cleaners	83	1.8	4.1	65.4
Total top-ten	21.2	63.7	67.8	71.8	Cleaners	83	1.8	4.1	65.4	Total top-ten	20.2	63.0	71.8	44.9
Total (52)	100.0	100.0	41.2	44.9	Total (52)	100.0	100.0	41.2	44.9	Total (52)	100.0	100.0	44.9	

All figures expressed as percentages														
UK						All workers (Full and part-time)								
1986			1995			1986			1995					
Occupational group	SOC code	male conc.	female conc.	female share	Occupational group	SOC code	male conc.	female conc.	female share	Occupational group	SOC code	male conc.	female conc.	female share
Clerks n.e.c.	43	3.0	12.1	76.8	Sales assistants and check-out operators	72	2.7	10.3	77.9	Other occupations in sales and services	95	2.2	9.0	78.9
Sales assistants and check-out operators	72	1.8	10.7	82.8	Other occupations in sales and services	95	2.2	9.0	78.9	Numerical clerks, etc.	41	2.0	6.5	75.2
Other occupations in sales and services	95	1.6	9.2	82.1	Numerical clerks, etc.	41	2.0	6.5	75.2	Secretaries, personal assistants, typists	45	*	6.2	99.1
Secretaries, personal assistants, typists	45	*	9.3	99.2	Secretaries, personal assistants, typists	45	*	6.2	99.1	Health associate professionals	64	0.6	5.9	90.2
Health associate professionals	34	0.8	7.1	87.6	Health associate professionals	64	0.6	5.9	90.2	Childcare and related occupations	65	*	5.8	98.9
Childcare and related occupations	65	*	5.8	98.9	Childcare and related occupations	65	*	5.8	98.9	Teaching professionals	23	3.2	5.7	62.3
Teaching professionals	23	3.0	5.1	57.9	Teaching professionals	23	3.2	5.7	62.3	Health associate professionals	34	0.7	5.4	88.0
Catering occupations	62	1.2	4.2	74.5	Health associate professionals	34	0.7	5.4	88.0	Clerks n.e.c.	43	0.9	4.3	81.2
Other routine process operatives	86	1.8	2.8	55.8	Clerks n.e.c.	43	0.9	4.3	81.2	Childcare and related occupations	65	*	3.6	98.2
Textiles, garments and related trades	55	0.8	2.8	73.0	Childcare and related occupations	65	*	3.6	98.2	Catering occupations	62	1.9	3.5	62.5
Total top-ten	14.0	68.9	80.1	79.6	Catering occupations	62	1.9	3.5	62.5	Total top-ten	14.2	60.4	79.6	47.8
Total (77)	100.0	100.0	44.9	47.8	Total (77)	100.0	100.0	44.9	47.8	Total (77)	100.0	100.0	47.8	

Table 2. ctd. Top-ten occupational groups ranked by concentration of all female workers

WEST GERMANY					All workers (Full and part-time)					All workers (Full and part-time)				
Occupational group	1980	BA code	male conc.	female conc.	female share	Occupational group	1990	BA code	male conc.	female conc.	female share			
Clerical and secretarial workers	78		6.8	26.5	71.2	Clerical and secretarial workers	78		6.2	26.8	74.6			
Sales occupations	68		4.5	12.3	63.4	Sales occupations	68		4.6	12.4	64.4			
Nursing professionals	85		0.5	7.6	90.0	Nursing professionals	85		0.8	9.8	89.6			
Cleaners	93		1.1	7.2	80.1	Cleaners	93		1.1	6.2	78.6			
Textile workers	34-36		0.6	3.7	79.8	Social work associate professionals	86		0.6	3.8	80.5			
Other assemblers and metal workers	32		2.1	3.6	52.2	Financial institution officers	69		2.6	3.7	48.6			
Financial institution officers	69		2.4	3.4	46.9	Other assemblers and metal workers	32		2.4	3.1	46.8			
Finance and computer associate professionals	77		1.8	3.3	53.7	Finance and computer associate professionals	77		2.2	3.1	49.3			
Food processing workers	39-43		2.2	3.0	45.9	Food processing workers	39-43		2.5	2.8	43.4			
Quality inspectors and packers	52		1.8	2.7	48.1	Quality inspectors and packers	52		1.9	2.2	45.0			
Total top-ten			23.8	73.3	67.4	Total top-ten			24.9	73.9	68.0			
Total (83)			100.0	100.0	38.8	Total (83)			100.0	100.0	40.4			

CANADA					All workers (Full and part-time)					All workers (Full and part-time)				
Occupational group	1981	SOC code	male conc.	female conc.	female share	Occupational group	1991	SOC code	male conc.	female conc.	female share			
Bookkeeping, Account-recording and Related Occupati	413		1.8	14.3	85.0	Bookkeeping, Account-recording and Related Occupations	413		1.8	12.1	85.5			
Stenographic and Typing Occupations	411		0.1	11.1	98.7	Stenographic and Typing Occupations	411		0.1	8.5	98.5			
Sales Occupations, Commodities	513/514		9.3	7.6	44.9	Sales Occupations, Commodities	513/514		7.2	7.4	47.4			
Nursing, Therapy and Related Assisting Occupations	313		0.9	7.4	89.3	Nursing, Therapy and Related Assisting Occupations	313		0.8	7.4	89.5			
Food and beverage preparation and related service occu	612		3.3	7.0	67.8	Food and Beverage Preparation and Related Service Occupations	612		3.2	6.8	64.8			
Other clerical and related occupations	419		2.0	5.6	73.5	Other Managers and Administrators	113/114		10.1	6.4	35.7			
Elementary/ secondary school teaching, related occupat	273		3.0	5.4	64.7	Other Clerical and Related Occupations	419		1.6	5.6	75.6			
Reception, Information, Mail and Message Distribution	417		1.5	3.8	71.3	Elementary and Secondary School Teaching and Related Occupati	273		2.0	5.4	69.8			
Other Managers and Administrators	113/114		10.9	3.2	22.5	Reception, Information, Mail and Message Distribution Occupati	417		1.1	3.6	74.0			
Fabricating, Assembling and Repairing Occupations:						Personal Service Occupations	614		3.8	3.5	89.0			
Textile, Fur and Leather Products	855/856		0.9	3.0	76.7	Total top-ten			31.7	66.7	67.3			
Total top-ten			33.7	68.4	66.5	Total (80)			100.0	100.0	46.6			
Total (80)			100.0	100.0	41.9									

US					All workers (Full and part-time)					All workers (Full and part-time)				
Occupational group	1982	SOC code	male conc.	female conc.	female share	Occupational group	1992	SOC code	male conc.	female conc.	female share			
Other admin. support, including clerical	26		4.9	12.6	66.3	Other admin. support, including clerical	26		5.3	14.4	69.7			
Secretaries, stenographers, typists	24		0.1	10.5	98.2	Other sales occupations	22		3.6	8.3	65.7			
Other sales occupations	22		2.9	9.3	71.0	Secretaries, stenographers, typists	24		0.1	7.3	98.4			
Food service occupations	29		3.4	7.9	63.8	Food service occupations	29		4.1	6.7	58.1			
Machine operators, tenders, except precision	43		5.4	5.7	44.8	Salaried managers	03		8.7	6.4	38.4			
Teachers, except post-secondary	15		1.7	5.6	71.2	Teachers, except post-secondary	15		1.6	5.9	75.2			
Financial records processing occupations	25		0.4	5.0	90.4	Personal service occupations	32		0.8	3.8	80.6			
Salaried managers	03		7.3	4.0	29.6	Machine operators, tenders, except precision	43		4.4	3.7	41.1			
Health service occupations	30		0.4	3.5	87.8	Health service occupations	30		0.4	3.6	88.4			
Personal service occupations	32		0.7	3.3	78.2	Financial records processing occupations	25		0.4	3.6	89.1			
Total top-ten			27.4	67.5	65.5	Total top-ten			29.3	63.6	64.6			
Total (51)			100.0	100.0	43.5	Total (51)			100.0	100.0	46.6			

Note: * Figure are unreliable and therefore not reported.

See Appendix Table 1 for details of the top 40 occupations in France. An equivalent occupational classification system does not exist.

Table 3. Ranking of occupations by female concentration of employment, European LFS data 1994 (total : 116 occupations)

West Germany				UK			
Occupation	ISCO code	female conc.	male conc.	Occupation	ISCO code	female conc.	male conc.
Other office clerks	419	10.3%	3.9%	Shop, stall and market salespersons and demonstrators	522		
Shop, stall and market salespersons and demonstrators	522	9.0%	1.3%	Domestic and related helpers, cleaners and launderers	913		
Administrative associate professionals	343	6.7%	2.5%	Secretaries and keyboard-operating clerks	41		
Secretaries and keyboard-operating clerks	41	5.3%	0.1%	Other office clerks	419		
Domestic and related helpers, cleaners and launderers	913	5.3%	0.2%	Personal care and related workers	513		
Personal care and related workers	513	4.6%	0.3%	Housekeeping and restaurant service workers	512		
Nursing and midwifery associate professionals	323	4.3%	0.5%	Other specialist managers	123		
Housekeeping and restaurant service workers	512	4.0%	1.1%	Nursing and midwifery professionals	223		
Manufacturing labourers	932	3.2%	2.9%	Numerical clerks	412		
Numerical clerks	412	3.1%	1.6%	Cashiers, tellers and related clerks	421		
	top ten	55.7%	14.6%		top ten		
Secondary education teaching professionals	232	2.7%	1.8%	Production and operations managers	122		
Finance and sales associate professionals	341	2.7%	2.6%	Primary and pre-primary education teaching professionals	233		
Customs, tax and related government associate professionals	344	2.5%	1.6%	Library, mail and related clerks	414		
Managers of small enterprises	13	2.4%	3.6%	Client information clerks	422		
Pre-primary education teaching associate professionals	332	2.0%	0.1%	Managers of small enterprises	13		
Other personal service workers	514	1.9%	0.2%	Secondary education teaching professionals	232		
Agricultural, fishery and related labourers	921	1.6%	0.5%	Finance and sales associate professionals	341		
Physical and engineering science technicians	31	1.6%	4.7%	Nursing and midwifery associate professionals	323		
Textile, garment and related trades workers	743	1.6%	0.4%	Textile, garment and related trades workers	743		
Material-recording and transport clerks	413	1.5%	2.1%	Other personal service workers	514		
	top twenty	76.3%	32.2%		top twenty		
France							
Occupation	ISCO code	female conc.	male conc.				
Numerical clerks	412	11.2%	2.0%				
Personal care and related workers	513	11.1%	0.9%				
Domestic and related helpers, cleaners and launderers	913	9.6%	1.8%				
Secretaries and keyboard-operating clerks	41	8.9%	0.4%				
Shop, stall and market salespersons and demonstrators	522	5.1%	1.6%				
Secondary education teaching professionals	232	3.7%	2.2%				
Nursing and midwifery associate professionals	323	3.4%	0.4%				
Administrative associate professionals	343	3.2%	1.3%				
Cashiers, tellers and related clerks	421	3.0%	0.8%				
Finance and sales associate professionals	341	2.9%	4.2%				
	top ten	62.1%	15.7%				
Primary education teaching associate professionals	331	2.6%	0.6%				
Other office clerks	419	2.5%	0.8%				
Customs, tax and related government officials	344	2.5%	1.3%				
Business professionals	241	2.4%	5.2%				
Housekeeping and restaurant service workers	512	2.4%	2.6%				
Textile, fur and leather products machine operators	826	1.8%	0.7%				
Assemblers	828	1.3%	3.1%				
Public service administrative professionals	247	1.1%	2.0%				
Other personal service workers	514	1.1%	0.2%				
Social work associate professionals	346	1.0%	0.3%				
	top twenty	80.8%	32.3%				

Source: European Labour Force Survey 1994

**Table 4. Ranking of occupations by female concentration of employment,
European LFS data 1994**

European Union (E12) (including the New Lander)					
<i>Occupation</i>	ISCO code	female conc.	male conc.	female share	female part-time FPTi/Fi
Shop, stall and market salespersons and demonstrators	522	8.3%	2.9%	67.0%	44.1%
Secretaries and keyboard-operating clerks	411	7.0%	1.2%	80.3%	23.7%
Domestic and related helpers, cleaners and launderers	913	7.0%	0.8%	85.5%	55.0%
Other office clerks	419	6.1%	2.1%	67.6%	31.6%
Personal care and related workers	513	5.9%	0.5%	88.9%	38.4%
Numerical clerks	412	4.9%	1.7%	67.3%	20.2%
Housekeeping and restaurant service workers	512	4.0%	2.1%	57.9%	41.1%
Administrative associate professionals	343	4.0%	1.5%	64.8%	21.1%
Secondary education teaching professionals	232	3.1%	1.7%	57.2%	23.9%
Nursing and midwifery associate professionals	323	3.1%	0.4%	84.5%	26.9%
	top ten	53.3%	15.0%	71.8%	34.5%
Cashiers, tellers and related clerks	421	2.3%	0.8%	66.7%	39.1%
Primary and pre-primary education teaching professionals	233	2.3%	0.4%	79.3%	17.9%
Finance and sales associate professionals	341	2.0%	3.3%	30.2%	18.0%
Textile, garment and related trades workers	743	1.9%	0.5%	74.6%	18.7%
Managers of small enterprises	131	1.7%	2.7%	31.4%	19.9%
Other personal service workers	514	1.7%	0.3%	80.4%	29.8%
Manufacturing labourers	932	1.6%	1.6%	40.9%	30.0%
Nursing and midwifery professionals	223	1.4%	0.1%	87.6%	39.9%
Market gardeners and crop gardeners	611	1.3%	1.9%	32.7%	27.0%
Other specialist managers	123	1.2%	1.7%	34.9%	19.8%
	top twenty	70.8%	28.3%	64.0%	32.3%
	TOTAL (116)	100.0%	100.0%	41.0%	30.7%

Source: European Labour Force Survey 1994

**Table 5. Pattern of concentration of female employment in the EU(12)
by occupation and by country**

Occupation	ISCO code	Number of countries where occupation occurs in:		
		top three	top five	top ten
Shop, stall and market salespersons and demonstrators	522	10	13	13
Housekeeping and restaurant service workers	512	1	2	12
Personal care and related workers	513	3	4	9
Secretaries and keyboard-operating clerks	411	5	8	13
Other office clerks	419	6	8	10
Numerical clerks	412	2	2	6
Cashiers, tellers and related clerks	421	0	0	4
Domestic and related helpers, cleaners and launderers	913	6	8	11
Administrative associate professionals	343	2	4	8
Secondary/ primary and pre-primary teaching professionals	232/233	0	4	10
Nursing and midwifery professionals/ associate professionals	223/323	2	3	9

Note: The number of countries include the twelve member states (of 1992) and East Germany.

Source: European Labour Force Survey 1994

Table 6. Top-ten occupational groups ranked by concentration of all female workers: the contribution of full and part-time employment to patterns of concentration

All figures expressed as percentages					
NORWAY					
	1980	NYK code	female concentration		% part-time
<i>Occupational group</i>			FT	PT	FPTI/Fi
Other clerical work	29	8.4	6.2	14.6	42.5
Nursing care	04	6.5	7.0	13.5	51.5
Sales work from offices and retail sales work	33	5.4	8.0	13.5	59.3
Building caretaking and charwork	93	1.5	8.4	10.0	84.2
Hotel, restaurant and domestic work	91	3.5	6.4	9.9	65.1
Pedagogical work	06	2.5	3.7	6.2	59.8
Farmwork and livestock work	41	1.5	3.0	4.6	65.7
Book-keeping and cashier work	20	1.8	1.4	3.2	43.4
Postal and telecommunication work	67	1.7	1.3	3.0	42.0
Stenography and typing work	21	1.7	1.0	2.6	36.5
	Total top-ten	34.6	46.4	81.1	57.2
	Total (73)	45.2	54.8	100.0	54.8
AUSTRALIA					
	1987	ASCO code	female concentration		% part-time
<i>Occupational group</i>			FT	PT	FPTI/Fi
Stenographers and typists	51	7.8	2.5	10.3	24.0
Sales assistants	63	4.4	5.8	10.2	56.7
Numerical clerks	53	6.0	2.3	8.3	27.4
School teachers	24	4.9	1.3	6.3	21.1
Receptionists, telephonists and messengers	56	3.7	1.7	5.4	31.5
Registered nurses	34	3.3	2.0	5.3	37.6
Cleaners	83	1.4	3.5	4.9	71.8
Miscellaneous labourers etc	89	2.0	2.9	4.9	60.1
Miscellaneous clerks	59	2.7	1.7	4.3	38.7
Tellers, cashiers, ticket salespersons	64	1.7	2.1	3.9	55.3
	Total top-ten	37.9	25.8	63.7	40.5
	Total (52)	63.2	36.8	100.0	36.8
UK					
	1986	SOC code	female concentration		% part-time
<i>Occupational group</i>			FT	PT	FPTI/Fi
Clerks n.e.c.	43	8.5	3.6	12.1	30.1
Sales assistants and check-out operators	72	3.3	7.4	10.7	68.9
Other occupations in sales and services	95	1.2	7.9	9.2	86.5
Secretaries, personal assistants, typists	45	6.4	2.9	9.3	30.8
Health associate professionals	34	4.2	2.9	7.1	40.9
Childcare and related occupations	65	1.2	4.6	5.8	78.7
Teaching professionals	23	3.7	1.3	5.1	26.3
Catering occupations	62	1.6	2.6	4.2	62.6
Other routine process operatives	86	1.9	0.8	2.8	30.3
Textiles, garments and related trades	55	2.1	0.6	2.8	23.3
	Total top-ten	34.2	34.7	68.9	50.4
	Total (77)	56.4	43.6	100.0	43.6
NORWAY (continued)					
	1993	NYK code	female concentration		% part-time
<i>Occupational group</i>			FT	PT	FPTI/Fi
Nursing care	04	6.2	7.9	14.1	56.3
Sales work from offices and retail sales work	33	4.8	5.8	10.6	54.3
Other clerical work	29	6.7	3.8	10.5	36.2
Hotel, restaurant and domestic work	91	4.3	5.0	9.4	53.5
Pedagogical work	06	6.3	3.0	9.2	32.1
Building caretaking and charwork	93	1.7	5.8	7.5	77.6
Other work in major group Technical, physical science etc	12	3.0	1.6	4.7	34.5
Book-keeping and cashier work	20	2.7	1.6	4.3	37.4
Stenography and typing work	21	2.6	1.1	3.7	30.0
Public administration	10	2.6	0.4	3	14.0
	Total top-ten	40.8	36.1	77.0	46.8
	Total (73)	55.0	45.0	100.0	45.0
AUSTRALIA (continued)					
	1995	ASCO code	female concentration		% part-time
<i>Occupational group</i>			FT	PT	FPTI/Fi
Sales assistants	63	4.0	6.9	10.82	63.3
Numerical clerks	53	6.4	3.2	9.67	33.5
Stenographers and typists	51	5.2	2.0	7.21	27.7
Receptionists, telephonists and messengers	56	3.6	2.3	5.96	39.1
School teachers	24	4.6	1.3	5.87	22.1
Personal service workers	66	2.6	2.5	5.13	49.5
Miscellaneous labourers etc	89	1.7	3.2	4.87	64.7
Tellers, cashiers, ticket salespersons	64	1.4	3.3	4.7	70.0
Registered nurses	34	2.5	2.2	4.65	46.5
Cleaners	83	0.9	3.2	4.1	77.3
	Total top-ten	33.0	30.0	63.0	47.7
	Total (52)	58.5	41.5	100	41.5
UK (continued)					
	1995	SOC code	female concentration		% part-time
<i>Occupational group</i>			FT	PT	FPTI/Fi
Sales assistants and check-out operators	72	2.3	8.0	10.3	77.3
Other occupations in sales and services	95	1.6	7.5	9.0	82.9
Numerical clerks, etc.	41	4.2	2.2	6.5	34.7
Secretaries, personal assistants, typists	45	4.4	1.8	6.2	29.6
Health, related occupations	64	2.7	3.3	5.9	54.9
Teaching professionals	23	4.0	1.8	5.7	30.5
Health associate professionals	34	3.3	2.2	5.4	39.9
Clerks n.e.c.	43	2.7	1.6	4.3	37.2
Childcare and related occupations	65	1.1	2.5	3.6	68.6
Catering occupations	62	1.1	2.4	3.5	69.5
	Total top-ten	27.3	33.1	60.4	54.8
	Total (77)	56.0	44.0	100	44.0

Table 6 (cont.)

WEST GERMANY

<i>Occupational group</i>	1980 code	female concentration			% part-time FPTi/Fi
		FT	PT	All	
Clerical and secretarial workers	78	21.3	5.2	26.5	19.6
Sales occupations	68	9.0	3.3	12.3	26.8
Nursing professionals	85	6.6	1.0	7.6	13.2
Cleaners	93	3.2	4.0	7.2	55.6
Textile workers	34-36	3.1	0.6	3.7	16.2
Other assemblers and metal workers	32	3.3	0.3	3.6	8.3
Financial institution officers	69	3.0	0.4	3.4	11.8
Finance and computer associate professionals	77	2.4	0.9	3.3	27.3
Food processing workers	39-43	2.5	0.4	3.0	13.3
Quality inspectors and packers	52	2.2	0.5	2.7	18.5
	Total top-ten	56.6	16.6	73.3	22.6
	Total (83)	78.8	21.2	100.0	21.2

US

<i>Occupational group</i>	1982 SOC code	female concentration			% part-time FPTi/Fi
		FT	PT	All	
Other admin. support, including clerical	26	9.1	3.5	12.6	27.8
Secretaries, stenographers, typists	24	8.3	2.2	10.5	21.3
Other sales occupations	22	3.8	5.5	9.3	59.4
Food service occupations	29	3.2	4.7	7.9	59.2
Machine operators, tenders, except precision	43	4.7	0.9	5.7	16.3
Teachers, except post-secondary	15	4.0	1.5	5.6	27.8
Financial records processing occupations	25	3.7	1.3	5.0	26.4
Manager, salaried	03	3.5	0.6	4.0	13.9
Health service occupations	30	2.4	1.1	3.5	32.1
Personal service occupations	32	1.6	1.7	3.3	50.9
	Total top-ten	44.3	23.1	67.5	34.3
	Total (51)	67.6	32.4	100.0	32.4

<i>Occupational group</i>	1990 code	female concentration			% part-time FPTi/Fi
		FT	PT	All	
Clerical and secretarial workers	78	20.3	6.5	26.8	24.3
Sales occupations	68	8.3	4.0	12.4	32.3
Nursing professionals	85	7.7	2.1	9.8	21.4
Cleaners	93	2.3	3.9	6.2	62.9
Social work associate professionals	86	2.7	1.1	3.8	28.9
Financial institution officers	69	3.0	0.6	3.7	16.2
Other assemblers and metal workers	32	2.9	0.3	3.1	9.7
Finance and computer associate professionals	77	2.1	1.0	3.1	32.3
Food processing workers	39-43	2.3	0.6	2.8	21.4
Quality inspectors and packers	52	1.8	0.4	2.2	18.2
	Total top-ten	53.4	20.5	73.9	27.7
	Total (83)	74.2	25.8	100	25.8

<i>Occupational group</i>	1992 SOC code	female concentration			% part-time FPTi/Fi
		FT	PT	All	
Other admin. support, including clerical	26	10.7	3.7	14.4	25.9
Other sales occupations	22	3.4	4.9	8.3	59.2
Secretaries, stenographers, typists	24	5.8	1.5	7.3	20.8
Food service occupations	29	2.7	4.0	6.7	59.7
Manager, salaried	03	5.7	0.7	6.4	11.0
Teachers, except post-secondary	15	4.6	1.4	5.9	23.0
Personal service occupations	32	2.1	1.7	3.8	43.7
Machine operators, tenders, except precision	43	3.2	0.4	3.7	11.7
Health service occupations	30	2.5	1.1	3.6	30.6
Financial records processing occupations	25	2.6	1.0	3.6	28.1
	Total top-ten	43.2	20.4	63.6	32.1
	Total (51)	70.1	29.9	100	29.9

Note: Part-time employment data are missing for Canada. Details for the 4-digit level occupations in France are in Appendix Table 1

FPTi = female part-timers in each occupation, i

Fi = all female employees (full and part-timers) in each occupation, i

Table 7. The wage penalty associated with the concentration of female employment among occupational groups

Female average hourly occupational pay relative to the average hourly pay of male full-time workers in all sectors

	Year	female conc.	Relative pay			Year	female conc.	Relative pay		
			All	FT	PT			All	FT	PT
Norway	1980					1993				
total top five occupations		61.5	72.6	70.4	74.2		53.8	77.6	77.6	78.6
total top ten occupations		81.1	72.3	71.6	73.9		77.0	80.0	81.6	76.5
all remaining occupations		18.9	106.2	96.3	114.8		23.0	85.2	86.5	81.2
Total		100.0	78.7	77.4	80.2		100.0	81.2	83.1	77.6
Australia	1987					1995				
total top five occupations		40.4	81.9	79.5	86.1		39.5	74.6	74.5	75.7
total top ten occupations		63.7	82.5	82.6	82.3		63.0	73.6	76.7	70.0
all remaining occupations		36.3	81.7	79.6	90.3		37.0	90.6	88.9	89.1
Total		100.0	82.2	81.4	84.7		100.0	79.9	82.0	75.3
UK	1986					1995				
total top five occupations		48.3	60.5	63.5	58.1		37.9	54.5	56.4	52.0
total top ten occupations		68.9	63.5	70.2	54.2		60.4	66.6	78.4	56.9
all remaining occupations		31.1	73.1	80.1	67.4		39.6	77.2	92.0	67.8
Total		100.0	66.5	74.1	56.9		100.0	70.8	79.6	59.6
West Germany	1980					1990				
total top five occupations		57.3		61.1			59.0		61.3	
total top ten occupations		73.3		64.1			73.9		63.8	
all remaining occupations		26.7		85.7			26.1		92.0	
Total		100.0		70.2			100.0		71.7	
Canada	1980					1990				
total top five occupations		47.4	63.2	63.6			42.2	65.2	65.7	
total top ten occupations		68.4	68.2	71.3			66.7	70.3	73.6	
all remaining occupations		31.6	70.1	70.7			33.3	78.7	77.6	
Total		100.0	68.8	71.1			100.0	73.1	75.0	
France						1992				
total top twenty occupations							56.2	66.3	67.5	60.8
total top forty occupations							67.6	69.2	70.6	62.6
all remaining occupations							32.4	94.3	97.5	91.0
Total							100.0	77.3	80.0	69.5
US	1982					1992				
total top five occupations		46.0	54.7	56.8	51.1		43.1	65.1	70.7	54.4
total top ten occupations		67.5	59.0	61.0	55.1		63.6	65.7	69.2	58.2
all remaining occupations		32.5	71.4	72.5	68.5		36.4	85.5	85.2	85.8
Total		100.0	63.0	64.9	58.9		100.0	72.9	75.4	67.0

Note: Total top five and top ten occupational groups refer to the listing of 2-digit occupational groups in Table 2, ranked according to the concentration of all female employment. In the case of France, total top 20 and top 40 occupations refer to the listing in Appendix Table 1.

"All remaining occupations" refers to all occupations except those ranked in the top ten.

Earnings for full and part-time workers taken together are calculated from employment data on full and part-time employment.

Table 8. Relative hourly pay of women in the top-ten occupational groups ranked by concentration of all female workers

Female average hourly occupational pay relative to the average hourly pay of male full-time workers in all sectors

NORWAY

Occupational group	1980	NYK code	female conc.	Relative pay		
				All	FT	PT
Other clerical work	29	14.6	77.8	76.6	79.9	
Nursing care	04	13.5	82.6	77.6	88.3	
Sales work from offices and retail sales work	33	13.5	60.0	61.7	58.8	
Building caretaking and charwork	93	10.0	74.3	66.2	75.8	
Hotel, restaurant and domestic work	91	9.9	66.6	67.5	66.2	
Pedagogical work	06	6.2	108.4	92.8	128.1	
Farmwork and livestock work	41	4.6	--	--	--	
Book-keeping and cashier work	20	3.2	76.1	80.8	68.8	
Postal and telecommunication work	67	3.0	85.3	80.2	95.4	
Stenography and typing work	21	2.6	89.1	85.4	93.9	
Total top-ten			81.1	72.3	71.6	
Total (73)			100.0	78.7	77.4	

AUSTRALIA

Occupational group	1987	ASCO code	female conc.	Relative pay		
				All	FT	PT
Stenographers and typists	51	10.3	79.7	78.8	82.2	
Sales assistants	63	10.2	64.5	60.2	67.8	
Numerical clerks	53	8.3	81.2	80.5	83.1	
School teachers	24	6.3	118.6	115.3	131.4	
Receptionists, telephonists and messengers	56	5.4	75.6	73.7	79.7	
Registered nurses	34	5.3	110.5	105.1	119.5	
Cleaners	83	4.9	75.7	72.0	77.1	
Miscellaneous labourers etc	89	4.9	76.3	71.2	79.7	
Miscellaneous clerks	59	4.3	85.3	85.6	84.7	
Tellers, cashiers, ticket salespersons	64	3.9	66.8	64.4	68.6	
Total top-ten			63.7	62.5	62.6	
Total (52)			100.0	82.2	81.4	

UK

Occupational group	1986	SOC code	female conc.	Relative pay		
				All	FT	PT
Clerks n.e.c.	43	12.1	64.3	66.5	58.7	
Sales assistants and check-out operators	72	10.7	48.3	51.1	47.0	
Other occupations in sales and services	95	9.2	41.9	50.7	40.7	
Secretaries, personal assistants, typists	45	9.3	70.8	74.3	63.0	
Health associate professionals	34	7.1	82.5	78.2	88.7	
Childcare and related occupations	65	5.8	47.0	--	47.0	
Teaching professionals	23	5.1	96.7 ¹	96.7 ¹	137.6	
Catering occupations	62	4.2	48.7	53.4	45.8	
Other routine process operatives	86	2.8	55.0	56.3	52.4	
Textiles, garments and related trades	55	2.8	51.1	51.1	--	
Total top-ten			68.9	63.5	70.2	
Total (77)			100.0	66.5	74.1	

All figures expressed as percentages

Occupational group	1993	NYK code	female conc.	Relative pay		
				All	FT	PT
Nursing care	04	14.1	81.9	80.7	83.1	
Sales work from offices and retail sales	33	10.6	66.1	69.1	63.3	
Other clerical work	29	10.5	80.0	80.8	78.0	
Hotel, restaurant and domestic work	91	9.4	67.8	67.5	68.2	
Pedagogical work	06	9.2	92.2	89.9	101.4	
Building caretaking and charwork	93	7.5	70.0	69.8	70.0	
Other work in major group Technical,	12	4.7	101.4	109.0	77.6	
Book-keeping and cashier work	20	4.3	94.3	89.3	106.2	
Stenography and typing work	21	3.7	83.2	82.0	89.7	
Public administration	10	3.0	90.6	89.3	97.5	
Total top-ten			77.0	80.0	81.6	
Total (73)			100.0	81.2	83.1	

Occupational group	1995	ASCO code	female conc.	Relative pay		
				All	FT	PT
Sales assistants	63	10.8	57.8	58.8	57.2	
Numerical clerks	53	9.7	75.6	75.8	75.3	
Stenographers and typists	51	7.2	76.1	75.8	76.8	
Receptionists, telephonists and	56	6.0	69.6	69.1	71.1	
School teachers	24	5.9	105.7	104.1	112.4	
Personal service workers	66	5.1	69.6	67.5	71.1	
Miscellaneous labourers etc	89	4.9	62.4	61.9	62.9	
Tellers, cashiers, ticket salespersons	64	4.7	62.4	64.9	58.8	
Registered nurses	34	4.7	104.1	102.6	106.2	
Cleaners	83	4.1	62.4	61.3	62.9	
Total top-ten			63.0	73.6	76.7	
Total (52)			100.0	79.9	82.0	

Occupational group	1995	SOC code	female conc.	Relative pay		
				All	FT	PT
Sales assistants and check-out operators	72	10.3	44.6	46.9	43.9	
Other occupations in sales and services	95	9.0	43.3	44.0	43.1	
Numerical clerks, etc.	41	6.5	68.9	71.5	64.0	
Secretaries, personal assistants, typists	45	6.2	72.4	75.9	63.8	
Health, related occupations	64	5.9	54.3	54.5	54.1	
Teaching professionals	23	5.7	106.9 ¹	106.9 ¹	149.4	
Health associate professionals	34	5.4	95.2	96.8	92.8	
Clerks n.e.c.	43	4.3	61.6	64.4	56.9	
Childcare and related occupations	65	3.6	52.2	55.4	50.7	
Catering occupations	62	3.5	41.7	44.4	40.6	
Total top-ten			60.4	66.6	78.4	
Total (77)			100.0	70.8	79.6	

Table 8 (Cont.) Relative hourly pay of women in the top-ten occupational groups ranked by concentration of all female workers

WEST GERMANY

Occupational group	1980	BA code	female conc.	Relative pay		
				All	FT	PT
Clerical and secretarial workers	78	26.5		70.2		
Sales occupations	68	12.3		50.0		
Nursing professionals	85	7.6		69.1		
Cleaners	93	7.2		42.6		
Textile workers	34-36	3.7		52.1		
Other assemblers and metal workers	32	3.6		62.8		
Financial institution officers	69	3.4		81.9		
Finance and computer associate professionals	77	3.3		72.3		
Food processing workers	39-43	3.0		55.3		
Quality inspectors and packers	52	2.7		73.4		
	Total top-ten		73.3	64.1		
	Total (83)		100.0	70.2		

CANADA

Occupational group	1980	SOC code	female conc.	Relative pay		
				All	FT	PT
Bookkeeping, Account-recording and Related Occupat	413	14.3		63.2	64.1	
Stenographic and Typing Occupations	411	11.1		66.4	66.7	
Sales Occupations, Commodities	513/514	7.6		52.8	54.8	
Nursing, Therapy and Related Assisting Occupations	313	7.4		84.5	82.9	
Food and Beverage Preparation and Related Service occupations	612	7.0		47.1	47.1	
Other Clerical and Related Occupations	419	5.6		66.6	68.1	
Elementary and Secondary School Teaching and Related Occupations	273	5.4		114.5	112.9	
Reception, Information, Mail and Message Distribution	417	3.8		63.2	64.1	
Other Managers and Administrators	113/114	3.2		87.6	87.5	
Fabricating, Assembling and Repairing Occupations: Textile, Fur and Leather	855/856	3.0		50.4	49.1	
	Total top-ten		68.4	68.2	71.3	
	Total (80)		100.0	68.8	71.1	

US

Occupational group	1982	SOC code	female conc.	Relative pay		
				All	FT	PT
Other admin. support, including clerical	26	12.6		61.4	62.9	57.5
Secretaries, stenographers, typists	24	10.5		62.5	64.0	56.9
Other sales occupations	22	9.3		47.9	45.7	49.4
Food service occupations	29	7.9		42.9	40.3	44.6
Machine operators, tenders, except precision	43	5.7		52.7	52.3	55.0
Teachers, except post-secondary	15	5.6		79.5	81.6	73.8
Financial records processing occupations	25	5.0		66.2	64.4	71.7
Manager, salaried	03	4.0		88.1	86.4	99.2
Health service occupations	30	3.5		50.0	48.7	52.8
Personal service occupations	32	3.3		47.5	42.2	51.9
	Total top-ten		#REF!	59.0	61.0	55.1
	Total (51)		100.0	63.0	64.9	58.9

Occupational group	1990	BA code	female conc.	Relative pay		
				All	FT	PT
Clerical and secretarial workers	78	26.8		68.8		
Sales occupations	68	12.4		50.7		
Nursing professionals	85	9.8		65.2		
Cleaners	93	6.2		39.9		
Social work associate professionals	86	3.8		68.1		
Financial institution officers	69	3.7		86.2		
Other assemblers and metal workers	32	3.1		62.3		
Finance and computer associate profession	77	3.1		75.4		
Food processing workers	39-43	2.8		51.4		
Quality inspectors and packers	52	2.2		50.7		
	Total top-ten		73.9	63.8		
	Total (83)		100.0	71.7		

Occupational group	1990	SOC code	female conc.	Relative pay		
				All	FT	PT
Bookkeeping, Account-recording and Related Occupations	413	12.1		63.6	64.9	
Stenographic and Typing Occupations	411	8.5		70.9	70.1	
Sales Occupations, Commodities	513/514	7.4		55.4	59.0	
Nursing, Therapy and Related Assisting Occupations	313	7.4		88.2	86.5	
Food and Beverage Preparation and Related occupations	612	6.8		46.8	46.2	
Other Managers and Administrators	113/114	6.4		89.1	89.3	
Other Clerical and Related Occupations	419	5.6		70.3	71.3	
Elementary and Secondary School Teaching occupations	273	5.4		108.3	108.7	
Reception, Information, Mail and Message Occupations	417	3.6		64.7	65.1	
Personal Service Occupations	614	3.5		44.8	44.4	
	Total top-ten		66.7	70.3	73.6	
	Total (80)		100.0	73.1	75.0	

Occupational group	1992	SOC code	female conc.	Relative pay		
				All	FT	PT
Other admin. support, including clerical	26	14.4		68.1	70.0	62.7
Other sales occupations	22	8.3		48.2	48.7	47.9
Secretaries, stenographers, typists	24	7.3		70.0	71.4	64.5
Food service occupations	29	6.7		43.9	43.0	44.5
Manager, salaried	03	6.4		97.0	97.7	91.2
Teachers, except post-secondary	15	5.9		92.2	94.8	83.5
Personal service occupations	32	3.8		46.4	44.1	49.2
Machine operators, tenders, except precision	43	3.7		50.3	50.7	47.0
Health service occupations	30	3.6		56.2	53.0	63.4
Financial records processing occupations	25	3.6		74.5	67.3	93.5
	Total top-ten		#REF!	65.7	69.2	58.2
	Total (51)		100	72.9	75.4	67.0

Note: 1. Due to problems of overestimation of hourly earnings for full-time teachers in the UK (see text), data refer to weekly earnings.

Table 9. Average hourly pay in the public sector as a proportion of private sector pay

<i>Country</i>		Full-time	Part-time	Total	<i>Year</i>	Full-time	Part-time	Total
NORWAY					1993			
	Male	107.5	--	108.9		94.4	--	96.3
	Female	112.9	124.8	118.5		98.0	108.5	101.1
	Total	102.2	--	105.0		91.7	--	93.3
AUSTRALIA					1995			
	Male	111.5	153.1	112.4		103.1	148.1	105.3
	Female	120.2	115.6	118.7		116.8	124.3	119.3
	Total	113.2	120.8	114.3		106.2	128.1	109.4
UK ¹					1995			
	Male	100.8	--			99.8	--	
	Female	119.0	--			121.0	--	
	Total	101.2	--			101.2	--	
CANADA					1990			
	Male	117.3	--	118.9		119.0	--	120.7
	Female	136.9	--	138.6		132.9	--	135.8
	Total	116.2	--	117.4		117.1	--	118.8
US					1992			
	Male	101.5	82.2	100.5		111.8	100.0	111.5
	Female	121.2	107.0	118.4		125.2	108.6	122.1
	Total	103.7	95.6	103.3		113.2	104.3	112.6

Notes: 1. For the UK, public/ private pay differentials refer to average weekly earnings data
Data are unavailable for France and West Germany.

Table 10. Relative pay of women in the top-ten occupational groups (ranked by concentration of all female workers) as a proportion of female public sector pay

Female average hourly occupational pay relative to the average hourly pay of female full-time workers in public sector employment

All figures expressed as percentages

NORWAY													
Occupational group	1980	NYK code	female conc.	Relative pay			Occupational group	1993	NYK code	female conc.	Relative pay		
				All	FT	PT					All	FT	PT
Other clerical work	29	14.6	94.2	92.7	96.7	Nursing care	04	14.1	99.5	98.0	100.9		
Nursing care	40	13.5	100.0	93.9	106.8	Sales work from offices and retail sales work	33	10.6	80.2	83.9	76.8		
Sales work from offices and retail sales work	33	13.5	72.7	74.7	71.1	Other clerical work	29	10.5	97.1	98.1	94.7		
Building caretaking and charwork	93	10.0	89.9	80.1	91.8	Hotel, restaurant and domestic work	91	9.4	82.3	82.0	82.8		
Hotel, restaurant and domestic work	91	9.9	80.7	81.7	80.1	Pedagogical work	06	9.2	111.0	108.3	122.1		
Pedagogical work	60	6.2	130.7	111.9	155.1	Building caretaking and charwork	93	7.5	84.9	84.8	85.0		
Farmwork and livestock work	41	4.6	--	--	--	Other work in major group Technical, physical science etc	12	4.7	123.0	132.3	94.2		
Book-keeping and cashier work	20	3.2	92.1	97.8	83.2	Book-keeping and cashier work	20	4.3	114.5	108.4	128.9		
Postal and telecommunication work	67	3.0	103.2	97.1	115.5	Stenography and typing work	21	3.7	101.0	99.6	108.8		
Stenography and typing work	21	2.6	107.8	103.3	113.7	Public administration	10	3.0	110.0	108.5	118.4		
Total occupations			100.0	95.2	93.7	97.0	Total occupations			100.0	98.5	100.9	94.1

AUSTRALIA													
Occupational group	1987	ASCO code	female conc.	Relative pay			Occupational group	1995	ASCO code	female conc.	Relative pay		
				All	FT	PT					All	FT	PT
Stenographers and typists	51	10.3	87.9	86.9	90.7	Sales assistants	63	10.8	64.4	65.5	63.8		
Sales assistants	63	10.2	71.1	66.4	74.8	Numerical clerks	53	9.7	84.3	84.5	83.9		
Numerical clerks	53	8.3	89.5	88.8	91.6	Stenographers and typists	51	7.2	84.8	84.5	85.6		
School teachers	24	6.3	130.8	127.1	144.9	Receptionists, telephonists and messengers	56	6.0	77.6	77.0	79.3		
Receptionists, telephonists and messengers	56	5.4	83.4	81.3	87.9	School teachers	24	5.9	117.8	116.1	125.3		
Registered nurses	34	5.3	121.9	115.9	131.8	Personal service workers	66	5.1	77.6	75.3	79.3		
Cleaners	83	4.9	83.5	79.4	85.0	Miscellaneous labourers etc	89	4.9	69.5	69.0	70.1		
Miscellaneous labourers etc	89	4.9	84.1	78.5	87.9	Tellers, cashiers, ticket salespersons	64	4.7	69.5	72.4	65.5		
Miscellaneous clerks	59	4.3	94.0	94.4	93.5	Registered nurses	34	4.7	116.1	114.4	118.4		
Tellers, cashiers, ticket salespersons	64	3.9	73.6	71.0	75.7	Cleaners	83	4.1	69.5	68.4	70.1		
Total occupations			100.0	90.7	89.7	93.5	Total occupations			100.0	89.1	91.4	83.9

Table 10. (cont) Relative pay of women in the top-ten occupational groups (ranked by concentration of all female workers) as a proportion of female public sector pay

UK													
Occupational group	1986	SOC code	female conc.	Relative pay			Occupational group	1995	SOC code	female conc.	Relative pay		
				All	FT	PT					All	FT	PT
Clerks n.e.c.	43	12.1	78.6	81.4	71.9	Sales assistants and check-out operators	72	10.3	49.7	52.3	48.9		
Sales assistants and check-out operators	72	10.7	59.0	62.6	57.5	Other occupations in sales and services	95	9.0	48.2	49.1	48.1		
Other occupations in sales and services	95	9.2	51.3	62.1	49.7	Numerical clerks, etc.	41	6.5	76.8	79.6	71.3		
Secretaries, personal assistants, typists	45	9.3	86.7	91.0	77.1	Secretaries, personal assistants, typists	45	6.2	80.6	84.6	71.1		
Health associate professionals	34	7.1	101.0	95.7	108.5	Health related occupations	64	5.9	60.5	60.7	60.2		
Childcare and related occupations	65	5.8	57.5	--	57.5	Teaching professionals	23	5.7	--	131.8 ¹	166.5		
Teaching professionals	23	5.1	132.8 ¹	--	--	Health associate professionals	34	5.4	106.1	107.8	103.4		
Catering occupations	62	4.2	59.5	65.3	56.0	Clerks n.e.c.	43	4.3	68.7	71.8	63.4		
Other routine process operatives	86	2.8	67.3	68.8	64.1	Childcare and related occupations	65	3.6	58.1	61.7	56.5		
Textiles, garments and related trades	55	2.8	62.6	62.6	--	Catering occupations	62	3.5	46.5	49.4	45.2		
Total occupations		100.0	81.4	90.7	69.6	Total occupations		100.0	78.9	88.7	66.5		

CANADA													
Occupational group	1980	SOC code	female conc.	Relative pay			Occupational group	1990	SOC code	female conc.	Relative pay		
				All	FT	PT					All	FT	PT
Bookkeeping, account-recording and related Occupations	413	14.3	73.3	74.4	--	Bookkeeping, Account-recording and Related Occupations	413	12.1	71.6	73.1	--		
Stenographic and typing occupations	411	11.1	77.0	77.4	--	Stenographic and Typing Occupations	411	8.5	79.8	78.9	--		
Sales occupations, commodities	513/514	7.6	61.2	63.6	--	Sales Occupations, Commodities	513/514	7.4	62.4	66.4	--		
Nursing, therapy and related assisting occupations	313	7.4	98.0	96.3	--	Nursing, Therapy and Related Assisting Occupations	313	7.4	99.3	97.4	--		
Food and beverage preparation and related service occupations	612	7.0	54.7	54.7	--	Food and Beverage Preparation and Related Service Occupations	612	6.8	52.6	52.0	--		
Other clerical and related occupations	419	5.6	77.3	79.0	--	Other Managers and Administrators	113/114	6.4	100.3	100.5	--		
Elementary, secondary school teaching and related occupations	273	5.4	132.9	131.0	--	Other Clerical and Related Occupations	419	5.6	79.1	80.3	--		
Reception, information, mail and message distribution occupations	417	3.8	73.3	74.4	--	Elementary, Secondary School Teaching and Related Occupations	273	5.4	121.9	122.3	--		
Other managers and administrators	113/114	3.2	101.6	101.5	--	Reception, Information, Mail and Message Distribution Occupations	417	3.6	72.8	73.3	--		
Fabricating, assembling and repairing occupations: textile, fur and leather products	855/856	3.0	58.4	57.0	--	Personal Service Occupations	614	3.5	50.5	50.0	--		
Total top-ten		68.4	79.1	82.8	--	Total top-ten		66.7	79.2	82.9	--		
Total		100.0	79.9	82.6	--	Total		100.0	82.3	84.4	--		

US													
Occupational group	1982	SOC code	female conc.	Relative pay			Occupational group	1992	SOC code	female conc.	Relative pay		
				All	FT	PT					All	FT	PT
Other admin. support, including clerical	26	12.6	81.3	83.3	76.2	Other admin. support, including clerical	26	14.4	75.9	78.0	69.8		
Secretaries, stenographers, typists	24	10.5	82.8	84.7	75.4	Other sales occupations	22	8.3	53.7	54.2	53.3		
Other sales occupations	22	9.3	63.4	60.5	65.4	Secretaries, stenographers, typists	24	7.3	77.9	79.5	71.8		
Food service occupations	29	7.9	56.7	53.3	59.0	Food service occupations	29	6.7	48.9	47.9	49.5		
Machine operators, tenders, except precision	43	5.7	69.8	69.3	72.7	Manager, salaried	03	6.4	108.1	108.8	101.6		
Teachers, except post-secondary	15	5.6	105.2	108.0	97.7	Teachers, except post-secondary	15	5.9	102.7	105.6	93.0		
Financial records processing occupations	25	5.0	87.6	85.2	94.9	Personal service occupations	32	3.8	51.6	49.2	54.8		
Manager, salaried	03	4.0	116.6	114.4	131.3	Machine operators, tenders, except precision	43	3.7	56.0	56.5	52.3		
Health service occupations	30	3.5	66.2	64.4	69.9	Health service occupations	30	3.6	62.6	59.1	70.6		
Personal service occupations	32	3.3	62.8	55.9	68.6	Financial records processing occupations	25	3.6	83.0	75.0	104.1		
Total occupations		100.0	83.4	85.9	94.4	Total occupations		100.0	81.2	83.9	74.6		

Note:
a) Due to problems of overestimation of hourly earnings for full-time teachers in the UK (see text), data refers to weekly earnings. Earnings for full and part-time workers taken together are calculated from employment data on full and part-time employment.

Table 11. Gender pay inequality in the top-ten occupational groups (1990s)

All pay ratios refer to the average hourly earnings of full and part-time workers

NORWAY

Occupational group	1993 NYK code	female conc. F _i /F	gender pay ratio W _f /W _{m_i} ¹	relative pay: male workers W _m /W _m ¹
Nursing care	04	14.1	107.8	76.6
Sales work from offices and retail sales work	33	10.6	71.3	93.4
Other clerical work	29	10.5	86.3	93.5
Hotel, restaurant, domestic work	91	9.4	95.3	71.8
Pedagogical work	06	9.2	88.1	104.6
Building caretaking and charwork	93	7.5	91.7	76.9
Other work in major group				
Technical, physical science etc	12	4.7	91.6	111.6
Book-keeping and cashier work	20	4.3	94.8	100.3
Stenography and typing work	21	3.7	--	--
Public administration	10	3.0	84.6	108.1
Total		100.0	81.2	100.0

AUSTRALIA

Occupational group	1995 ASCO code	female conc. F _i /F	gender pay ratio W _f /W _{m_i} ¹	relative pay: male workers W _m /W _m ¹
Sales assistants	63	10.8	86.2	68.1
Numerical clerks	53	9.7	87.3	88.0
Stenographers and typists	51	7.2	97.1	79.6
Receptionists, telephonists, messengers	56	6.0	89.4	79.1
School teachers	24	5.9	95.8	112.0
Personal service workers	66	5.1	91.8	77.0
Miscellaneous labourers etc	89	4.9	91.7	69.1
Tellers, cashiers, ticket salespersons	64	4.7	91.0	69.6
Registered nurses	34	4.7	99.0	106.8
Cleaners	83	4.1	99.2	63.9
Total		100.0	79.9	100.0

UK

Occupational group	1995 SOC code	female conc. F _i /F	gender pay ratio W _f /W _{m_i} ¹	relative pay: male workers W _m /W _m ¹
Sales assistants, check-out operators	72	10.3	82.0	54.4
Other occupations in sales and services	95	9.0	87.2	49.6
Numerical clerks, etc.	41	6.5	79.3	86.8
Secretaries, personal assistants, typists	45	6.2	--	--
Health, related occupations	64	5.9	82.5	65.8
Teaching professionals	23	5.7	88.5	166.0
Health associate professionals	34	5.4	91.1	104.5
Clerks n.e.c.	43	4.3	86.0	71.7
Childcare and related occupations	65	3.6	--	--
Catering occupations	62	3.5	77.1	54.1
Total		100.0	70.8	100.0

WEST GERMANY

Occupational group	1990 BA code	female conc. F _i /F	gender pay ratio ² W _f /W _{m_i}	relative pay: male workers ² W _m /W _m
Clerical and secretarial workers	78	26.8	66.0	104.3
Sales occupations	68	12.4	48.3	105.1
Nursing professionals	85	9.8	71.4	91.3
Cleaners	93	6.2	50.9	78.3
Social work associate professionals	86	3.8	69.1	98.6
Financial institution officers	69	3.7	71.3	121.0
Other assemblers and metal workers	32	3.1	71.7	87.0
Finance and computer associate professionals	77	3.1	59.1	127.5
Food processing workers	39-43	2.8	69.6	73.9
Quality inspectors and packers	52	2.2	63.9	88.4
Total		100.0	71.7	100.0

CANADA

Occupational group	1990 SOC code	female conc. F _i /F	gender pay ratio W _f /W _{m_i} ¹	relative pay: male workers W _m /W _m ¹
Bookkeeping, account-recording and related occupations	413	12.1	82.2	79.6
Stenographic, typing occupations	411	8.5	79.0	92.3
Sales occupations, commodities	513/514	7.4	66.9	85.3
Nursing, therapy, related assisting occupations	313	7.4	103.6	87.6
Food and beverage preparation, related service occupations	612	6.8	87.5	55.0
Other managers, administrators	113/114	6.4	67.8	135.2
Other clerical, related occupations	419	5.6	81.1	89.2
Elementary, secondary school teachers, related occupations	273	5.4	84.3	132.1
Reception, information, mail, message distribution occupations	417	3.6	79.1	84.1
Personal service occupations	614	3.5	67.6	68.3
Total		100.0	73.1	100.0

US

Occupational group	1992 SOC code	female conc. F _i /F	gender pay ratio W _f /W _{m_i} ¹	relative pay: male workers W _m /W _m ¹
Other admin. support, including clerical	26	14.4	80.1	87.5
Other sales occupations	22	8.3	76.5	64.9
Secretaries, stenographers, typists	24	7.3	95.6	75.3
Food service occupations	29	6.7	93.8	48.2
Manager, salaried	3	6.4	67.3	148.4
Teachers, except post-secondary	15	5.9	83.5	113.6
Personal service occupations	32	3.8	58.8	81.1
Machine operators, tenders, except precision	43	3.7	65.0	79.6
Health service occupations	30	3.6	89.5	64.7
Financial records processing occupations	25	3.6	89.4	85.7
Total		100.0	72.9	100.0

Notes: 1. Male hourly pay in the UK refers to full-time workers only
2. Pay data for West Germany refer to full-time workers only.

Table 12. Pay dispersion among women in the top-ten occupational groups

Pay dispersion is expressed in terms of the ratio between the median hourly pay of women in each occupation and lowest/highest deciles

NORWAY			1980			1993		
Occupational group	NYK code	Female L/M	HM	Occupational group	NYK code	Female L/M	HM	
Other clerical work	29	0.77	1.29	Nursing care	04	0.78	1.24	
Nursing care	04	0.79	1.38	Sales work from offices and retail sales work	33	0.76	1.25	
Sales work from offices and retail sales work	33	0.69	1.20	Other clerical work	29	0.83	1.27	
Building caretaking and charwork	93	0.78	1.34	Hotel, restaurant and domestic work	91	0.81	1.18	
Hotel, restaurant and domestic work	91	0.75	1.22	Pedagogical work	06	0.79	1.26	
Pedagogical work	06	0.63	1.36	Building caretaking and charwork	93	0.82	1.19	
Farmwork and livestock work	0			Other work in group Technical, physical science etc	12	0.68	1.48	
Book-keeping and cashier work	20	0.74	1.19	Book-keeping and cashier work	20	0.80	1.40	
Postal and telecommunication work	67	0.78	1.43	Stenography and typing work	21	0.82	1.19	
Stenography and typing work	21	0.72	1.20	Public administration	10	0.87	1.28	
Total		0.69	1.33	Total		0.78	1.31	
AUSTRALIA			1987			1995		
Occupational group	ASCO code	Female L/M	HM	Occupational group	ASCO code	Female L/M	HM	
Stenographers and typists	51	0.69	1.29	Sales assistants	63	0.59	1.34	
Sales assistants	63	0.61	1.24	Numerical clerks	53	0.76	1.42	
Numerical clerks	53	0.71	1.39	Stenographers and typists	51	0.78	1.33	
School teachers	24	0.73	1.42	Receptionists, telephonists and messengers	56	0.78	1.29	
Receptionists, telephonists and messengers	56	0.77	1.34	School teachers	24	0.74	1.27	
Registered nurses	34	0.74	1.39	Personal service workers	66	0.8	1.36	
Cleaners	83	0.83	1.24	Miscellaneous labourers etc	89	0.64	1.3	
Miscellaneous labourers etc	89	0.75	1.37	Tellers, cashiers, ticket salespersons	64	0.59	1.32	
Miscellaneous clerks	59	0.76	1.33	Registered nurses	34	0.78	1.34	
Tellers, cashiers, ticket salespersons	64	0.61	1.39	Cleaners	83	0.79	1.28	
Total		0.7	1.6	Total		0.7	1.6	
UK ¹			1986			1995		
Occupational group	SOC code	Female L/M	HM	Occupational group	SOC code	Female L/M	HM	
Clerks n.e.c.	43			Sales assistants and check-out operators	72	0.80	1.40	
Sales assistants and check-out operators	72			Other occupations in sales and services	95	0.72	1.39	
Other occupations in sales and services	95			Numerical clerks, etc.	41	0.68	1.50	
Secretaries, personal assistants, typists	45			Secretaries, personal assistants, typists	45	0.71	1.54	
Health associate professionals	34			Health, related occupations	64	0.62	1.48	
Childcare and related occupations	65			Teaching professionals	23	0.66	1.30	
Teaching professionals	23			Health associate professionals	34	0.68	1.32	
Catering occupations	62			Clerks n.e.c.	43	0.69	1.45	
Other routine process operatives	86			Childcare and related occupations	65	0.56	1.24	
Textiles, garments and related trades	55			Catering occupations	62	0.80	1.49	
Total		0.66	1.82	Total		0.59	1.97	
WEST GERMANY ¹			1980			1990		
Occupational group	BA code	Female L/M	HM	Occupational group	BA code	Female L/M	HM	
Clerical and secretarial workers	78	0.45	1.40	Clerical and secretarial workers	78	0.46	1.51	
Sales occupations	68	0.48	1.65	Sales occupations	68	0.47	1.69	
Nursing professionals	85	0.47	1.35	Nursing professionals	85	0.44	1.42	
Cleaners	93	0.44	1.50	Cleaners	93	0.42	1.40	
Textile workers	34-36	0.54	1.36	Social work associate professionals	86	0.62	1.39	
Other assemblers and metal workers	32	0.65	1.24	Financial institution officers	69	0.63	1.39	
Financial institution officers	69	0.68	1.29	Other assemblers and metal workers	32	0.63	1.23	
Finance and computer associate professionals	77	0.47	1.42	Finance and computer associate professionals	77	0.46	1.57	
Food processing workers	39-43	0.49	1.36	Food processing workers	39-43	0.49	1.36	
Quality inspectors and packers	52	0.59	1.34	Quality inspectors and packers	52	0.55	1.32	
Total manual		0.40	1.49	Total manual		0.59	1.37	
Total non manual		0.54	1.32	Total non manual		0.69	1.35	

Table 12. (Cont.) Pay dispersion among women in the top-ten occupational groups

CANADA ²							
Occupational group	1980			Occupational group	1990		
	SOC code	Female			SOC code	Female	
		LM	HM			LM	HM
Bookkeeping, Account-recording and Related Occupations	413	0.66	1.45	Bookkeeping, Account-recording and Related Occupations	413	0.54	1.50
Stenographic and Typing Occupations	411	0.69	1.36	Stenographic and Typing Occupations	411	0.62	1.38
Sales Occupations, Commodities	513/514	0.60	1.71	Sales Occupations, Commodities	513/514	0.50	1.99
Nursing, Therapy and Related Assisting Occupations	313	0.60	1.42	Nursing, Therapy and Related Assisting Occupations	313	0.53	1.43
Food and Beverage Preparation and Related Services	612	0.54	1.67	Food and Beverage Preparation and Related Services	612	0.48	1.92
Other Clerical and Related Occupations	419	0.64	1.41	Other Managers and Administrators	113/114	0.52	1.82
Elementary and Secondary School Teaching and Related Occupations	273	0.57	1.36	Other Clerical and Related Occupations	419	0.57	1.43
Reception, Information, Mail and Message Distribution	417	0.64	1.57	Elementary and Secondary School Teaching and Related Occupations	273	0.52	1.37
Other Managers and Administrators	113/114	0.57	1.78	Reception, Information, Mail and Message Distribution	417	0.55	1.48
Fabricating, Assembling and Repairing Occupations	855/856	0.67	1.45	Personal Service Occupations	614	0.40	2.03
Total		0.56	1.69	Total		0.47	1.72
US							
Occupational group	1982			Occupational group	1992		
	SOC code	Female			SOC code	Female	
		LM	HM			LM	HM
Other admin. support, including clerical	26	0.58	1.80	Other admin. support, including clerical	26	0.54	1.85
Secretaries, stenographers, typists	24	0.58	1.63	Other sales occupations	22	0.54	2.16
Other sales occupations	22	0.55	2.08	Secretaries, stenographers, typists	24	0.54	1.63
Food service occupations	29	0.55	1.89	Food service occupations	29	0.54	1.95
Machine operators, tenders, except precision	43	0.64	1.81	Salaried managers	03	0.45	1.92
Teachers, except post-secondary	15	0.47	1.69	Teachers, except post-secondary	15	0.42	1.79
Financial records processing occupations	25	0.60	1.76	Personal service occupations	32	0.38	2.39
Salaried managers	03	0.47	1.88	Machine operators, tenders, except precision	43	0.60	1.80
Health service occupations	30	0.59	1.77	Health service occupations	30	0.54	1.86
Personal service occupations	32	0.40	2.22	Financial records processing occupations	25	0.56	1.78
Total		0.49	2.04	Total		0.45	2.17

Notes: 1. Pay dispersion data for Britain and West Germany refer to full-time workers only.

2. Pay dispersion data for Canada refer to average weekly earnings of full-time, full-year employees, and are therefore not strictly comparable. Data are missing for France.

Source: Appendix Table 2.

Table 13. Employment composition in the top-ten detailed occupations (3 or 4 digit)

ranked by concentration of all females workers

All figures expressed as percentages

NORWAY

	1980	NYK code	female conc.	female share	PT share FPTI/Fi
<i>Detailed occupation</i>					
Other clerical workers n.e.c.	299		12.34	86.00	44.3
Shop assistants	333		12.34	78.45	61.9
Charworkers	932		9.83	96.32	84.9
Other practical nurses	045		5.64	96.93	53.7
Teachers (primary and vocational schools)	064		4.60	60.75	66.2
Professional nurses	041		4.29	93.94	54.5
Housekeepers (public service)	915		3.76	98.10	91.8
Farm-helpers (general)	411		2.88	59.88	64.9
Secretaries and stenographers	211		2.48	95.15	34.9
Kitchen assistants	913		1.77	91.44	50.1
Total top-ten			59.9	78.4	61.6
Total			100.0	43.7	54.8

AUSTRALIA

	1987	ASCO code	female conc.	female share	PT share FPTI/Fi
<i>Detailed occupation</i>					
Sales assistants	6301		10.2	66.9	56.6
Accounting clerks	5301		7.6	64.6	28.9
Office secretaries and stenographers	5101		7.4	98.5	24.2
Registered nurses	3401		5.3	92.1	37.6
Cleaners	8301		4.9	69.0	71.8
Receptionists and information clerks	5601		4.6	90.6	31.5
Primary school teachers	2403		3.3	77.3	17.4
Other clerks	5999		2.8	59.7	28.3
Data processing machine operators	5201		2.6	80.6	19.3
Secondary school teachers	2405		2.4	50.3	24.7
Total top-ten			51.1	76.3	37.5
Total (280)			100.0	41.2	36.8

UK

	1986	SOC code	female conc.	female share	PT share FPTI/Fi
<i>Detailed occupation</i>					
Clerks n.e.c.	430		12.1	76.8	30.1
Typists, word processor operators, other secretaries etc	452+459		9.3	99.2	30.9
Sales assistants	720		8.7	82.1	68.7
Nurses and midwives	340+341		6.1	91.0	41.8
Cleaners, domestics	958		6.0	86.1	92.9
Educational assistants, etc	652		5.2	98.9	83.5
Secondary education teaching professionals	233 ¹				
Primary and nursery teachers	234 ¹				
Other teaching professionals	235+239 ¹		4.2	63.8	22.4
Retail, cash-desk, check-out operators	721		1.9	90.9	70.9
Total top-ten			53.5	85.8	50.9
Total (370)			100.0	44.9	43.6

	1993	NYK code	female conc.	female share	PT share FPTI/Fi
<i>Detailed occupation</i>					
Shop assistants	333		8.2	72.1	63.1
Charworkers	932		7.4	92.0	77.8
Other clerical workers n.e.c.	299		7.4	89.7	41.4
Other practical nurses	045		5.4	97.3	62.5
Professional nurses	041		5.2	92.6	45.0
Teachers (primary and vocational schools)	064		4.5	60.8	37.0
Secretaries and stenographers	211		3.6	98.4	31.3
Others in Hotel, restaurant, domestic occupations n.e.c.	919		3.3	93.1	42.3
Accountants and book-keepers	201		2.6	74.3	26.0
Social workers	122		2.6	58.9	48.5
Total top-ten			50.2	84.1	51.5
Total			100.0	47.8	45.0

	1995	ASCO code	female conc.	female share	PT share FPTI/Fi
<i>Detailed occupation</i>					
Sales assistants	6301		10.8	66.3	63.3
Accounting clerks	5301		9.2	75.7	34.6
Office secretaries and stenographers	5101		6.1	97.4	26.7
Receptionists and information clerks	5601		5.3	91.3	39.2
Registered nurses	3401		4.6	91.7	46.5
Cleaners	8301		4.1	65.4	77.2
Primary school teachers	2403		3.1	82.5	23.8
Data processing machine operators	5201		2.8	77.6	23.9
Cashiers	6403		2.7	82.9	81.5
Child care refuge and related workers	6601		2.4	94.9	54.7
Total top-ten			51.1	80.3	46.9
Total (280)			100.0	44.9	41.5

	1995	SOC code	female conc.	female share	PT share FPTI/Fi
<i>Detailed occupation</i>					
Sales assistants	720		8.4	76.3	75.8
Cleaners, domestics	958		5.9	87.0	87.5
Other secretaries, personal assistants	459		4.8	99.2	28.2
Clerks, n.e.c	430		4.3	81.2	37.3
Accounts, wages clerks, etc.	410		4.0	75.0	30.4
Nurses	340		4.0	90.1	40.7
Care assistants	644		3.9	92.0	56.9
Primary, nursery teachers	234		2.6	83.8	21.5
Counter clerks, cashiers	411		2.3	76.9	42.9
Retail cash-desk operators	721		1.8	87.9	83.9
Total top-ten			42.1	84.5	53.9
Total (370)			100.0	47.8	44.0

Table 13. ctd.

WEST GERMANY

	1980	BA code	female conc.	female share	PT share FPTI/FI
<i>Detailed occupation</i>					
Administrative associate professionals	781		16.9	66.9	17.8
Sales occupations	682		10.6	80.8	29.6
Cleaners, domestics	933		6.6	94.0	61.4
Nurses and midwives	853		3.9	85.9	15.8
Secretaries	782		5.4	97.7	20.8
Nurse secretaries	856		2.5	99.6	10.2
Bank clerks	691		2.3	54.0	12.9
Packers	522		2.1	56.9	18.2
Book-keepers	772		1.7	68.7	22.4
Electrical and electronic equipment assemblers	321		1.6	79.6	8.0
Total top-ten			53.6	78.5	25.0
Total (311)			100.0	38.8	21.2

	1990	BA code	female conc.	female share	PT share FPTI/FI
<i>Detailed occupation</i>					
Administrative associate professionals	781		18.2	72.2	22.8
Sales occupations	682		11.2	80.0	32.7
Cleaners, domestics	933		6.1	91.1	66.8
Nurses and midwives	853		4.7	84.1	24.2
Secretaries	782		4.2	97.2	25.2
Nurse secretaries	856		3.1	99.6	16.6
Bank clerks	691		2.3	53.5	17.9
Social work associate professionals	861		2.0	72.7	27.1
Packers	522		1.9	53.8	19.0
Child-care workers	864		1.8	96.3	28.7
Total top-ten			55.5	79.7	29.6
Total (311)			100.0	40.4	25.8

CANADA

	1981	SOC code	female conc.	female share	PT share FPTI/FI
<i>Detailed occupation</i>					
Secretaries and Stenographers	4111		8.6	99.0	
Bookkeepers and Accounting Clerks	4131		7.4	81.8	
Sales Clerks and Salespersons, Commodities, n.e.c.	5135		6.3	57.3	
Cashiers and Tellers	4133		4.9	92.7	
Nurses, Registered, Graduate and Nurses-in-training	3131		3.9	95.3	
Food and Beverage Serving Occupations	6125		3.9	81.1	
Elementary and Kindergarten Teachers	2731		3.4	80.1	
General Office Clerks	4197		2.6	80.5	
Typists and Clerk-typists	4113		2.2	97.9	
Janitors, Charworkers and Cleaners	6191		2.1	41.0	
Total top-ten			45.4	82.7	
Total (514)			100.0	41.9	

	1991	SOC code	female conc.	female share	PT share FPTI/FI
<i>Detailed occupation</i>					
Secretaries and Stenographers	4111		7.8	98.7	
Sales Clerks and Salespersons, Commodities, n.e.c.	5135		6.0	53.9	
Bookkeepers and Accounting Clerks	4131		5.4	84.1	
Cashiers and Tellers	4133		5.0	88.3	
Nurses, Registered, Graduate and Nurses-in-training	3131		4.4	94.8	
Food and Beverage Serving Occupations	6125		3.5	77.7	
General Office Clerks	4197		3.1	82.4	
Elementary and Kindergarten Teachers	2731		3.1	81.4	
Receptionists and Information Clerks	4171		2.2	93.0	
Janitors, Charworkers and Cleaners	6191		2.0	44.9	
Total top-ten			42.4	81.9	
Total (514)			100.0	46.6	

FRANCE

	1992	PCS code	female conc.	female share	PT share FPTI/FI
<i>Detailed occupation</i>					
State civil servants, excluding 5221, 5222	52		11.0	76.9	29.4
Secretary	5411		6.3	96.1	21.5
Primary school teachers, others	42		5.1	63.5	17.5
Shopkeepers, others	22		3.7	44.0	12.9
Administrative staff	5424		3.6	77.5	18.1
Cleaners	6891		3.3	71.7	81.6
Accounts and finance clerks	5421		3.0	82.4	19.7
Waiter - restaurant/cafe	5611		2.6	56.7	44.1
Auxiliary nurse - public/private sector	5221		2.3	90.1	24.4
Cleaners/domestics in hospital	5222		2.1	83.7	26.2
Total top-ten			42.9	71.9	28.3
Total (404)			100.0	43.5	24.2

	1992	PCS code	female conc.	female share	PT share FPTI/FI
<i>Detailed occupation</i>					
State civil servants, excluding 5221, 5222	52		11.0	76.9	29.4
Secretary	5411		6.3	96.1	21.5
Primary school teachers, others	42		5.1	63.5	17.5
Shopkeepers, others	22		3.7	44.0	12.9
Administrative staff	5424		3.6	77.5	18.1
Cleaners	6891		3.3	71.7	81.6
Accounts and finance clerks	5421		3.0	82.4	19.7
Waiter - restaurant/cafe	5611		2.6	56.7	44.1
Auxiliary nurse - public/private sector	5221		2.3	90.1	24.4
Cleaners/domestics in hospital	5222		2.1	83.7	26.2
Total top-ten			42.9	71.9	28.3
Total (404)			100.0	43.5	24.2

Table 14. Relative hourly pay of women in the top-ten detailed occupations (3 or 4 digit) ranked by concentration of all female workers

Female average occupational pay relative to the average hourly pay of male full-time workers in all sectors
All figures expressed as percentages

NORWAY						1993					
<i>Detailed occupation</i>	1980	NYK code	Relative pay			<i>Detailed occupation</i>	1993	NYK code	Relative pay		
			All	FT	PT				All	FT	PT
Other clerical workers n.e.c.	299		76.5	74.7	79.7	Shop assistants	333		63.0	64.0	62.4
Shop assistants	333		59.1	59.6	58.8	Charworkers	932		70.0	69.7	70.2
Charworkers	932		74.3	66.2	75.9	Other clerical workers n.e.c.	299		75.3	74.8	76.3
Other practical nurses	45		81.9	80.6	83.6	Other practical nurses	045		77.2	73.6	79.8
Teachers (primary and vocational schools)	64		115.3	93.6	136.1	Professional nurses	041		88.2	86.0	91.1
Professional nurses	41		89.1	84.7	91.6	Teachers (primary and vocational schools)	064		94.5	94.5	94.9
Housekeepers (public service)	915		67.0	0.0	66.3	Secretaries and stenographers	211		84.1	83.1	89.7
Farm-helpers (general)	411		0.0	0.0	0.0	Others in Hotel, restaurant, domestic occupations n.e.c.	919		64.4	63.8	66.3
Secretaries and stenographers	211		91.7	88.2	96.2	Accountants and book-keepers	201		91.8	92.8	74.5
Kitchen assistants	913		67.9	0.0	68.0	Social workers	122		83.0	87.9	78.4
Total top-ten occupations			72.9	67.7	75.2	Total top-ten occupations			76.9	78.8	75.2
Total (280)			78.7	77.4	80.2	Total (280)			81.2	83.1	77.6

AUSTRALIA						1995					
<i>Detailed occupation</i>	1987	ASCO code	Relative pay			<i>Detailed occupation</i>	1995	ASCO code	Relative pay		
			All	FT	PT				All	FT	PT
Sales assistants	6301		62.7	60.2	67.8	Sales assistants	6301		57.7	58.8	57.2
Accounting clerks	5301		80.5	79.7	83.1	Accounting clerks	5301		75.8	75.8	75.8
Office secretaries and stenographers	5101		82.2	82.2	82.2	Office secretaries and stenographers	5101		78.4	77.8	79.9
Registered nurses	3401		109.3	105.1	119.5	Receptionists and information clerks	5601		68.6	68.0	70.6
Cleaners	8301		75.4	72.0	77.1	Registered nurses	3401		104.1	102.6	106.2
Receptionists and information clerks	5601		74.6	73.7	79.7	Cleaners	8301		62.4	61.3	62.9
Primary school teachers	2403		116.1	113.6	131.4	Primary school teachers	2403		103.6	101.0	113.9
Other clerks	5999		85.6	84.7	87.3	Data processing machine operators	5201		70.6	70.1	71.6
Data processing machine operators	5201		78.0	77.1	84.7	Cashiers	6403		55.7	58.2	54.1
Secondary school teachers	2405		120.3	118.6	140.7	Child care refuge and related workers	6601		63.4	61.9	64.9
Total top-ten occupations			83.5	84.3	84.3	Total top-ten occupations			72.7	75.8	69.6
Total (280)			82.2	81.4	84.7	Total (280)			79.9	82.0	75.3

UK						1995					
<i>Detailed occupation</i>	1986	SOC code	Relative pay			<i>Detailed occupation</i>	1995	SOC code	Relative pay		
			All	FT	PT				All	FT	PT
Clerks n.e.c.	430		64.3	66.5	58.7	Sales assistants	720		44.4	47.3	43.5
Typists, word processor operators	452		64.1	65.1	60.4	Cleaners, domestics	958		43.4	44.5	43.3
Other secretaries, personal assistants, etc.	459		76.0	79.1	64.7	Other secretaries, personal assistants	459		74.8	78.4	65.8
Sales assistants	720		48.3	51.3	46.8	Clerks, n.e.c.	430		61.6	64.4	56.9
Nurses and midwives	340+341		82.5	78.2	88.7	Accounts, wages clerks, etc.	410		67.0	68.9	62.5
Cleaners, domestics	958		38.8	51.7	37.0	Nurses	340		94.3	96.0	92.0
Educational assistants, etc.	652		47.0	--	47.0	Care assistants	644		48.9	48.5	49.3
Secondary education teaching professionals	233		--	97.21	--	Primary, nursery teachers	234		--	104.31	--
Primary and nursery teachers	234		--	95.51	--	Counter clerks, cashiers	411		71.5	75.9	65.7
Other teaching professionals	235+239		--	90.31	--	Retail cash-desk operators	721		46.2	45.8	46.2
Total top-ten occupations			66.5	74.1	56.9	Total top-ten occupations			59.3	72.1	52.2
Total (370)			66.5	74.1	56.9	Total (370)			70.8	79.6	59.6

WEST GERMANY						1990					
<i>Detailed occupation</i>	1980	BA code	Relative pay			<i>Detailed occupation</i>	1990	BA code	Relative pay		
			All	FT	PT				All	FT	PT
Administrative associate professionals	781		68.1			Administrative associate professionals	781		67.4		
Sales occupations	682		45.7			Sales occupations	682		46.4		
Cleaners, domestics	933		41.5			Cleaners, domestics	933		38.4		
Nurses and midwives	853		78.7			Nurses and midwives	853		75.4		
Secretaries	782		77.7			Secretaries	782		78.3		
Nurse secretaries	856		55.3			Nurse secretaries	856		51.4		
Bank clerks	691		79.8			Bank clerks	691		84.8		
Packers	522		52.1			Social work associate professionals	861		67.4		
Book-keepers	772		76.6			Packers	522		53.6		
Electrical and electronic equipment assemblers	321		63.4			Child-care workers	864		65.2		
Total top-ten occupations			63.4			Total top-ten occupations			63.3		
Total (311)			70.2			Total (311)			71.7		

Table 14. ctd.

CANADA

<i>Detailed occupation</i>	1980 SOC code	Relative pay		
		All	FT	PT
Secretaries and Stenographers	4111	67.5	67.6	
Bookkeepers and Accounting Clerks	4131	66.4	65.7	
Sales Clerks and Salespersons, Commodities, n.e.c.	5135	49.4	50.1	
Cashiers and Tellers	4133	53.5	54.4	
Nurses, Registered, Graduate and Nurses-in-training	3131	93.4	90.9	
Food and Beverage Serving Occupations	6125	42.9	42.0	
Elementary and Kindergarten Teachers	2731	112.7	110.7	
General Office Clerks	4197	63.9	64.4	
Typists and Clerk-typists	4113	61.5	62.3	
Janitors, Charworkers and Cleaners	6191	53.6	52.4	
Total top-ten occupations		65.7	69.4	
Total (514)		68.8	71.1	

FRANCE

<i>Detailed occupation</i>	PCS code	Relative pay		
		All	FT	PT
State civil servants, excluding 5221, 5222	52	65.6	65.4	54.5
Secretary	5411	74.1	75.1	68.3
Primary school teachers, others	42	93.5	91.0	96.8
Shopkeepers, others	22	--	--	--
Administrative staff	5424	70.3	70.7	67.5
Cleaners	6891	54.0	56.1	52.8
Accounts and finance clerks	5421	74.4	74.3	75.2
Waiter - restaurant/cafe	5611	55.8	56.4	54.4
Auxiliary nurse - public/private sector	5221	72.7	72.9	72.0
Cleaners/domestics in hospital	5222	62.2	62.6	60.2
Total top-ten occupations		64.3	64.5	59.4
Total (404)		77.3	80.0	69.5

US

<i>Detailed occupation</i>	1982 SOC code	Relative pay		
		All	FT	PT
Secretaries	313	63.5	64.4	59.6
Cashiers	276	46.6	45.0	47.9
Bookkeepers, accounting, auditing clerks	337	65.5	63.7	70.5
Waiters and waitresses	435	43.5	39.4	45.8
Managers & administrators, n.e.c.	019	86.2	82.8	105.6
Teachers, elementary school	156	83.3	84.2	79.2
Nursing aides, orderlies, & attend.	447	49.3	47.7	53.2
Sales workers, other commodities	274	46.1	44.8	46.9
Registered nurses	095	98.8	110.5	92.7
Typists	315	57.7	61.4	48.2
Total top-ten occupations		56.2	61.4	48.2
Total (500)		63.0	64.9	58.9

<i>Detailed occupation</i>	1990 SOC code	Relative pay		
		All	FT	PT
Secretaries and Stenographers	4111	70.9	70.1	
Sales Clerks and Salespersons, Commodities, n.e.c.	5135	52.5	55.6	
Bookkeepers and Accounting Clerks	4131	71.1	69.0	
Cashiers and Tellers	4133	50.1	51.6	
Nurses, Registered, Graduate and Nurses-in-training	3131	97.1	94.4	
Food and Beverage Serving Occupations	6125	41.6	40.1	
General Office Clerks	4197	70.0	70.0	
Elementary and Kindergarten Teachers	2731	109.0	107.7	
Receptionists and Information Clerks	4171	60.5	60.8	
Janitors, Charworkers and Cleaners	6191	55.7	54.5	
Total top-ten occupations		67.7	71.3	
Total (514)		73.1	75.0	

<i>Detailed occupation</i>	1992 PCS code	Relative pay		
		All	FT	PT
State civil servants, excluding 5221, 5222	52	65.6	65.4	54.5
Secretary	5411	74.1	75.1	68.3
Primary school teachers, others	42	93.5	91.0	96.8
Shopkeepers, others	22	--	--	--
Administrative staff	5424	70.3	70.7	67.5
Cleaners	6891	54.0	56.1	52.8
Accounts and finance clerks	5421	74.4	74.3	75.2
Waiter - restaurant/cafe	5611	55.8	56.4	54.4
Auxiliary nurse - public/private sector	5221	72.7	72.9	72.0
Cleaners/domestics in hospital	5222	62.2	62.6	60.2
Total top-ten occupations		64.3	64.5	59.4
Total (404)		77.3	80.0	69.5

<i>Detailed occupation</i>	1992 SOC code	Relative pay		
		All	FT	PT
Secretaries	313	69.7	71.1	63.8
Cashiers	276	42.4	42.6	42.4
Managers & administrators, n.e.c.	022	101.3	101.4	99.7
Nursing aides, orderlies, attendants	447	55.2	51.8	63.1
Bookkeepers, accounting auditing clerks	337	75.1	65.9	97.1
Registered nurses	095	131.0	146.4	124.6
Supervisors & proprietors, sales occupations	243	69.4	70.7	69.2
Elementary school teachers	156	97.0	98.5	89.6
Waiters and waitresses	435	42.9	39.8	44.8
Sales workers, other commodities	274	52.4	50.9	53.6
Total top-ten occupations		56.0	57.8	52.2
Total (500)		72.9	75.4	67.0

Note: 1. The relative pay of teaching professions is calculated using average weekly earnings in order to provide a more realistic indication of the pay differential.

Appendix Table 1. Details of top forty, 4-digit level occupations in FRANCE, ranked according to female employment concentration

a) Employment composition

OCCUPATION (4-DIGIT)	PCS code	<i>Full and part-time workers</i>			<i>Female workers only</i>		
		female share	male conc.	female conc.	female full-time conc.	female part-time conc.	female part-time share
State civil servants, excluding 5221, 5222	52	76.9	2.5	11.0	7.8	3.2	29.4
Secretary	5411	96.1	0.2	6.3	4.9	1.3	21.5
Primary school teachers, others	42	63.5	2.3	5.1	4.2	0.9	17.5
Shopkeepers, others	22	44.0	3.6	3.7	3.2	0.5	12.9
Administrative staff	5424	77.5	0.8	3.6	3.0	0.7	18.1
Cleaner	6891	71.7	1.0	3.3	0.6	2.7	81.6
Accounts and finance clerks	5421	82.4	0.5	3.0	2.4	0.6	19.7
Waiter - restaurant/cafe	5611	56.7	1.5	2.6	1.4	1.1	44.1
Auxiliary nurse - public/private sector	5221	90.1	0.2	2.3	1.7	0.6	24.4
Cleaners/domestics in hospital	5222	83.7	0.3	2.1	1.6	0.6	26.2
Personal assistant	4615	94.4	0.1	1.8	1.6	0.2	9.2
Cashier	5519	91.2	0.1	1.7	0.8	0.9	51.4
Shop assistant in food trade	5512	82.0	0.3	1.7	1.0	0.6	38.2
Chief accountant	4611	64.7	0.6	1.5	1.3	0.2	15.7
Shop assistant in textiles	5514	84.4	0.2	1.5	1.0	0.5	30.5
Hairdresser	5622	84.7	0.2	1.2	0.9	0.3	27.6
self-service shop assts	5518	64.7	0.5	1.1	0.6	0.5	45.3
General care nurse	4315	92.8	0.1	1.0	0.8	0.3	27.1
Other admin. technical staff	4612	57.9	0.5	0.9	0.9	0.1	9.1
Assistant nursery nurse/ childminder	5631	97.8	0.0	0.8	0.2	0.6	74.5
Admin managers in sme	3727	33.1	1.3	0.8	0.7	0.1	14.8
Bank counter clerk	5431	60.3	0.4	0.8	0.7	0.1	12.1
Hotel employees	5614	69.4	0.3	0.8	0.5	0.2	31.5
Shop assistant in luxury products	5516	86.2	0.1	0.8	0.6	0.2	26.6
Office clerk	5412	91.5	0.1	0.8	0.7	0.1	11.8
Bank middle management	4651	49.4	0.6	0.7	0.6	0.1	9.6
Workers in packing+transport	6793	46.3	0.6	0.6	0.6	0.1	10.8
Telephonist	5417	92.1	0.0	0.6	0.5	0.1	21.5
Specialist pedagogical worker	4332	62.3	0.2	0.5	0.4	0.1	25.7
Data entry	5415	87.9	0.1	0.5	0.4	0.1	10.4
Medical techniican	4324	79.8	0.1	0.5	0.4	0.1	19.1
Other professionals, intermediate, commercial	4629	41.7	0.5	0.5	0.5	0.0	6.1
Nurse supervisor, others	4311	83.1	0.1	0.5	0.4	0.1	16.0
Insurance clerk	5434	79.7	0.1	0.5	0.4	0.1	20.4
Pharmacy assistant	4327	79.4	0.1	0.5	0.3	0.1	26.7
Chief executive	2300	18.1	1.5	0.4	0.4	0.1	13.6
Non-qualified worker in confectionary	6772	87.1	0.1	0.4	0.4	0.0	4.5
Qualified worker in agriculture/food industry	6255	25.4	0.9	0.4	0.4	0.0	8.6
Shop assistant of home products	5513	52.9	0.3	0.4	0.3	0.1	36.1
Receptionist	5444	87.2	0.0	0.4	0.3	0.1	24.9
TOTAL TOP-40 OCCUPATIONS		69.5	22.8	67.6	49.3	18.3	27.1
TOTAL		43.5	100.0	100.0	75.8	24.2	24.2

Appendix Table 1 ctd. Details of top forty, 4-digit level occupations in FRANCE, ranked according to female employment concentration

b) Relative hourly pay in the top-40 occupations

OCCUPATION (4-DIGIT)	PCS code	Relative female pay as ratio of all male full-time pay			Gender pay ratio Wfi/Wmi1	Occupational pay differential Wmi/Wm1
		All	full-time	part-time		
		Full and part-timers				
State civil servants, excluding 5221, 5222	52	65.61	65.43	54.46	96.7	67.9
Secretary	5411	74.10	75.05	68.33	88.8	83.5
Primary school teachers, others	42	93.50	90.98	96.82	84.5	110.6
Shopkeepers, others	22	--	--	--	--	--
Administrative staff	5424	70.29	70.66	67.49	87.0	80.8
Cleaner	6891	54.02	56.10	52.77	87.0	62.1
Accounts and finance clerks	5421	74.40	74.31	75.21	91.6	81.2
Waiter - restaurant/cafe	5611	55.77	56.45	54.38	90.7	61.5
Auxiliary nurse - public/private sector	5221	72.71	72.85	71.96	97.2	74.8
Cleaners/domestics in hospital	5222	62.19	62.60	60.17	91.5	67.9
Personal assistant	4615	101.06	101.02	101.49	89.3	113.2
Cashier	5519	59.43	59.18	59.77	87.9	67.6
Shop assistant in food trade	5512	55.27	54.59	57.33	83.2	66.4
Chief accountant	4611	100.40	99.67	107.56	91.7	109.5
Shop assistant in textiles	5514	60.09	61.09	56.22	80.9	74.3
Hairdresser	5622	54.14	54.46	52.31	80.7	67.1
self-service shop assts	5518	55.25	54.87	55.97	89.6	61.6
General care nurse	4315	94.52	93.66	98.25	95.3	99.2
Other admin. technical staff	4612	102.57	102.21	107.85	90.7	113.1
Assistant nursery nurse/ childminder	5631	40.24	27.67	54.55	81.0	49.7
Admin managers in sme	3727	149.52	147.29	173.63	73.8	202.7
Bank counter clerk	5431	87.85	86.98	95.25	93.0	94.5
Hotel employees	5614	57.89	58.09	56.92	93.8	61.7
Shop assistant in luxury products	5516	60.66	60.82	59.89	91.0	66.7
Office clerk	5412	69.07	68.62	74.14	83.9	82.4
Bank middle management	4651	105.88	105.38	112.45	91.5	115.7
Workers in packing+transport	6793	56.35	56.34	56.54	86.4	65.2
Telephonist	5417	67.79	68.29	64.64	88.2	76.8
Specialist pedagogical worker	4332	83.29	83.22	83.62	93.1	89.5
Data entry	5415	65.46	65.27	67.82	84.4	77.5
Medical technician	4324	88.13	87.75	90.29	92.1	95.7
Other professionals, intermediate, commercial	4629	94.93	95.05	92.10	85.5	111.0
Nurse supervisor, others	4311	107.80	108.26	103.77	93.9	114.7
Insurance clerk	5434	81.70	81.96	80.01	95.9	85.2
Pharmacy assistant	4327	74.30	73.65	76.76	78.2	95.0
Chief executive	2300	141.43	141.90	0.00	67.0	211.0
Non-qualified worker in confectionary	6772	51.45	51.38	54.42	92.1	55.9
Qualified worker in agriculture/food industry	6255	65.84	65.82	65.88	86.1	76.4
Shop assistant of home products	5513	70.36	72.88	62.48	95.8	73.5
Receptionist	5444	69.31	70.27	63.70	87.8	78.9
TOTAL TOP-40 OCCUPATIONS		69.78	71.40	64.31	80.6	86.6
TOTAL		77.32	79.97	69.50	77.8	100.0

Note: * code 22 hourly pay data is missing

Appendix Table 2. Pay dispersion in the top-ten occupational groups for all in employment

Ratio between median hourly pay and lowest/ highest deciles

NORWAY		1980								1993					
Occupational group	code	Male		Female		All		Occupational group	code	Male		Female		All	
		L/M	H/M	L/M	H/M	L/M	H/M			L/M	H/M	L/M	H/M		
Other clerical work	29	0.65	1.27	0.77	1.29	0.76	1.32	Nursing care	04	0.89	1.52	0.78	1.24	0.78	1.26
Nursing care	04	0.82	1.27	0.79	1.38	0.79	1.37	Sales work from offices and retail sales work	33	0.68	1.60	0.76	1.25	0.76	1.58
Sales work from offices and retail sales work	33	0.73	1.43	0.69	1.20	0.71	1.57	Other clerical work	29	0.74	1.36	0.83	1.27	0.84	1.39
Building caretaking and charwork	93			0.78	1.34	0.76	1.31	Hotel, restaurant and domestic work	91	0.68	1.30	0.81	1.18	0.80	1.21
Hotel, restaurant and domestic work	91			0.75	1.22	0.74	1.23	Pedagogical work	06	0.68	1.27	0.79	1.26	0.74	1.29
Pedagogical work	06	0.76	1.29	0.63	1.36	0.66	1.32	Building caretaking and charwork	93	0.76	1.27	0.82	1.19	0.81	1.28
Farmwork and livestock work	41							Other work in major group Technical, physical science etc	12	0.74	1.50	0.68	1.48	0.72	1.41
Book-keeping and cashier work	20			0.74	1.19	0.73	1.32	Book-keeping and cashier work	20	0.71	1.45	0.80	1.40	0.77	1.43
Postal and telecommunication work	67			0.78	1.43	0.78	1.31	Stenography and typing work	21		1.18	0.82	1.19	0.82	1.22
Stenography and typing work	21			0.72	1.20	0.70	1.19	Public administration	10	0.79	1.30	0.87	1.28	0.81	1.39
Total		0.74	1.47	0.69	1.33	0.77	1.66	Total		0.74	1.47	0.78	1.31	0.76	1.37
AUSTRALIA		1987								1995					
Occupational group	code	Male		Female		All		Occupational group	code	Male		Female		All	
		L/M	H/M	L/M	H/M	L/M	H/M			L/M	H/M	L/M	H/M		
Stenographers and typists	51	0.68	1.36	0.69	1.29	0.69	1.29	Sales assistants	63	0.62	1.47	0.59	1.34	0.59	1.34
Sales assistants	63	0.6	1.47	0.61	1.24	0.6	1.27	Numerical clerks	53	0.75	1.49	0.76	1.42	0.76	1.43
Numerical clerks	53	0.73	1.9	0.71	1.39	0.71	1.51	Stenographers and typists	51	0.58	2.84	0.78	1.33	0.77	1.33
School teachers	24	0.81	1.87	0.73	1.42	0.74	1.48	Receptionists, telephonists and messengers	56	0.59	1.35	0.78	1.29	0.77	1.29
Receptionists, telephonists and messengers	56	0.82	1.43	0.77	1.34	0.77	1.35	School teachers	24	0.74	1.31	0.74	1.27	0.74	1.26
Registered nurses	34	0.72	1.44	0.74	1.39	0.74	1.4	Personal service workers	66	0.74	1.49	0.8	1.36	0.8	1.38
Cleaners	83	0.75	1.31	0.83	1.24	0.81	1.26	Miscellaneous labourers etc	89	0.59	1.46	0.64	1.3	0.6	1.35
Miscellaneous labourers etc	89	0.57	1.38	0.75	1.37	0.64	1.37	Tellers, cashiers, ticket salespersons	64	0.57	1.36	0.59	1.32	0.59	1.36
Miscellaneous clerks	59	0.74	1.32	0.76	1.33	0.76	1.33	Registered nurses	34	0.69	1.37	0.78	1.34	0.77	1.34
Tellers, cashiers, ticket salespersons	64	0.61	1.38	0.61	1.39	0.59	1.38	Cleaners	83	0.62	1.24	0.79	1.28	0.77	1.27
Total		0.7	1.7	0.7	1.6	0.7	1.7	Total		0.7	1.7	0.7	1.6	0.7	1.7
UK ¹		1986								1995					
Occupational group	code	Male		Female		All		Occupational group	code	Male		Female		All	
		L/M	H/M	L/M	H/M	L/M	H/M			L/M	H/M	L/M	H/M		
Clerks n.e.c.	43							Sales assistants and check-out operators	72	0.74	1.56	0.80	1.40		
Sales assistants and check-out operators	72							Other occupations in sales and services	95	0.71	1.48	0.72	1.39		
Other occupations in sales and services	95							Numerical clerks, etc.	41	0.64	1.56	0.68	1.50		
Secretaries, personal assistants, typists	45							Secretaries, personal assistants, typists	45			0.71	1.54		
Health associate professionals	34							Health, related occupations	64	0.58	1.30	0.62	1.48		
Childcare and related occupations	65							Teaching professionals	23	0.68	1.36	0.66	1.30		
Teaching professionals	23							Health associate professionals	34	0.66	1.37	0.68	1.32		
Catering occupations	62							Clerks n.e.c.	43	0.65	1.48	0.69	1.45		
Other routine process operatives	86							Childcare and related occupations	65			0.56	1.24		
Textiles, garments and related trades	55							Catering occupations	62	0.69	1.65	0.80	1.49		
Total		0.63	1.86	0.66	1.82			Total		0.57	2.05	0.59	1.97		

Appendix Table 2, continued Pay dispersion in the top-ten occupational groups for all in employment

WEST GERMANY¹

Occupational group	1980							Occupational group	1990						
	BA	Male		Female		All			BA	Male		Female		All	
	code	L/M	H/M	L/M	H/M	L/M	H/M		code	L/M	H/M	L/M	H/M	L/M	H/M
Clerical and secretarial workers	78	0.65	1.41	0.45	1.40	0.48	1.46	Clerical and secretarial workers	78	0.64	1.44	0.46	1.51	0.49	1.63
Sales occupations	68	0.52	1.36	0.48	1.65	0.44	2.03	Sales occupations	68	0.50	1.39	0.47	1.69	0.46	2.19
Nursing professionals	85	0.63	1.29	0.47	1.35	0.47	1.34	Nursing professionals	85	0.67	1.31	0.44	1.42	0.46	1.41
Cleaners	93	0.61	1.26	0.44	1.50	0.39	1.49	Cleaners	93	0.62	1.36	0.42	1.40	0.41	1.51
Textile workers	34-36	0.76	1.29	0.54	1.36	0.55	1.52	Social work associate professionals	86	0.72	1.36	0.62	1.39	0.54	1.39
Other assemblers and metal workers	32	0.70	1.27	0.65	1.24	0.67	1.40	Financial institution officers	69	0.62	1.16	0.63	1.39	0.64	1.36
Financial institution officers	69	0.67	1.26	0.68	1.29	0.68	1.45	Other assemblers and metal workers	32	0.73	1.33	0.63	1.23	0.68	1.43
Finance and computer associate professionals	77	0.69	1.16	0.47	1.42	0.48	1.37	Finance and computer associate professionals	77	0.63	1.06	0.46	1.57	0.50	1.25
Food processing workers	39-43	0.50	1.37	0.49	1.36	0.47	1.46	Food processing workers	39-43	0.52	1.46	0.49	1.36	0.51	1.51
Quality inspectors and packers	52	0.72	1.27	0.59	1.34	0.58	1.40	Quality inspectors and packers	52	0.71	1.34	0.55	1.32	0.55	1.50
Total	manual	0.63	1.37	0.40	1.49	0.44	1.61	Total	manual	0.47	1.69	0.59	1.37	0.42	1.62
	non manual	0.68	1.28	0.54	1.32	0.55	1.34		non manual	0.59	1.40	0.69	1.35	0.52	1.34

CANADA²

Occupational group	1980							Occupational group	1990						
	SOC	Male		Female		All			SOC	Male		Female		All	
	code	L/M	H/M	L/M	H/M	L/M	H/M		code	L/M	H/M	L/M	H/M	L/M	H/M
Bookkeeping, Account-recording and Related Occupations	413	0.62	1.50	0.66	1.45	0.65	1.54	Bookkeeping, Account-recording and Related Occupations	413	0.54	1.70	0.54	1.50	0.53	1.56
Stenographic and Typing Occupations	411	0.62	1.87	0.69	1.36	0.69	1.37	Stenographic and Typing Occupations	411	0.51	1.85	0.62	1.38	0.62	1.39
Sales Occupations, Commodities	513/514	0.54	1.66	0.60	1.71	0.48	1.84	Sales Occupations, Commodities	513/514	0.48	1.82	0.50	1.99	0.42	1.93
Nursing, Therapy and Related Assisting Occupations	313	0.70	1.56	0.60	1.42	0.61	1.45	Nursing, Therapy and Related Assisting Occupations	313	0.63	1.53	0.53	1.43	0.56	1.45
Food and Beverage Preparation and Related Service Occupations	612	0.52	1.68	0.54	1.67	0.50	1.80	Food and Beverage Preparation and Related Service Occupations	612	0.45	1.80	0.48	1.92	0.45	1.94
Other Clerical and Related Occupations	419	0.61	1.45	0.64	1.41	0.64	1.56	Other Managers and Administrators	113/114	0.49	1.79	0.52	1.82	0.48	1.90
Elementary, Secondary School Teaching and Related Occupations	273	0.70	1.27	0.57	1.36	0.64	1.35	Other Clerical and Related Occupations	419	0.57	1.61	0.57	1.43	0.59	1.57
Reception, Information, Mail and Message Distribution Occupations	417	0.57	1.25	0.64	1.57	0.59	1.58	Elementary, Secondary School Teaching and Related Occupations	273	0.65	1.26	0.52	1.37	0.57	1.37
Other Managers and Administrators	113/114	0.54	1.75	0.57	1.78	0.50	1.82	Reception, Information, Mail and Message Distribution Occupations	417	0.59	1.34	0.55	1.48	0.53	1.44
Fabricating, Assembling and Repairing Occupations: Textile, Fur	855/856	0.57	1.53	0.67	1.45	0.65	1.72	Personal Service Occupations	614	0.41	1.74	0.40	2.03	0.40	2.09
Total	0.55	1.65	0.56	1.69	0.51	1.72	Total	0.49	1.70	0.47	1.72	0.47	1.83		

US

Occupational group	1982							Occupational group	1992						
	SOC	Male		Female		All			SOC	Male		Female		All	
	code	L/M	H/M	L/M	H/M	L/M	H/M		code	L/M	H/M	L/M	H/M	L/M	H/M
Other admin. support, including clerical	26	0.44	1.72	0.58	1.80	0.55	2.03	Other admin. support, including clerical	26	0.45	1.93	0.54	1.85	0.52	1.97
Secretaries, stenographers, typists	24	0.54	2.64	0.58	1.63	0.58	1.65	Other sales occupations	22	0.48	2.37	0.54	2.16	0.52	2.28
Other sales occupations	22	0.49	2.19	0.55	2.08	0.54	2.30	Secretaries, stenographers, typists	24	0.44	1.76	0.54	1.63	0.54	1.63
Food service occupations	29	0.58	2.00	0.55	1.89	0.55	1.93	Food service occupations	29	0.52	2.00	0.54	1.95	0.54	2.02
Machine operators, tenders, except precision	43	0.51	1.80	0.64	1.81	0.55	2.11	Manager, salaried	03	0.41	1.90	0.45	1.92	0.41	2.08
Teachers, except post-secondary	15	0.51	1.64	0.47	1.69	0.47	1.72	Teachers, except post-secondary	15	0.42	1.73	0.42	1.79	0.41	1.81
Financial records processing occupations	25	0.53	1.95	0.60	1.76	0.61	1.82	Personal service occupations	32	0.39	2.38	0.38	2.39	0.39	2.57
Manager, salaried	03	0.44	1.94	0.47	1.88	0.42	2.11	Machine operators, tenders, except precision	43	0.50	1.92	0.60	1.80	0.54	2.12
Health service occupations	30	0.52	1.64	0.59	1.77	0.58	1.79	Health service occupations	30	0.58	1.98	0.54	1.86	0.55	1.90
Personal service occupations	32	0.49	2.21	0.40	2.22	0.40	2.25	Financial records processing occupations	25	0.38	1.90	0.56	1.78	0.56	1.83
Total	0.40	2.08	0.49	2.04	0.44	2.27	Total	0.39	2.22	0.45	2.17	0.42	2.33		

Notes: 1. Pay dispersion data for Britain and West Germany refers to full-time workers only

2. Pay dispersion data for Canada refer to average weekly earnings of full-time, full-year employees and is thus not strictly comparable with data from other countries.

Data is missing for France.

Appendix Table 3. Disaggregated data for sales occupations

a) Employment data

All figures expressed as percentages

<i>Detailed occupation</i>	code	1980s data				1990s data				
		<i>Full and part-time</i>		female share	% part-time FPTi/Fi	<i>Full and part-</i>		female share	% part-time FPTi/Fi	
		male conc.	female conc.			male conc.	female conc.			
NORWAY	1981					1993				
Salesmen operating from an office	331	1.4	*	*	*	3.1	1.1	24.2	*	
Shop managers	332	1.0	*	*	*	1.7	1.0	34.6	*	
Shop assistants	333	2.6	12.3	78.5	62.0	2.9	8.2	72.1	63.5	
AUSTRALIA	1987					1995				
Sales assistants	6301	3.5	10.2	66.9	56.7	4.5	10.8	66.3	63.3	
UK	1986					1995				
Sales assistants	720	1.5	8.7	82.1	68.8	2.4	8.4	76.2	75.9	
Retail, cash-desk and check-out operators	721	0.2	1.9	90.8	70.5	0.2	1.8	87.9	84.1	
Petrol pump forecourt attendants	722	0.1	0.2	46.6	*	*	*	*	*	
WEST GERMANY	1980					1990				
Buyers, finance and sales associate Professionals	681	1.5	1.3	35.1	*	1.6	1.6	39.8	12.1	
Sales occupations	682	1.5	10.2	81.0	30.2	1.7	10.0	80.0	37.2	
Book sellers	683	*	0.1	63.3	*	*	0.2	63.7	*	
Druggists	684	*	0.1	85.6	*	*	*	*	*	
Pharmaceutical associate professionals	685	*	0.4	99.3	*	*	0.4	98.0	*	
Sales representatives	687	1.3	0.2	7.1	*	1.2	0.2	9.5	*	
CANADA¹	1981					1991				
Supervisors: sales occupations, commodities	5130	0.8	0.6	32.7		0.8	0.6	39.2		
Commerical travellers	5133	1.6	0.3	10.3		0.8	0.2	22.1		
Sales clerks and salespersons, commodities, n.e.c.	5135	3.4	6.3	57.3		4.5	6.0	53.9		
FRANCE						1992				
Shop assistant in food trade	5512					0.3	1.7	82.0	38.2	
Shop assistant of home products	5513					0.3	0.4	52.9	36.1	
Shop assistant in textiles	5514					0.2	1.5	84.4	30.5	
Shop assistant in luxury products	5516					0.1	0.8	86.2	26.6	
Self-service shop assistants	5518					0.5	1.1	64.7	45.3	
Cashier	5519					0.1	1.7	91.2	51.4	
US¹	1982					1992				
Sales workers, apparel	264	0.1	0.9	83.4	65.1	0.2	0.8	79.9	65.0	
Sales workers, other commodities	274	0.7	2.6	73.0	59.5	0.7	1.9	69.6	56.6	
Cashiers	276	0.6	4.1	84.5	55.5	0.9	4.2	79.1	59.6	
Street and door-to-door sales work	277	0.1	0.7	81.0	77.8	0.2	0.4	69.9	73.6	

Note: * Figures are unreliable and therefore not reported

1. Other detailed sales occupations by various industries are not reported here as the level of female employment concentration is below 0.2%.

Appendix Table 3. Continued

b) Pay data

Female average occupational pay relative to the average hourly pay of male full-time workers in all sectors

All figures expressed as percentages

<i>Detailed occupation</i>	code	1980s data				1990s data			
		female conc.	All	relative pay		female conc.	All	relative pay	
				FT	PT			FT	PT
NORWAY	1981					1993			
Salesmen operating from an office	331	*	*	*	*	1.1	87.8	87.4	*
Shop managers	332	*	*	*	*	1.0	71.7	70.2	*
Shop assistants	333	12.3	59.1	59.6	58.8	8.2	63.0	64.0	62.4
AUSTRALIA	1987					1995			
Sales assistants	6301	10.2	64.5	60.2	67.8	10.8	57.8	58.8	57.2
UK	1986					1995			
Sales assistants	720	8.7	48.3	51.3	46.8	8.4	44.4	47.3	43.5
Retail, cash-desk and check-out operators	721	1.9	47.8	47.2	48.0	1.8	46.2	45.8	46.2
Petrol pump forecourt attendants	722	0.2	*	*	*	*	39.6	39.6	*
WEST GERMANY	1980					1990			
Buyers, finance and sales associate	681	1.3		70.2		1.6		71.7	
Sales occupations	682	10.2		45.7		10.0		46.4	
Book sellers	683	0.1		*		0.2		69.6	
Druggists	684	0.1		*		*		*	
Pharmaceutical associate professionals	685	0.4		53.2		0.4		50.0	
Sales representatives	687	0.2		84.0		0.2		103.6	
CANADA¹	1980					1990			
Supervisors: sales occupations, commodities	5130	0.6	60.3	61.5		0.6	59.6	60.0	
Commerical travellers	5133	*	*	*		0.2	85.5	*	
Sales clerks and salespersons, commodities, n.e.c.	5135	6.3	49.4	50.1		6.0	52.5	55.6	
FRANCE						1992			
Shop assistant in food trade	5512					1.7	55.3	54.6	57.3
Shop assistant of home products	5513					0.4	70.4	72.9	62.5
Shop assistant in textiles	5514					1.5	60.1	61.1	56.2
Shop assistant in luxury products	5516					0.8	60.7	60.8	59.9
Self-service shop assistants	5518					1.1	55.3	54.9	56.0
Cashier	5519					1.7	59.4	59.2	59.8
US¹	1982					1992			
Sales workers, apparel	264	0.9	45.0	42.0	46.6	0.8	47.0	54.6	42.9
Sales workers, other commodities	274	2.6	46.1	44.8	46.9	1.9	52.4	50.9	53.6
Cashiers	276	4.1	46.6	45.0	47.9	4.2	42.4	42.6	42.4
Street and door-to-door sales work	277	0.7	64.7	53.1	68.6	0.4	63.2	63.8	63.0

Note: * Figures are unreliable and therefore not reported

Appendix Table 4. Disaggregated data for clerical work

a) Employment data

All figures expressed as percentages

		1980s data				1990s data				
		<i>Full and part-time</i>				<i>Full and part-time</i>				
<i>Detailed occupation</i>	code	male conc.	female conc.	female share	%part-time FPTi/Fi	male conc.	female conc.	female share	%part-time FPTi/Fi	
NORWAY	1981					1993				
Data-processing machine operators	291	*	0.8	71.4	41.0	*	*	*	*	
Clerks (banks, insurance, etc)	292-295	0.6	1.2	62.9	29.6	1.1	2.6	68.3	25.3	
Real estate managers, store-room keepers, etc	297	0.7	*	*	*	0.8	*	*	*	
Others n.e.c.	299	1.6	12.3	86.0	44.3	0.8	7.4	89.7	41.3	
Accountants, book-keepers	201	0.8	1.0	48.3	*	0.8	2.6	74.3	25.7	
Cashiers (bank and office)	202	*	1.0	70.3	*	*	*	*	*	
Other cashiers	203	--	1.1	100.0	*	*	1.2	91.0	68.8	
Secretaries and stenographers	211	*	2.5	95.1	34.9	*	3.6	98.4	30.5	
AUSTRALIA	1987					1995				
Office secretaries and stenographers	5101	*	7.4	98.5	24.2	0.1	6.1	97.4	26.7	
Typists and typist-clerks	5103	*	2.3	97.7	24.8	*	0.7	97.4	37.2	
Word-processing operators	5105	*	2.3	98.6	*	*	0.4	95.2	*	
Accounting clerks	5301	2.9	7.6	64.6	28.9	2.4	9.2	75.7	34.6	
Insurance and broking clerks	5303	0.3	0.6	55.2	*	0.2	0.4	67.1	*	
Receptionists and information clerks	5601	0.3	4.6	90.6	31.5	0.4	5.3	91.3	39.2	
Telephonists	5603	*	0.7	90.7	32.6	*	0.5	87.8	39.4	
Messenger and delivery officers	5605	0.3	*	*	*	0.3	*	*	*	
Teachers' aides	5903	*	0.8	98.0	85.5	*	0.8	91.8	8.5	
Personnel clerks	5905	0.2	0.3	49.0	*	0.2	0.2	53.5	*	
Legal and related clerks	5907	0.2	0.2	47.0	*	0.1	0.3	64.5	*	
Postal clerks and officers	5909	0.1	0.2	52.5	*	*	0.1	60.9	*	
Other clerks n.e.c	5999	1.3	2.8	59.7	28.3	0.5	0.8	57.4	22.9	
UK	1986					1995				
Accounts and wages clerks, book-keepers etc.	410					1.2	4.0	75.0	30.4	
Counter clerks and cashiers	411					0.6	2.3	76.9	43.0	
Clerks n.e.c	430	3.0	12.1	76.8	30.1	0.9	4.3	81.2	37.2	
Medical and legal secretaries	450+451					--	0.9	100.0	31.3	
Typists, secretaries, personal assistants	452+459	*	9.3	99.2	30.8	*	5.3	99.0	29.3	
WEST GERMANY	1980					1990				
Book keeper	772	0.6	2.0	67.7	21.1	0.5	1.5	68.6	26.2	
Cashiers, counter clerks	773	0.1	0.8	84.0	45.5	*	0.9	88.7	57.0	
Computer associate professionals	774	0.8	0.2	12.2	*	1.4	0.5	19.9	*	
Administrative associate professionals	781	6.3	18.6	65.3	18.2	5.8	20.1	70.3	22.8	
Secretaries	782	*	5.9	97.7	21.9	0.1	4.9	97.2	26.2	
Keyboard-operating clerks	783	*	0.8	95.8	19.4	*	0.6	94.1	30.1	
Other office clerks	784	0.4	1.2	65.2	27.5	0.3	1.2	71.0	37.2	

Appendix Table 4. Continued

b) Pay data

Female average occupational pay relative to the average hourly pay of male full-time workers in all sectors

All figures expressed as percentages

<i>Detailed occupation</i>	code	1980s data				1990s data			
		female conc.	All	Relative pay		female conc.	All	Relative pay	
				FT	PT			FT	PT
NORWAY 1981						1993			
Data-processing machine operators	291	0.8	78.1	76.0	79.4	*	89.5	97.9	
Clerks (banks, insurance, etc)	292-295	1.2	86.7	86.6		2.6	86.3	87.0	83.7
Real estate managers, stor-room keepers, etc	297	*				*	115.7	130.9	
Others n.e.c.	299	12.3	76.5	74.7	79.7	7.4	75.3	74.8	76.3
Accountants, book-keepers	201	1.0	79.7	82.5	74.1	2.6	91.8	92.8	
Cashiers (bank and office)	202	1.0	78.7	75.7		*	80.3		78.1
Other cashiers	203	1.1	49.9		47.0	1.2	*		*
Secretaries and stenographers	211	2.5	91.7	88.2	96.2	3.6	84.1	83.1	89.7
AUSTRALIA 1987						1995			
Office secretaries and stenographers	5101	7.4	82.2	82.2	82.2	6.1	78.4	77.8	79.9
Typists and typist-clerks	5103	2.3	72.0	70.3	80.5	0.7	67.0	67.0	67.0
Word-processing operators	5105	2.3	82.2	81.4	*	0.4	73.2	72.2	79.9
Accounting clerks	5301	7.6	80.5	79.7	83.1	9.2	75.8	75.8	75.8
Insurance and broking clerks	5303	0.6	81.4	80.5	*	0.4	73.7	73.7	74.2
Statistical and actuarial clerks	5305	*	95.8	95.8	--	*	*	*	--
Receptionists and information clerks	5601	4.6	74.6	73.7	79.7	5.3	68.6	68.0	70.6
Telephonists	5603	0.7	77.1	77.1	82.2	0.5	77.3	78.4	73.7
Collection clerks	5901	*	82.2	83.1	*				
Teachers' aides	5903	0.8	75.4	66.1	82.2				
Personnel clerks	5905	0.3	93.2	93.2	*				
Legal and related clerks	5907	0.2	90.7	89.0	*				
Postal clerks and officers	5909	0.2	78.8	79.7	*				
Other clerks n.e.c	5999	2.8	85.6	84.7	87.3				
UK 1986						1995			
Accounts and wages clerks, book-keepers etc.	410					4.0	67.0	68.9	62.5
Counter clerks and cashiers	411					2.3	71.5	75.9	65.7
Clerks n.e.c	430	12.1	64.3	66.5	58.7	4.3	61.6	64.4	56.9
Medical secretaries	450					0.4	64.0	67.4	59.1
Legal secretaries	451					0.5	77.5	77.5	--
Typists and word processor operators	452		64.1	65.1	60.4	0.6	61.3	63.7	57.6
Other secretaries, personal assistants, n.e.c.	459	9.3 ²	76.0	79.1	64.7	4.7	74.8	78.4	65.8
WEST GERMANY 1980						1990			
Book keeper	772	2.0		76.6		1.5		79.7	
Cashiers, counter clerks	773	0.8		55.3		0.9		51.4	
Computer associate professionals	774	0.2		89.4		0.5		102.2	
Administrative associate professionals	781	18.6		68.1		20.1		67.4	
Secretaries	782	5.9		77.7		4.9		78.3	
Keyboard-operating clerks	783	0.8		72.3		0.6		70.3	
Other office clerks	784	1.2		54.3		1.2		50.0	

Appendix Table 4a ctd.

All figures expressed as percentages

<i>Detailed occupation</i>	code	1980s data				1990s data			
		<i>Full and part- time</i>				<i>Full and part- time</i>			
		male conc.	female conc.	female share	%part-time FPTi/Fi	male conc.	female conc.	female share	% part-time FPTi/Fi
CANADA	1981					1991			
Secretaries and stenographers	4111	0.1	8.6	99.0		0.1	7.8	98.7	
Typists and clerk-typists	4113	0.0	2.2	97.9		0.0	0.4	95.6	
Supervisors: book-keeping, account recording, etc	4130	0.1	0.5	72.4		0.1	0.3	80.2	
Book-keepers and account clerks	4131	1.2	7.4	81.8		0.9	5.4	84.1	
Cashiers and tellers	4133	0.3	4.9	92.7		0.6	5.0	88.3	
Insurance, bank and other finance clerks	4135	0.1	0.9	86.9		0.1	0.9	85.3	
Receptionists and information clerks	4171	0.1	1.9	94.7		0.1	2.2	93.0	
Mail carriers, mail and postal clerks	4172-3	0.7	0.6	40.6		0.6	0.5	42.4	
Telephone operators	4175	0.0	0.8	94.7		0.0	0.5	89.6	
Supervisors: other clerical and related occupations	4190	0.2	0.5	60.5		0.1	0.3	65.0	
Travel clerks, ticket, station and freight agents	4193	0.1	0.4	66.2		0.1	0.4	72.0	
General office clerks	4197	0.5	2.6	80.5		0.6	3.1	82.4	
Other n.e.c.	4199	0.4	1.3	70.0		0.4	1.0	66.5	
FRANCE						1992			
Chief accountant	4611					0.6	1.5	64.7	15.7
Other admin. technical staff	4612					0.5	0.9	57.9	9.1
Personal assistant	4615					0.1	1.8	94.4	9.2
Secretary	5411					0.2	6.3	96.1	21.5
Office clerk	5412					0.1	0.8	91.5	11.8
Data entry	5415					0.1	0.5	87.9	10.4
Telephonists	5417					0.0	0.6	92.1	21.5
Accounts and finance clerks	5421					0.5	3.0	82.4	19.7
Administrative staff	5424					0.8	3.6	77.5	18.1
Bank counter clerk	5431					0.4	0.8	60.3	12.1
Insurance clerk	5434					0.1	0.5	79.7	20.4
Receptionist	5444					0.0	0.4	87.2	24.9
US¹	1982					1992			
Supervisors, general office	303	0.2	0.5	64.1	*	0.2	0.5	68.7	*
Receptionists	319	*	1.2	95.7	33.0	*	1.6	97.2	32.7
File clerks	335	0.1	0.6	82.2	40.9	0.1	0.4	81.4	40.5
Stock and inventory clerks	365	0.6	0.5	38.1	26.2	0.4	0.5	50.6	21.0
Investment & adjusters, except insurance	376	0.1	0.4	67.6	*	0.3	1.0	74.2	17.5
General office clerks	379	0.2	1.2	81.0	26.6	0.2	1.1	85.7	30.1
Bank tellers	383	0.1	0.9	88.0	27.0	0.1	0.7	85.8	36.7
Data-entry keyers	385	*	0.6	88.9	*	0.2	1.0	83.2	19.4
Teachers' aides	387	*	0.8	90.1	57.5	0.1	0.9	87.1	51.6
Admin. support, n.e.c.	389	0.2	0.9	78.7	29.5	0.5	1.8	75	19.8
Secretaries	313	*	8.4	99.0	19.5	*	6.4	99.4	19.5
Typists	315	*	2.0	95.3	28.7	*	0.8	91.9	30.2
Bookkeepers, accounting, auditing clerks	337	0.3	4.1	91.8	28.3	0.3	2.9	90.5	30.3

Note: * Figures are unreliable and therefore not reported

1. For the US, detailed occupational groups have been selected on the basis of whether female employment concentration is at least 0.5% in either year (due to the large number of detailed categories).

Appendix Table 4b ctd.

<i>Detailed occupation</i>	1980s data					1990s data				
	code	female conc.	Relative pay			female conc.	Relative pay			
		All	FT	PT		All	FT	PT		
CANADA¹	1980									
Secretaries and stenographers	4111	8.6	67.5	67.6		7.8	70.9	70.1		
Typists and clerk-typists	4113	2.2	61.5	62.3		0.4	67.4	67.2		
Supervisors: book-keeping, account recording etc	4130	0.5	75.9	76.1		0.3	75.3	75.8		
Book-keepers and account clerks	4131	7.4	66.4	65.7		5.4	71.1	69.0		
Cashiers and tellers	4133	4.9	53.5	54.4		5.0	50.1	51.6		
Insurance, bank and other finance clerks	4135	0.9	65.3	64.9		0.9	66.1	66.1		
Receptionists and information clerks	4171	1.9	58.1	58.6		2.2	60.5	60.8		
Mail carriers, mail and postal clerks	4172-3	0.6	77.7	78.7		0.5	73.7	73.4		
Telephone operators	4175	0.8	62.1	62.2		0.5	69.2	69.4		
Supervisors: other clerical and related occupations	4190	0.5	80.8	81.4		0.3	80.4	82.4		
Travel clerks, ticket, station and freight agents	4193	0.4	67.3	68.2		0.4	65.7	65.8		
General office clerks	4197	2.6	63.9	64.4		3.1	70.0	70.0		
Other n.e.c.	4199	1.3	67.0	70.0		1.0	71.4	73.7		
FRANCE						1992				
Chief accountant	4611					1.5	100.4	99.7	107.6	
Other admin. technical staff	4612					0.9	102.6	102.2	107.9	
Personal assistant	4615					1.8	101.1	101.0	101.5	
Secretary	5411					6.3	74.1	75.1	68.3	
Office clerk	5412					0.8	69.1	68.7	74.1	
Data entry	5415					0.5	65.5	65.3	67.8	
Telephonists	5417					0.6	67.8	68.3	64.6	
Accounts and finance clerks	5421					3.0	74.4	74.3	75.2	
Administrative staff	5424					3.6	70.3	70.7	67.5	
Bank counter clerk	5431					0.8	87.9	87.0	95.3	
Insurance clerk	5434					0.5	81.7	82.0	80.0	
Receptionist	5444					0.4	69.3	70.3	63.7	
US¹	1982					1992				
Supervisors, general office	303	0.5	81.4	81.9	*	0.5	88.2	88.5	*	
Receptionists	319	1.2	50.9	51.9	48.7	1.6	56.9	58.2	54.3	
File clerks	335	0.6	54.7	56.9	51.4	0.4	60.1	57.9	63.3	
Stock and inventory clerks	365	0.5	62.0	62.8	59.9	0.5	68.1	72.9	49.7	
Investment & adjusters, except insurance	376	0.4	71.1	70.7	*	1.0	77.3	73.9	93.9	
General office clerks	379	1.2	57.4	58.3	54.7	1.1	65.9	68.5	59.6	
Bank tellers	383	0.9	51.0	49.6	55.0	0.7	55.0	54	56.9	
Data-entry keyers	385	0.6	61.2	60.8	*	1.0	65.4	65.2	66.1	
Teachers' aides	387	0.8	47.6	48.8	46.8	0.9	51.7	47.5	55.6	
Admin. support, n.e.c.	389	0.9	60.7	65.5	49.1	1.8	77.6	77.8	77.0	
Secretaries	313	8.4	63.5	64.4	59.6	6.4	69.7	71.1	63.8	
Typists	315	2.0	57.7	61.4	48.2	0.8	69.2	71.4	63.9	
Bookkeepers, accounting, auditing clerks	337	4.1	65.5	63.7	70.5	2.9	75.1	65.9	97.1	

Note: * Figures are unreliable and therefore not reported

1. For the US, detailed occupational groups have been selected on the basis of whether female employment concentration is at least 0.5% in either year (due to the large number of detailed categories).

2. This figure refers to the employment concentration of codes 452 and 459 combined.

Appendix Table 5. Disaggregated data for nursing care work

a) Employment data

All figures expressed as percentages

<i>Detailed occupation</i>		1980s data				1990s data				
		<i>code</i>	<i>male conc.</i>	<i>female conc.</i>	<i>female share</i>	<i>% part-time FPTi/Fi</i>	<i>male conc.</i>	<i>female conc.</i>	<i>female share</i>	<i>% part-time FPTi/Fi</i>
NORWAY		1981								1993
Professional nurses	041	*	4.3	93.9	54.5	*	5.2	92.6	45.5	
Other practical nurses	045	*	5.6	96.9	53.7	*	5.4	97.3	62.8	
Dental assistance servants	046	*	0.8	99.0	*	*	*	*	*	
Nursemaids in hospitals/other institutions	047		1.2	100.0	*	*	*	*	*	
Others n.e.c.	049	*	0.9	82.3	*	*	2.2	84.5	68.6	
AUSTRALIA		1987								1995
Registered nurses	3401	0.3	5.3	92.1	37.6	0.3	4.7	91.7	46.5	
UK		1986								1995
Nurses	340	0.5 ¹	6.1 ¹	91.0 ¹	41.7 ¹	0.4	4.0	90.1	40.8	
Midwives	341					*	0.4	98.6	41.4	
Medical radiographers	342	*	0.1	71.3	*	*	0.2	86.1	*	
Physiotherapists	343	*	0.2	94.5	*	*	0.2	88.0	*	
Dispensing opticians	345	*	*	*	*	*	0.2	77.8	*	
Medical technicians/dental auxiliaries	346	0.1	0.3	71.3	*	*	0.3	91.7	34.1	
Occupational/ speech therapists, the physiotherapists n.e.c	347	*	0.2	93.8	*	*	*	*	*	
Assistant nurses, nursing auxiliaries	640					*	1.5	94.8	53.7	
Hospital ward assistants	641					*	0.2	78.1	66.4	
Ambulance staff	642					0.2	*	*	*	
Dental nurses	643					*	0.3	97.9	*	
Care assistants and attendants	644					0.3	3.9	92.0	57.0	
WEST GERMANY		1980								1990
Physiotherapists, related associate professionals	852	0.1	0.3	68.2	15.0	0.1	0.5	73.4	*	
Nursing associate professionals	853	0.2	2.8	88.4	15.3	0.4	3.7	87.2	24.3	
Midwives	854	0.2	1.2	80.0	17.4	0.2	1.2	78.4	25.1	
Dieticians and nutritionists	855	*	0.2	97.4	*	*	0.3	97.8	*	
Nurse secretaries	856	*	2.5	99.7	11.6	*	3.3	99.7	16.8	
Medical laboratory assistants	857	*	0.6	94.8	*	*	0.7	93.9	21.3	
CANADA		1981								1991
Supervisors, nursing, therapy and related assisting occupations	3130	0.0	0.5	91.4		0.0	0.3	90.2		
Nurses, registered, graduate and nurses-in-training	3131	0.1	3.9	95.3		0.2	4.4	94.7		
Registered nursing assistants	3134	0.1	1.0	91.5		0.0	0.5	91.8		
Nursing attendants	3135	0.2	1.4	83.3		0.2	1.3	82.5		
Nursing, therapy and related assisting occupations n.e.c.	3139	0.1	*	*		0.1	0.5	74.9		
FRANCE²										1992
Nurse supervisors, others	4311					0.1	0.5	83.1	16.0	
Auxiliary nurse - public/private sector	5221					0.2	2.3	90.1	24.4	
US		1982								1992
Registered nurses	95	0.1	2.6	95.3	34.5	0.1	2.8	96.2	29.3	
Nursing aides, orderlies, attendants	447	0.3	2.6	88.1	29.3	0.3	3.0	90.2	29.8	

Note: * Figures are unreliable and therefore not reported

1. Figures refer to codes 340 and 341 combined; 2. Data for public hospitals are excluded.

Appendix Table 5. Continued

b) Pay data

Female average occupational pay relative to the average hourly pay of male full-time workers in all sectors

All figures expressed as percentages

<i>Detailed occupation</i>	code	1980s data				1990s data			
		female conc.	Relative pay			female conc.	Relative pay		
			All	FT	PT		All	FT	PT
NORWAY	1981					1993			
Professional senior nurses	040	*		84.7		*	*	*	*
Professional nurses	041	4.3	89.1		91.6	5.2	88.2	86.0	91.1
Other practical nurses	045	5.6	81.9	80.6	83.6	5.4	77.2	73.6	79.8
Dental assistance servants	046	0.8				*	75.5	*	*
Nursemaids in hospitals/other institutions	047	1.2	67.4	65.0	*	*			
Others n.e.c.	049	0.9	78.5	*	*	2.2	71.6	73.3	70.9
AUSTRALIA	1987					1995			
Registered nurses	3401	5.3	110.5	105.1	119.5	4.7	104.1	102.6	106.2
UK	1986					1995			
Nurses	340	6.1 ¹	82.5 ¹	78.2 ¹	88.7 ¹	4.0	94.3	96.0	92.0
Midwives	341					0.4	112.0	112.7	111.0
Medical radiographers	342	0.1				0.2	120.5	120.5	
Physiotherapists	343	0.2				0.2	110.8	110.8	
Chiropodists	344	*				*	108.1	108.1	
Dispensing opticians	345	*				0.2	75.4	75.4	
Medical technicians/ dental auxiliaries	346	0.3				0.3	102.0	102.0	
Assistant nurses, nursing auxiliaries	640					1.5	62.8	63.3	62.2
Hospital ward assistants	641					0.2	49.4	49.4	
Ambulance staff	642					*	72.7	72.7	
Dental nurses	643					0.3	48.3	48.3	
Care assistants and attendants	644					3.9	48.9	48.5	49.3
WEST GERMANY	1980					1990			
Physiotherapists, related associate professionals	852	0.3		71.3		0.5		61.6	
Nursing associate professionals	853	2.8		78.7		3.7		75.4	
Midwives	854	1.2		69.1		1.2		65.2	
Dieticians and nutritionists	855	0.2		68.1		0.3		60.1	
Nurse secretaries	856	2.5		55.3		3.3		51.4	
Medical laboratory assistants	857	0.6		88.3		0.7		78.3	
CANADA	1980					1990			
Supervisors, nursing, therapy and related assisting occupations	3130	0.5	112.7	111.6		0.3	115.4	114.1	
Nurses, registered, graduate and nurses-in-training	3131	3.9	93.4	90.9		4.4	97.1	94.4	
Registered nursing assistants	3134	1.0	72.7	69.5		0.5	73.1	69.7	
Nursing attendants	3135	1.4	60.6	59.3		1.3	62.2	59.8	
Nursing, therapy and related assisting occupations n.e.c.	3139	0.2	61.9	62.0		0.5	62.2	61.5	
FRANCE						1992			
Nurse supervisors, others	4311					0.5	107.8	108.3	103.8
Auxiliary nurse - public/private sector	5221					2.3	72.7	72.9	72.0
US	1982					1992			
Registered nurses	95	2.6	98.8	110.5	92.7	2.8	131.0	146.4	124.6
Nursing aides, orderlies, attendants	447	2.6	49.3	47.7	53.2	3.0	55.2	51.8	63.1

Note: * figures are unreliable and therefore not reported

1. Figures refer to codes 340 and 341 combined.

Appendix Table 6. Disaggregated data for teaching

a) Employment data

All figures expressed as percentages

<i>Detailed occupation</i>	code	1980s data				1990s data			
		<i>Full and part-time</i>		<i>Full and part-time</i>		<i>Full and part-time</i>		<i>Full and part-time</i>	
		male conc.	female conc.	female share	% part-time FPTi/Fi	male conc.	female conc.	female share	%part-time FPTi/Fi
NORWAY	1981					1993			
University lecturers	061+062	0.6	*	*	*	1.0	0.7	41.3	*
Secondary school teachers (with university degree)	063	1.1	0.7	32.5	*	1.0	1.2	53.1	*
Primary/ vocational school teachers	064	2.3	4.6	60.7	66.2	2.7	4.5	60.8	36.8
Nursury school teachers	066	*	*	*	*	*	1.9	97.9	*
Inspectors and others n.e.c.	067+069	*	*	*	*	*	0.6	64.4	*
AUSTRALIA	1987					1995			
Pre-primary school teachers	2401	*	0.4	98.5	*	--	0.4	100.0	34.6
Primary school teachers	2403	0.7	3.3	77.3	17.4	0.6	3.1	81.5	23.8
Secondary school teachers	2405	1.6	2.4	50.3	24.7	1.3	2.3	58.8	16.8
Special education teachers	2407	*	0.2	80.6	*	*	*	*	*
UK	1986					1995			
University teaching professionals	230	0.4	0.1	23.4	*	0.6	0.2	25.3	*
Higher and further education teaching professionals	231	0.6	0.7	46.8	44.6	0.5	0.7	54.8	59.5
Secondary education teaching professionals	233					1.4	1.6	52.3	26.4
Primary and nursery education teachers	234					0.5	2.6	83.8	21.6
Special educaton teaching professionals	235	2.01	4.21	63.81	39.41	0.1	0.3	76.3	43.7
CANADA	1981					1991			
Elementary and kindergarten teachers	2731	0.6	3.4	80.0		0.6	3.1	81.4	
Secondary school teachers	2733	1.4	1.4	41.9		1.2	1.2	47.3	
Elementary and secondary school teachers and related occupations	2739	0.1	0.5	81.5		0.2	0.9	82.6	
FRANCE						1992			
Primary school teachers, others	42					2.3	5.1	63.5	17.5
US	1982					1992			
Teachers, prekindergarten, kindergarten	155	*	0.7	99.0		*	0.9	97.5	31.8
Teachers, elementary school	156	0.4	2.7	83.7		0.3	2.6	86.3	17.0
Teachers, secondary school	157	1.1	1.5	51.4		0.8	1.2	55.5	14.5
Teachers, special education	158	*	*	*		*	0.4	85.6	*
Teachers, n.e.c.	159	0.3	0.7	66.1		0.4	0.7	61.0	53.2

Note: * Figures are unreliable and therefore not reported

1. Figures refer to codes 233, 234 and 235 combined.

Data for West Germany are not reported here as many teachers are classified as Beamte and therefore excluded from the earnings data provided.

Appendix Table 6. Continued

b) Pay data

Female average occupational pay relative to the average hourly pay of male full-time workers in all sectors

All figures expressed as percentages

Detailed occupation	code	1980s data				1990s data			
		female conc.	All	Relative pay		female conc.	All	Relative pay	
				FT	PT			FT	PT
NORWAY 1981						1993			
University lecturers	061+062	*				0.7	87.5	82.5	
Secondary school teachers (with university degree)	063	0.7	109.4	103.6		1.2	94.5	94.5	
Primary/ vocational school teachers	064	4.6	115.3	93.6	136.1	4.5	94.8	88.8	115.7
Nursery school teachers	066	*	74.0	72.8	76.0	1.9	80.8	83.1	75.6
AUSTRALIA 1987						1995			
Pre-primary school teachers	2401	0.4	102.3	102.3	105.1	0.4	90.7	90.2	92.8
Primary school teachers	2403	3.3	116.1	113.6	131.4	3.1	103.6	101.0	113.9
Secondary school teachers	2405	2.4	120.3	118.6	140.7	2.3	109.8	108.8	116.5
Special education teachers	2407	0.2	117.8	114.4	*	*	100.5	99.5	102.6
UK 1986						1995			
University teaching professionals	230	0.1				0.2		126.22	
Higher and further education teaching professionals	231	0.7				0.7		107.12	
Secondary education teaching professionals	233					1.6		108.92	153.5
Primary and nursery education teachers	234					2.6		104.32	160.5
Special education teaching professionals	235	4.21				0.3		110.42	
CANADA 1980						1990			
Elementary and kindergarten teachers	2731	3.4	112.7	119.7		3.1	109.0	107.7	
Secondary school teachers	2733	1.4	135.4	132.9		1.2	118.1	116.1	
Elementary and secondary school teachers and related occupations	2739	0.5	113.2	112.4		0.9	86.4	85.7	
FRANCE3 1982						1992			
Primary school teachers, others	42					5.1	93.5	91.0	96.8
US 1982						1992			
Teachers, prekindergarten, kindergarten	155	0.7	64.4	70.8	55.2	0.9	65.7	68.8	59.3
Teachers, elementary school	156	2.7	83.3	84.2	79.2	2.6	97.0	98.5	89.6
Teachers, secondary school	157	1.5	85.6	84.4	89.3	1.2	104.2	107.9	83.0
Teachers, special education	158	*	*	*	*	0.4	96.0	98.7	*
Teachers, n.e.c.	159	0.7	66.9	64.4	68.3	0.7	87.1	76.6	96.6

Note: * Figures are unreliable and therefore not reported

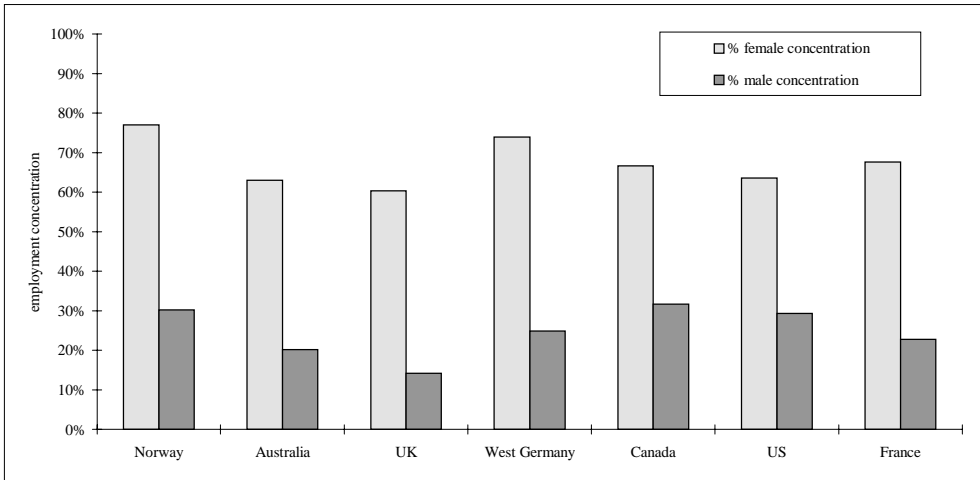
1. Figures refer to codes 233, 234 and 235 combined.

2. Due to problems of overestimation of hourly earnings for full-time teachers in the UK (see text), data refer to weekly earnings.

3. Disaggregated data for France are unavailable.

Data for West Germany are not reported here as many teachers are classified as Beamte and therefore excluded from the earnings data provided.

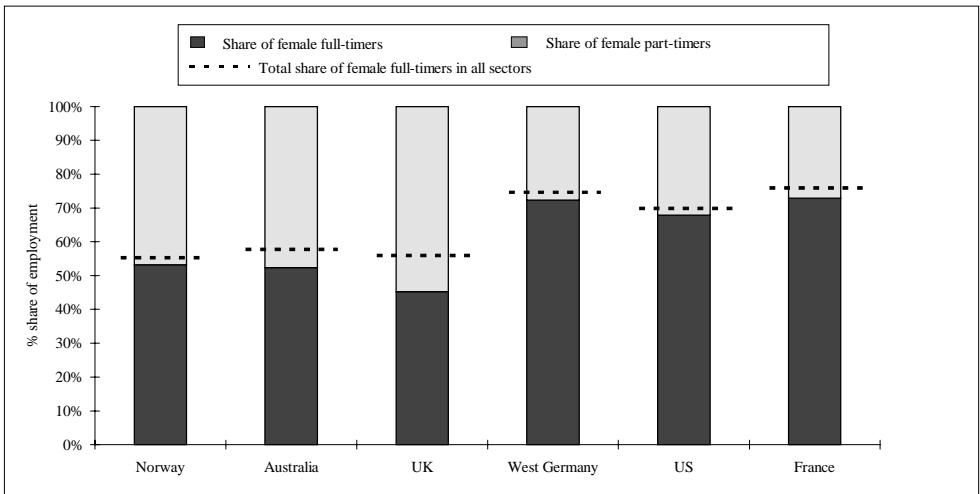
Figure 1. The relative concentration of female and male employment in the top-ten occupational groups (1990s data)



Note: The top-ten occupational groups (2-digit level) are ranked by the concentration of all female workers. In the case of France, figures derive from the 4-digit level ranking of occupations (see Appendix Table 1)

Source: Table 2, Appendix Table 1

Figure 2. The share of full and part-time female employment among the top-ten occupational groups relative to the average share of full-time employment for all women in all sectors (1990s data)

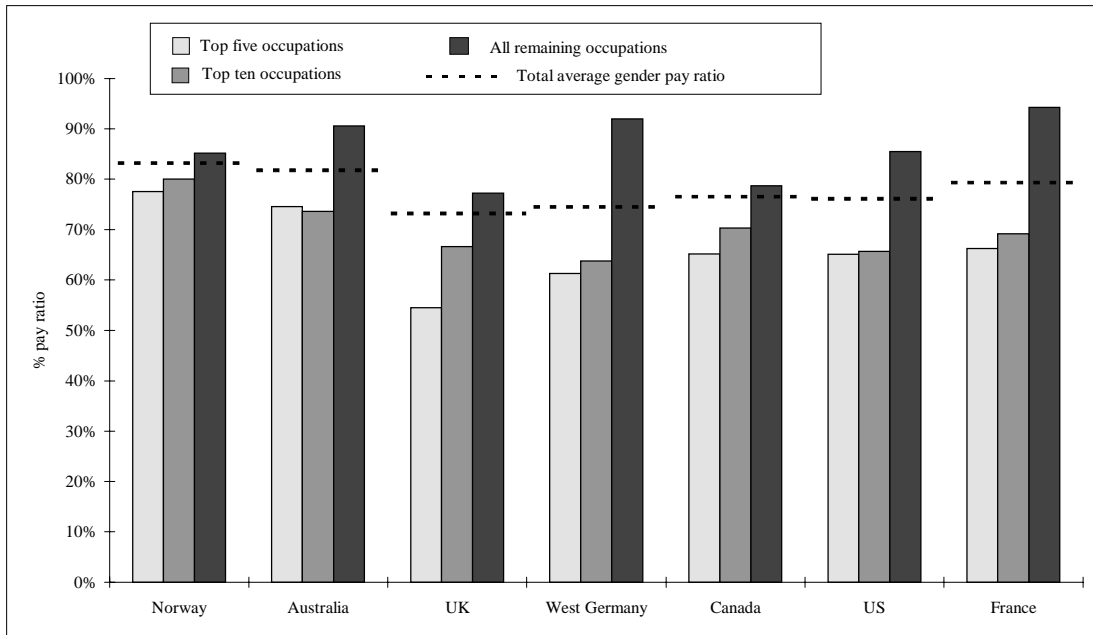


Note: Part-time employment data is missing for Canada. See Appendix Table 1 for details for France.

Source: Table 6, Appendix Table 1

Figure 3. Women's employment concentration and the relative wage penalty (1990s data)

Female average hourly pay relative to the average hourly pay of male full-time workers in all sectors



Notes: Pay data for West Germany refers to full-time workers only

The top-five and top-ten occupational groups refer to the listing of occupations in Table 2, ranked by concentration of all female employment. Data for France derive from the top 20 and top 40 occupations listed in Appendix Table 1.

All remaining occupational groups refer to all occupational groups except those counted among the top-ten.

Source: Table 7

Figure 4. Dispersion of relative female pay for the top-ten occupational groups for all female employment (1990s data)

Women's average occupational pay is expressed as a proportion of average male hourly earnings in all sectors. The highest and lowest decile female earnings are expressed in relation to women's relative average occupational pay.

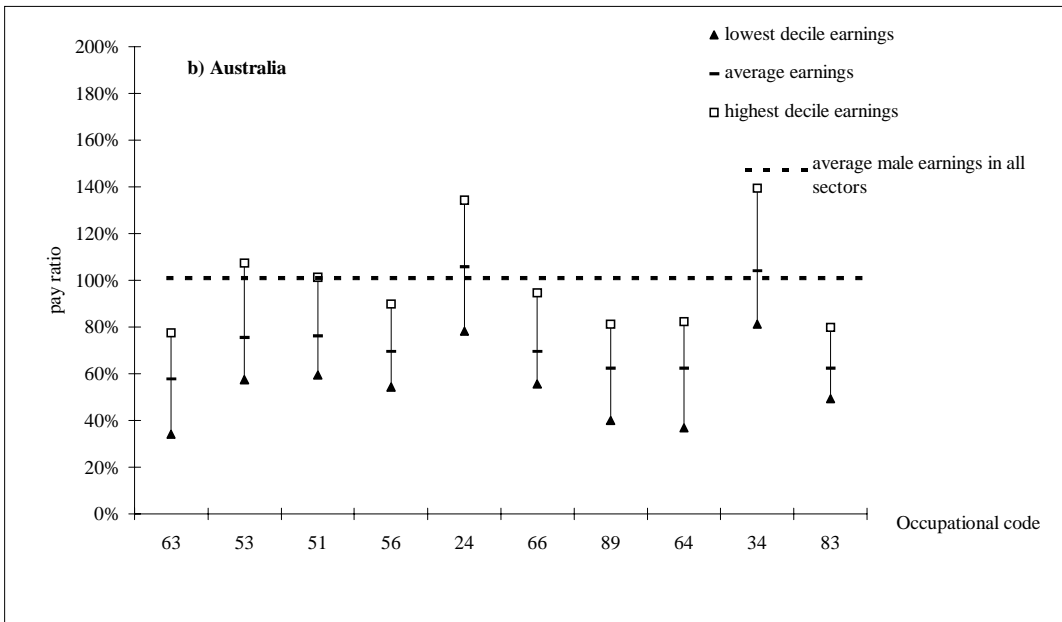
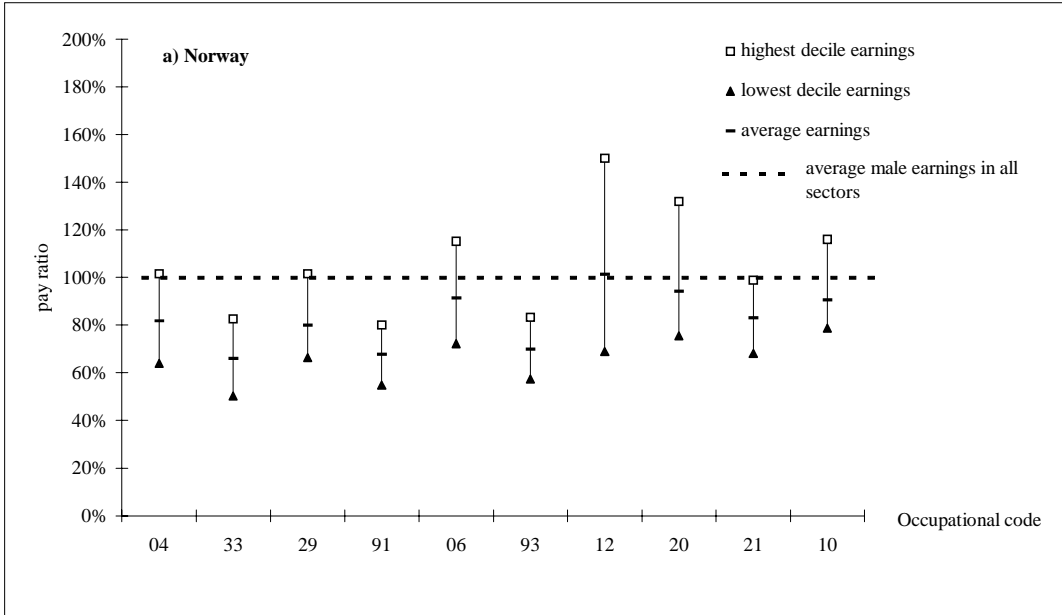


Figure 4, continued

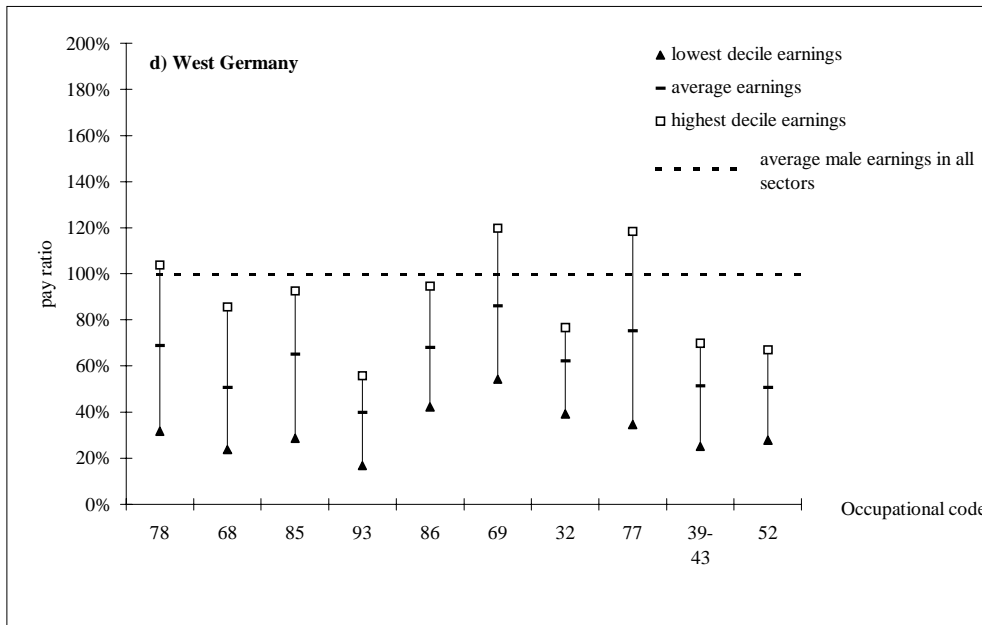
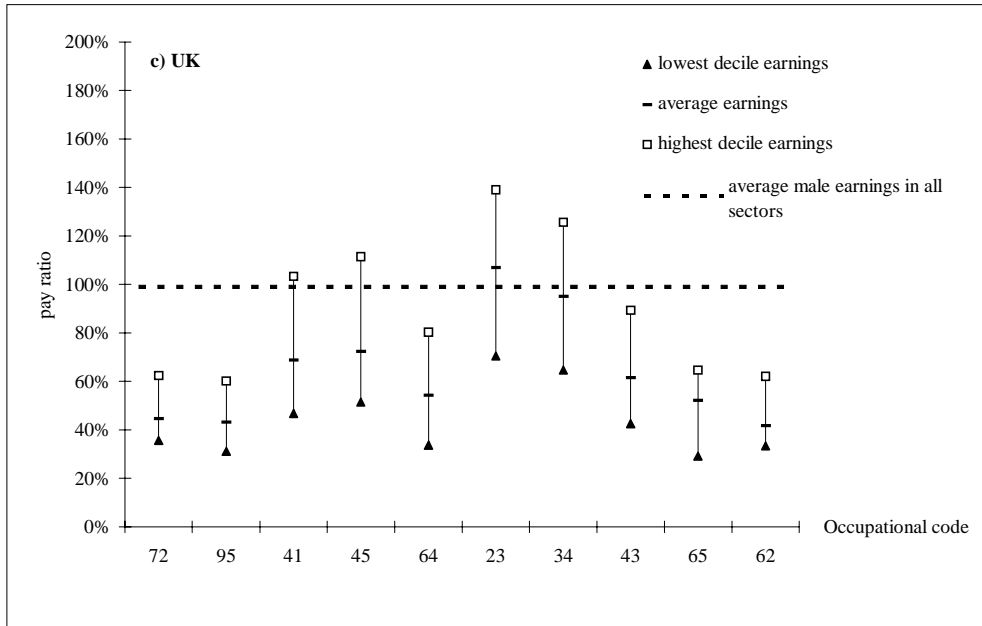
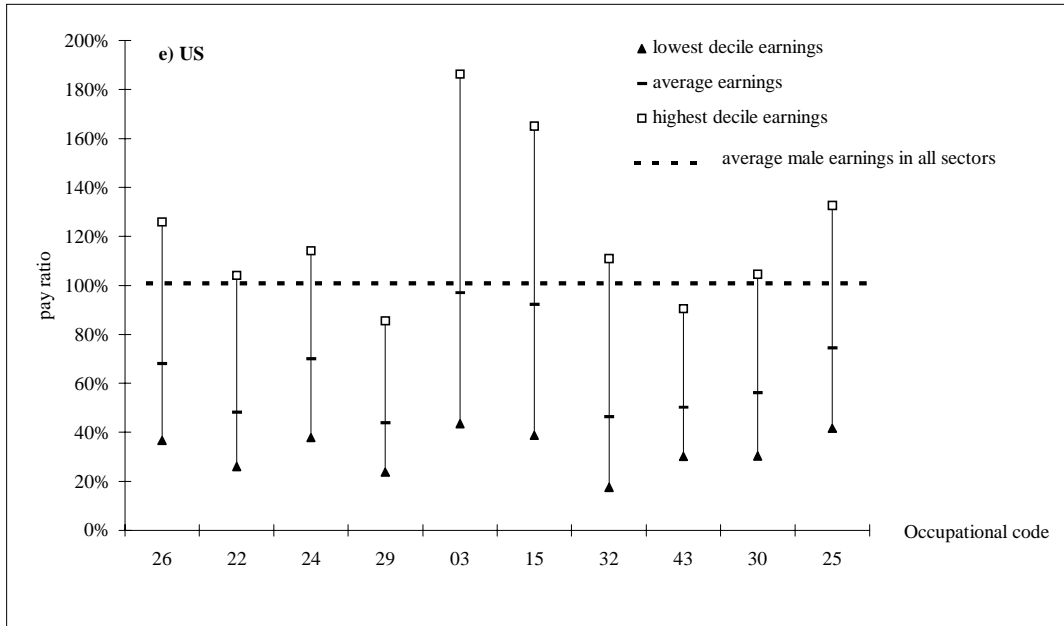


Figure 4, continued



Note: For details of occupational codes, see Table 8 or Appendix Table 2
 Pay dispersion data for the UK and West Germany refer to full-time workers only
 Data are missing for Canada and France

Source: Adapted from Table 8 and Appendix Table 2.

Figure 5. Average hourly pay of women in the top-ten detailed occupations relative to average male full-time pay in all sectors (1990s data)

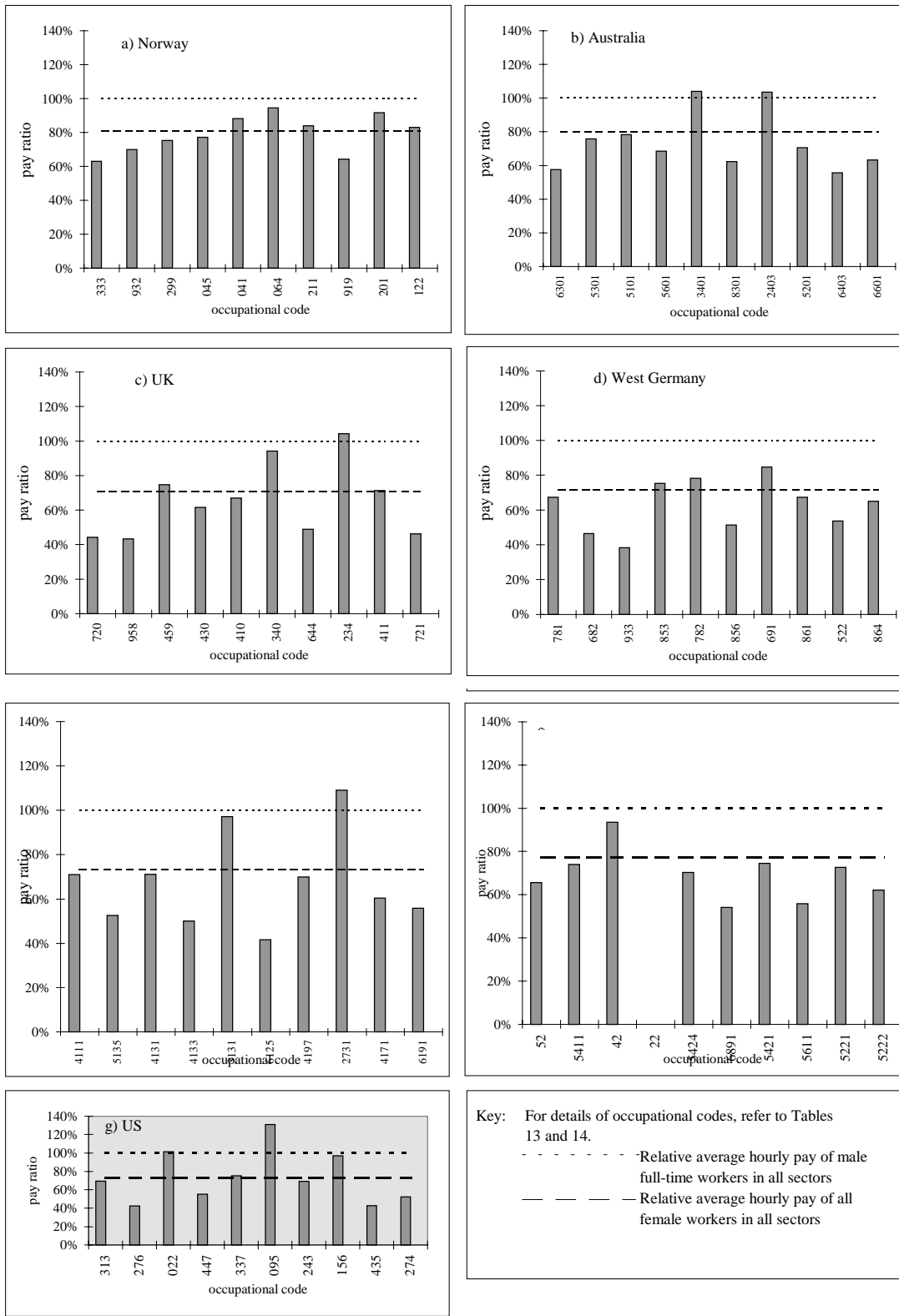
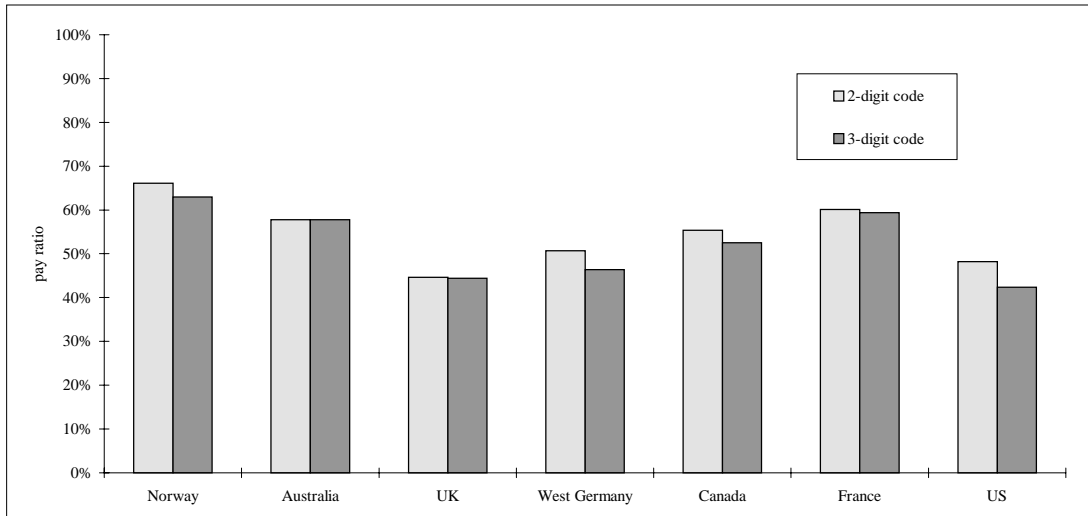


Figure 6. Average hourly pay of women employed in sales occupations at the 2-digit and 3-digit levels relative to average male full-time hourly earnings in all sectors (1990s data)

The 2-digit code refers to the broad occupational group of sales and the 3-digit to a detailed occupation approximating sales assistants



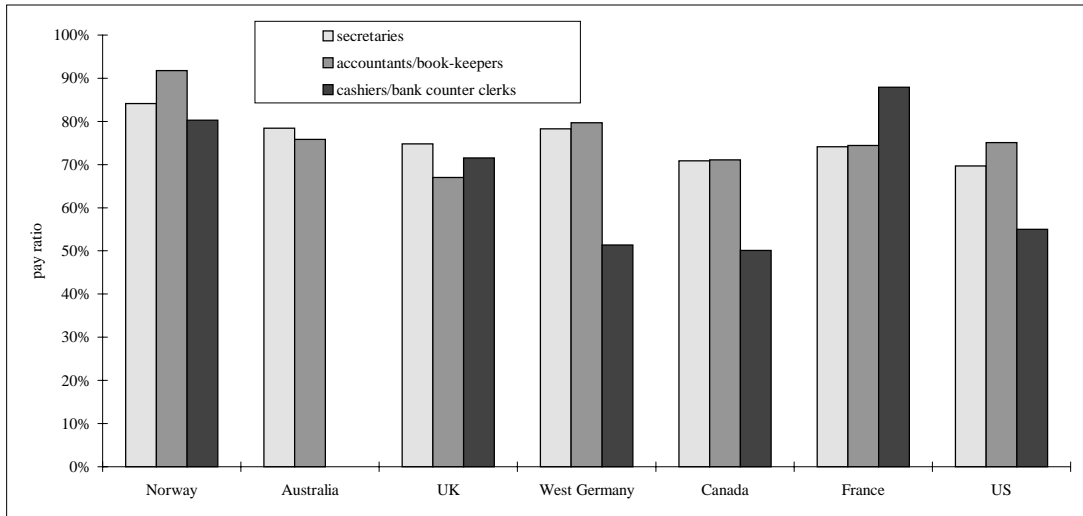
References for sales occupations

	Norway	Australia	UK	West Germany	Canada	France	US
2-digit code	33	63	72	68	513/514	55	22
3-digit code	333	6301	720	682	5135	5519	276

Source: Appendix Table 3b

Figure 7. Average hourly pay of women employed in selected clerical occupations at the 3-digit level relative to average male full-time hourly earnings in all sectors (1990s data)

Detailed occupations selected to reflect three types of clerical work where women's employment is highly concentrated



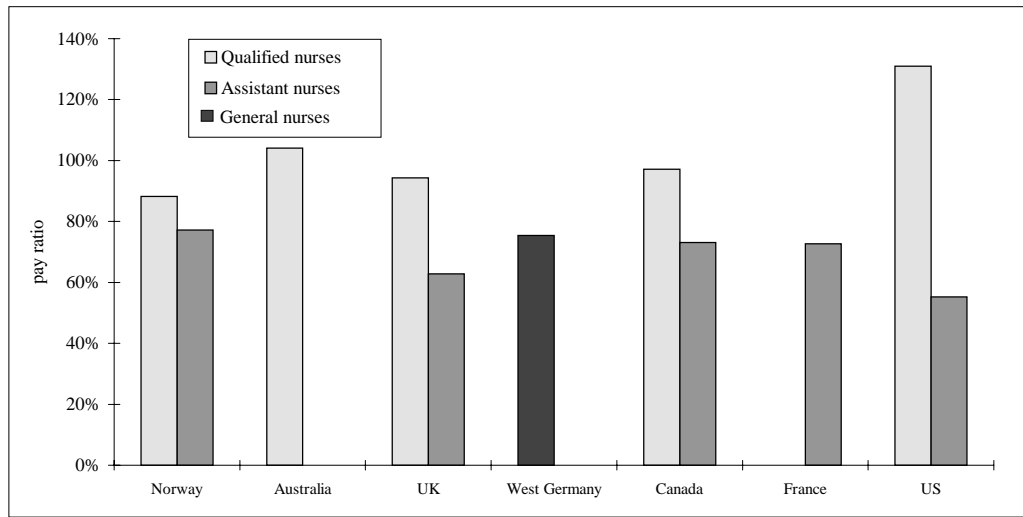
References for clerical occupations

3-digit detailed occupations	Norway	Australia	UK	West Germany	Canada	France	US
secretaries...	211	5101	459	782	4111	5411	313
accountants/book-keepers...	201	5301	410	772	4131	5421	337
cashiers/ bank counter clerks	202	--	411	773	4133	5431	383

Occupational titles differ slightly between countries
Source: Appendix Table 4b

Figure 8. Average hourly pay of women employed in nursing occupations at the 3-digit level relative to average male full-time hourly earnings in all sectors (1990s data)

Detailed occupations selected to reflect categories of qualified and unqualified nurses



References for nursing occupations

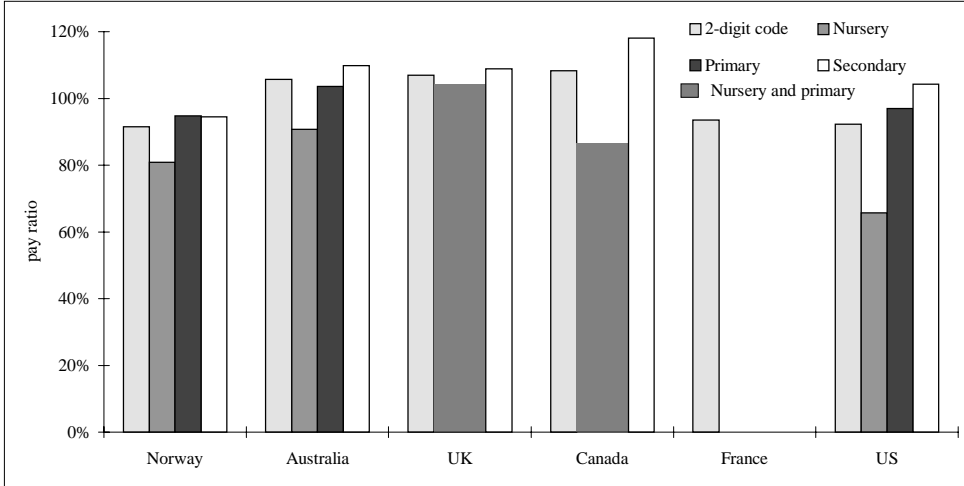
3-digit detailed occupations	Norway	Australia	UK	West Germany	Canada	France	US
Qualified nurses	041	3401	340	--	3131	--	95
Assistant nurses	045	--	640	--	3134	5221	447
General nursing	--	--	--	853	--	--	--

Occupational titles differ slightly between countries

Source: Appendix Table 5b

Figure 9. Average hourly pay of women employed in teaching occupations at the 2 and 3-digit levels relative to average male full-time hourly earnings in all sectors (1990s data)

The 2-digit code refers to the occupational group of teachers and the 3-digit code to detailed occupations of nursery, primary and secondary education



References for teaching occupations

2 and 3-digit codes	Norway	Australia	UK	Canada	France	US
2-digit code	06	24	23	273	42	15
Nursery education	066	2401	--	--	--	155
Primary education	064	2403	--	--	--	156
Nursery and primary education	--	--	234	2731	--	--
Secondary education	063	2405	233	2733	--	157

Source: Appendix Table 6b

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