Mind the Gap
Essays on Explanations of Gender Wage Inequality
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Abstract

The gender wage gap is accounted for to a substantial degree by the sex composition of occupations. The present thesis examines the mechanisms that produce this pattern. In particular, the theory of devaluation, currently the most widely accepted sociological explanation, is tested. The empirical findings, reported in three self-contained essays, question this line of explanation. All results are based on Swedish data: the Level of Living surveys (LNU; essays I and II) and administrative labour market registers (essay III).

In Essay I the association between occupational prestige and occupational sex composition is examined. The association is non-linear, with gender mixed occupations having the highest prestige. Further, care work does not have lower prestige than other kinds of work. These results are inconsistent with expectations derived from devaluation theory. The analysis also shows that the wage returns to occupational prestige are lower for women than for men.

Essay II examines why women receive relatively low returns to prestige. Family related factors are shown to be crucial. The gender difference in pay-off to prestige is thus marked among married/cohabiting employees with children but insignificant among singles as well as among childless married/cohabiting women and men. The gender wage gap in high-prestige occupations is largely due to differences between women and men in work characteristics difficult to reconcile with family duties.

In essay III the functional form of the relation between wages and occupational sex composition is investigated. In the cross-section gender mixed occupations have the highest wages. Panel data tend to confirm this pattern: mobility from strongly male or female dominated occupations to more gender mixed occupations is associated with relatively high rates of wage growth. Further, there is a wage premium for care work but a wage penalty for other service work. These findings do not support devaluation theory.
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Introduction

Gender inequality in the labour market, especially women’s lower wages compared with men’s, is a burning issue. In international comparisons Sweden is often portrayed as a country where gender equality is high with a relatively small gender wage gap (Blau and Kahn 2003; OECD 2002). Female labour force participation is almost on a par with male participation. Extensive family policies and an expansion of the service sector have supported women’s employment. Swedish men and women are both economically active but face different conditions in the labour market. Women’s wages are still far behind men’s.

The main topic of this thesis is the wage differential between men and women. In particular, I examine assumptions emanating from the theory of devaluation and use these assumptions to take a careful look at the links between occupational sex composition, occupational prestige and the gender wage gap. The thesis also deals with how the gender wage gap is related to the family context, i.e., if and how men and women are differentially affected in working life by having a family.

Today, much focus, in both research and politics (e.g., SOU 2004:43), has been that the major source of gender inequality is the lower wages for female work (England 1992a; Tam 1997) regardless of the gender of the individual worker. The findings of the present thesis suggest that this statement could be seriously questioned – at least in Sweden. The results from Essay I and Essay III imply that gender-integrated occupations have the highest level of both wages and prestige. Furthermore, the most female dominated occupations (about 85-100 percent female) do not have the lowest wages. Working with care and nurturing has a clear positive effect on both wages and occupational prestige. In contrast, non-care service occupations, in which the proportion of men is much higher than the male share in
care work, are clearly rewarded lower than other occupations (both care and production). The non-linear relationship between wages and occupational sex composition and wages may be specific to Sweden but results based on German data point in a similar direction (Kumlin, et al. 2009). Also, results from Britain show that the wage level is highest in integrated occupations (Hakim 1998).

Too much focus on the wage effect of occupational sex composition means that we fail to spot and further investigate other major reasons behind the lower wages of women. Claiming that devaluation theory accounts for only a small part of the gender wage gap does not imply that there is no gender inequality in the labour market. Indeed, the Swedish labour market is stratified by gender and women seem to suffer in all occupations regardless of sex composition. To understand the wage disadvantages for Swedish women compared with men, other explanations than devaluation theory need to be highlighted and evaluated.

The findings in Essay II indicate that there is a gender wage gap between married/cohabiting men and women with children which grows with occupational prestige. This interaction effect is not present among single men and women or among childless couples. So, to increase our understanding of the gender wage gap, the family context, among other sources, needs to be further investigated. In particular, additional studies are required to take a careful look at the gender wage gap among mothers and fathers to see what family policies can do to diminish the disadvantages for women with children compared with men with children in the labour market.

Explanations of the gender wage gap

The gender wage gap has more explanations and sources than the empirical essays in the present thesis can deal with. Therefore, before summarizing the three empirical essays, I first discuss other explanations and sources of gender inequality in the labour market. Second, I
outline the characteristics of the Swedish labour market and family policies which, to some extent, structure women’s and men’s conditions in working life. In the final section, some empirical analyses concerning the overall gender wage gap in Sweden are performed.

Explanations of gender inequality in the labour market are often divided into supply-side theories, which focus on differences in individual mechanisms (such as choices and preferences), and demand-side theories, which focus on structural constraints in the labour market such as discrimination (Glauber 2007). I follow this line of division in the overview below.

Supply-side explanations

The human capital theory explains women’s lower wages with gender differences in individual characteristics associated with productivity, such as level of education, labour market experience, on-the-job training and other aspects that affect earnings (Becker 1967; Polachek 1995). Thus, the explanation of the gender wage gap is gender differences in productivity. During the 1960s, 1970s and 1980s there were quite large gender differences in human capital. Since then women have improved their human capital, especially education, and today women’s human capital is largely equal to that of men (Asienbrey and Brücker 2008; Blau and Kahn 2007; Waldfogel 1998). However, male and female workers still differ in their individual characteristics. In general, men have more labour market experience and seniority and less part-time employment. Men and women also tend to differ in their fields of study and in the selection of which college courses they participate in (Reskin and Bielby 2005).

In human capital theory there is a distinction between general and firm specific human capital. General human capital refers to general skills and education that are useful to many employers whereas specific human capital means skills achieved on the job, like the ability to know how to use the technology, social contacts, implicit information about the firm and skills to perform a task well etc. (Becker
When starting at a firm, a worker receives on-the-job training and his/her productivity increases concurrently with the improvement in firm specific skills. Firm specific human capital is not transferable to other employers. It is assumed that the more an individual invests in the accumulation of human capital, the higher the returns. How much an individual chooses to invest depends on the costs and benefits of the investments. Because of different life prospects men and women tend to, according to the neoclassical view, differ when it comes to human capital investments (Polachek 2004).

In general, due to a gender division of paid and unpaid work where women do more unpaid work, the lifetime participation rate of women in the labour market is lower than men’s. Accordingly, in a human capital model, the benefits of investments for women are lower compared with men’s due to women’s lower participation rate. Thus, women’s fewer incentives to invest in training leads to lower earnings (Mincer and Polachek 1974; Polachek 2004). The human capital theory also asserts that employees who plan to make an interruption from the labour market will choose occupations with a low depreciation of human capital and high starting wages, while those who do not plan any long interruptions choose occupations with lower starting wages but with a high wage growth for increased human capital. Since women, in general, expect to be out of the labour market for child rearing, they should, according to this assumption, choose jobs with high starting wages ahead of jobs with a high wage growth. However, the support for the idea that the wage depreciation caused by career interruptions should be lower in female dominated occupations compared with male dominated occupations is rather weak (Marini 1989). There is also little support for the assumption that female dominated occupations offer higher starting wages. For instance, England et al. (1988) arrive at the opposite conclusion i.e., that the starting wages in female dominated occupations are lower.

Specific human capital in particular is highlighted as an important source of the gender wage gap. Since women are more likely to experience intermittent labour force participation, they have fewer incentives to invest in specific training (Polachek 2004). Women may
also forgo important on-the-job training while taking time out from working life for child rearing. There are not only gender differences as regards access to on-the-job training at the individual level. Research has also shown that female dominated occupations, in general, offer less specialized human capital than male dominated occupations (Tomaskovic-Devey and Skaggs 2002; Baron et al. 1993) which is a vital cause of the lower pay of occupations dominated by females.

The family division where women ‘choose’ to invest less in the market compared with men is, according to the neoclassical view, based on rational decisions. The family is seen as an economic unit where the family members allocate human capital investment to make the most of both family life and market work. Women tend to invest much of their effort in the non-market and men put their effort mainly in more market-orientated human capital (Becker 1991; Mincer and Polachek 1974). Thus, the division of labour in the household leads to gender differences in the labour market.

It is worth considering whether gender differences in preferences and choices, for example, could be seen as being shaped by norms and structures in society. Thus, gender role socialization makes men and women choose different types of jobs and occupations (see e.g. England 1992; Subic et al. 1989). Polachek (1995, 2004), for instance, asserts that this gender division of labour in the household might be due to societal discrimination where processes in society create different gender roles and social norms which are hard to resist. Both governmental and other social forces have, to some extent, impeded women’s incentives to participate in the labour market through, for instance, tax policies, unavailability of day care or by blocking women from certain male-dominated fields (Polachek 1995; 2004).

Demand-side explanations

Gender differences on the supply side are not the only explanation for gender inequality in the labour market. Women’s disadvantages might also be due to discrimination against women on the demand side. In
the literature, statistical discrimination and taste discrimination are common explanations (Altonji and Blank 1999). Men’s and women’s average investments in human capital or labour force participation are central to statistical discrimination theory. Statistical discrimination theory focuses on the calculations of employers when they, for example, hire, promote or set wages. The principle of statistical discrimination is that employers, to save time and money, treat female employees as a group and make their judgments based on the average productivity of women and not on their individual characteristics. Since employers know that women in general are more likely than men to interrupt their working life, to take parental leave or to reduce their time in paid work, they may be less prone to hire or promote a female worker (compared with a male worker) (Altonji and Blank 1999; England 1992b; Phelps 1972). Employers are perhaps less likely to admit women into jobs that include work characteristics that are difficult to combine with family duties but are of importance for career opportunities and high wages (e.g., a large amount of over-time and many business trips). Furthermore, employers may be less prone to invest in on-the-job training for female workers. It is expensive to replace people in positions that require a high degree of on-the-job training which is why employers are interested in filling these positions with as permanent relationships as possible (Mincer and Jovanovic 1979). Given that women have a higher probability of being absent from work, employers are more prone to allocate women to positions with low turnover costs within a specific occupation (Bielby and Baron 1986).

It has been suggested that statistical discrimination is more common in countries with coordinated market economies (CMEs) (Estévez-Abe 2005). A CME refers to the Varieties of capitalism perspective that distinguishes countries with institutions that encourage long-term employment relations and specific skill investment (CMEs) from countries with liberal market economies (LMEs) where the skills system is more general (Hall and Soskice 2001). In labour markets with a specific skills system, statistical discrimination is more common than in countries with a general skills system. Employers in CME countries are less likely to invest in specific training for female em-
ployees since women in general are more likely to leave work to care for the family. Women have, due to their greater propensity towards intermittent labour force participation, fewer incentives to invest in specific training. Instead women are more likely to invest in general human capital (Polachek 2004).

Another type of discrimination against women (or other groups) is taste discrimination which means that employers, customers or co-workers favour a typical group, or inversely, dislike a special group (Becker 1957; England 1992b). According to this view, employers may be less eager to employ women or to allocate women to a particular type of job unless it is possible to offer these employees (in this case women) lower wages. The preferences might be due to customers objecting to interactions with this disadvantaged group or that employers prefer another group. Another reason might be that male employees, for example, refuse to work with women. Reskin et al. (1999) assert that employers can be openly unwilling to hire a person from a certain group because they find them uncomfortable to work with. Prior research has show that female-owned establishments are more likely to employ women compared with establishments owned by men (Reskin et al. 1999).

The crowding hypothesis is also put forward as an explanation for women’s lower wages. According to this hypothesis, women earn less because they are segregated into low-paying jobs. Employers discriminate against women in hiring processes by shutting them out from ‘men’s work’. Women are crowded into a small number of occupations which results in an over-supply of women. Because of the over-supply of employees the wages in these occupations may be depressed (Bergmann 1974).

Social closure is another process that may lead to gender inequality in the labour market. Occupational closure is a strategy to protect the position of a profession by raising a barrier that restricts other individuals from entering. This strategy increases the rewards of the members of the occupation by keeping supply low relative to demand (Tilly 1998). Social closure persists both within and between occupations to protect the interests of a sub-group. Weeden (2002) shows that
closure processes have a substantial impact on the occupational reward structure. By requiring a specific education or educational level, or by demanding a special license or certification, legal boundaries around occupations strengthen the position of an occupation in the structure. According to the social closure view, gender wage inequality and gender segregation are caused by men who tend to monopolize desirable positions and occupations in the labour market (Tomaskovic-Devey and Skaggs 2002). Women are shut out from higher positions in the organization or allocated to female dominated positions. Kanter (1977) describes a homo social process in organizations (consistency) where the ‘managerial group’ is a closed circle of selected men. She asserts that men in higher positions tend to reproduce themselves to a large extent. To avoid uncertainty, managers largely select subordinates that act like themselves and whom they therefore can trust. Homo social processes are principally strategies to deal with organizational uncertainty. The homo social system does not only shut women out, it also normalizes a certain kind of masculinity in organizations (Collinson and Hearn 2005).

Allocative discrimination refers to gender biases in the processes that allocate men and women to different occupations and jobs and, more importantly, the allocation of women to low-paying occupations. Thus, this discrimination has a lot in common with both social closure and taste discrimination. Petersen and Morgan (1995) explain allocative discrimination as a ‘process [that] may involve discrimination partly through differential access to occupations and establishments, that is, the matching process at the point of hire, and partly through subsequent promotions’ (p. 330). Hence, both the possibility of entering an occupation and job and access to promotion within occupations, differ between men and women.

Advocates of the gendered organizations view assert that organizations are not bureaucratic gender neutral institutions. Instead, organizations are gendered where all actions are gendered and entail a distinction between masculine and feminine (Acker 1990). There are cultural assumptions of men and women which influence and arrange organizational rewards and determine to which positions men and
women are allocated in the organizational structure (Glauber 2008). The real worker, Acker stresses, is a disembodied worker, totally committed to work without any obligations outside work, this ‘abstract worker is actually a man’ (Acker 1990:152). Performing a ‘good’ job forty hours per week in an elite profession is not enough; instead these workers are expected to work between fifty and seventy hours per week, which is only possible for workers with no obligations outside work (Williams 2000). Women are, due to their family obligations, seen as unable to live up to the profile of a disembodied worker. Hence, in this view, stereotypes of female employees as less committed to work than men deprecate their value as employees. Results in Essay II indicate that women suffer a wage gap according to prestige compared to men when they become mothers. This wage gap might largely be attributed to gender differences in the distribution of work characteristics that are difficult to combine with a main responsibility for family duties. These findings could be seen as support for the view of gendered organizations.

Occupational characteristics

Besides gender differentials in human capital and discrimination, much previous research has focused on occupational characteristics to explain women’s lower wages. Research shows that members of male dominated occupations benefit in many ways compared to members of female dominated occupations. Female dominated occupations have lower wages than male dominated occupations even when required qualifications are comparable (England 2005; England and Folbre 2005). This negative correlation between wages and the percentage female employees is documented in many studies from several countries (Kilbourne et al. 1994a; Kilbourne et al. 1994b; Boraas and Rodgers III 2003; England et al. 1988; England 1992b; le Grand 1997; Reid 1998; de Ruijiter et al. 2003).

Studies have shown that differences between male and female dominated occupations regarding authority are one explanation for the
occupational wage difference. Male dominated occupations have to a larger extent positions with supervisory responsibilities (Bihagen and Ohls 2007; Birkelund 1992; England 1992b). Prior research has also found that access to on-the-job training is lower in female dominated occupations which lowers women’s human capital development and reduces wages in female dominated occupations (Tomaskovic-Devey and Skaggs 2002; Baron et al. 1993). The lower pay in female dominated occupations is also due to the fact that these occupations to a large extent are concentrated to the public sector (le Grand et al. 2001; Tam 1997).

Another explanation for the wage differences between male and female dominated occupations is differentials in working conditions, i.e., ‘the compensating differentials idea’ (dating back to Adam Smith; see e.g. R. Smith 1979). According to this view, jobs with unfavourable conditions such as dangerous work or physically strenuous work receive extra compensation (pecuniary rewards) compared with jobs with more comfortable conditions in order for the employer to attract sufficient labour supply (England and Folbre 2005; Jacobs and Steinberg 1990). Female dominated occupations would, according to this view, have more comfortable conditions than male dominated occupations. Related to compensating differentials is the idea of ‘mother-friendly jobs’. In other words, female dominated occupations have working arrangements, such as the possibility to work part-time or flexible hours and other non-pecuniary benefits which make it easier to combine family life with working life but which result in lower wages (even if part-time employment is also often seen as a disadvantage). However, there is weak empirical support for the idea that women’s jobs are more mother-friendly (England 2005; Glass and Camarigg 1992, le Grand 1997). Differences in working conditions across male and female dominated occupations also often fail to account for much of the wage penalty of the female percentage (le Grand 1991; Jacobs and Steinberg 1990; Kilbourne et al. 1994a).

A central theory for the present thesis, as mentioned above, is the theory of devaluation (or comparable worth discrimination). This theory explains pay disparities between male and female dominated oc-
cupations with a cultural devaluation of women’s work. The idea of the devaluation of women’s work rests on the notion that all social roles and skills associated with women are devalued in relation to characteristics associated with men (England 1992; Kilbourne et al. 1994a). Devaluation theory suggests that subjective valuations in society are institutionalized in the wage setting processes. Simply put, skills and working conditions associated with women, either in the form of unpaid or paid work, are devalued relative to job associated with men and this devaluation is institutionalized in the wage setting system. Advocates of comparable worth (‘equal pay for jobs of comparable worth’ see Hill and Killingsworth 1989 p. 1) assert that the labour market has always been gender-biased and this bias affects the wage structure. An example of such gender bias is that even when women were historically active in paid work, women’s wages were set bearing in mind the fact that it was presumed that women were provided for by their fathers, husbands or other male relatives. Thus, men have historically been seen as the main breadwinner and it has been regarded as legitimate to give women lower wages than men (Steinberg 1990). Rubery and Fagan (1994) point out that even ‘new’ pay structures which aim to be gender-neutral have ‘historical roots of sexual division of labour and gender pay differentials are still incorporated within the new system’ (p. 285). Thus, even supposedly gender-neutral pay structures and wage determination rest on a gender-based evaluation of jobs.

Proponents of the comparable worth view have directed attention to gender bias in job evaluations. They stress that skills and job demands in women’s work are often invisible and ascribed fewer points in the job evaluations used in wage setting processes. In particular, they show how skills, effort, responsibilities and working conditions in female jobs have been overlooked in evaluation processes. Thus, working conditions such as emotional stress, handling angry clients, exposure to death and human waste, or exposure to body fluids are often assigned fewer points compared with typically male working conditions such as working out-doors and exposure to ‘dirt’ (England 1992; Steinberg 1990). Kilbourne et al. (1994a) stress that a mecha-
nism in the devaluation of women’s work might be ‘a cognitive error of not seeing how much female dominated occupations contribute to the “bottom line” of profit or other organizational goals’ (p. 695). Hence, decision-makers underestimate the contribution to productivity of female dominated occupations (England 2005). Another possible mechanism of devaluation, according to Kilbourne et al. (1994a), is that the effort (and skills) in women’s jobs are culturally invisible and therefore women’s work is supposed to require less effort than men’s. Proponents of the comparable worth perspective in the US argue that ‘the low pay in female dominated jobs reflects gender-based ascription in job worth’ (de Ruijter and Huffman 2003 p. 313). According to this line of reasoning, wages not only depend on forces in the labour market or economic laws, like in the neoclassical view, but social values and institutional norms are also supposed to affect wage systems (Steinberg 1990). Occupational skills are thus seen as socially constructed while skills in women’s work are often ignored. Hence, because of cultural ideas that devalue women and characteristics associated with females, occupations with a large share of women and female jobs – jobs that involve nurturing or service in face-to-face relations (care work) – are devalued and thus rewarded less (England 1992b; England, Budig and Folbre 2002; England and Folbre 2005; Kilbourne et al. 1994a).

In empirical research, the devaluation theory has almost exclusively been tested by including a variable measuring the percent female in the occupations in the earnings equation. A net negative effect of the percent female in occupations and/or a negative effect of care work on wages are seen as evidence of wage discrimination against female occupations (see e.g. England 1988; Kilbourne et al. 1994a).

Even though findings consistent with devaluation theory are, as mentioned above, documented in many studies (e.g. England 1992b; de Ruijter et al. 2003), the theory has been criticized. For instance Tam (1997) finds, on data from the US, that the wage effect of sex composition is due to occupational differences in specialized training. When taking occupation specific and industry specific human capital into account, the effect of the female percentage is non-significant for
both men and women (See England et al. 2000 for a replay and Tam 2000 for a counter-reply). On the basis of this finding, Tam (1997) asserts that female occupations are not rewarded less than comparable male dominated occupations, but that the allocation of men and women across occupations may be gender-biased, i.e., gender discrimination may still determine what type of occupations men and women end up in. Macpherson and Hirsch (1995) show, using data from the US, that a large part of the effect of the percent female in an occupation disappears when controlling for detailed individual and occupational characteristics. They were not able to find a large direct negative effect of the percent female in the occupations, and emphasize that the percent female in an occupation might, to a large extent, be seen as a proxy for unmeasured skills, preferences and occupational characteristics. Wages in female dominated occupations are low because the level of skills is lower in these occupations. Likewise de Ruijter and Huffman (2003) show, with Dutch data, that wage differences between male dominated and female dominated occupations might largely be explained by individual, occupational and industry characteristics.

Other critics of devaluation theory point out that there are many male dominated occupations which, just like female dominated occupations, have a low wage level. In general, the wage level for both men and women are highest in gender-integrated occupations (Hakim, 1998; 2000). Findings from the present thesis support these results (see Essay III). However, the results in the present study show that female dominated occupations, on average, have lower wages than male dominated occupations. This finding can be seen as supporting devaluation theory. However, it is important to consider that the empirical relationship between sex composition and wages is complex. Not only do gender-integrated occupations have the highest pay, some female dominated occupations also have higher wages than some of the most male dominated occupations. Hence, if measuring the relationship as a linear function the higher wages in integrated occupations and the relatively high wages in many female dominated occupations are concealed. Moreover, as Essays I and III show, care occupa-
tions are not devalued in Sweden since these occupations enjoy higher wages and higher prestige than non-care service and production work.

Occupational gender segregation

Gender inequality in the labour market is largely linked to occupational gender segregation, i.e., men and women to a large extent tend to work in different occupations with different working conditions. A gender-segregated labour market is a persistent and widespread tendency in all Western industrialized countries (Anker 1998; Charles and Grusky 2004).

To understand the gender segregation of occupations it is important to separate two dimensions of segregation: a) horizontal segregation across manual and non-manual occupations where women are over-represented in non-manual occupations and men in manual occupations and b) vertical segregation which refers to the hierarchical order of occupations within the manual and non-manual categories where men tend to occupy highly rewarded occupations in both spheres (Blackburn and Jarman 2005; Charles 2003; Charles and Grusky 2004).

Horizontal gender segregation does not per se imply gender inequality. Men and women can be allocated to different spheres without leading to gender inequality in reward levels, but in practice horizontal segregation tends to accompany gender inequality. Vertical segregation, on the other hand, refers by definition to a hierarchical inequality (Blackburn and Jarman 2005).

Even though occupational gender segregation is a pervasive phenomenon, the sex composition of occupations has changed radically during the 20th century with a resulting decrease in the overall gender segregation (Nermo 2000; Kumlin 2007 for Sweden; Russell et al. 2009 for Ireland; Weeden 2004 for the United States; Brooks et al. 2003 for Canada). Thus, during the latter half of the 20th century, the service sector in many industrial countries expanded and the labour market participation of women increased considerably. As a conse-
quence, women ended up to a large extent in lower non-manual positions in the service sector (Charles 2003). The inroads women made into manual skilled blue-collar work were minor. Thus, the desegregation is much greater in professional and managerial occupations (England 2005). In the case of Sweden, the labour market became considerably more integrated between 1890 and 1990 (Nermo 1999). A recent study from Sweden shows that little has happened between 1990 and 2003 as regards occupational gender segregation (Kumlin 2007).

Data from the US show that during the 1970s the labour market was desegregated and women made significant inroads into the elite and high-earning male professions (Roos 1992; Gatta and Roos 2005). The female share in medicine, law and management has grown substantially (Wright and Jacobs 1994). The trend of an increase of the female share in qualified occupations, such as managers and executives, has been found in other countries as well, for instance Ireland (see Russell et al. 2009). Charles (2003) shows in a cross-national comparison with 10 countries that the vertical segregation is more pronounced in the manual sector than in the non-manual sector in all countries except Japan and the US. In the US the vertical segregation is relatively low in both sectors. Charles’ (2003) results indicate, in line with prior research, that the inroads made by women into professional occupations have been greater than into skilled manual occupations. Ghatta and Roos (2005) find that integrated occupations in the US, in general, have reached gender equity by predominately male occupations becoming integrated.

Research has shown that Scandinavian countries, which have gender egalitarian policies, have a higher overall level of horizontal gender segregation than more gender traditional countries (Charles and Grusky 2004; Charles 2003). Charles and Grusky show in their cross-national comparison from 2004 that Japan and Italy have the lowest segregation score when using the index of dissimilarity \( D \) while Sweden has the highest score. However, when using the index \( A \) (association index) both Japan and Sweden end up nearer the middle position in the sample of countries. Index \( A \) is a margin free index and is thus not affected by country differences in the occupational struc-
Mandel and Semyonov (2005; 2006) argue that gender egalitarian or women-friendly social policies that facilitate the female participation in the labour market may become ‘costly for women’s occupational and economic attainment’ (2005, p. 965) due to the selection of women into low paying occupations. According to Mandel and Semyonov (2005), the expansion of the public sector in Sweden, for example, results in a high female labour force participation rate but also in a selection of women into female-typed service jobs with a high proportion of part-time employment. Thus, a side-effect of the active family-friendly policies aimed at integrating women in the labour market was a gender-segregated labour market (see also Birkeland 1992).

Charles and Grusky’s (2004) explanation for this paradox is that the egalitarianism in these countries is shaped by a ‘different-but-equal’ conception. Gender inequalities of opportunities are not seen as legitimate, but individuals’ understanding of their own and others’ abilities and skills based on traditional essentialist ideas about masculinity and femininity are legitimate. Consequently, since men and women according to the assumption of ‘gender essentialism’ differ in their suitability for different kinds of work, it is legitimate that men and women are active in different spheres in the labour market (Charles and Grusky 2004).

As mentioned above, Scandinavian men and women tend to be concentrated in male and female dominated occupations respectively. In North America, by contrast, occupational segregation is weaker and fading (Estévez-Abe 2006). Estévez-Abe (2006) explains this by claiming that CMEs (coordinated market economies) are generally more gender-biased than LMEs (liberal market economies). Countries with institutions that facilitate long-term employment relations and specific skills investment, like CMEs, exacerbate gender gaps in skills investment, which, in turn, increases gender segregation in the labour market (see above). In CMEs women also tend to be under-
represented in the private sector and in managerial positions (Estévez-Abe 2006).

Gender segregation, however, refers not only to horizontal or vertical segregation between occupations. Gender segregation can also persist within occupations; men and women tend to occupy different hierarchal levels and perform different kind of working tasks within occupations (Groshen 1990). Asienbrey and Brücker (2008) show that, in Germany, the importance of between occupational segregation for the gender wage gap has declined substantially. Instead it is the within occupation segregation that causes the gender wage gap. The lower wages for young women compared with men is not due to a between occupational segregation where women occupy poorly rewarded occupations. Instead the wage penalty for young women is caused by gender differentials in return for human capital to the disadvantage of women. Thus even when women have the same or even better human capital than men their returns are lower.

There might also be a wage discrimination within occupations which refers to a wage inequality between men and women employed in the same job. de Ruijter and Huffman (2003) show, using Dutch data, a wage premium for men compared with women across all sex composition categories, i.e., male-dominated, gender-mixed and female dominated occupations. The wage premium is greatest in male dominated occupations and smallest in female dominated occupations. These wage differences within occupations can not be explained by differences in occupational and individual characteristics. Also Budig (2002) points out a male wage advantage in all sex composition categories in the US.

Gender segregation in the field of study

Women’s enrolment in higher education has increased significantly and in some countries women have a higher educational level than men (Bradely 2000). In Sweden this is certainly true (Statistics Sweden, 2007/2008).
Even though there has been a large increase of women in higher education there are still marked gender differences in educational field (Charles and Bradley 2009). There is an over-representation of women in social science, arts, humanities, law and education whereas men are over-represented in mathematics, engineering and natural science (Bradely 2000; Smyth 2005). Despite the high rate of female employment and active political reforms aimed at increasing gender atypical choices, the female share in traditionally male dominated fields is low (Bradely 2000).

Gender segregation according to field of study has been raised as an important explanation for the gender wage gap. Several studies have shown that gender differences in educational field lead to earnings differentials between men and women (Kalmijn and Van der Lippe 1997; Machin and Puhani 2004). Leuze and Strauss (2009) find important wage differences between graduates of different university subjects. Furthermore, they show that typically female subjects and occupations dominated by women are less valued in the labour market which leads to a gender wage gap between male and female university graduates (Leuze and Strauss 2009).

The family and the gender wage gap

Even though women have increased their labour force participation, the gender division in paid and unpaid work is still strong. Women carry out more household work than men in all countries (Hook, 2006). Gender differences in domestic work lead to gender differences in paid work to women’s disadvantage. It is thus important to consider the family context when analyzing pay disparities between men and women.

In general, men’s work-life reward, especially wages and careers, has been shown to be positively associated with having a family while the reverse is true for women (Correll et al. 2007). Several studies find a male wage premium for marriage (Bardasi and Taylor 2008;
Richardson 1997) while the results for women indicate a wage penalty for having children (Glauber 2007; Waldfogel 1997; 1998). Regnér and Isacsson (2008), for example, find that women lose wages when entering a relationship while men gain. Previous research from the US has indicated a motherhood wage penalty (Budig and England 2001; Glauber 2007). Even after controlling for labour market experience, a direct unexplained negative effect of children remains (Waldfogel 1997). In contrast, Petersen et al. (2007) are not able to find a motherhood penalty using Norwegian data. Instead they emphasize that the gender wage gap is due to a wage premium for men – first for being male and a second premium from marriage and from having children. (See Essay II for a further description of the relationship between family context and wages.)

The Swedish case

The high rate of gender segregation in the Swedish labour market is reflected in the fact that men to a large extent work in the manufacturing industry, while women are largely employed in the public health care industry and social services (Löfström 2004). The public sector has been and still is the dominating employer for women in the Nordic countries, especially for Swedish women (Melkas and Anker, 1998). Gender segregation is also pronounced at the vertical level where women are under-represented in supervisory positions (Hultin 1998) and in occupations with high skill requirements (Charles and Grusky 2004).

In international comparisons the gender wage gap in Sweden is relatively small or medium in size (Blau and Kahn 2003; Gregory 2009). The fairly equal overall wage structure in Sweden is the main reason behind the relatively small wage differences between men and women. A difference in the overall wage structure is an important explanation for cross-country differences in the gender wage. High wage inequality in general tends to increase the gender wage gap.
Wage compression and collective and centralized wage setting systems are associated with a smaller gender wage gap (Blau and Kahn 2003). Sweden has a long tradition of centralized wage setting processes (a ‘solidaric wage policy’) which have held back general wage inequality and thereby also wage inequality between men and women. It has been argued that the trends toward a more individualized wage setting system have decreased the reduction in the overall gender wage gap (Rubery and Fagan 1994).

During the 1980s, the centralized and collective wage agreements in Sweden were largely replaced by negotiations at the industry level. It seems like this structural change led to an increased overall wage inequality (le Grand 1994). From the 1960s to the 1980s, the pay gap decreased substantially between Swedish men and women. Since the 1980s the decline in the gender wage gap has stagnated (le Grand 1994; le Grand et al. 2001). Between 1991 and 2000 the gender wage gap, adjusted for education and experience, increased slightly (le Grand et al. 2001).

Swedish family policies

Sweden is a country with a large welfare system and active policies to help men and women combine work and family (a dual earner family policy model) (Korpi et al. 2009; Meyersson Milgrom and Petersen 2006). One important policy reform for increased gender equality (and labour supply) in Sweden is the individual taxation system that was introduced in 1971. This reform led to stronger incentives for the households to divide the paid work more equally between the spouses. Since 1974 both parents have an equal right to take parental leave. Today, Swedish policies provide parents with extensive paid parental leave (480 paid days in total), possibilities to reduce their working time when their children are small and access to public childcare (Ferrarini 2006). These benefits are offered to both parents but in reality it is women that utilize these possibilities most. Even though gender inequality in Sweden, in general terms, is low there are large differ-
ences within families when it comes to paid and unpaid work. There are large differences in parental leave and part-time work but also in domestic work, especially when men and women become parents (Boye 2008). In general, women take a majority of all parental leave. Currently, according to the National Swedish Social Insurance Board, fathers take in general 22 percent of all parental leave, 67 parental days compared with on average 295 days for mothers. 28 percent of the fathers do not take any parental leave at all. However, the general trend is a slow increase in the fathers’ share. Men with high incomes take more days than other fathers but men in all income classes have increased their share (The National Swedish Social Insurance Board 2008). There are also extensive gender differences in part-time work. Among parents with children under 18, only 5 percent of the fathers worked part-time while a quarter of the mothers did so (Statistics Sweden 2007).

Subsidized childcare is a service that makes it possible for both parents to be active in the labour market and to combine working and family life. This is an important service for parents but does not facilitate careers, least of all for parents in high-paying professional jobs (Petersen et al 2007). Thus, Petersen et al. (2007) stress that these childcare policies make it easier for parents (or in general women) to be gainfully employed but do not in practice make it easier for women to attain higher positions, since these positions usually require availability outside regular working hours. As Essay II in the present thesis shows, there are large gender differences in work characteristics that are important for wage development and career-wise but are hard to combine with family obligations (e.g., availability and working overtime) – work characteristics that are frequent in high-prestige occupations. These results indicate that women with children are disadvantaged when it comes to work characteristics that are of importance for career development.

Gender-egalitarian family policies, like those in Sweden, have been criticized for increasing a gendered labour market where women are trapped in female dominated occupations and with part-time jobs, and for increasing statistical discrimination and for leading to a larger
under-representation of women in supervisory positions (Hakim 2000; Mandel and Semyonov 2005; Meyersson Milgrom and Petersen 2006).

Studies using Swedish data indicate a larger gender wage gap among men and women with a higher level of education than between men and women with a lower level of education (Evertsson et al. 2007; Evertsson et al. 2009). Evertsson et al. (2009) find a divergence between the United States and Sweden in this regard. While the gender wage gap in Sweden is largest among the highly educated, women in the United States have the highest wage parity with men in the highest educational group. Likewise, Albrecht et al. (2003) show, when comparing Sweden with the US, that the gender wage gap in the upper tail is much greater in Sweden than in the United States. They show that the gender wage gap in Sweden increases throughout the wage distribution and is at its highest at the top of the distribution, which they interpret as a significant glass ceiling. However, the wider gender gap among high earners is a fairly general tendency. Arulampalam et al. (2007), for example, find, in a comparison of European countries, a wider gender wage gap at the top of the wage distribution in 9 out of 11 countries. Wright et al. (1995) find, in a cross-national comparison, that the gender differences in authority positions is quite pronounced in Sweden compared with the US and Australia. Since they were not able to conclude that the gender differences in authority might be explained by a range of controls at the individual and occupational level, they suggest that this gender difference is due to direct discrimination against women. However, they did not find any support for a glass ceiling effect. Bihagen and Ohls (2006) find that Swedish women are more disadvantaged at the lower levels of the occupational hierarchy, which contradicts the glass ceiling assumption. Meyersson, Milgrom and Petersen (2006) also find gender differences in authority positions in Sweden. In contrast to Wright et al. (1995), they find support for the glass ceiling hypothesis. They claim that a large part of the gender authority gap is due to gender differences in educational choices.
The findings reported above concerning a relatively large gender wage gap among the highly educated and at the upper end of the wage distribution as well as the gender gap in authority can be seen as support for the criticism against gender-egalitarian family policies. On the other hand, Sweden has one of the highest rates of economically active women. The labour force participation among women with a low level of education is especially great (Korpi et al. 2009). Studies have also shown that the motherhood penalty is lower in dual-earner countries (Korpi et al. 2009). Petersen et al. (2007), for instance, find, using Norwegian data, that women with children receive equal pay compared to childless women for the same work for the same employer. They were not able to show a motherhood penalty at the occupation-establishment level.

The results in the present thesis indicate a positive wage effect of care work (see Essay III). These results contradict the claim that gender-egalitarian countries place women in female-typed occupations with low pay. Women are, obviously, over-represented in female dominated occupations, but care or nurturing work is not especially low paid – at least not in Sweden.

Sweden in comparison with other countries

Table 1 displays some statistics concerning women’s position in the labour market across countries. In Table 1 (column A) we can see that the share of women in paid work is the highest in Scandinavian countries compared with the others. Only Norway and Denmark have as high female employment participation as Sweden. Female labour force participation is lowest in Southern Europe (Italy, Greece and Spain). Compared with other countries the share of Swedish women in part-time employment is rather low (column B). Still, almost 20 percent of employed Swedish women work part-time. Even though the employment rate of Swedish women is high, the share of Swedish women in managerial positions is quite low (column C). Belgium, Germany, France, Italy, Spain, the UK and the US have a higher share
of women in supervisory positions. The fertility rate is fairly high in Sweden maybe partly due to family-friendly welfare policies. In the examined set of countries it is only the US, France, Denmark and Norway that have a higher fertility rate than Sweden (column D).

Looking at the overall gender wage gap (column E) women have lower earnings than men in all countries. The column shows the unadjusted gender wage gap. According to this way of measuring, the wage gap in Sweden (about 16%) is placed in the middle compared with the other countries. Column F indicates the gender wage gap in percentiles controlled for age, education, marital status and weekly working hours. According to this way of measuring, Sweden has the largest gender wage gap together with Denmark, Norway, Germany and the Netherlands.

When it comes to occupational gender segregation, Sweden, in comparison with the other countries, is placed in the upper middle part when using the Association index ($A$). Greece, Italy and the US have lower values on $A$ compared with Sweden. According to findings from Charles and Grusky (2004), Sweden is not much more segregated by sex than other countries. Unfortunately, information from several countries in the table is missing.
<table>
<thead>
<tr>
<th>Country</th>
<th>A*</th>
<th>B**</th>
<th>C**</th>
<th>D ***</th>
<th>E*</th>
<th>F****</th>
<th>G*****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>68</td>
<td>33</td>
<td>32</td>
<td>1.7</td>
<td>10</td>
<td>15</td>
<td>6.1</td>
</tr>
<tr>
<td>Denmark</td>
<td>80</td>
<td>25</td>
<td>25</td>
<td>1.8</td>
<td>12</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>Germany</td>
<td>71</td>
<td>40</td>
<td>38</td>
<td>1.3</td>
<td>25</td>
<td>20</td>
<td>4.5</td>
</tr>
<tr>
<td>France</td>
<td>70</td>
<td>23</td>
<td>37</td>
<td>1.9</td>
<td>15</td>
<td>10</td>
<td>6.1</td>
</tr>
<tr>
<td>Finland</td>
<td>77</td>
<td>15</td>
<td>30</td>
<td>1.7</td>
<td>22</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>53</td>
<td>11</td>
<td>26</td>
<td>1.2</td>
<td>25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>51</td>
<td>29</td>
<td>32</td>
<td>1.3</td>
<td>17</td>
<td>12</td>
<td>3.3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>71</td>
<td>61</td>
<td>26</td>
<td>1.7</td>
<td>25</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>Norway</td>
<td>82</td>
<td>33</td>
<td>30</td>
<td>1.8</td>
<td>-</td>
<td>19</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>51</td>
<td>22</td>
<td>32</td>
<td>1.3</td>
<td>14</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sweden</td>
<td>82</td>
<td>19</td>
<td>30</td>
<td>1.7</td>
<td>16</td>
<td>21</td>
<td>5.5</td>
</tr>
<tr>
<td>U.K.</td>
<td>73</td>
<td>39</td>
<td>35</td>
<td>1.7</td>
<td>25</td>
<td>14</td>
<td>6.3</td>
</tr>
<tr>
<td>U.S.</td>
<td>74</td>
<td>18</td>
<td>43</td>
<td>2.0</td>
<td>26</td>
<td>12</td>
<td>4.4</td>
</tr>
<tr>
<td>Unweighted average</td>
<td>69</td>
<td>28</td>
<td>32</td>
<td>1.6</td>
<td>19</td>
<td>16</td>
<td>5.2</td>
</tr>
</tbody>
</table>


1. The standardized measure is a percentile ranking scale on which individuals are ranked in each country according to their relative earnings on a standardized (percentile) earnings ladder’ (Mandel and Semyonov 2005:955). Measuring the gender wage gap in percentiles is a method to keep overall wage inequality constant across countries.
How much of the gender wage gap does occupational sex composition account for?

A central theme in the present thesis is to examine the relationship between occupational sex composition and wages. Thus, investigating how much of the gender wage gap that might be attributed to occupational sex composition is an important issue. The negative relationship between wages and the female share of occupations has been singled out as a major cause of the gender wage gap.

Below I carry out a decomposition of the gender wage gap to assess the importance of occupational sex composition in accounting for the gap. The model used is known as a Blinder-Oaxaca decomposition (although the basic approach was first suggested by Kitagawa (1955); see Treiman (2009 p. 175). The Blinder-Oaxaca decomposition model is often used when examining a difference between two groups (such as women and men) in a certain outcome variable (such as wages). The model divides outcome differentials into two parts where the first part is ‘attributable to endowments’ (the ‘explained’ part or differences in mean values of the explanatory variables) and the second part is ‘attributable to coefficients’ (the ‘unexplained’ part or differences in returns to explanatory variables) (see e.g. Blinder 1973). The unexplained part also captures the residuals (omitted variables). The present analysis uses individual-level data from the Swedish Level-of-Living Survey (LNU) 2000. (For a further description of these data, see Essay I or II.)
Table 2. Decomposition of the gender wage gap

<table>
<thead>
<tr>
<th>Model</th>
<th>1</th>
<th>2*</th>
<th>3**</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage difference</td>
<td>.173</td>
<td>.173</td>
<td>.173</td>
<td>.173</td>
</tr>
<tr>
<td>Explained:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of control variables</td>
<td>-</td>
<td>.077</td>
<td>.043</td>
<td>.085</td>
</tr>
<tr>
<td>Percent female</td>
<td>.070</td>
<td>.036</td>
<td>.061</td>
<td>-</td>
</tr>
<tr>
<td>Percent of the gender wage gap that is associated with sex composition.</td>
<td><strong>40 %</strong></td>
<td><strong>21 %</strong></td>
<td><strong>35 %</strong></td>
<td><strong>16 %</strong></td>
</tr>
<tr>
<td>Total explained</td>
<td>.070</td>
<td>.113</td>
<td>.104</td>
<td>.085</td>
</tr>
<tr>
<td>Unexplained</td>
<td>.103</td>
<td>.059</td>
<td>.068</td>
<td>.088</td>
</tr>
<tr>
<td>Total explained</td>
<td>2848</td>
<td>2844</td>
<td>2844</td>
<td>2844</td>
</tr>
</tbody>
</table>

* = This model includes control for education, experience, experience squared, educational requirements, informal and formal on-the-job training, autonomy, authority and sector.

** = This model includes control for all variables above apart from sector.

*** = difference in explained proportion between model 2 and 4

Table 2 shows an overall raw gender wage gap of about 17 percent. In model 1, only the percent female in the occupation is included. This model shows that without control for any other variables occupational sex composition accounts for 40 percent (.070/.173) of the gender wage gap. In model 2, when other control variables are included, the explained part of the overall gender wage gap is around 65 percent (.113/.173). Thus, gender differences in the mean value of the variables included account for 65 percent of the wage gap. The remaining part of the gap (35 %) is thus due to gender differences in returns to these variables (plus a residual). When other control variables are included, occupational sex composition accounts for about 21 percent of the gender wage gap. Most of the reduction in the ‘explanatory’ value of percent female by including control variables is due to sector (public-private). When sector is removed from the set of controls, occupational sex composition accounts for 35 % of the gender wage gap (see model 3). The explained part in model 4, including only control variables, is 49 percent (.085/.173). Thus when comparing model 4 with model 2, the explained part increases by about 16 percentage points when the percent female in the occupation is included in the model (.113-.085=.028; .028/.173=16).
The main finding of this analysis is that men’s and women’s allocation to occupations with a different kind of sex composition accounts for a substantial part of the gender wage gap, between 16 and 40 percent depending on model specification. Hence, to evaluate the relationship between wages and sex composition further and to examine the mechanism behind this association is an important task. The three essays below all revolve around this issue.

Measuring prestige

Occupational prestige constitutes a central aspect in the present thesis. Several studies have shown that prestige hierarchies are generally close to constant over time and space (Hauser and Warren 1997; Hout and DiPrete 2004; Treiman 1977). Prestige can be seen as a metric of a structural order of occupations according to their power and control over valued resources and rewards in society. Occupations with high prestige in general are occupations with high skill requirements and entail authority and control over capital (Treiman 1976; 1977). Prestige also reflects an occupation’s ‘value to society’ as perceived by individuals (Hope 1982). ‘Occupational prestige is usually conceptualized in the literature as a matter of collective subjective consensus concerning occupational status’ (Xu and Leffler 1992 p. 379). Occupational prestige can thus be seen as a representation of underlying societal values, and therefore as an important indicator of the general valuation of occupations. Both Essays I and II use Treiman’s Standard International Occupational Prestige Scale (SIOPS) as a measure of prestige. SIOPS is based on 85 prestige studies from 60 countries, including Sweden (for a further description see Treiman 1977). Since the way individuals (and thereby society) value occupations is crucial for the devaluation theory, a prestige scale based on explicit subjective valuations is preferable to other scales typically based on the average level of education and earnings in the occupation (Treiman 1977).
A criticism of SIOPS is that the scale is based on valuations made a long time ago. However, as mentioned above, individual assessments of prestige tend to be quite stable over time. SIOPS has also been criticized for containing an element of gender bias, in that it is mainly based on male dominated occupations (e.g., Jacobs and Powell, 1985). On the other hand, several prestige rankings have been constructed since SIOPS and show a pattern similar to SIOPS even though the female share in these occupations has risen. A recent survey made in Sweden yields similar results; occupational prestige ratings are stable, even though the share of females has increased dramatically during the past decades in several high-prestige occupations, such as medical doctors, veterinarians, psychologists and dentists (Ulfsdotter Eriksson 2006). The concept and measurement of occupational prestige is discussed further in Essay I.
Summaries of the three essays

Essay I  Gender, Occupational Prestige and Wages: A Test of Devaluation Theory

The purpose of the first essay is to evaluate the association between occupational prestige and occupational sex composition and the way it is related to devaluation theory. The basic assumption of devaluation theory is that women are culturally devalued in society. As a consequence, female occupations and tasks are assumed to be less valued than male tasks. A large body of empirical research consistently shows that the proportion of female workers in an occupation has a net negative effect on pay even after individual and other (than sex composition) occupational characteristics are controlled for. There is less documentation in previous research on the relationship between occupational sex composition and occupational prestige.

Prestige scales based on individuals’ valuations of occupations are a more direct way of measuring the social valuation of women’s work than wages. In other words, while prestige is a direct measure of values in society, wages are an indirect measure. By analyzing whether the female share of an occupation or feminine work is negatively associated with occupational prestige, devaluation theory may be more directly tested than when using wages as the outcome variable.

In addition, the article examines whether differences in occupational prestige due to female devaluation can explain part of the previously established wage effect of sex composition. According to devaluation theory, the negative wage effect of having a female dominated occupation or carrying out feminine work should become weaker when controlling for prestige.

In the essay individual-level data from the fifth and most recent wave of the Swedish Level-of-Living Survey (LNU) conducted in 2000 is used. A multiple regression model (OLS) is used to analyse
whether (a) the share of females in occupations is negatively related to occupational prestige, (b) individuals with care or other interpersonal work have lower occupational prestige than other workers, (c) differences in prestige account for a part of the wage effect of occupational sex composition, and (d) women’s wage premium for attained occupational prestige is lower than men’s.

In the essay the measure of prestige is based on Treiman’s Standard International Occupational Prestige Scale (SIOPS). SIOPS is based on national populations’ subjective valuations of occupations from 60 countries which are integrated into an international scale (Treiman 1977). SIOPS is used because the purpose is to investigate whether there exists a cultural devaluation of women’s work, and a measure of occupational prestige generated from people’s subjective evaluation seems better suited for this taste than prestige (or status) measures based on the average level of education and earnings in the occupation.

The empirical analyses on Swedish data show that the association between the proportion females in an occupation and occupational prestige is non-linear; thus the share of female workers in an occupation does not seem to reduce occupational prestige systematically. Mixed occupations (41 to 60 percent female) have the highest prestige. Furthermore, work generally done by women – care work – does not have lower prestige in society. Findings from the analyses also indicate that differences in occupational prestige do not seem to account for any significant part of the relationship between sex composition and wages. When controlling for prestige, the impact of sex composition on wages is unaffected.

Finally, the analyses show that women receive lower wage returns than men for attained occupational prestige. The gender wage gap is largest in the most prestigious occupations.

Taken together, since the female share of an occupation does not have a negative effect on prestige across the entire distribution and as care work has a significantly positive effect on occupational prestige, predictions from the devaluation theory are contradicted.
Essay II  Why is There a Gender Wage Gap According to Occupational Prestige?

An Analysis of the Gender Wage Gap by Occupational Prestige and Family Obligations in Sweden

Essay II starts where Essay I ended. In Essay II the gender difference in pay-off to prestige is further evaluated. By looking at why the gender wage gap is largest in the most prestigious occupations, Sutar and Miller (1973) assert that an extensive part of the gender wage gap might be caused by women getting lower economic returns to prestige than do men. We also know from earlier studies that family status has different outcomes for men and women in the labour market and may account for a vital part of the gender wage gap (Hinze 2000; Polachek 2004). The aim of the essay is to bring these two conclusions from earlier studies together to gain insights into the gender gap in pay-off to prestige. Prior research shows that the effects of having a family on working life differ between men and women. In general, men gain while women lose out. Men receive a wage premium for marriage whereas women suffer a wage penalty for motherhood. Women still perform a major part of the unpaid work in households, despite the fact that women also, almost to the same extent as men, spend their time in paid work.

If women’s family obligations were a major cause of their drawback in the labour market, the negative interaction between women and occupational prestige with regard to wages would be larger for mothers and married/cohabiting women than for single women without children. It is possible that the penalty for women’s family responsibilities is greater in prestigious occupations since such occupations often have more characteristics that collide with family obligations. Prestigious occupations are, compared to occupations with lower prestige, more likely to include high demands on ‘loyalty’ to the organization and constant availability, e.g., working non-agreement overtime, taking part in organizational arrangements outside regular hours, trav-
elling on business, and so on. Hence, Essay II (a) examines whether
the gender gap in pay-off to prestige differs according to family status
and (b) whether gender differences in work characteristics which are
difficult to combine with family duties account for some of the gender
wage gap in returns to occupational prestige.

Individual-level data from the Swedish Level-of-Living Surveys
(Levnadsnivåundersökn ingarna, LNU) from 1991 and 2000 are used.
Separate models are carried out for singles, married/cohabiting child-
less respondents and married/cohabiting respondents with children.

The results show a significant gender difference in pay-off to
prestige for married/cohabiting respondents with children. This in-
teraction between gender and prestige is insignificant among single
men and women, and among married/cohabiting childless respon-
dents. Married or cohabiting women with children thus receive lower
wage rewards for prestige than married or cohabiting men with chil-
dren. When work characteristics that are hard to combine with family
duties are taken into account, the gender wage gap according to occu-
pational prestige narrows considerably.

To summarize, the findings indicate that married/cohabiting
mothers do not receive the same wage compensation for similar occu-
pational prestige as married/cohabitating fathers and this difference is
mainly explained by gender differences in work characteristics that are
complicated to reconcile with family duties. The conclusion is that the
unequal distribution of family obligations between mothers and fa-
thers accounts for a substantial share of the gender gap in the pay-off
to prestige.
Essay III  More Women, Lower Pay?

Occupational Sex Composition, Wages and Wage Growth

Essay III is a straightforward test of the theory of devaluation. The association between wages and sex composition is a well investigated issue. Studies in several countries and at different points in time show a net negative association between wages and the female share of occupations. This negative relationship has frequently been interpreted as an expression of devaluation of women’s work.

This paper outlines two limitations of previous studies and presents an alternative approach to assess the association. One limitation is that few studies have examined the functional form of the relationship between the share of females in occupations and wages. The relationship is typically assumed to be linear and the estimated negative wage effect interpreted as reflecting a devaluation of women’s work. A second limitation is the frequent use of cross-sectional data to test the theory. Such data are not informative of the causal relationship between occupational composition and wages. The theory predicts the causal relationship between wage and the percent female such as wage as a decreasing function of the proportion of female. An increase in the proportion of women should have a negative effect across the entire distribution or at least never have a positive effect on wages.

Essay III furthers our understanding of the devaluation process by studying the functional form more closely in both the cross-section and the panel. The devaluation theory is tested by, firstly, investigating the functional shape of the relationship between occupational sex composition and wages, and, secondly, examining the relationship between the percentage female and wages with panel data from 2001 and 2003. In the panel analysis, mobility across occupational categories that differ in their sex composition is analyzed. According to devaluation theory, moving to an occupation with a larger female share would be negative for the rate of wage growth compared with moving to an occupation with a lower female share. Furthermore, both the cross-sectional and the longitudinal parts of the analysis investigate
whether it is negative to work in (or move to) ‘feminine’ occupations such as care or service work as assumed by devaluation theory.

A large panel data set based on administrative registers from Sweden, including information from 2001 and 2003 on more than 1.5 million employees, is used to accomplish robust controls for levels as well as changes in central individual and occupational characteristics that are possible confounders of the empirical association between occupational sex composition and wages, such as levels and changes in educational attainment and socioeconomic status.

Taken together, the results from both cross-sectional and panel data analyses reveal a non-linear relationship between occupational sex composition and wages, where relatively integrated occupations have the highest wages. Studying the wage pay-offs of people moving across/between occupations with varying sex compositions show that the wage gain, for both genders, tends to be highest when moving from strongly male or female dominated occupations to occupations with a more mixed sex composition.

The cross-sectional data also show a wage premium for working in care occupations for both genders but a wage penalty for working with non-care service. This result is quite surprising since care work is mainly performed by women, while the share of men in non-care service work is higher than in care work. Analyses using panel data also show a wage premium for working in care occupations. For both genders, wage growth is higher for those who worked in care occupations both in 2001 and 2003 compared to working in production in both years.

In conclusion, these findings indicate that, at least in Sweden, the devaluation of female work is not a major cause of women’s disadvantage in the labour market.
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