

# How Welfare States Shape the Gender Pay Gap: A Theoretical and Comparative Analysis

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## **Abstract**

This paper assesses the impact of the welfare state on cross-national variation in the gender wage gap. We conceptualize earnings inequality between men and women as resulting from their different locations in the class hierarchy, combined with the severity of wage differentials between and within classes. This decomposition enhances both theorization and testing of the impact of multiple welfare state dimensions on women's relative earnings. Our empirical analysis is based on income and occupation-based indicators of class and utilizes microdata for 17 post-industrial societies. We find systematic differences between welfare regimes in the components of the gender gap. The evidence supports our claim that the state molds gender inequality in labor market attainments by influencing women's class locations and regulating class inequality.

## **How Welfare States Shape the Gender Pay Gap: A Theoretical and Comparative Analysis**

In recent decades feminist scholars have drawn attention to the importance of welfare state policies for women's economic autonomy (e.g. Hobson 1990; Orloff 1993; O'Connor 1996). They have argued that the welfare state powerfully affects the life-chances of women relative to men, in addition to its well studied effects on class inequalities. This insight has substantially extended the study of gender inequality and the welfare state, particularly research informed by a comparative perspective (Daly 2000; Gornick and Meyers 2003; Orloff 2002; Sainsbury 1994)

However, previous comparative studies have adopted a limited perspective on both the dependent and independent variables. Gender inequality has usually been equated with women's ability to integrate into paid work. Relatively little research has further investigated the impact of welfare states on women's positions within the labor market, i.e. their occupational attainment and earnings.<sup>1</sup> Furthermore, with gender rather than class at the center of attention, the main focus has been on policies that mitigate conflicts between motherhood and paid employment, neglecting the decommodifying effects of the welfare state on workers. However, insofar as women are more common among the disadvantaged workforce and men among the advantaged, "worker friendly" policies as well as "family friendly" policies are bound to affect the gender wage gap. Consequently, an integrated view of these two faces of the welfare state ought to provide greater leverage for explaining national variations in gender wage inequality.

The present study offers a new theoretical framework designed to overcome this lacuna and enhance our understanding of how welfare states affect gender inequality in the labor market. Learning from the work of feminist researchers, we stress the significance of family policies for women's economic gains. However, our approach also borrows from research in labor economics that has revealed the role of egalitarian wage structures in improving women's relative economic position (e.g. Blau and Kahn 1992; Rubery et al. 1997). These two literatures help establish our claim that welfare states have a double impact on the gender earnings gap, via their effect on class as well as gender inequality.

The paper begins by disaggregating the gender wage gap, our dependent variable, into class and gender-based components. Then it distinguishes between three different roles of the welfare state, our independent variable, and hypothesizes how each of these roles affects each of the components of the wage gap. To evaluate the empirical plausibility of the predicted outcomes, we compare 17 OECD countries using data from large-scale surveys carried out around the year 2000. The findings indicate that the proposed framework is very effective in revealing how state intervention contributes to the wide variation in gender pay gaps across different welfare state regimes. More broadly, the gains from decomposing both wage gaps and state intervention into their class and gender components suggest that class analysis can make a significant contribution to understanding women's economic disadvantage.

## **Unpacking the Gender Wage Gap**

Cross-country variation in gender wage gaps depends on the extent to which women have penetrated the upper reaches of the class structure and the advantages they find there, together with the severity of the class divide. The first two of these components appear indirectly in the sociological literature under the rubrics of sex segregation and the glass ceiling. The third, the extent of class inequality, has been discussed mainly in studies outside of sociology.

Gender occupational segregation and the exclusion of women from the most highly-paid jobs have long been viewed by sociologists as the core determinants of the gender wage gap (England 1992; Petersen and Morgan 1995; Tomaskovic-Devey 1993). The importance of class inequality for gender inequality has been recognized in some comparative research, primarily by economists and political scientists (but see Rosenfeld and Kalleberg 1990). These studies have showcased the effects of political-economy variables – particularly wage bargaining systems – on the gender gap, arguing that earnings differentials of all kinds narrow when labor enjoys substantial political and institutional power and wage determination is centralized (Pontusson, Rueda and Way 1999; Rowthorn 1992; Rubery et al. 1997; Wallerstein 1999; Whitehouse 1992). A series of high-profile studies by Blau and Kahn (1992; 1996; 2003) have demonstrated the equalizing effect of more egalitarian wage

distributions on gender wage inequality. They have shown that since women everywhere are over-represented in low-paying and men in high-paying jobs, national gender wage gaps significantly depend on the extent of class inequality – in their terms, the distance between the top and bottom of the "wage structure".

Some sociological research has built on Blau and Kahn's insight. Mandel and Semyonov (2005) marshaled evidence for 20 countries showing the importance of controlling for inequality in the wage structure in order to explain the effects of family policies and social service employment on the gender wage gap. Gornick (1999) showed that the main source of women's disadvantage in Canada and the US is the "length of the earnings 'ladder'" (p.231), whereas in Germany and the Netherlands the more acute problem is women's low placement on that ladder relative to men. In our terminology the length of the earnings ladder is redefined as the extent of *class inequality*, while the differential location of men and women on that ladder is understood as their unequal *representation across classes*. One advantage of this conceptualization is that it points to a third and potentially crucial component of national gender wage gaps: differences in earnings between men and women located in the same class position, which we will refer to as the severity of *intraclass gender inequality*.

This third component is well illustrated by the idea of a glass ceiling, which refers not to women's under-representation in management but their exclusion from the most lucrative and powerful positions within this class (Cotter et al. 2001; U.S. Federal Glass Ceiling Commission 1995). Studies of occupational sex segregation have also demonstrated the importance of intraclass inequality, for instance by showing that women's entry into male occupations (desegregation) has not necessarily reduced gender wage inequality (Reskin and Roos 1990). The findings of segregation researchers suggest that most gender pay inequality within classes results from the fact that workers of the two sexes are unequally spread across industries, sectors, firms, or departments within firms with different pay standards (Petersen and Morgan 1995). Intraclass inequality may also be caused by direct firm-level discrimination against women workers, typically under the cover of different job titles (Bielby

and Baron 1986). Since it is reasonable to assume that these underlying determinants vary across countries, differing patterns of intraclass inequality should account for an important part of the cross-country variance in gender gaps.

To summarize, our theoretical preference is to conceptualize gender inequality in relation to the class structure. From this perspective, the gender wage gap is jointly generated by men's and women's *unequal representation* in the class hierarchy and the extent of *inequality between and within classes*. It follows that the same aggregate pay gap can be a product of diverse combinations of the three underlying components. We shall now argue that for the specific purpose of tracing welfare state effects on gender inequality, decomposition of the gender gap adds both substance and precision to the effort of tracing the ways in which public policy affects the relative pay of men and women.

## **Welfare State Regimes**

Contemporary welfare state theory fits comfortably with our insistence that the role of the state should be analyzed simultaneously in relation to both class and gender stratification. In Esping-Andersen's (1999) influential formulation, welfare states address the first type of inequality by decommodification and the second by defamilialization. The former is achieved by unconditional entitlements to income replacement and public services, the latter by public services, cash benefits, and the right to special employment conditions which facilitate reconciliation of women's paid and unpaid work. In addition, when welfare states decommodify health and education services, or defamilialize child and elder care, they create jobs that "become a vehicle for the absorption of new, especially female, labor-force entrants" (Esping-Andersen 1990:148). The welfare state as employer influences both gender and class stratification, and thus joins decommodification and defamilialization to form a triad that will help organize our theoretical expectations. We argue that all three roles of the welfare state powerfully influence national gender wage gaps, although their effects are not necessarily consistent.

The connection between the three central roles of the welfare state identified above and Esping-Andersen's three welfare state regimes is well known. Scandinavian social democracy is associated with welfare states that exemplify all three roles: the state substitutes for functions otherwise performed by markets or families and it does so with a distinct emphasis on service provision (as opposed to income maintenance), which turns it into a massive employer. The liberal regime, represented by the English-speaking countries, is the mirror image of the social-democratic regime. Stressing the primacy of the market in providing social and family services, this regime minimizes all three types of intervention.

The conservative welfare regime, found in the late-blooming democracies and Catholic-influenced societies of continental Europe, is a hybrid case with considerable internal variation. Income maintenance may be generous yet eligibility rules are less uniform than in Scandinavia due to program fragmentation, which Esping-Andersen describes as status-preserving rather than solidaristic. Defamilialization, on the other hand, is limited in conservative welfare states by a penchant for familial responsibility.<sup>2</sup> The preservation of traditional family structures is often an explicit or implicit goal, especially in Southern Europe where "pro-familial" policies (e.g. tax and employer benefits that favor male breadwinners) are the norm. Consequently public social services are deliberately undeveloped, resulting in limited public employment but without fostering the growth of the liberal model's market-based alternatives. Table 1 summarizes the combination of welfare state roles that characterizes each regime.

INSERT TABLE 1 ABOUT HERE

## **How Welfare States Affect Gender Pay Gaps**

To complete the theoretical picture, this section proposes hypotheses that relate the three roles of the welfare state (decommodification, defamilialization and the welfare state as employer) to the three components of national gender pay gaps (class inequality, gender-unequal representation across classes, and intraclass gender inequality). Very concisely, we argue that

decommodification reduces the total gender earnings gap by reducing between-class and within-class inequality. At the same time, defamilialization increases the gender gap by aggravating unequal gender representation between and within classes, while the welfare state as employer has mixed effects. Potential inconsistencies between the effects of different dimensions explains why welfare regimes have complicated and often unexpected consequences for wage differentials between men and women.

Decommodification. The welfare state decommodifies labor insofar as it substitutes for wages, either directly by means of income transfers or indirectly by providing free or subsidized goods and services. Social insurance against sickness and unemployment, other cash benefits, food stamps, public housing, and free education and health services are all substitutes for earnings. The key effect of decommodification, on which both socialist advocates and market-minded critics agree, is that it increases workers' reservation wage, the minimum compensation that makes it worth their while to accept paid employment. Other things being equal, the implication of a higher wage floor is reduced class inequality. In addition, a high level of decommodification, in conjunction with labor market regulation by the state and through collective bargaining, tends to stifle the growth of low-wage jobs in the private service sector (Iversen 2005; Scharpf 2001). This sectoral dynamic also has the effect of lowering class inequality. Finally, a decommodifying welfare state reduces intraclass inequality, since in the absence of uniform social rights, part-time and intermittent workers are more vulnerable to wage discrimination. Each one of these effects should powerfully influence the gender wage gap, since workers in the overlapping categories of low-wage, service and part-time employment are disproportionately female.

Defamilialization. When the welfare state accepts responsibility for the care of infants, small children and dependent elders, it takes over tasks that would otherwise fall primarily on wives and mothers. Service provision of this kind is typically complemented by other entitlements to working mothers such as paid maternity leave with the right to resume employment, shorter working hours for mothers, and the right to time off in order to care for sick children

(Gauthier 1996; Gornick 1999).<sup>3</sup> As Mandel and Semyonov (2005, 2006) have recently shown, defamilialization has paradoxical effects on gender equality. On the one hand, family policy facilitates women's employment, thereby increasing their economic autonomy and possibly also promoting more equal power relations with their partners (Sorensen and McLanahan 1987; Lewin-Epstein, Stier and Braun 2006). On the other hand, facilitation of women's employment by adjusting working time to household demands reduces their motivation to compete with men for lucrative but demanding jobs, and increases the motivation of private employers to practice statistical discrimination against women. Such discrimination is fed by the limited selectivity of women workers under conditions of high female labor force participation, and by their eligibility for social rights that are rarely used by men and which are perceived as lowering women's commitment to work. (For summaries of previous literature and new cross-national evidence, see Mandel and Semyonov 2005; 2006). In sum, the effect of defamilialization on women's earnings relative to men is expected to be doubly negative: women are channeled into less favorable class positions and are also paid less than men who occupy similar positions.

The Welfare State as Employer. Ever since Rein's pioneering work on "the social welfare labor market", the welfare state's function as an employer and its gendered implications have become part and parcel of comparative research (Rein 1985a; Kolberg and Esping-Andersen 1993). There has been some debate over just how beneficial these jobs are for women (Hernes 1987; Kolberg 1991; Meyer 1994). A seven-country study conducted by Gornick and Jacobs (1998) concluded that both the skill mix and the pay policies which typify the public sector enhance women's pay relative to men. However the same study also found that the overrepresentation of women in the exceptionally large Swedish public sector contributed to widening the gender wage gap. Attempting to reconcile these seemingly contradictory findings opens a window onto the complexities of how the welfare state as employer affects gender wage inequality.

The two claimed advantages of the public social services for the relative wages of female employees are both plausible. Extensive provision of education, health and care

services by the public sector probably offers women more professional and semi-professional jobs than are available where private enterprise dominates the service sector (Kolberg and Esping-Andersen 1993). It is also true that because governments are large, law-abiding, and politically sensitive employers, wages are typically negotiated with unions in a centralized fashion and administered bureaucratically (Kearney and Carnevale 2001). Consequently the public sector tends to refrain from paying very low wages or directly discriminating against women (Robson et al. 1999).

However, more compressed wage differentials also imply lower earnings ceilings for those who work in the upper reaches (for evidence, see Gornick and Jacobs 1998:Table 3). Where the public sector is very large, as in Sweden, it employs most of the women who work in high-level occupational class positions (managerial and professional). Whether due to the absence of other opportunities or their own preferences, women are attracted to the shorter and more flexible hours found in the public sector, as well as its more reliable implementation of mothers' employment rights. In this manner the public sector's "friendliness" to mothers has the same perverse consequences as work/family reconciliation policies. It attracts women by offering them jobs in education and care work that are not highly paid, but are female-typed and better adjusted to women's domestic obligations (Hansen 1995; Rein 1985b). Unaffected by similar considerations, men flock to the better-paying heights of the private sector (Hansen 1997; see also Rice 1999:25). As a result, we hypothesize that although the public sector's relatively high wage floor may narrow the gender pay gap by lowering level of class inequality, this effect will be most pronounced at the low end of the class structure. The impact of the welfare state as an employer on the other two components of the gender gap is more difficult to predict.

Table 2 offers a synopsis of our propositions by cross-tabulating the three roles of welfare states with the three components of the gender pay gap. The left-hand panel indicates how the former are expected to influence the latter. On the basis of these expected effects, the right-hand panel assesses the magnitude of each component of gender inequality in earnings in each type of welfare state regime. The predictions on the left will now be familiar:

decommodification decreases both within and between-class inequality; defamilialization increases unequal gender representation between and within classes; while the welfare state as employer has similar effects to decommodification, but a mixed effect on the class representation of men and women and intraclass inequality.

INSERT TABLE 2 ABOUT HERE

Turning to the regime analysis on the right, social democracy, in which all three roles of the welfare state are highly developed, is expected to simultaneously increase gender inequality in class representation while reducing class inequality. Our hypotheses for intraclass gender inequality predict inconsistent effects; which of them dominates is therefore an empirical question. The liberal regime, with welfare state characteristics that are the obverse of social democracy, should exhibit the opposite profile: high class inequality and comparatively equal class representation. Finally, an intermediate level of class inequality is expected under the conservative regime because of its medium level of decommodification. With moderate levels of defamilializing policies and a comparatively small social service sector, women in conservative welfare states (as in liberal ones) will not suffer negative effects on their class representation. Indeed, the conservative combination of pro-familial policies and moderate decommodification discourages many women from entering the labor force at all. Following the argument that selective women's employment results in a higher quality (for example, more educated) female labor force, those women in the conservative countries who do work may be the most successful in gaining access to highly paid "men's jobs" (Boeri, Del Boca and Pissarides 2005:75-77). Lastly, and in common with the other regimes, because different welfare state roles push intraclass inequality in different directions, no clear prediction can be made in that respect.

## **Data and Methods**

Data Sources: We restrict our empirical analyses to 17 advanced societies previously analyzed by Esping-Andersen and other comparative welfare state researchers. The main data source is the Luxembourg Income Study (LIS)<sup>4</sup>, a repository of microdata from large-scale

surveys of household income and employment that have been harmonized to facilitate cross-national comparison. In six countries we substituted superior national sources for LIS datasets. Appendix 1 provides details of countries, years, and datasets. Focusing on wage-earners aged 25-55 and other restrictions led to effective sample sizes ranging from a low of 1,500-3,500 in the smaller European countries to a high of tens of thousands in North America.<sup>5</sup>

The Measurement of Earnings: Our preferred income measure is hourly earnings from paid employment, before taxes and transfers, as reported by survey respondents.<sup>6</sup> There are conflicting considerations regarding the standardization of earnings by hours worked. On the one hand, to the extent that the division of household responsibilities is predetermined by social norms, controlling for working hours eliminates a major component of gender income inequality. Moreover, since welfare states influence women's hours of work through benefits to working mothers, comparing hourly wages is liable to understate the impact of state intervention. On the other hand, given the wide variation in rates of female part-time work across countries, national gender gaps in monthly or yearly earnings may be as much a product of gender differences in working hours as an indicator of pay rates<sup>7</sup>. Under these circumstances, despite the disadvantages, we concluded that it is preferable to investigate hourly wages.

Measuring Class: The most common approaches to operationally defining classes are based on occupational groups. These aggregations are consistent with a broadly-shared theoretical construct of classes as socially bounded categories that encapsulate substantial differences in material life-chances (Wright 2005). However, identifying occupational classes poses demanding data requirements – either unusually detailed information on occupation and employment status or special-purpose surveys (the classic examples are, respectively, Goldthorpe and Erikson 1992; Wright 1997). Since the coding schemes in LIS datasets are nationally idiosyncratic, we were able to identify only limited groups of occupations that are comparable across countries. Standardized occupational classifications are available in some

alternative sources of cross-national data, such as the European and International Social Surveys, but their sample sizes are too small for a disaggregated analysis. In order to carry out a comprehensive and reliable study of class effects, it is therefore necessary to utilize "income classes" – in the present case, quintiles of hourly earnings.<sup>8</sup>

Due to their computational properties, earnings quintiles have both strengths and limitations for our purposes. Their advantage is in furnishing a scale that is perfectly comparable across countries. However, utilizing income categories as a proxy for class differences does not permit measurement of intraclass inequality, since the very definition of wage quintiles guarantees that there will be few if any gender differences within them. Fortunately, we were able to estimate cross-country differences in the intraclass gender gap by constructing harmonized categories for two occupational classes. The managerial and menial services classes represent the top and bottom of contemporary class structures and also capture diversity in the extent of feminization.

Methodological Approach: To develop and test hypotheses which predict systematic differences in outcomes across welfare regimes we perform a regime-level analysis based on Esping-Andersen's ideal types. The first step in our analysis will be to confirm that, as Esping-Andersen suggests, the three roles of the welfare state which we expect to affect gender inequality indeed hang together within distinct "families of nations" (Castles 1993). Subsequently we will test how far cross-country variation in outcomes actually clusters as expected in accordance with welfare state configurations.

We prefer this *case-oriented* approach to the *variable-oriented* alternative of trying to assess the relative importance of specific policies, because welfare regimes distinctively blend multiple attributes (Esping-Andersen 1993b; Ragin 1987; Shalev 2007). Since regimes are ideal types, observable cases are usefully understood as better or worse empirical approximations of conceptual categories. While some countries may closely represent the ideal type, others straddle more than one regime or exhibit inconsistent combinations of

policy. Such hybrid or deviant cases will prove useful in testing the fit between welfare regimes and their presumed outcomes.

## **Findings**

### *Authenticating Welfare Regimes*

Our theoretical analysis rests on Esping-Andersen's suggestion that decommodification, defamilialization, and the welfare state as employer are the central attributes of welfare regimes. In order to validate the existence of distinct worlds of welfare, Chart 1 simultaneously plots these three regime attributes for our 17 countries. An independent and updated measure of decommodification (Scruggs and Allan 2006) is shown on the X-axis, an index of work/family reconciliation on the Y-axis, and the scope of social service employment is represented by bubbles of varying size.<sup>9</sup>

INSERT CHART 1 ABOUT HERE

Countries indeed cluster as expected into three distinct groups. The liberal and social-democratic regimes, located towards the bottom-left and top-right corners of the chart respectively, are polar opposites on all three of our measures (The single exception is the size of the public welfare sector in the UK, amplified by its National Health Service.) Our indicator of work/family reconciliation cleanly differentiates the conservative welfare regime. The results confirm Esping-Andersen's (1999:88) observation that the difference between the conservative and social-democratic worlds of welfare "lies not so much in their decommodifying income-maintenance guarantees as in their approach to services and sponsoring women's careers". The two exceptions to the close similarity of our results to Esping-Andersen's classification are Switzerland, which is clearly liberal on our indicators, and Ireland, which is positioned just outside the liberal cluster.<sup>10</sup> In both countries, however, the state plays a classically conservative role in relation to gender and the family (Ireland - Adshead and Millar 2004; Switzerland - Bonoli and Gay-des-Combes 2002). This suggests that they are best understood as mixed cases.

### ***Empirical Decomposition of the Gender Gap***

We start by presenting, in Chart 2, cross-country variation in the gender gap as conventionally measured – the percentage point difference between the average wages of men and women.

There is substantial diversity between countries, from a gap of less than 5% in Italy to almost 25% in the US and UK. The fact that this variation is only modestly consistent with the regime classification is consistent with our assumption that wage differentials between the average man and woman mask substantial differences in the causes of gender earnings inequality across welfare regimes. Thus we expect to find a more consistent picture when decomposing overall gender gaps into their three components.

INSERT CHARTS 2 & 3 ABOUT HERE

Chart 3 describes the class representation of women in our 17 countries. It compares the proportion of working women located at the poles of their country's earning distribution. The top and bottom quintiles represented by black and gray lines respectively. A value of 20% would imply equal gender representation in a quintile.<sup>11</sup> Not surprisingly, in every country women are over-represented at the bottom and under-represented at the top. But the patterning of these two imbalances is quite different. Women's under-representation in the highest "class" fits the welfare state typology almost perfectly. The liberal countries, accompanied by Germany and Austria, are sandwiched in the middle of the distribution. They lie between the conservative countries, where women come closest to occupying a proportional share of the top fifth of wage-earners, and Scandinavia where they are least represented.

In contrast to Chart 2, the Nordic countries are now closely aligned and their standing is worse than the liberal states, not better. Our data indicate that in these countries only about 10% of female workers belong to the highest earnings quintile, compared to about 30% of males. The poor performance of the social democracies in this respect is consistent with other research (e.g. Datta Gupta, Oaxaca and Smith 2006), and with our expectation that the combination of defamilialization and a large public sector would depress women's penetration

of the most lucrative jobs. Also confirmed is our assumption that in conservative countries, especially the familistic Southern European states, women would be more equally represented due to a relatively selective female labor force that is under strong pressure to adopt the male model of commitment to work. The favorability of women's representation in the top quintile in Ireland suggests that in relation to gender inequality in the labor market, Ireland indeed belongs to the conservative regime.

The intermediate position of the liberal countries in Chart 3 is also consistent with our regime-level hypotheses. However, the result for the USA understates the success of American women in entering high-level occupational positions, notably management (Wright, Baxter and Birkelund 1995; Mandel and Semyonov 2006). The reason is that this measure is not sensitive to the extent of intraclass gender inequality. Subsequent analysis will show that the moderate representation of American women in the higher income quintile, despite their impressive penetration of management, reflects the severity of the gender gap among managers.<sup>12</sup>

Chart 4 juxtaposes the representational element of gender income inequality and its second component, inequality between classes. The horizontal axis measures class inequality by the ratio of the median wage received by workers (both men and women) in the top and bottom quintiles. In more familiar terms, this is the "90/10 ratio" between earnings at the 90<sup>th</sup> and 10<sup>th</sup> percentiles. Inequality of representation appears on the vertical axis of Chart 4, using a composite measure of the relative risk of women being in the bottom rather than the top earnings quintile. In effect, for each country we calculate the ratio of the gray to the black lines in Chart 2. The higher the resulting figure, the stronger the tendency for women to be concentrated at the bottom of the wage structure and absent from the top.

INSERT CHART 4 ABOUT HERE

For ease of interpretation, Chart 4 is divided into four quadrants according to the median country on each dimension. The upper left quadrant encompasses countries with high gender inequality in class representation and low inequality between classes. The exclusive

presence of the Scandinavian countries in this quadrant fits the expectations summarized earlier in Table 1. In the extreme case of Sweden, women are two and a half times more likely to be found at the bottom of the wage structure than the top. On the other hand, the overall wage gap between the top and bottom quintiles is modest in Sweden and the other Nordic states (a ratio of about two to one).

Most conservative countries fit the theoretical expectation of relatively low inequality of representation and low to medium class inequality. Austria deviates somewhat from this pattern, while Spain is an extreme outlier which exhibits the reverse of the Scandinavian profile. Befitting its hybrid stature, Ireland is positioned on the edge of the conservative cluster.

Theoretically, we predicted that the liberal welfare regime would generate a pattern of high class inequality and medium levels of gender-unequal representation. The United States is the only liberal country to clearly fit this pattern. Our findings underscore the internal diversity of the liberal regime (Mishra 1994; O'Connor, Orloff and Shaver 1999). The UK is located alone in the upper right-hand quadrant of Chart 4, where both measures indicate high inequality. Britain's very unequal gender representation across classes reaches the levels found in Scandinavian countries, but it conspicuously lacks their relative equality between classes. Australia exhibits the opposite features to the UK, and Canada is similar to the USA in having medium levels of inequality of representation, while registering much more moderate class inequality on our measure. Finally, Switzerland is located surprisingly near the Scandinavian cluster. As Chart 2 revealed, in terms of gender representation the Swiss case combines a decidedly liberal level of representation at the top with exceptional crowding of women at the bottom.

Some exceptions from the expected pattern, namely Switzerland and Austria, are a puzzle, but explanations may be suggested for other discordant findings. For instance, the more moderate level of class inequality in both Britain and Canada, in comparison with the US, is consistent with their more decommodified labor markets (Mishra 1994) (also shown in

Chart 1). In the same vein, the very unequal levels of gender representation in the UK may be due, at least in part, to its comparatively large public service sector compared to other liberal countries. Australia is predictably distinctive in relation to both class and gender equality, because its system of wage-fixing by judicial tribunals historically generated an unusually high wage floor and a truncated gender gap (Gregory et al. 1989; Kidd and Shannon 1996). Finally, Ireland illustrates how we can learn from cases that are mixed in terms of regime membership. As already noted, our results confirm that it shares the conservative approach to women and the family that paradoxically improves the class representation of those women who work. Concurrently, however, the basically liberal character of social protection pulls Ireland in the direction of greater class inequality.

In general, the empirical data we have presented are consistent with the regime typology presented in Table 1 and the hypotheses summarized in Table 2. Most conspicuous is the gathering of all four social-democratic countries as a united group, both in terms of the three dimensions of welfare regimes (Chart 1) and the two dimensions of the gender wage gap (Chart 4). This close match supports our theoretical suggestion to link high levels of reconciliation and extensive public employment with unequal gender representation, and high levels of decommodification with relative equality between classes. Prior expectations are also borne out by the comparatively equal representation found in nearly all conservative countries, along with their generally moderate levels of class inequality. Finally, while the exemplary liberal case, the United States, follows the predicted pattern of high class inequality and intermediate inequality of class representation, the other countries associated with this regime only partly fit our expectations. These deviations may however be explicable by individual countries' departures from ideal-typical liberal characteristics.

### ***Estimating Counterfactual Effects***

The association between welfare regimes and distinctive configurations of gender representation and class inequality leaves unanswered the question of how much each of these two components contributes to a country's overall level of gender wage inequality. This

section addresses that question, by measuring cross-regime differences in the relative importance of each component. We carry out simulations that ask what would happen to international differentials in the gender gap if all countries took on the characteristics of an extreme case. A full explanation is presented in Appendix 2.

Tables 3 and 4 reveal the role played by inequality of representation and class inequality, respectively. Each table reports simulations that compare the actual gender wage gap with the counterfactual gap for the highest and lowest values of the relevant indicator. The first column in both tables displays the original wage gap, reflecting each country's actual level of both class inequality (wage differences between quintiles) and class representation (the gender distribution across quintiles). Turning first to Table 3, the counterfactual effect of *unequal representation* is illustrated by replacing the actual distribution of men and women across quintiles with the distribution of two extreme cases –egalitarian Italy (column 2) and inegalitarian Sweden (column 3).

This procedure generates striking changes in the size of gender wage gaps. If all countries had the Italian profile of gender representation, then on average their gender wage gaps would decline by more than 60%. The more unbalanced the gender composition of classes, the greater the effect. Thus in the Scandinavian countries, where inequality of representation is most pronounced, the gender wage gap would decline by at least three quarters. When Sweden rather than Italy is used as the benchmark for the simulation, the trends are reversed. Sweden's gender representation would hypothetically increase the average country's gender gap by 55%. In societies with similarly unequal representation (like the other Scandinavian countries and the UK) the difference would be negligible, whereas it would be dramatic in the context of relatively equal gender distributions. For example, Italy's gender wage gap would increase more than fourfold and Spain's by a factor of two and a half.

INSERT TABLES 3 AND 4 ABOUT HERE

Table 4 provides parallel illustrations of the role of *class inequality* in shaping gender wage gaps, by estimating counterfactual values under American and Swedish levels of class

inequality. The table vividly demonstrates the opposite contributions of Sweden's relative equality and America's pronounced class inequality to their gender wage gaps. Under US class differentials the gap would rise by an average of 47% , but in Sweden it would double. In parallel, under Swedish conditions the gender wage gap would be reduced in all countries, but most strikingly (by half) in the United States.

As we would expect, the magnitude of the simulated changes in both tables is quite systematically ordered by regimes. Under Italy's equal distribution of women between wage quintiles, the gender wage gap would decline most dramatically in the social democratic countries. The effect progressively weakens when moving to the liberal countries and still more in the conservative ones. The second simulation shows that it is the liberal countries, coupled with Spain and France, that would benefit most from Sweden's relatively equal class differentials.

When the two simulations are viewed together, it can be seen that although variation in the distribution of men and women between classes is the primary source of cross-national variation in the gender wage gap, differences in class inequality also have profound effects. Moreover the relative importance of each component varies across countries. This is evident when comparing the UK and the USA, two liberal countries that share the distinction of having by far the highest aggregate pay gaps in our study. While in the UK this results mainly from women monopolizing the bottom of the class structure and men the top, in the USA it derives primarily from an exceptionally high level of class inequality. An even more striking example is Ireland and Sweden, two countries with quite similar gender gaps despite belonging to different welfare regimes. However, whereas the Irish gap is mainly driven by high levels of class inequality, in Sweden the principal source of the gap is very low representation of women at the top of the earnings distribution compared with their high concentration at the bottom. Inconsistencies like this reinforce our claim that the two sources of gender wage inequality measured here must be juxtaposed in order to properly understand the impact of welfare regimes.

### *Evaluating Intraclass Inequality using Occupational Classes*

The third component of the gender gap refers to inequality between men and women located in the same class. In this section we utilize occupational class categories to measure intraclass gender inequality independently of income.<sup>13</sup> For this purpose we have isolated two occupational groups that are reasonably comparable across countries and illustrate two important contrasts – between the upper and working classes, and between weakly and strongly feminized classes. They are, respectively, the managerial class and the "menial services class". The latter comprises service sector occupations that require modest formal qualifications, if any. Typical examples are cleaners, waiters and babysitters.

As in the preceding decomposition of national gender gaps, we break down gender inequality within a class into two components. *Representational inequality* will refer to the extent to which women are concentrated in lower-paid positions and excluded from the top. The term *intraclass wage differential* will denote the gap between the highest and lowest wage tertiles in a given class.<sup>14</sup>

According to the theoretical predictions presented in Table 2, decommmodification should mitigate intraclass differentials, while defamilialization should heighten gender inequality in intraclass representation. However, these effects are liable to vary at different levels of the class structure (represented here by the contrast between managers and menials). The social-democratic context suggests several examples. The relative equality of wages in this context may be limited to the working and intermediate classes, since their earnings are most affected by the welfare state and other related factors such as unionization and the centralization of wage determination. Relatively isolated from these forces, the managerial class may be an exception to the tendency for intraclass wage differentials to be small. Similarly, while the high level of defamilialization characteristic of the social-democratic regime is expected to discourage employers from placing women in highly paid positions, such discrimination should be less severe in lower class positions because turnover costs are lower.

### *The Managerial Class*

Chart 5 presents empirical measures of the two components of intraclass inequality among managers.<sup>15</sup> Representational inequality (the vertical axis) is operationalized by a ratio expressing the degree to which women crowd into low-wage positions and are absent from high-wage positions. The results show that there is indeed a marked difference between the liberal and social-democratic countries, with women's chances of reaching the most lucrative managerial positions being substantially less favorable in the latter group.

INSERT CHART 5 ABOUT HERE

The second component of intraclass gender inequality, the class-specific wage differential, is plotted on the horizontal axis of Chart 5 as the ratio between the median wages of managers in the top and bottom tertiles. Here the distinction between the liberal and social-democratic regimes is less clearcut, except for the polar cases of Norway and the United States. Intraclass wage differentials in Finland and Sweden are actually very similar to those in liberal Canada and Australia. Similarly, conservative countries generally display the lowest differentials despite having intermediate scores on overall wage dispersion. These findings support our suggestion that wage differentials in higher classes may be relatively autonomous from the forces that shape overall levels of class inequality.

When the two dimensions of intraclass inequality are considered in tandem, the three worlds of welfare capitalism become visible (the exceptions are Norway's proximity to the conservative cluster and Spain's pronounced absence from it.) The conservative nations exhibit relatively low levels of both representational inequality and wage differentials among managers. In contrast, Finland and Sweden are located above the median on both axes of inequality, although they are most conspicuous in relation to inequality of representation. As we suggested, the distinction between the private and public sectors is crucial in this regard (see Appendix 3). Women managers in Scandinavia are exceptionally dependent on the welfare state as an employer, and this dependence exacts a price. In Sweden the hourly earnings of women in the managerial class are 10 percentiles lower in the public than the private sector, compared to a 12 percentile advantage in both Canada and Australia.<sup>16</sup>

Three countries are located well outside the clusters identified in Chart 5. In Switzerland only one tenth of women managers reach the top earnings tertile, whereas in Ireland they are almost equally represented. Spain is doubly exceptional, particularly in having by far the highest intraclass differential of any country. From a regime perspective there is no obvious explanation for these deviations, and it is possible that they are at least partly due to issues of data comparability or quality.

#### *The Menial Services Class*

Over recent decades menial jobs have multiplied at the low end of the post-industrial economy, in sales, care work, cleanup, food and entertainment (Esping-Andersen 1993a). The size of this class varies from 6% of the workforce in Belgium to 16% in Sweden.<sup>17</sup> The menial services class is largest in Scandinavia, where the public sector plays a major role, and it is everywhere highly feminized (at least 80% in all countries except Australia, Belgium and the United States).<sup>18</sup>

INSERT CHART 6 ABOUT HERE

Chart 6 plots the two dimensions of intraclass inequality for the menial services class. As before the Y axis measures gender inequality in access to high versus low-paying jobs, and in this respect the menial class is much less stratified than the managerial class. In the median country, the proportion of women menials crowded into the bottom tertile of wages is only about 20% greater than their share of the top tertile, in comparison to being more than 130% greater among managers. As the vast majority of menial services workers are female, and management is home to the glass ceiling, this finding is not surprising. Turning to the intraclass wage differential (X axis), the median is 2.0 in both the managerial and menial classes. However, this similarity conceals an important difference. While there is quite a high degree of cross-country convergence around the median in the managerial differential, this is not the case for pay gaps in the menial services. National variation in women's disadvantage in management is thus primarily due to differences in their access to high-paying positions, whereas in menial services cross-country variation in gender inequality is mainly the result of

differences in the wage structure. This implies that, as we posited, the welfare state affects gender inequality within the managerial class primarily through defamilialization, whereas its main impact on the menial class is via decommodification.

One of the prominent features of Chart 6 is the clustering of the Nordic countries and Australia in the egalitarian bottom left corner of the chart. This finding is expected for Australia in view of its unique system of wage determination, while in the social democracies it is due to decommodification and a large public services sector, which raise the wage floor and narrow wage differentials. In Norway and Sweden the mass of menial services workers are simultaneously female and employed in the public sector, adding significance to the tendency found in most countries for women menials who are public employees to enjoy a sectoral bonus (see Appendix 3). This advantage contrasts with our earlier finding that female managers in Scandinavia pay a penalty for their dependence on public sector jobs.

Germany, France and Spain form a second cluster which is made up of conservative countries that are less egalitarian, especially in relation to the intraclass wage differential (Belgium is an exception). We interpret the fact that the wage differential in conservative countries lies between Scandinavia/Australia and the United States as reflecting the intermediate level of decommodification in conservative welfare states.

One other noteworthy result of our analysis of the menial services class is that the four countries fully or partially identified with the liberal regime share the distinction of having by far the highest levels of representational inequality. The United States is of particular interest because of its exceptionally high scores on both dimensions of intraclass inequality. It therefore inverts Swedish conditions by being doubly inegalitarian for lower class women. These contrasting outcomes for liberal USA and social-democratic Sweden support our theoretical arguments regarding the impact of welfare states on intraclass inequality in the lower classes.

## Conclusions

The severity of the class divide, in conjunction with the extent to which women penetrate the upper reaches of the class structure and the advantages they find there, are critical sources of cross-country variation in gender wage inequality. In turn, these components of the wage gap are systematically shaped by the welfare state. Most strikingly, states that support mothers' employment by work-family reconciliation and public sector expansion bring women into the labor market but channel them into lower class positions. But these same states also favor policies that support class equality by protecting workers' economic security and raising the wage floor, and in doing so they ease the burden of gender inequality for women at the lower and middle levels of the class structure. These findings have quite profound implications for both policy and theory.

For those concerned with gender discrimination and women's economic wellbeing, our research exposes two different ways in which class differences play a role that is critical but has rarely been acknowledged. First, if class inequality is a potentially decisive determinant of the gender wage gap, it follows that feminists should be concerned with narrowing class differences as much as with combating discrimination against women. So long as women occupy inferior class positions to men, the lower the wage premium that is enjoyed by higher classes, the less women as a whole suffer in terms of inferior earnings and economic dependency on male partners.

However, more class equality is clearly not in the interests of women with the potential to break through the glass ceiling, since it would undermine the value of the prizes they seek to share with privileged men. Hence a second implication of our findings is that there is no unambiguously woman-friendly pattern of state intervention. In fact, the consequences of any given role of the welfare state vary quite dramatically for women in different class positions. This point is clearly illustrated by our analysis of intraclass inequality, which shows that the welfare state affects gender inequality within higher classes (managers) mainly through the potential for defamilialization to block women's attainments.

In relation to the lower classes (menial service workers), it has an equalizing influence on the intraclass pay gap, primarily due to the potential for decommodification to compress wage differentials.

In contemporary post-industrial societies, imbalances of class representation in the form of exclusion of women from higher classes are a much less acute policy issue than intraclass inequalities of representation (Crompton 1999). Despite continuing cross-national variation, with the decline or disappearance of gender gaps in education and other social and economic changes, women everywhere have enjoyed considerable success in penetrating the managerial and professional classes. Today it is the manual working classes which exhibit the most severe under-representation of women, and that is more of a horizontal difference (between blue and pink-collar work) than a hierarchical one (Esping-Andersen 1993a; Charles 2003). Accordingly, the more pressing issue now is women's exclusion from the most desirable positions offered by the classes in which they find themselves (the glass ceiling problem). However, this is only one face of intraclass inequality. The other is the severity of wage inequality within classes, which determines the size of the penalty attached to women's inferior positions.

The analysis presented in this paper also has significant theoretical implications for the study of contemporary welfare states and gender stratification. It challenges the convention of treating "family policy" (gender) and "social policy" (class) as two separate domains of welfare state research. Esping-Andersen (1999) performed a service to comparative sociologists by characterizing welfare state variation in terms of defamilialization as well as decommodification (see also McLaughlin and Glendinning 1994), and showing how welfare regimes vary in relation to both. However, what interested Esping-Andersen was not gender inequality but the consequences of welfare regimes for women's labor force participation and fertility. In contrast, a landmark comparative study by Walter Korpi (2000) sought to explain cross-national variation in both gender and class inequality. However, his study treated class and gender as two different "faces of inequality", each of

which is affected by a different component of the welfare state – social and family policy, respectively. The present paper shows that this perspective conceals an important insight. Since gender gaps are partly determined by class inequality, *social* policy makes a potentially decisive contribution to easing *gender* inequality.

Our work points to two related topics for future research seeking to profit from a class perspective on gender inequality. The intriguing results yielded by analyzing intraclass inequality in two classes suggest that it would be fruitful to undertake a more comprehensive investigation of variations in gender economic inequality across classes. Given the existence of class differences in gender inequality, a second critical issue is how much, and by what means, welfare states contribute to these variations. Little prior scholarship exists in either of these areas. Although feminist studies of stratification have paid considerable attention to intersections between race and gender (Browne and Misra 2003), few have investigated how gender stratification is conditioned by class. McCall's (2001) work on "complex inequality" is a rare recent example of an interactive approach to the role of class and gender (as well as race) in determining economic inequality. However, McCall's research compared geographical subdivisions within one country rather than whole countries (cf. Clement and Myles 1994). Turning to welfare state effects, the landmark study of "gender, liberalism and social policy" in four English-speaking countries by O'Connor, Orloff and Shaver (1999) is one of the few to have pointed out that the consequences of state interventions for gender inequality vary for women in different classes. The tasks ahead are to further theorize this conditionality and to systematically study it across a broad range of classes and societies.

## Endnotes

<sup>1</sup> This bias in the existing literature is validated by the recent comprehensive review by Gornick (2004) of studies based on Luxembourg Income Study data.

<sup>2</sup> France and Belgium are unusual cases that in many respects conform to the conservative model but where, for demographic and other local reasons, activist family policies were adopted (on France, see Pedersen 1993).

<sup>3</sup> It follows that the state interventions which we refer to generically as defamilialization might more accurately be called reconciliation policies. Esping-Andersen's terminology is attractive for our purposes because it suggests symmetry between the class and gender interventions of welfare states. However we recognize that if taken literally, defamilialization implies transformation of women's traditional roles in the private sphere, whereas reconciliation policies undertake merely to reduce the strain between their public and private obligations (Misra and Moller 2005).

<sup>4</sup> <http://www.lisproject.org>

<sup>5</sup> The age limits we set are designed to prevent distortions caused by a substantial proportion of younger or older people being out of the labor force. Employers and proprietors without employees were excluded since both the coverage of the self-employed and the accuracy of their self-reporting on earnings are less satisfactory. We also applied three other filters, excluding agriculture, employees of the military, and respondents who reported either trivial or seemingly exaggerated hours of work (less than 8 or more than 90 hours per week).

<sup>6</sup> Not all countries conform to this standard. For Austria, Belgium, France, Ireland Italy and Spain the LIS database provides after-tax earnings only. This may be a source of bias since, given progressive taxation, net earnings can be expected to be more equally distributed. In addition, Norway, Finland and Canada rely mainly or wholly on register data which tend to understate income at the bottom of the distribution (Nordberg, Penttila and Sandstrom 2001).

<sup>7</sup> Across the 17 countries in our study, the average rate of part-time employment among women varies widely around a mean of 30% (cf .8% for men). In Finland, Spain and the USA the rate is below 20%, whereas in Australia, Britain, Netherlands and Switzerland it exceeds 40%. <http://unstats.un.org/unsd/demographic/products/indwm/table5b.htm>

<sup>8</sup> Before constructing income quintiles we eliminated the top and bottom percentiles of the hourly wage distribution. In our analyses of occupational classes we followed the LIS recommendation for top and bottom coding (10 times the median and 1% of the mean, respectively).

<sup>9</sup> The Scruggs and Allen measure (for the year 2000) was retrieved from the project website <http://sp.uconn.edu/~scruggs/wp.htm>. Welfare state employment is the percent of the workforce employed in the public welfare sector (public health, education, and welfare), as reported by Mandel and Semyonov (2005). Reconciliation was scored by factor analysis of two other indicators collected by these authors: the number of fully paid weeks of maternity leave and the proportion of infants (0-3) in publicly funded day-care.

<sup>10</sup> Esping-Andersen characterized Ireland as liberal and Switzerland as conservative, but his own indicators (1990:Tables 2.2 and 3.3) offered somewhat contradictory evidence and neither country was included in his empirical analysis of family policy (1999:Tables 4A & 4B).

<sup>11</sup> Cross-national differences in female labor force participation could slightly affect the probability of women vs. men being found in *any* wage quintile. To correct for this, female respondents in each country were weighted so that men and women are equally represented. After the correction, male distributions are the mirror image of female distributions. In practice, results with and without the correction are very similar.

<sup>12</sup> Based on our analysis of occupational classes, the gender gap among managers in the USA is 29%, second highest of 16 countries. Findings reported later in the paper indicate that this is primarily due to the size of wage differentials among American managers.

<sup>13</sup> Occupational class categories could not be constructed for Denmark.

<sup>14</sup> Tertiles are used in preference to quintiles because of small sample sizes in some countries at this level of disaggregation. See Appendix 3 for details.

<sup>15</sup> Managers are identified in accordance with the International Standard Classification of Occupations (ISCO88), specifically Major Group 1 which comprises legislators, senior officials and managers. We have compensated for the looseness of some countries' definitions by imposing the requirement that they pass a modest income threshold: above the lowest tertile of annual earnings in each country. Information on our operational definitions of classes and detailed results are available on request.

<sup>16</sup> This penalty is only paid by women. Findings not reported here show that male managers in Sweden suffer hardly any public sector disadvantage (2 percentiles). In Australia and Canada they benefit from similar public sector bonuses to women.

<sup>17</sup> The menial services class is identified by ISCO88 codes 4211, 512, 513, 514, 522 and 91, together with educational and income ceilings. We exclude respondents with more than a basic high-school education and those who are in the top tertile of the national distribution of annual earnings. The proportion excluded by these restrictions varied from only 3%-6% in most countries to 14% in the UK. Available occupational data for Austria, Canada, Italy and the Netherlands were not close enough to the ISCO schema to be usable.

<sup>18</sup> The USA has the lowest proportion of women in the menial services class (71%), which may be due to racial inequality in the labor market. Nonwhite men in the USA constitute 16% of all menials, and their relative likelihood of being found in this class is 3 times greater than for white men (although still only half that of nonwhite women).

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Table 1: Core Differences between Welfare State Regimes

Welfare State Regimes	Roles of the Welfare State		
	Decommodification	Defamilialization	Welfare State as Employer
Social-Democratic	High	High	Large
Liberal	Low	Low	Small
Conservative	Medium	Low/Medium	Small

Table 2: Welfare State Effects on Gender Earnings Inequality

Components of the Gender Earnings Gap	Roles of the Welfare State			Welfare State Regimes		
	Decomm-odification	Defamilial-ization	Welfare State as Employer	Social-Democratic	Liberal	Conserv-ative
Inequality between classes	Reduces <sup>1</sup>	---	Reduces <sup>5a</sup>	Least	Most	Least / Medium
Unequal class representation of men and women	---	Increases <sup>3, 4a</sup>	? <sup>3, 6</sup>	Most	Medium	Least
Intraclass gender inequality	Reduces <sup>2</sup>	Increases <sup>4b</sup>	? <sup>5b, 7</sup>	?	?	?

1. Public provision of income and services raises the reservation wage and discourages creation of low-wage service jobs.
2. Extension of social rights to “secondary” workers makes for greater wage uniformity.
3. Women workers are less “selective” and less motivated to compete for lucrative positions.
4. “Statistical discrimination” as a result of mothers' entitlements excludes women from powerful positions (4a) or lowers their earnings (4b).
5. Public sector unionization and centralized wage-fixing compress the gap between the top and bottom of the class structure (5a) but widen sectoral inequality in higher classes (5b).
6. Mixed effects of a large social welfare sector on the skill level of jobs.
7. Bureaucratization & political sensitivity in public sector encourage wage uniformity.

Table 3: The Contribution of Unequal Class Representation to the Gender Wage Gap<sup>1</sup>

Countries	(1)	(2)	(3)	(4)	(5)
	Original gender wage gap	Hypothetical gender wage gap		% change	
		using Italy's class representation	using Sweden's class representation	using Italy	using Sweden
Sweden	13.6	2.9	13.6	-79	0
Finland	19.0	4.4	18.6	-77	-3
Denmark	15.4	3.6	14.4	-77	-7
Norway	16.2	4.0	16.6	-75	2
UK	21.9	5.5	22.6	-75	4
Austria	15.4	4.7	18.2	-70	18
Canada	17.0	5.2	20.2	-69	19
USA	21.4	6.7	27.2	-69	27
Germany	15.5	5.0	19.8	-68	28
Switzerland	16.8	5.8	24.1	-65	44
Netherlands	12.8	4.7	18.2	-63	43
Australia	11.2	4.4	18.8	-61	68
Ireland	11.7	5.2	21.1	-56	81
France	11.9	5.3	21.4	-55	80
Belgium	8.5	4.0	15.6	-53	84
Spain	9.6	5.8	24.1	-39	152
Italy	4.1	4.1	17.0	0	313
Mean	14.2	4.8	19.5	-62	55
SD	4.6	0.9	3.7	19	79

<sup>1</sup> Sorted in ascending order by column 4.

Table 4: The Contribution of Class Inequality to the Gender Wage Gap<sup>1</sup>

Countries	(1)	(2)	(3)	(4)	(5)
	Original gender wage gap	Hypothetical gender wage gap		% change	
		using USA class inequality	using Sweden's class inequality	using USA	using Sweden
USA	21.4	21.4	10.7	0	-50
Spain	9.6	10.7	4.8	12	-50
UK	21.9	26.3	13.1	20	-40
France	11.9	15.0	7.1	27	-40
Ireland	11.7	15.2	7.2	30	-38
Canada	17.0	22.7	11.2	34	-34
Germany	15.5	21.7	0.7	41	-31
Austria	15.4	22.3	10.8	45	-30
Switzerland	16.8	24.4	11.9	46	-29
Netherlands	12.8	18.8	9.1	47	-29
Finland	19.0	28.0	14.2	47	-25
Australia	11.2	16.5	8.2	48	-27
Italy	4.1	6.7	2.9	62	-30
Norway	16.2	27.7	14.2	70	-13
Belgium	8.5	15.1	7.3	77	-15
Denmark	15.4	29.1	14.7	89	-5
Sweden	13.6	27.2	13.6	100	0
Mean	14.4	20.6	10.1	47	-29
SD	4.7	6.6	3.5	27	14

<sup>1</sup> Sorted in ascending order by column 4.

Chart 1  
Three Welfare State Dimensions  
(Bubbles show welfare state employment)

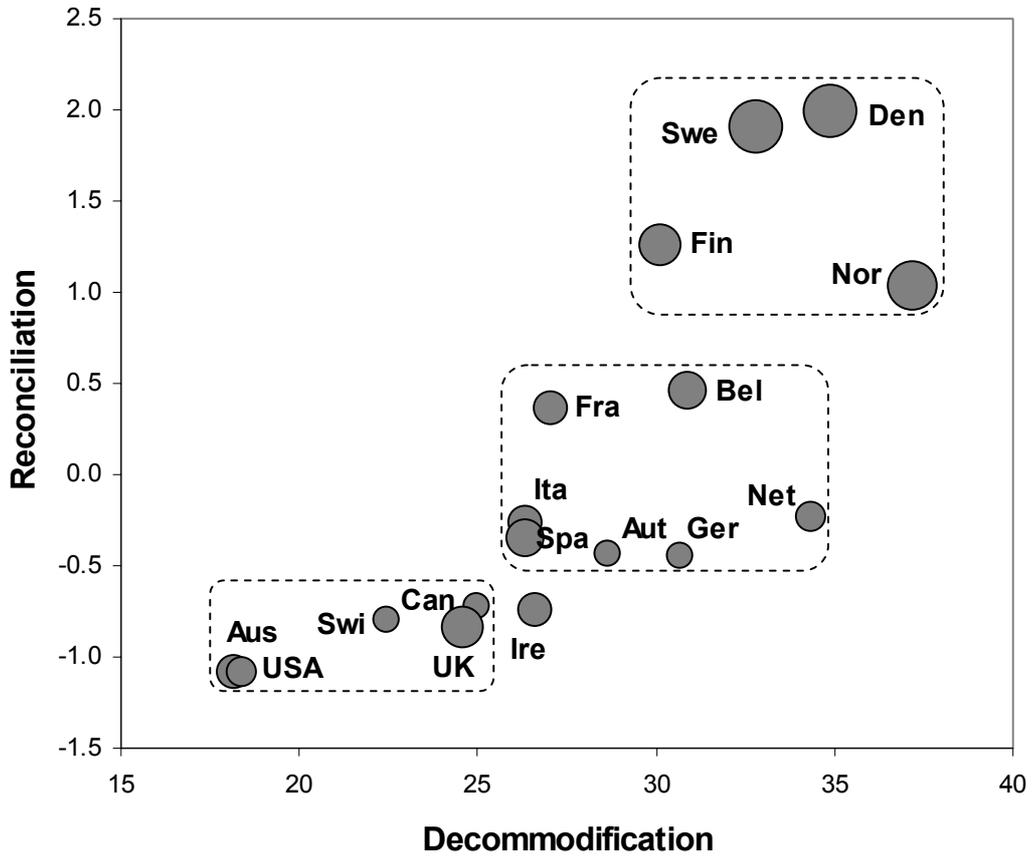


Chart 2  
National Gender Wage Gaps

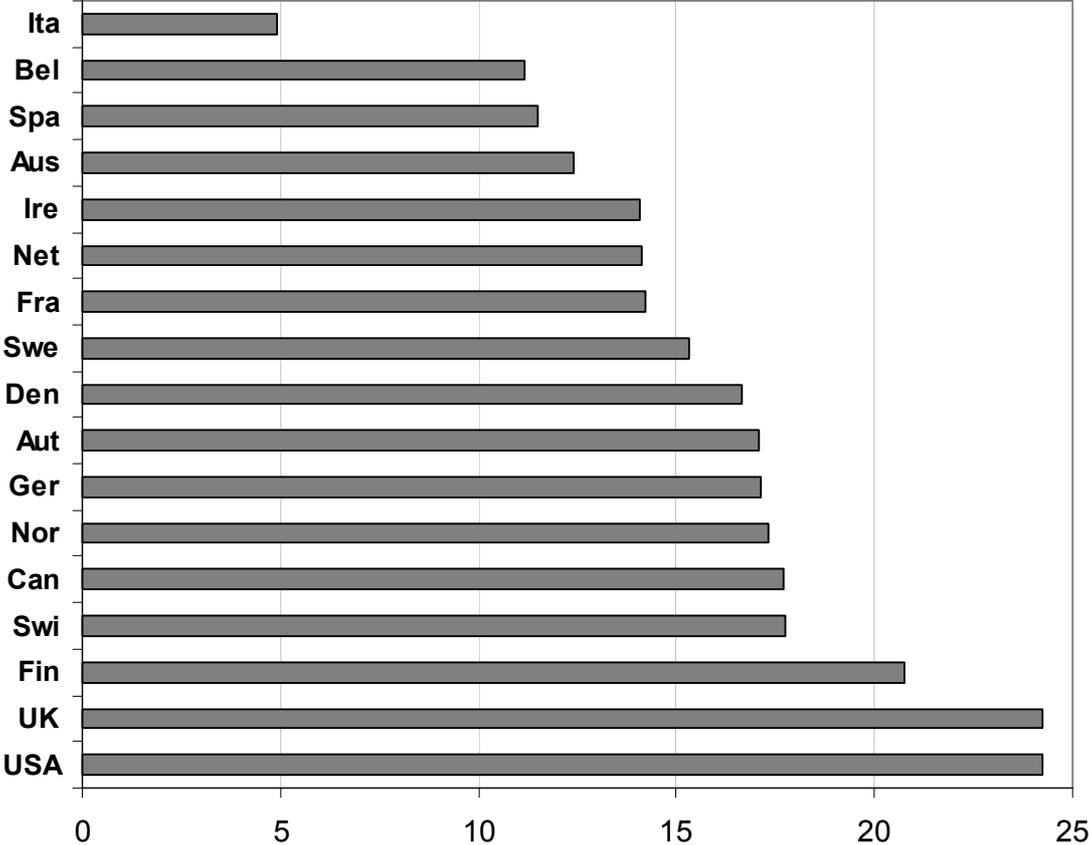


Chart 3  
Women's Representation by Quintile

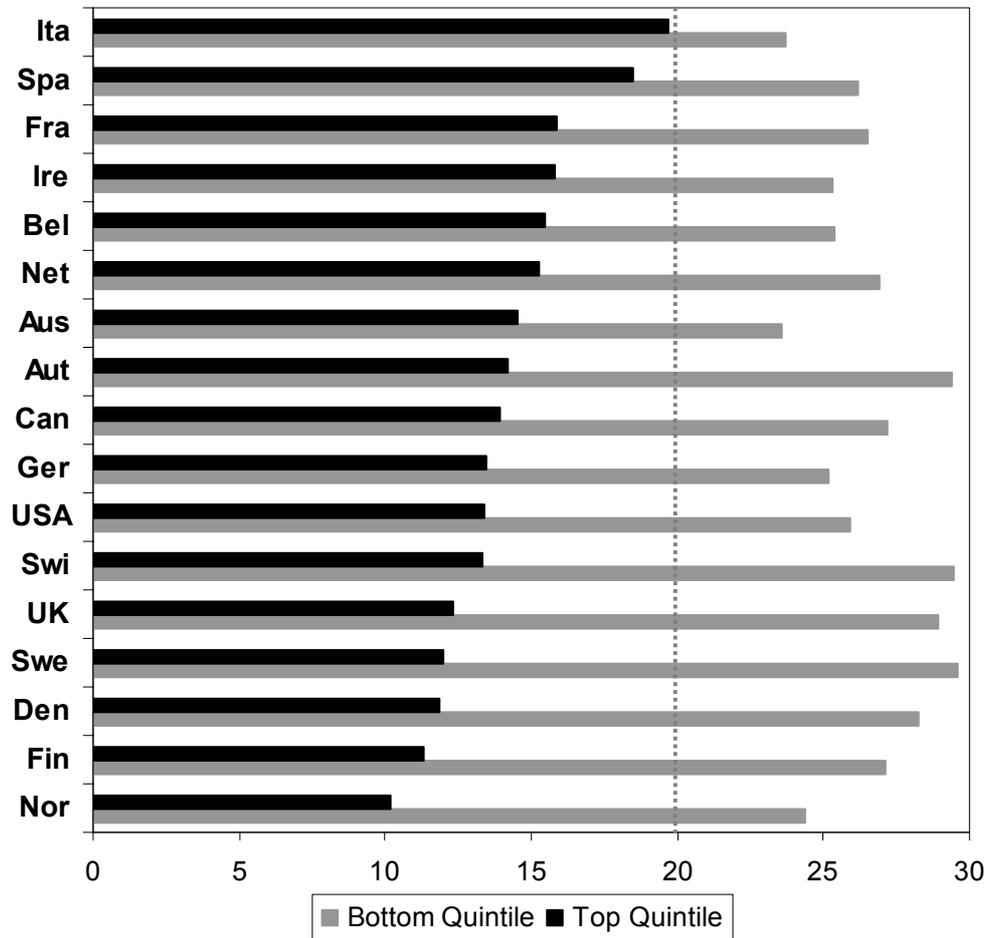


Chart 4  
Decomposition of the Gender Wage Gap

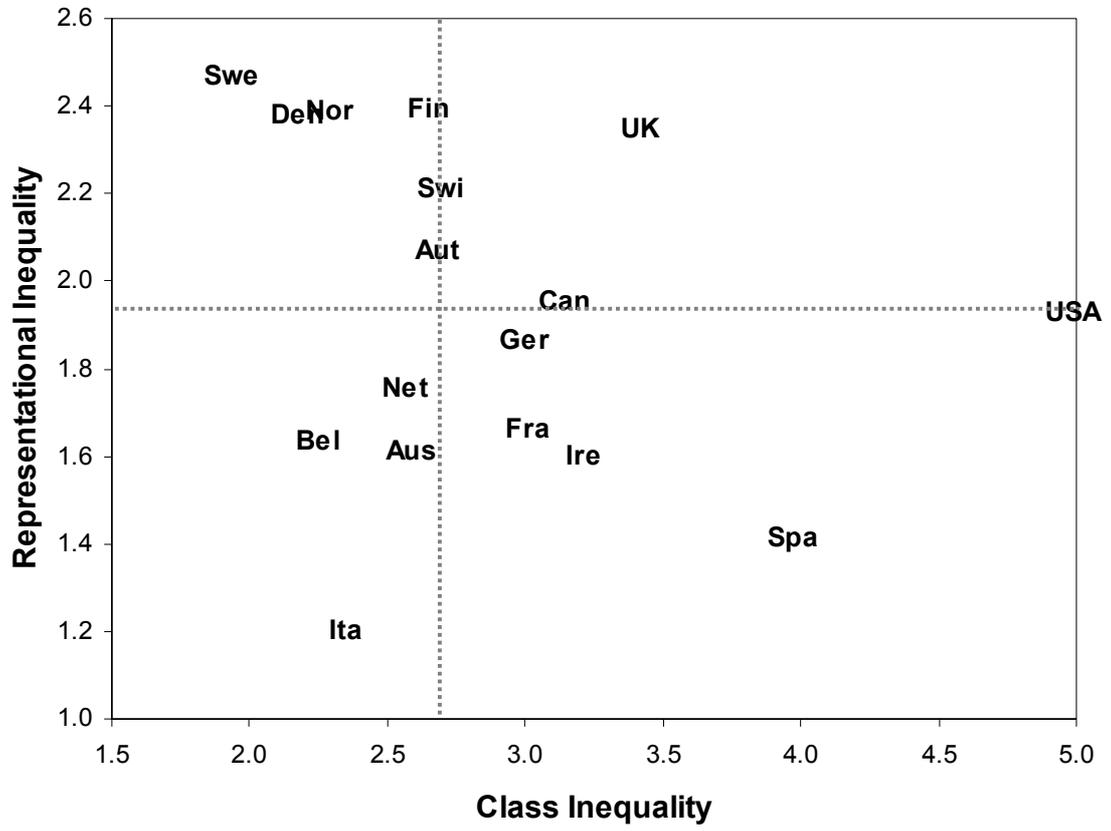
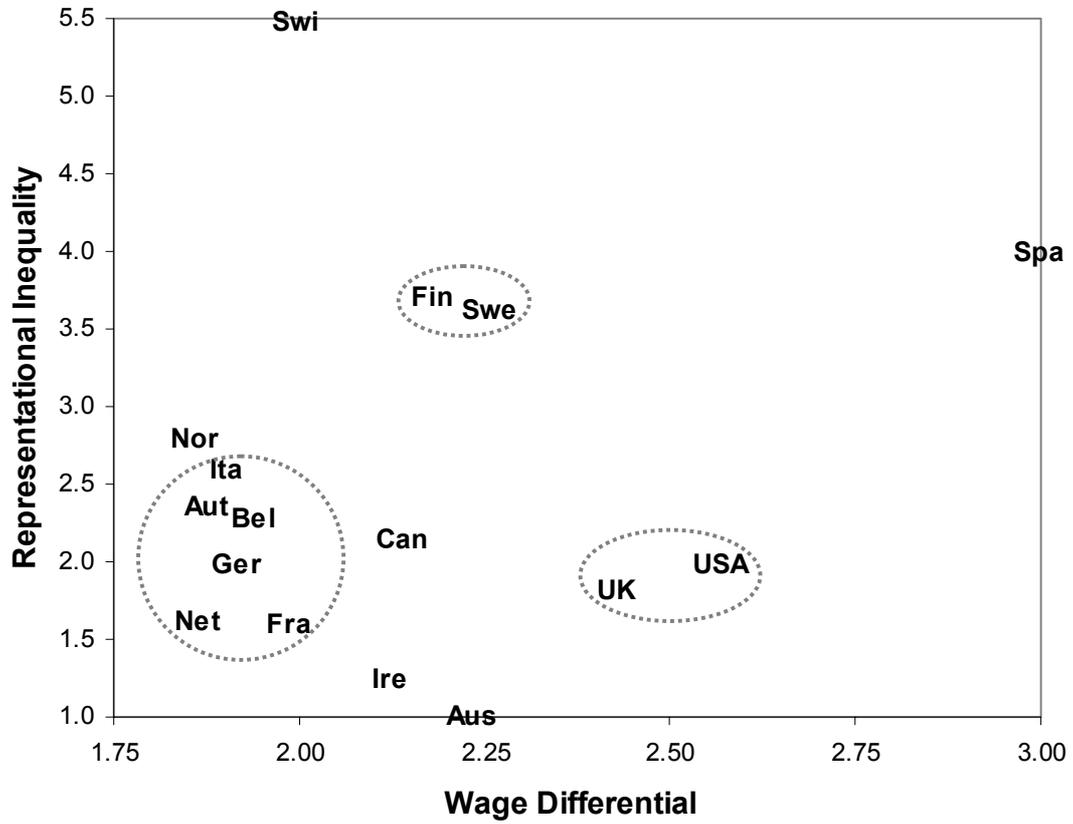
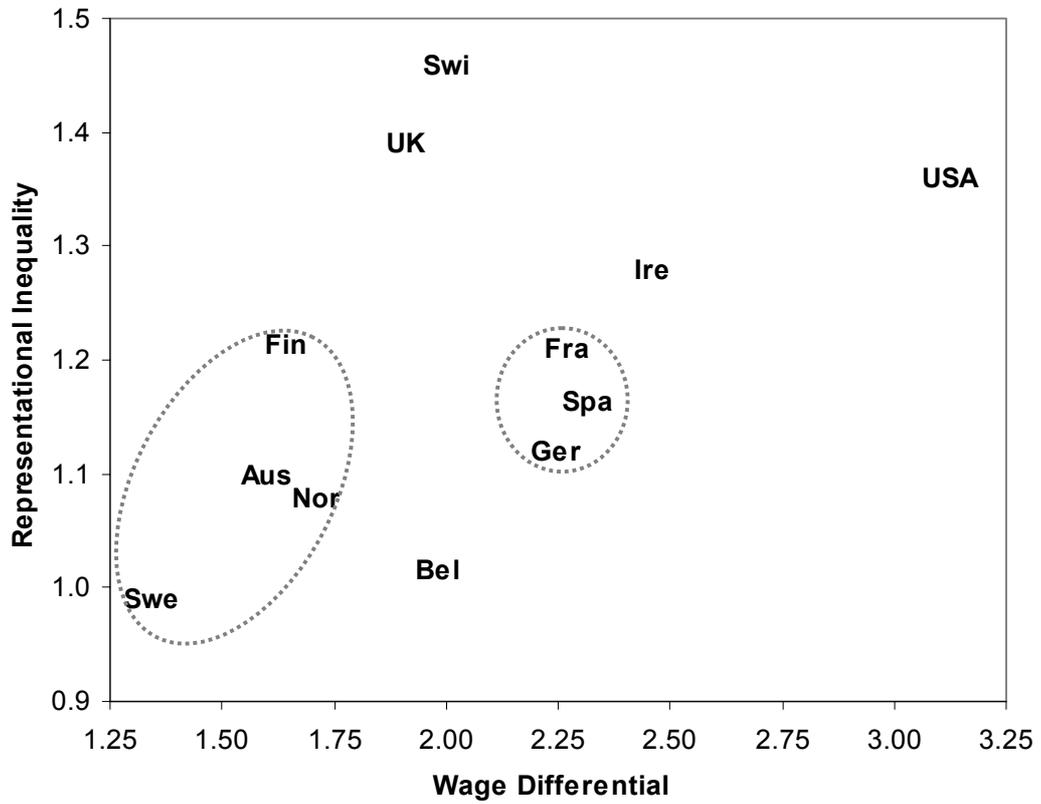


Chart 5  
Two Components of the Gender Gap among Managers



Y AXIS: Ratio of % women in the bottom and top hourly wage tertiles of managers.  
X AXIS: Ratio of the median hourly wage in the top and bottom tertiles of managers.

Chart 6  
Two Components of the Gender Gap among Menials



Y AXIS: Ratio of % women in the bottom and top hourly wage tertiles of menials.

X AXIS: Ratio of the median hourly wage in the top and bottom tertiles of menials.

Appendix 1  
Information on Micro Datasets\*

	Dataset and Year	Effective Sample Size
Australia	HILDA - Household Income & Labour Dynamics, 2000	4,695
Austria	ECHP national panel (LIS), 1994	1,757
Belgium	ECHP national panel (LIS), 2000	2,047
Canada	SLID - Survey of Labor & Income Dynamics (LIS), 2000	22,660
Denmark	Danish Leisure Study, 1993	729
Finland	Income Distribution Survey (LIS), 1991	8,911
France	Household Budget Survey (LIS), 1994	8,279
Germany	German Socioeconomic Panel, 2000 (GSOEP)	8,122
Ireland	ECHP national panel (LIS), 2000	1,768
Italy	IBFI - Bank of Italy Income & Wealth Survey (LIS), 2000	4,920
Netherlands	SEP - Socioeconomic Panel (LIS), 1999	3,483
Norway	Norwegian Level of Living Survey, 1995	1,538
Spain	ECHP national panel (LIS), 2000	3,147
Sweden	LNU - Level of Living Survey, 2000	2,308
Switzerland	SHP - Swiss Household Panel, 1999-2003	2,600
UK	FRS - Family Resources Survey (LIS), 1999	16,424
USA	CPS - Current Population Survey (LIS), 2000	42,650

\* "LIS" denotes that the dataset was harmonized and supplied by the Luxembourg Income Study (<http://www.lisproject.org>) .

## Appendix 2 Calculation of Counterfactual Effects

The Gender Ratio in country  $i$  ( $GR_i$ ) is the female to male wage ratio:

$$GR_i = \frac{F_i}{M_i} \quad (1)$$

where  $M_i$  and  $F_i$  denote the mean wage of males and females respectively in country  $i$ .

Suppose that we divide the population into  $j$  classes. In the present case, where classes are defined according to wage quintiles, the gender-specific mean wages in each class will be very similar and almost equal to the class grand mean. Let  $\bar{X}_{ij}$  denote the grand mean wage of class  $j$  in country  $i$ . Let  $p_{ij}$  be the proportion of males in country  $i$  in class  $j$  (out of all working males in country  $i$ ), and  $q_{ij}$  the respective proportion of females. We can re-express the gender ratio in terms of the class means and proportions:

$$GR_i = \frac{\sum_{j=1}^J q_{ij} \bar{X}_{ij}}{\sum_{j=1}^J p_{ij} \bar{X}_{ij}} \quad (2)$$

The gender ratio between two countries can be attributed to differences in the distribution of the two genders between different classes or to the distribution of wages among classes. To distinguish between the two, we present counterfactual gender ratios that calculate the measure  $GR$  using different distributions of gender or wage. For example, the expected gender ratio in country  $i$  if the gender distribution was as in country 1 is calculated by replacing in Equation 2 the variable proportions  $p_{ij}$  and  $q_{ij}$  with the constant proportions that hold for country 1:

$$GR_i(\text{proportions}_1) = \frac{\sum_{j=1}^J q_{1j} \bar{X}_{ij}}{\sum_{j=1}^J p_{1j} \bar{X}_{ij}} \quad (3)$$

Similarly, the counterfactual gender ratio in country  $i$  if the wage distribution is fixed at that of country 1 is:

$$GR_i(\text{wage}) = \frac{\sum_{j=1}^J q_{ij} \bar{X}_{1j}}{\sum_{j=1}^J p_{ij} \bar{X}_{1j}} \quad (4)$$

Appendix 3  
Intraclass Inequality: Sectoral Effects and Sample Sizes

Country	Managerial Class			Menial Services Class		
	% of women in public sector*	Female public-private wage differential (percentiles)*	No. of cases	% of women in public sector*	Female public-private wage differential (percentiles)*	No. of cases
Australia	29	12.1	445	19	6.9	597
Canada	23	12.5	1,487			
UK			2,539			1,368
USA	17	0.3	4,182	13	6.0	4,733
Finland			600			1,245
Norway	67	-3.6	134	51	11.9	201
Sweden	46	-9.6	119	71	7.1	362
Austria			85			
Belgium			132			95
France	33	6.6	769			722
Germany			266	20	6.0	746
Italy	49	2.9	481			
Netherlands	28	3.2	373			
Spain			80			
Ireland			135	23	6.4	118
Switzerland	28	9.7	225	33	11.8	157

\* UK & Finland missing information on sector. Data not shown for some other countries because there are fewer than 10 cases in one or more sector.