Gender Bias in Skills and Social Policies: The Varieties of Capitalism Perspective on Sex Segregation

Abstract
This article develops a novel skilled-based theory to explain patterns of occupational segregation by gender in advanced industrial societies. This new approach brings together insights from two critical literatures: the varieties of capitalism literature and feminist studies of welfare states. The central claim is that firm-specific skills discriminate against women, whereas general skills are more gender-neutral. This article thus attributes cross-national variations in occupational segregation to differences in national skill profiles: those countries in which a large number of employers rely on firm-specific skills experience greater degrees of occupational segregation by gender. This work also explores the potential interactive effects of social policy regimes and national skill profiles on occupational segregation by gender.

Introduction
The twentieth century was the century of women’s emancipation. Today, all advanced industrial countries are formally committed to advancing gender parity in many aspects of social life. Nonetheless, occupational segregation by gender still persists in most advanced
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industrial countries: women are less likely to hold positions of responsibility; and they tend to be segregated into “female” occupations. Such sex segregation accounts for the large bulk of the gender wage gap that currently exists (Petersen and Morgan 1995; Grusky and Sørensen 1998). On a closer look, intriguing cross-national patterns of segregation become apparent. This article seeks to explain why such cross-national patterns of occupational segregation exist.

To this end, the article develops a novel skilled-based theory to explain cross-national variations in occupational segregation. The central claim of this theory is that specific skills discriminate against women, whereas general skills are more gender-neutral. This article thus attributes cross-national variations in occupational segregation to differences in skill regimes: those countries containing a larger percentage of employers that rely on specific skills experience greater degrees of occupational segregation by gender.

This work builds on two separate bodies of literature: (1) the literature on gendering the welfare state (hereafter referred to as GWS), and (2) the varieties of capitalism literature (hereafter as VOC). The GWS literature has produced the most vibrant and exciting research on welfare states in recent years. It has identified gender bias in welfare programs, recategorized welfare states from a more gender-sensitive perspective, and identified the impact of the welfare state on the employment patterns of women (Daly 1994; Daly and Rake 2003; Esping-Andersen 1999; Orloff 1993; O’Connor 1993; Sainsbury 1993, 1994, 1999). This article extends the gendering perspective beyond the study of welfare states to analyze the gendered implications of different varieties of capitalism.

The new VOC literature emerged out of interdisciplinary efforts to understand the institutional bases of different production systems in countries such as Germany, Japan, and the United States. David Soskice revitalized the debate with his formulation of two distinct models of capitalism—coordinated market economies (CMEs) and liberal market economies (LMEs). The recent edited volume titled The Varieties of Capitalism summarizes and moves beyond Soskice’s initial ideas to develop a coherent research agenda that focuses on “institutional complementarities” (Hall and Soskice 2001).

To put it succinctly, the VOC literature is based on the premise that countries develop very different types of market economies depending on their institutional endowments. CMEs are richly endowed with institutions that lock in key economic actors into long-term relationships (Hall and Soskice 2001). These long-term relationships enable mutual commitments and cooperation to develop. Mutual commitments and cooperation, in turn, lead economic actors to forego their short-term interests in favor of long-term mutual
gains. Economic actors in CMEs thus often do not act the way neoclassical economics predicts. Countries typically described as CMEs include Austria, Belgium, Denmark, Finland, Germany, Japan, Luxembourg, the Netherlands, Norway, Switzerland, and Sweden. In contrast, LMEs lack those institutions that encourage long-term relations. As a result, economic actors behave as predicted by economics textbooks. Each economic agent acts out of short-term self-interest, even at the expense of long-term mutual gains. In short, the market rules in the world of the LMEs, whereas cooperation rules in the world of the CMEs (Hall and Soskice 2001). Examples of LMEs include Australia, Canada, New Zealand, the United Kingdom, and the United States.3

The central claim of the VOC literature is that long-term mutual commitments, which themselves are made possible by institutions, help overcome market failures. For instance, when institutions promote long-term employment relationships, it becomes possible for employers and employees to introduce a skill formation system otherwise difficult to sustain. Different authors have explored different institutions that make specific skill regimes possible (Culpepper 2003; Estévez-Abe forthcoming; Estévez-Abe et al. 2001; Mares 2003; Thelen 2004). The VOC literature, however, has largely been “sex-blind.” My contribution is to identify the gendered consequences of the key institutions that sustain distinctive models of capitalism.4 To this end, this article draws on the assumptions as the VOC to show (a) that these assumptions presuppose a gendered “male” perspective, and (b) how these assumptions are likely to have different implications for women than for men. In a nutshell, this article argues that those institutions that promote specific—rather than general—skill investments exacerbate gender gaps in skills and lead to sex segregation.

A “gendered” perspective on the varieties of capitalism generates a research agenda that is useful for the disciplines of comparative political economy and women’s studies. The VOC perspective provides an institutional explanation that enriches our understanding of sex segregation. The skill-regime approach developed in this article suggests that women-friendly social policies are likely to have different implications in different skill regimes. A gendered perspective also problematizes the central ordering dichotomy of the VOC literature itself (i.e., CMEs versus LMEs). This article maintains that intracategory differences, which VOC downplays, actually play a decisive role in affecting women’s occupational experience.

The rest of this article is organized in five sections. Section I reviews three families of relevant theories and identifies the unresolved puzzles that this article hopes to solve. Section II presents the
skill-based theory of occupational segregation. Section III discusses the data and measurements used in the empirical section. Section IV assesses the validity of the skill-based theory in the light of the empirical data. Section V, the concluding section, summarizes the findings of this article and discusses potential directions for new research on gender.

I. Unsolved Puzzles

Notwithstanding universal tendencies of sex segregation, a highly counterintuitive cross-national pattern of sex segregation exists (Anker 1998; Charles 1992; Charles and Grusky 2004; Esping-Andersen 1999; Huber and Stephens 2001; Klausen 1999; Melkas and Anker 1997; Rosenfeld and Kalleberg 1992). This counterintuitive pattern is most evident in the case of the Scandinavian countries. These countries—Denmark, Finland, Norway, and Sweden—otherwise known for their success in achieving gender equality, actually show high levels of occupational sex segregation. On some measures of sex segregation, they even underperform Anglo-American countries, which are otherwise notorious for their lack of policy support for working mothers. This is surprising precisely because no other countries in the world are as committed to the advancement of gender equality as Scandinavian countries. Why do Scandinavian countries do worse than others in integrating the two sexes in the labor market? By the same token, why do countries with less support for working women—the Anglo-American countries—also have less sex-segregated labor markets? This section first reviews existing theories of sex segregation; it then shows that these theories leave the Scandinavian puzzle unexplained.

It is important to recognize that sex segregation is a multifaceted and complicated phenomenon that is difficult to aggregate into one single index of sex segregation, such as the often used dissimilarity index (see Hakim, 1992; Charles 2003; Charles and Grusky 1995, 2004). For the sake of simplicity, it would be useful to focus on two kinds of sex segregation: vertical segregation and horizontal segregation. Vertical segregation refers to the underrepresentation of women in high-status occupations, such as managers, and their overrepresentation in low-status occupations, such as clerical jobs. Horizontal segregation, in turn, refers to the underrepresentation of women in manufacturing and craft jobs and their overrepresentation in service sector jobs. Advanced industrial countries vary in terms of vertical and horizontal segregation: some countries are lower (or higher) than others on both dimensions of sex segregation, whereas other countries are higher on one but not the other dimension. So what explains these divergent patterns of sex segregation?
I can identify three families of relevant theories to explain occupational segregation by gender: (a) economic theories, (b) cultural theories, and (c) institutional theories. To these three, I add a fourth hybrid approach (d)—one that blends cultural and structural explanations—developed by Maria Charles and David Grusky (2004). Let me first briefly review them and then consider their limitations in accounting for the cross-national patterns of sex segregation—described earlier in relation to the Scandinavian puzzle.

(a) Labor economists have developed two types of explanations for occupational segregation: human capital theory and statistical discrimination theory. Human capital theory attributes gender segregation to lower levels of education and skills among women. Women invest little in education—and their families invest less in their daughters’ education than their sons’—because women are expected to spend more time at home taking care of their family rather than at work (Becker 1981; Mincer and Polacheck 1974; Mincer 1962). Statistical discrimination theory, in contrast, focuses on (i.e., makes simplifying assumptions about) employers’ behavior (Aigner and Cain 1977; Phelps 1972). Employers avoid hiring women, so it is assumed, because they are more likely than men to quit for family-related reasons (i.e., childrearing and the care of elderly parents). Employers make their hiring decisions on the basis of the higher statistical probability of women quitting. A variant of human capital theory—developed by Polachek (1981)—assumes that occupational segregation results because women, who expect to spend a lot of time outside the labor force, choose occupations that require skills with low “atrophy” rates. The human capital theory and statistical discrimination theory are better suited to explain the mechanism of vertical segregation than horizontal segregation, whereas the atrophy rate–based self-selection of women could, in theory, be applied to both forms of segregation.

(b) Cultural theories—favored by sociologists and some feminist economists—reject the aforementioned economic theories. Feminist economists critique mainstream male economists for taking the gendered division of labor for granted (see England 1982; England and Folbre 2005). Sociologists challenge the assumption of economic rationality as the basis of sex discrimination. Instead, they emphasize the role of nonrational factors such as “employers’ tastes” and “cultural norms.” They recognize various discriminatory practices that arise from company-level personnel management practices and cultural norms about “appropriate” gender roles (Bielby and Baron 1986; Milkman 1986; Reskin and Roos 1990). Other sociologists have looked into the process of socialization that affects women’s career choices (Conway et al. 1996; Correll 2001). Nuanced cultural
explanations should be able to account for the two kinds of sex segregation: horizontal segregation occurs when certain jobs are stereotyped as being either feminine or masculine. Vertical segregation, in turn, occurs because of cultural norms defining authority as a masculine quality. Studies based on cross-national opinion surveys suggest that such attitudinal differences might explain cross-national variations in sex segregation (Inglehart and Norris 2003).

(c) A third approach focuses on institutional contexts. In this camp, one finds a number of scholars who pay attention to laws designed to promote and protect women. Examples of these laws include equal opportunity law and restrictive protection of motherhood—such as the prohibition on women’s night shifts (Chang 2000; Kelly and Dobbin 1999; O’Connor et al. 1999). These institutional factors again might influence both vertical and horizontal segregation. Equal opportunity law might be expected to lead more women into traditionally male high-status occupations. The presence of prohibition on women’s night shifts is likely to keep women out of jobs that require night shifts. Others look at differences in school systems to argue that vocational high schools re-create horizontal segregation by promoting “gender-typed” occupational choices (Charles et al. 2001; Rubery and Fagan 1993).

(d) Charles and Grusky (2004) develop what might be called a hybrid theory of sex segregation. This is a very innovative approach to the Scandinavian puzzle mentioned earlier. Because sex-segregation is a multifaceted phenomenon, these authors tackle vertical and horizontal segregation separately and identify two separate casual mechanisms. The two causal factors are gender egalitarianism and postindustrialism: high levels of gender egalitarianism reduce vertical segregation, but postindustrialism (which entails service sector expansion) increases the horizontal segregation of women into non-manual sectors. I call this a hybrid because Charles and Grusky incorporate a cultural variable (the degree of gender egalitarianism) and a structural variable (the size of the service sector). On the face of it, this explanation might seem to work well for Sweden, which possesses a high degree of (cultural) gender egalitarianism and is a postindustrial society (i.e., it possesses a large service sector).

Each of these theories provides important insights into potential causes of sex segregation. The task here is to evaluate whether the three families of theories of sex segregation explain the actual cross-national variations among advanced industrial societies. Unfortunately, the predictions derived from these theories do not fit the cross-national patterns of sex segregation among advanced industrial countries completely. Although the first three families of theories predict sex segregation to be lowest in Scandinavian countries, the
reality is just the opposite: Scandinavian countries score higher than many others in multiple measures of sex segregation (Anker 1998; Charles 1992; Charles and Grusky 2004; Grusky and Charles 1995; Hakim 1992; Melkas and Anker 1997). Scandinavian countries are much more sex-segregated than countries such as Germany, Japan, the United Kingdom, and the United States (see Charles and Grusky 2004, 27).

Take human capital theory, for instance. When we compare women’s human capital in advanced industrial societies, Scandinavian women do very well. Scandinavian women have surpassed men in terms of their investment in tertiary education; they compare very favorably to women in other countries in terms of their educational attainment.\(^6\) As far as human capital is concerned, therefore, Scandinavian women should look more like men in terms of their occupational distribution. Yet the reality is very different.

Cultural theories do not explain the cross-national variations either. Scandinavians score very high on their commitment to gender egalitarian ideals (Inglehart and Norris 2003). International surveys (such as the World Values Survey) provide empirical support to the conventional wisdom about highly progressive and gender-egalitarian beliefs that Scandinavian citizens embrace. Yet it remains puzzling why such a gender equality–committed people work in one of the most sex-segregated labor markets. If cultural theories were correct, we should not be seeing a more sex-integrated workforce in countries such as Japan, where citizens believe in traditional gender roles. Yet on various measures of sex segregation, Japan looks better than Scandinavia (Charles and Grusky 2004; Hakim 1992; Nermo 2000)!

Institutions such as antidiscrimination regulation and women-specific restrictive labor regulation can potentially account for cross-national differences. Countries with stricter antidiscrimination laws should have more integrated labor markets than those without. Countries that do not impose restrictions on various aspects of women’s work are likely to have more sex-integrated labor markets than those that impose such restrictions. As Chang (2000) shows, Scandinavian countries score very similarly with countries such as Canada and the United States on institutional measures of women-related labor regulations that control women’s work. However, Scandinavian countries possess labor markets that are much more sex-segregated. Although legal reforms can reduce the degree of sex segregation in a given countries, women-related laws per se do not account for the Swedish puzzle posed earlier (Chang 2000). Furthermore, as the GWS literature has identified, Scandinavian countries generally possess social policies that promote women’s work. Everyone
agrees that Scandinavian countries are pioneers in this field. Such policies, however, have not attenuated the level of sex segregation in Scandinavian countries relative to others.

The fact that women-specific institutions do not account for the cross-national variations does not mean that institutions do not matter. In fact, other types of institutions identified by some scholars provide great insights to explain cross-national variations. Thus Charles et al. (2001) and Rubery and Fagan (1993) suggest that the presence of vocational education might exacerbate sex segregation. Charles et al. (2001) compare Switzerland and the United States to show how vocational training for young people in Switzerland exacerbates sex-stereotyped career choices. Rubery and Fagan empirically observe that vocational training programs tend to be more male-dominated. Indeed, vocational training is important in Scandinavian schools. Does this solve the Scandinavian puzzle? The quick answer is no. The presence of vocational training per se does not explain variations among vocationally oriented countries. Scandinavian countries demonstrate much higher levels of female concentration into female-dominated jobs when compared to other countries that are equally committed to vocational training. Thus, despite its great insight, this theory still leaves an important part of the puzzle to be solved.

I turn now to the hybrid theory. Although female concentration into female-dominated occupations does correlate with the size of the service sector as Charles and Grusky suggest, some problems remain. The problem with Charles and Grusky’s argument lies in the absence of a micro-level account of causal mechanisms. Their key variables—gender egalitarianism, and postindustrialism—are themselves complex variables. Charles and Grusky, for instance, use the cross-national variation in the response to one question asked in the World Values Survey as their measure of gender egalitarianism. They choose a survey question that asked respondents whether they agreed with the statement “men should have priority in times of job scarcity.” The World Values Survey, however, actually also asks about a dozen other questions that relate to gender roles, such as notions about the importance of motherhood and stay-at-home mothers. Importantly, countries score differently on “motherhood-related” questions and “male priority in the job market” questions. It is thus likely that these survey questions are addressing different types of gender ideas that are equally relevant to sex segregation. It is also possible, particularly in relation to the “male priority in the job market” question, that responses are shaped by the existing institutional constraints that reward male work more than female work.

Similarly, the second variable, postindustrialism, defined as the size of the service, hides important cross-national variations in the
dynamics of service sector expansion. Although it is true to say that service sector expansion exacerbates horizontal segregation by creating new jobs that predominantly hire women, the size of the service sector itself is often determined by nonmarket decisions. In Scandinavian countries—important because of the aforementioned puzzle—governmental decisions mattered greatly in expanding the service sector. In these countries, the public sector led the service sector expansion (see Esping-Andersen 1990; Huber and Stephens 2001; Iversen and Wren 1998; Klausen 1999). Needless to say, whether female-dominated jobs are secure public sector jobs or precarious jobs in the private sector matters greatly in thinking about the real economic consequences of sex segregation for women.7

This article offers an alternative micro-account of sex segregation—a skill regime–based approach—that pays close attention to institutional contexts.8 In contrast to the aforementioned institutional theories, my approach emphasizes gendered effects of “clusters of institutions” rather than single institutions, such as equal employment law or vocational training. I identify the gender-bias of what I call specific skills as opposed to general skills as the most fruitful way of analyzing the gender bias embedded in different types of capitalist countries.

II. Skills, Gender Bias, and Occupational Segregation

This section lays out the logic of gender bias in skills and discusses how different types of social policy might exacerbate or mitigate it. Before I can discuss gender bias in skills, it is necessary to introduce crucial qualitative differences between different types of skills.

Although political scientists generally speak of a skilled/unskilled dichotomy, differences between skills are more complex. Skills vary in terms of the portability across employers, the locus of training, and the type of training. Following Gary Becker (1964), I can broadly distinguish firm-specific skills and general skills. Firm-specific skills are valued by the current employer; their acquisition relies on on-the-job training (OJT). These specific skills lack portability because outside employers have difficulty evaluating them. As a result, firm-specific skills are limited in portability from one employer to another. Limited portability, in turn, makes it safe for employers to provide training for these specific skills. General skills, in contrast, are more portable, because they are useful for a large number of employers. General skills are particularly portable when they are certified in an objectively recognizable form for outside employers (i.e., school diplomas or other forms of vocational certification).
Different degrees of portability translate into different “investment risks.” Because firm-specific skills are most vulnerable to job termination, workers will hesitate to invest in specific skills when there is job uncertainty. Therefore, for workers to invest in specific skills, their investment risks need to be reduced. Institutionalized forms of strong employment protection, for this reason, make greater investments in specific skills possible by changing incentive structure (Estévez-Abe et al. 2001). Similarly, when employers are uncertain whether they can hold onto their workers due to market volatility, they will hesitate to invest in their workers’ human capital. Institutions that enable employers to retain their workers during economic downturns also increase specific skill investments (Estévez-Abe et al. 2001). Generous levels of unemployment benefits, for instance, make it relatively safe for workers to invest in the craft skills. These benefits will also enable employers to rehire their redundant skilled workers when the demand goes down and to rehire them later.

Obviously, educational systems influence decisions over skills. School systems in some countries offer vocational tracks, whereas others do not; in some countries, there are more universities than others. These institutional differences affect the parameters of individual decisions. It should be emphasized here that I understand skills as something that are institutionally embedded as emphasized in the VOC literature (see Culpepper 2003; Finegold and Soskice 1988; Maurice et al. 1986; Soskice 1991; Streeck 1992).

Given the institutionally embedded nature of skills, individual actors, regardless of their own preferences, must operate within the constraints of their national institutions. National institutional frameworks hence influence the calculations and expectations of both employers and workers. CMEs are rich in institutions that make long-term mutual commitments between employers and workers credible. CMEs generally possess much stronger employment protection legislation and more generous unemployment benefits, which make specific skill investments more viable. LMEs, in contrast, precisely lack those institutions. As a result, workers and employers are less capable of investing in specific skills when compared to CMEs. In many CMEs, close cooperation between unions and employers sustain a robust vocational training in secondary schools. In CMEs, students see more future in specific skill investments thanks to stronger social protection that exists in these countries.

As will become clear in the following sections, the kernel of my skill-based theory is that specific skills—as opposed to general skills—are more biased against women. It follows from this that those national institutions that promote investments in gender-biased skills are a mechanism that perpetuates sex segregation. In other
words, CMEs are more likely to be sex-segregating. The following section elaborates on the logic of the gender bias of skill regimes.

**Gender Bias of Skills**

Women are different from men because they are more likely than men to interrupt their work life in order to tend to their family’s needs. For this reason, the types of skills they acquire and how they acquire them have different implications for women than for men. Firm-specific skills are biased against women the most. The limited portability of firm-specific skills makes such skills unattractive for women who plan to interrupt their career to raise a family. A woman’s potentially short tenure at the same firm reduces the return on her skill investments every time she exits and reenters the labor force. Moreover, the critical skill acquisition period often coincides with a woman’s childbearing years. Work discontinuity early in one’s career can jeopardize the process of firm-specific skill acquisition.

Even when individual women are determined to put their careers first, they still face problems because of employers’ fear that women are more likely than men to quit. Because employers have to pay for the cost of recruiting and training of new workers, they are sensitive to their turnover rate. As the labor economic theory of statistical discrimination suggests, this can occur independently of whether a particular female job applicant plans to have a family or not. When employers value firm-specific skills, they have greater incentives to discriminate against women when hiring to minimize the loss of their search and training costs. Firm-specific skills thus exacerbate the gravity of statistical discrimination. Such discrimination both denies women their chance to acquire firm-specific skills and creates a gender gap in human capital, which combine to yield occupational segregation.

General skills, in contrast, are more gender-neutral. Because general skills have a high degree of portability, employees—not employers—are likely to make the investments on their own. General skills that come with authoritative certification are most suited to women’s needs. Such skills require that women enroll in school programs or take certification exams. Most certified general education—including high school diploma, BA, MBA, and a license to practice medicine or law—fall into this category. Women can pursue such qualifications independently of employers’ calculations. When job qualifications are based on skills acquired at school rather than firm-specific skills accumulated through OJT, women will have a better chance in moving up the occupational hierarchy (see Estévez-Abe and Dubin 2003).

Let me consider other kinds of school-based vocational training. In many countries, young students are sorted into general and vocational
tracks at the secondary school level. Typically, students who proceed to vocational tracks go into the labor market on completing their vocational education, whereas students in general education track have a choice to continue onto higher education if they pass the qualifying examinations (e.g., the British A-levels, the French baccalauréate, and the German Abitur). Some countries rely on apprenticeships as part of the formal vocational training. Apprenticeships are likely to be more gender-segregating than school-based training, because employers who take in apprentices have an interest in making sure that apprentices complete the contract (and in many cases stay on to work for more years). Because of greater employer involvement, apprentices—even when they train people in certifiable skills—produce a similar result to what employer-provided firm-specific training does. Employer-provided apprenticeships are thus likely to be more gender-discriminating than school-based vocational training.

In sum, because of their low portability and greater involvement of employers in the skill acquisition process—other things being equal—women are more likely to invest in general skills than in firm-specific skills or other specific vocational crafts. We can thus expect to find fewer women in occupations that require firm-specific skills and other craft-type vocational skills, and, likewise, more women in occupations that require general skill jobs. Other scholars have also noted the sex-segregating effects of vocational schools (Charles et al. 2001; Rubery and Fagan 1993). Although they assume cultural sex stereotyping as a mechanism by which vocational schools sort girls and boys into different fields, my skill-based approach provides an alternative explanation.

Gender Bias of Welfare States

Welfare states enter the story here because they affect the decisions of workers and employers about the skills in which to invest (Estévez-Abe et al. 2001). As already mentioned, general and specific skills carry different degrees of investment risk by virtue of variations in their portability from one employer to another. For both men and women, firm-specific skills are the riskiest. The limited portability of firm-specific skills makes workers extremely vulnerable to potential employment termination, which results in a drastic depreciation of their labor in the external labor market. General skills, on the other hand, minimize the damage from employment termination because separation from the current employer does not lead to any depreciation in the value of general skills. Social protection such as strong employment protection legislation, for instance, can systematically reduce the risk exposure of workers with firm-specific skills. When a third party—the government in this case—enforces such protection,
it sends a strong signal to workers that their investments in specific skills will be safeguarded.

Welfare states can therefore affect national skill profiles by making it safer for workers to make specific skill investments (Estévez-Abe et al. 2001; Mares 2003). However, employment protection from layoffs, for instance, is insufficient to safeguard women’s investments in specific skills. Women face three types of uncertainties that men do not in making career decisions. These are (1) risk of dismissal due to pregnancy and other family-related contingencies, (2) risk of income loss during work interruptions (i.e., childcare), and (3) risks of skill depreciation and missed opportunities for skill formation during these work interruptions. In other words, employment protection per se fails to safeguard women’s investments in specific skills; the same is not true for men.

Institutionalization of safeguards against women-specific risks is thus necessary to level the playing field for women. In the absence of such safeguards, employment protective legislation is likely to widen the gender gap in specific investments, resulting in greater occupational segregation than would otherwise result.

The most important *women-friendly* policies include generous paid maternity and parental leaves and extensive public child care provision. Statutory maternity leave serves as extra employment protection targeted at women to protect them from dismissal risks. It works in this way by prohibiting employers from dismissing pregnant workers. In their strongest forms, statutory maternity and parental leaves guarantee a mother’s return to the job she held before childbirth. Paid (as opposed to unpaid) maternity and parental leaves protect women against loss of income during pregnancy and childcare. Extensive availability of public child care similarly protects women from loss of income due to childcare by enabling mothers to return to work. Child care, however, also protects women from risks of skill depreciation and missed skill acquisition opportunities in ways that even the most generous of paid leaves cannot hope to match. Let me elaborate on the differences between generous paid leaves and child care.

The two types of women-friendly policies discussed so far are likely to interact with skill regimes in different ways. Statutory leaves and public child care provision are both intended to promote women’s employment. They nonetheless differ on a dimension that is critical for women’s human capital development: paid leaves increase women’s time off work, and extensive child care provision reduces it. This means that paid leaves potentially widen the female–male gaps in the number of years worked—unless the government mandates paternity leaves on fathers forcing men to take time off work—whereas
child care provision narrows the gap. In other words, a long, generous paid leave per se does not help women’s skill acquisition of firm-specific skills. On the contrary, time off work during the early years of a woman’s career interrupts and delays her skill acquisition. Extensive provision of child care thus is indispensable for women’s firm-specific skill investments because it enables the continuous work necessary for firm-specific skill acquisition. Employers can also use voluntary time off as a signal of workers’ desire to work. Employers are likely to consider women who take long leaves as uncommitted to their work. The potential signaling effect of long leaves thus can affect all employers regardless of skill regimes.

Furthermore, long, generous paid maternity and parental leaves also incur additional costs to employers in ways that public provision of child care does not. When leaves are long, employers face two options: (1) hire replacement workers or (2) allocate the work to existing employees. In addition to regular hiring and training costs for replacement workers, employers in specific skill regimes encounter additional burdens and problems. In skill regimes that emphasize specific skills, option 1 is difficult. Recall that specific-skill regimes come with very strong employment protection, precisely to enable such skill investments. Strong employment protection legislation typically includes restrictions on the temporary employment contracts necessary for hiring replacement workers. Therefore, option 2 is often the only available solution to employers in specific skill regimes. This choice, however, is not free of problems: the longer the leave, the more difficult is the postleave reintegration into the workforce for two reasons. First, by the time a worker comes back from her leave, other regular workers will have already filled in for her job. Second, in occupations where the pace of technological change is rapid, the cost of retraining can be significant. In these cases, cost-conscious private sector employers are likely to be more averse to hiring women in the first place. Long paid leaves can affect employers in general skill countries in the same way, although less acutely so, because hiring replacement workers is easier. Long paid leaves are thus likely to depress demand for female labor in private sector in CMEs that rely on specific skills.

Public sector employers, however, do not necessarily react in the same way as private sector employers do, because they face a very different set of constraints, both political and financial. A government may uphold gender parity as a policy objective and decide to pay for the additional costs to hire, train, and retrain women. When such a political will is present, even when public sector employers require firm-specific skills, women are not likely to face the same discrimination they face in the private sector. Although public sector
employment can compensate for the sluggish demand for female labor in private sector in CMEs, however, this should come with a price: a bifurcation of male-dominated private sector and female-dominated public sector.

III. Data and Measurements

As shown in a thorough review by Charles and Grusky (2004), measuring occupational segregations by gender is much trickier than it seems. Not only do existing indices of occupational segregation possess different advantages and disadvantages, but comparable data on the occupational breakdown by gender are surprisingly difficult to come by. Although the Organisation for Economic Co-operation and Development (OECD) and the International Labour Organization (ILO) provide occupational breakdown by gender, publicly available statistics only include very broad occupational categories that are not very useful for analysis. Neither the OECD nor ILO provides internationally comparable numbers of, for instance, corporate managers: they use categories so broad that managers are included along with public sector administrators and legislators. Because recruitment and promotion mechanisms in public and private sectors are likely to vary, we need figures that separate private and public sectors.

This article uses the data compiled by Richard Anker at the ILO (Anker 1998). Anker compiled internationally comparable data to examine different types of occupational segregation using detailed unpublished data with cooperation of labor statistics bureaus from the member countries. The European Labour Force Survey is another useful source (see Rubery et al. 1999), even if it is limited to European countries. Because it is crucial for this study to include comparable data for as many LMEs (Australia, Canada, New Zealand, the United Kingdom, and the United States) as possible, Anker’s data, which includes non-European countries, are more useful. The only drawback is that the most recent data point that he provides is 1990. For this reason, I have had to use 1990 as my base year for analysis. This means that all the data used in this article are based on figures for 1990.

As for measuring vertical segregation, I focus on the percentage of women among corporate managers so that I can compare women’s advancement within companies with their advancement in other high status jobs. Again the percentage of women among corporate managers is calculated based on the data provided in Anker (1998). Of all the high-status male jobs, corporate managers are likely to show the difference between CMEs and LMEs most systematically. Although
being a physician or a lawyer follows a similar procedure—that is, school-based training and nationally administered certification exams or licensing—in both CMEs and LMEs, training, recruitment and promotion for corporate managers reflect differences in skill regimes. LMEs value firm-specific skills to a much lesser degree than CMEs, as is evident from their frequent managerial recruitments from external labor markets. Rather than dividing up countries into LMEs and CMEs to compare the group averages of women’s advancement into managerial positions, I focus on specific institutional features and their impact on women’s chances.

As discussed earlier, strong employment protection and, as a consequence, large pools of workers with very long enterprise tenure characterize CMEs (the two variables are highly correlated). I thus use degrees of employment protection and the size of workforce with long enterprise tenure as variables that distinguish between CMEs and LMEs. For measuring the degree of employment protection, I use the OECD index of employment protection legislation, EPL (Nicoletti et al. 1999). For measuring the size of the workforce with long enterprise tenure, I use the percentage of workers with enterprise tenure of twenty or more years reported in OECD Employment Outlook (OECD 1993, 1997). The larger the percentage of workers with long enterprise tenure in a country, the more a country systematically favors firms that use firm-specific skills.

As discussed earlier, sex segregation entails vertical and horizontal segregation. In addition, sex segregation can be caused by women’s concentration into female jobs or men’s concentration into male jobs. Because the skill regime–based approach makes predictions about female and male occupational concentrations, I adopt Richard Anker’s indices of male-dominated occupations (MDOM) and female-dominated occupations (FDOM). MDOM is the percentage of men employed in “male-dominated” occupations, defined as occupations with 80 percent or more of their workforce comprising men; FDOM is the percentage of women employed in “female-dominated” occupations, defined as occupations with 80 percent or more of their workforce comprising women. MDOM and FDOM give us an aggregate sense of gender segregation, while also enabling us to recognize different combinations of the two. Note that MDOM and FDOM may include both components of horizontal and vertical segregation.

To determine which countries possess vocational systems based on apprenticeships, I have relied on country reports from CEDEFOP and OECD where available. For the gender breakdown of general and vocational secondary education, I use UNESCO education data. For the gender breakdown of public and private sector employment,
I use ISSP survey responses (International Social Survey Programme. Work Orientations II. 1997). As for the measures of women-friendly policies, such as paid maternity leaves and public child care provision, I consult the data collected by Janet Gornick.\textsuperscript{22} Data on public sector employment size come from Huber and Stephens (2001, table A.7).

Most of the empirical evidence in the rest of the article relies on simple bivariate analyses and is therefore tentative. I leave the country labels as a way of indicating where specific countries are situated relative to others. Because comparable data were not always available for all variables for the same set of advanced industrial countries, the number of countries used in the figures presented here varies from one figure to another.

IV. Explaining Occupational Segregation: Preliminary Evidence

Let me first summarize the implications of the skill-regime approach for sex segregation.

First, women are more likely than men to invest in general skills when the secondary schools offer multiple tracks, as is the case in many European countries. Given women’s possible job interruption and their concern for skill portability, women are likely to prefer general skills. Apprenticeship-based vocational training is particularly disadvantageous to women for the reasons identified in the previous section.

Second, women are more likely than men to invest in general skills at the secondary school level. Women’s likelihood to invest—willingly or unwillingly—more on general skills is likely to lead to sex segregation, because employers requiring specific skills will tend to hire men. When vocational skills—either acquired at school or through apprenticeship—are required at job entry, one should expect higher values on MDOM. The logic presented in this article also predicts that when large numbers of employers require vocational skills, it is likely to lead to suppressed demand for female labor in the private sector. Because CMEs rely on vocational education at school and their strong employment protection protects male investments in specific skills, demand for female labor is likely to be smaller in CMEs than in LMEs.

Third, countries with strong employment protection legislation facilitate accumulation of firm-specific human capital. Because of the gender bias of firm-specific skills, countries rich in institutions that protect these firm-specific skills will have fewer women in corporate management positions. Because CMEs provide much stronger
employment protection than LMEs, women are more likely to be underrepresented among managers in CMEs than in LMEs.

Fourth, the high costs of hiring and firing workers in many CMEs can be expected to exacerbate the negative consequences of generous parental leaves for women interested in careers in the private sector. Employers will think that even when child care is readily available, generous paid leave will encourage women to take the full term of leave. Ambitious young Scandinavian women, for instance, might therefore encounter obstacles despite high levels of public child care provision in their countries. Public sector expansion can offset some of the hurdles women face in CMEs in the private sector by creating alternative employment opportunities. This alternative, however, is likely to increase sex segregation. Because male-dominated jobs will continue to dominate the private sector, the entry of large number of women into public sector further exacerbates overall sex segregation by increasing female concentration into public sector service jobs.

These implications also help explain some of the unresolved puzzles described earlier in this article. The persistence of sex segregation in gender egalitarian Scandinavian countries can be attributed to the institutional features that make them part of the CME family—that is, strong employment protection and the importance of vocational education. This section presents some preliminary empirical evidence to support these explanations.

Although insights are derived from the VOC literature, which only discusses CMEs and LMEs, the analysis in this section includes what the VOC literature treats as mixed cases (i.e., France and southern European countries). Mixed cases share with CMEs those institutional features of interest to this study. Therefore, by including them in the analysis, we can expand the number of cases. Given the fact that cross-nationally comparable data on sex segregation are so hard to come by, inclusion of mixed cases has its advantages.

**Preliminary Evidence**

Table 1 offers evidence that women are more likely than men to choose general education. Unfortunately, the only UNESCO data that provides gender breakdown on enrollment figures in vocational and general education do not include any of the English-speaking countries. As a result, I do not have data for the LMEs. However, because of the absence of institutions that protect specific skill investments, both men and women tend to invest in general education rather than vocational education in LMEs (table 2). Let us look at the CMEs in table 1—Austria, Denmark, Finland, Germany, Japan, the Netherlands, Norway, Sweden, and Switzerland. I can say that generally, more women choose general education tracks than vocational education.
Table 1. Vocational Education: Percentage of Female Enrollment

<table>
<thead>
<tr>
<th>Country</th>
<th>Female Ratio in Vocational Education</th>
<th>Arts and Religion</th>
<th>Commerce and Service</th>
<th>Health</th>
<th>Craft, Industry and Engineering</th>
<th>Agriculture</th>
<th>Home Economics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>45.4</td>
<td>70.1</td>
<td>99.6</td>
<td>6.3</td>
<td>30.8</td>
<td>96.4</td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>54.9</td>
<td>58.7</td>
<td>63.4</td>
<td>86.5</td>
<td>13.2</td>
<td>42.5</td>
<td>96.1</td>
</tr>
<tr>
<td>Denmark</td>
<td>44.8</td>
<td>62.4</td>
<td>95.7</td>
<td>20.9</td>
<td>38.7</td>
<td>90.3</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>54.3</td>
<td>70.5</td>
<td>91.8</td>
<td>16.5</td>
<td>41.9</td>
<td>97.9</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>45.1</td>
<td>66.7</td>
<td>98.5</td>
<td>13.5</td>
<td>47.1</td>
<td>90.3</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>64.0</td>
<td>80.4</td>
<td>53.2</td>
<td>25.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>43.5</td>
<td>69.9</td>
<td>61.3</td>
<td>11.7</td>
<td>23.8</td>
<td>90.4</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>44.1</td>
<td>53.0</td>
<td>93.9</td>
<td>10.5</td>
<td>30.7</td>
<td>86.9</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>41.8</td>
<td>72.9</td>
<td>59.4</td>
<td>95.1</td>
<td>10.7</td>
<td>36.4</td>
<td>84.7</td>
</tr>
<tr>
<td>Spain</td>
<td>51.2</td>
<td>62.1</td>
<td>68.3</td>
<td>83.5</td>
<td>8.9</td>
<td>22.4</td>
<td>98.6</td>
</tr>
<tr>
<td>Sweden</td>
<td>43.6</td>
<td>66.9</td>
<td>56.6</td>
<td>88.5</td>
<td>14.5</td>
<td>43.4</td>
<td>72.4</td>
</tr>
<tr>
<td>Switzerland</td>
<td>41.2</td>
<td>60.0</td>
<td>65.0</td>
<td>90.4</td>
<td>13.1</td>
<td>29.3</td>
<td>90.8</td>
</tr>
</tbody>
</table>

relative to men: except for in Austria and Finland, fewer women are enrolled in vocational education at secondary schools when compared with men. Moreover, women and men choose very different fields of vocational education. A subject like home economics that is dominated by women is not strictly vocational training, because it does not prepare students for occupations in the market. Thus home economics is better treated as a form of general education.

I now turn to apprenticeships. Based on country reports, Australia, Austria, Germany, and Switzerland are identified as countries that possess formalized apprenticeship programs. In all these countries, women are underrepresented in apprenticeship programs; and most programs are either predominantly male or female. In Australia, the ratio of women to men in apprenticeships and traineeships was one to three in the late 1980s. In Germany, the percentage of women in apprenticeships fluctuated between 35 and 40 percent (CEDEFOP 1991). German apprenticeship programs have always been extremely gender-segregated: when we look at the most popular five programs among

<table>
<thead>
<tr>
<th>Country</th>
<th>Share of Vocational Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>9</td>
</tr>
<tr>
<td>Austria</td>
<td>22</td>
</tr>
<tr>
<td>Canada</td>
<td>5</td>
</tr>
<tr>
<td>Denmark</td>
<td>31</td>
</tr>
<tr>
<td>Finland</td>
<td>32</td>
</tr>
<tr>
<td>France</td>
<td>28</td>
</tr>
<tr>
<td>Germany</td>
<td>34</td>
</tr>
<tr>
<td>Italy</td>
<td>35</td>
</tr>
<tr>
<td>Japan</td>
<td>16</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>43</td>
</tr>
<tr>
<td>Netherlands</td>
<td>7</td>
</tr>
<tr>
<td>New Zealand</td>
<td>7</td>
</tr>
<tr>
<td>Norway</td>
<td>37</td>
</tr>
<tr>
<td>Spain</td>
<td>36</td>
</tr>
<tr>
<td>Sweden</td>
<td>23</td>
</tr>
<tr>
<td>Switzerland</td>
<td>11</td>
</tr>
<tr>
<td>UK</td>
<td>11</td>
</tr>
<tr>
<td>US</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2. Share of Vocational Education (% of Enrollment)

Source: Estévez-Abe et al. (2001), table 4.3.
Note: Female concentration is measured in terms of Anker’s FDOM index (Anker 1998). The data for the public sector employment size come from Huber and Stephens (2001).
men—all of which are craft skills—we find that 98 percent of enrollment is male (CEDEFOP 1991, 1995a). Austria shares very similar patterns with Germany (CEDEFOP 1995b). Interestingly, Australia, the United Kingdom, and New Zealand—categorized as unambiguous LMEs in the VOC literature—also possess informal apprenticeship programs. It is hence important to note that the presence of apprenticeships cuts across the LME–CME divide. Unfortunately, there is no gender breakdown for these informal apprenticeships.

Figure 1 maps countries on two dimensions. The $x$-axis shows how countries are distributed in terms of the concentration of men into MDOM. The $y$-axis compares how countries line up in terms of the concentration of women into FDOM. We expect CMEs to score higher on MDOM than LMEs. Among LMEs, those with apprentice tradition should possess greater levels of MDOM than others. FDOM should be higher in CMEs that offer generous paid leaves and large public sector employment (i.e., Scandinavian countries).

Figure 1 confirms such predictions: countries cluster as expected. One can observe three clusters. The first cluster includes Canada and the United States, showing medium levels of FDOM and low levels of MDOM. The second cluster includes Finland and Sweden, which...
display high levels of both FDOM and MDOM. The third cluster includes most of the rest showing high levels of MDOM but relatively low levels of FDOM.

We can read off from figure 1 that those countries with formal or informal apprenticeships—Australia, Austria, Germany, the United Kingdom, New Zealand, and Switzerland—all form part of the third cluster showing high MDOM but low FDOM. This pattern of clustering seems to indicate that the presence of apprenticeships mostly affects the size of male-dominated occupations but not female-dominated occupations as predicted.

Figure 2 compares two sets of countries—one with heavy investments in vocational skills (Denmark, Germany, Norway, and Sweden) and the other without (Canada, Japan, and the United Kingdom).23 As predicted, vocationally oriented skill regimes appear to suppress demand for female labor in the private sector. All of the countries on the left-hand side of the figure are CMEs. Japan—an unambiguous case of a CME—happens to resemble LMEs in its emphasis on general education in secondary schools (see table 2). The fact that Japan does not provide much vocational education at the secondary education level appears to make a difference in terms of demand for female labor in the private sector.

Now let’s examine whether CMEs underrepresent women in managerial ranks as predicted. Figure 3 shows a correlation between national skill profiles and the representation of women among managers. As expected, the more a country relies on firm-specific kind of skill in managerial recruitment, the fewer the women among managerial

![Figure 2](Image)

Figure 2. Types of National Education System and Private Sector Demand for Female Labor.
ranks. Recall that CMEs offer more institutionalized forms of employment protection that safeguard firm-specific skills. The stronger such protection, the easier for firms to rely on firm-specific skills. In fact, the EPL score and the percentage of workers with very long enterprise tenure are strongly correlated. Although not shown here, a bivariate figure that takes the OECD employment protection index in the x-axis and the percentage of female managers in the y-axis produces a very similar result to figure 3 (see Estévez-Abe et al. 2001). Note that countries such as Austria, Finland, Germany, Luxembourg, and the Netherlands, which differ significantly in terms of women-friendly policies, would demonstrate roughly the same percentages of female managers.

In sum, countries that institutionally support firm-specific skills have higher levels of vertical segregation within firms. (Figure 3 only includes thirteen countries, because of the limitation on the tenure data and the small sample in the Anker’s data.) Anker excludes the United Kingdom, another key LME, for the lack of comparability in the British occupational categories. On other data sets that include
the United Kingdom—the Luxembourg Employment Study and the data published in Charles and Grusky (2004), for instance—uniformly locate the United Kingdom higher than Sweden in terms of the percentage of female managers. The United Kingdom, much like the United States, is one of the countries where the number of workers with long enterprise tenure is smallest.

It should be noted that these results are preliminary. Because countries vary in terms of sectoral composition, the size of managerial ranks and women-friendly policies, a more conclusive empirical test would need to control for all such variations. Let me consider the impact of these three variables.

First, it is possible that the overall size of the service sector might positively affect the number of female managers. Because more women work in service sector, more women are likely to be found among service sector managers. The hypothesized relationship does not, however, appear to hold. According to the OECD data, Australia, Canada, Luxembourg, the Netherlands, Norway, Sweden, the United Kingdom, and the United States all have very similarly sized service sectors, but the ratio of female managers varies enormously in these countries.

Second, it is possible that when there are more managers relative to the overall workforce, more of them are likely to be women. This happens because countries that adopt a more inclusive definition of “managers” end up including many women who would otherwise be excluded in a more exclusive definition of managers. In other words, in countries where the relative size of managerial ranks is large, there is a possibility that the category of managers includes a heterogeneous group with varying degrees of actual authority at work. Controlling for the size of managerial occupation decreases the statistical significance of the correlation reported in figure 3. Nonetheless, the data for corporate managers used by Charles and Grusky (2004), which controls for occupational sizes, appears to support the relationship observed in figure 3. To ensure comparability of occupational categories across countries, however, I await a study that carries out careful in-depth cross-national comparisons.

Third, women-friendly policies are likely to interact with skill regimes in influencing women’s rise into the managerial ranks. Because different kinds of women-friendly policies are likely to have different impacts, it is difficult to determine their effects here. Policies that promote time off work are certainly likely to inhibit women’s advancement into managerial positions in the private sector, especially in CMEs. Yet we cannot determine to what extent public child care provision can mitigate this effect by reducing women’s time off work. Moreover, because private child care provision in some countries may offset deficient public child care—and thus also reduce
women’s time off work—we need to control for it, too. The small sample and the aggregate character of the data used prevent me from fully disentangling all the potential effects here.\textsuperscript{25} Although this article cannot provide conclusive evidence on the suggested effects of generous leaves, existing empirical studies report greater negative effects of long leaves on women’s wage growth in CMEs than in LMEs. High take-up rates of maternity and parental leaves in countries with a very strong job guarantee and generous benefits for long durations seems to stall women’s wage growth in many countries (see Ondrich et al. 2002). Comparative studies report relatively small—and recoverable—negative effects in the United States, where the leave, when available, is very short (Hashimoto et al. 2004). Some studies report more significant negative effects on women’s long-term wage growth in other countries such as Germany, Norway, and Sweden—all of which are CMEs (Ondrich et al. 2002; Ruhm 1998). These findings do not contradict the argument presented in this article.

I now turn to the issue of sex segregation conceived as the concentration of women into female-dominated occupations. This article has shown that vocational training in CMEs reduces demand for female labor in the private sector. High costs of female labor associated with generous paid leaves and/or strong job protection (on return from parental leave) are likely to further suppress demand for women’s labor. Among the CMEs, Scandinavian countries offset the sluggish demand for female labor in the private sector by creating public sector jobs. As predicted, this solution leads to the concentration of women into female jobs. Figure 4 shows a strong correlation between public sector size and the degree of FDOM among CMEs and mixed systems. A similar correlation between public sector employment and FDOM could not be observed for LMEs (data not shown here). Generally, the size of the service sector is correlated with the degree of women’s concentration into female jobs (FDOM). The impact of public sector employment size on FDOM, however, is bigger than the effect of service sector size.

V. Conclusion and Implications for Further Research

This article has introduced a new theoretical perspective with a focus on national skill regimes to explain sex segregation in advanced industrial societies. It shows that national skill regimes can explain some of the dimensions of occupational segregation, such as vertical segregation within companies and horizontal segregation. In countries, where employers value firm-specific skills, women tend not to do so well in moving up the corporate ladder. Countries that
promote specific skill investments have more male-dominated private sectors. In this institutional context, public sector expansion exacerbates sex segregation by creating a female-dominated public sector. General skill regimes are more gender-neutral. When employers provide apprenticeships, it leads to the creation of male-dominated occupations even in otherwise relatively gender-neutral general skill countries.

This skill regime perspective casts a new light onto the debates about sex segregation. Its attention to institutional contexts complements the existing studies of sex segregation that incorporate institutional variables (Chang 2000; Charles 1998; Charles et al. 2001; Rubery and Fagan 1993). In contrast to Rubery and Fagan (1993) and Charles et al. (2001), who argue that vocational training sorts young people into gender-segregated occupational tracks, this article argues that vocational training promotes the concentration of men into male jobs.

The skill regime perspective shows how different paths to postindustrial expansion can affect sex segregation differently. Again, the initial institutional context that supports skill regimes is critical. Although service sector expansion in LMEs does not appear to lead to the concentration of women into female jobs, service sector expansion in CMEs—typically the result of government policy—does. It should be noted that the subset of CMEs that chose to expand public sector employment all shared the same political
configurations—that is, strong social democratic parties (Esping-Andersen 1999; Huber and Stephens 2001; Iversen and Wren 1998; Klausen 1999). In short, preexisting institutional structures and the role of politics are of crucial importance in understanding this aspect of sex segregation.

To reiterate, the skill regime approach presented here emphasizes the power of institutional constraints on behavior. When ordinary people are asked to express their views on gender roles, their responses reflect their material interests as determined by the current institutional constraints. A woman in a CME without good job prospects will adhere to traditional gender roles, not because she believes in male superiority but because of her realistic calculations about what is in her best material interest. Therefore I give more weight to the role of institutions than cultural explanations do.

The skill regime perspective also contributes to the gendering the welfare state debate in two ways. First, it contributes to the ongoing debate about what kind of gender equality different societies ought to pursue. The unintended gendered consequences of strong employment protection suggest that reduction in employment protection is likely to reduce sex segregation in specific skill occupations. Reduction in employment protection, however, exposes families to greater fluctuations in their household income. This potential trade-off calls for further thinking on what policy mix best maximizes gender equality and the material well-being of citizens. Second, the argument presented here also contributes to our understanding of the effects of women-friendly policies. Unfortunately, the evidence provided herein remains inconclusive about the potential interaction of skills and women-friendly social policies. Nonetheless, this article has identified a series of new research questions to be explored in the future.

This article also contributes to the VOC literature by making explicit a systematic gender bias that exists in CMEs. CMEs are more gender biased than LMEs because of their emphasis on firm-specific skill formation and the existence of institutional support, such as employment protection that enables workers’ commitment to such specific investments. This gender bias does not disappear even when a Scandinavian subgroup of CMEs provides generous social policies for working women.

Finally, this article highlights a variation that is at odds with one of the central claims of the VOC literature. Hall and Soskice (2001) suggest that all LMEs possess similar vocational systems and skill regimes. They do so while recognizing that a subgroup of LMEs has long had a tradition of apprenticeships. Because of its preoccupation with the institutional basis of industrial competitiveness, the
VOC literature has tended to downplay institutions deemed irrelevant to competitiveness. For instance, Soskice, while acknowledging the presence of apprenticeships in both Germany and the United Kingdom, discounts the importance of British apprenticeships. Soskice, who is extremely knowledgeable about British educational and training system, concludes that despite the apparent similarities between the United Kingdom and Germany, the United Kingdom resembles the United States rather than Germany in its failure to create an effective (i.e., internationally competitive) vocational training system (Finegold and Soskice 1988; Soskice 1991). Regardless of implications for industrial competitiveness, this article finds that the apprenticeship tradition matters as far as female job entry is concerned.

In short, the gender perspective makes it clear that we are dealing with more than two models of capitalism, CMEs and LMEs. In the former, we see a Scandinavian subgroup consisting of Finland and Sweden; in the latter, we find a subgroup consisting of the United Kingdom, Australia, and New Zealand that is importantly different from the United States and Canada. This difference seems to indicate the importance of a political factor, namely, the strength of labor movement, which the VOC literature downplays. Interestingly, strong unions characterized both the Scandinavian subgroup and the Commonwealth subgroup (Australia, New Zealand, and the United Kingdom). In the Commonwealth countries, strong unions played an important role in the continuation of vocational systems by controlling job entry. Intracategory differences of this sort indicate fruitful directions for future research on the gendered nature of labor markets and its political implications in advanced industrial countries.

NOTES

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3. The VOC literature treats France and Southern European countries as mixed cases and does not have much to say about them.

4. The widely cited Hall and Soskice volume barely mentions women. The only chapter that discusses gendered implications of VOC is the chapter by Estévez-Abe et al. Even then, it is a small section of the chapter that summarizes one of the authors’ work elsewhere (see Estévez-Abe 1999). Other scholars in this school such as Wolfgang Streeck (1992), Ronald Dore (2001), and Masahiko Aoki (1988) have not been interested in gendered consequences of different models of capitalism. The only exceptions are Brinton (1993), Gottfried (2000) and Gottfried and O’Reilly (2002).

5. For a good critique of Polachek, see England (1982).

6. In the age cohort 25–64, women in Denmark, Finland, Norway, and Sweden all surpass men in the percentage of people with at least one tertiary degree. The women’s lead has become bigger and bigger in young cohorts (OECD Education at Glance 2002, table A3.1.c). Along with English-speaking countries, Scandinavian countries are leaders in the proportion of the population that possesses tertiary-level education.

7. See McCall (2001) for an excellent account of different dynamics embedded in service sector expansion (in her term, the new economy). Postindustrialism per se will not tell us much about how women will fare. What kinds of service sector jobs develop have enormous ramifications for both intergender and intragender wage inequalities (see McCall 2002). In some cases, it might be beneficial to segregate women into public sector service jobs that provide better benefits and wages rather than create precarious jobs for both men and women in integrated service jobs in the private sector. What is meant by gender equality hence has to be unpacked (see debates on comparative worth, for instance).

8. Charles (1998) demonstrates the effect of corporatism on sex segregation. Its effect is similar to the effect of CME discussed here, because all corporatist countries are CMEs. This article provides a different micro-level account of why CME or corporatism should have the effects it does.

9. For a very insightful comparative study of Switzerland and the United States on how vocational schools might affect sex segregation, see Charles et al. (2001).

10. Although Gary Becker famously argues that employers bear the cost of firm-specific training while employees pay for their general skill acquisition, as many others have later argued, employers do share the cost of general skill acquisition. As Acemoglu and Pischke (1996, 1999) point out, for instance, under certain institutional settings that reduce turnover, employers can safely invest in general skills. The more asymmetry exists between current employers and outside employers over the skill content of the worker, the more the worker’s skills resemble firm-specific skills, because his or her skills are not easily marketable in the outside labor market. When institutional arrangement reduce labor turnover rates and employers invest in general skills, these skills do possess firm-specific qualities in the sense that outside employers would find it hard to accurately assess the skill of a particular worker. Whether general or firm-specific, the fact that employers rely on OJT makes them value long enterprise tenure and thus be wary of women whose average quit rates are higher.
11. Or alternatively, women will be placed in a different track within the firm from men.
13. Mandating fathers to take paternity leave has been difficult even in Scandinavian countries (see Moss and Deven, 1999, 25–44).
14. Furthermore, countries that offer strong employment protection legislation often also strictly regulate temporary employment, making it difficult for employers to hire replacements. Restrictions of this sort on temporary employment contracts significantly increase the cost to employers of maternity and parental leaves because employers have to maintain a level of employment higher than they otherwise would (to accommodate a certain percentage of female workers to be on leave at any given time).
16. These sources only provide the first digit categories defined by the International Standard Categories of Occupations (ISCO). The first digit category, for instance, lumps both physicians and nurses into the same category as health care professionals and treats legislators, government administrators, and corporate managers in private sector as one category.
17. Although studies that emphasize gender cultural norms are not always concerned with institutional effects, political scientists have been concerned with institutional effects such as electoral rules affecting the extent of female representation in politics (Matland 1993; Matland and Studlar 1996; Reynolds 1999). Note that even when cultural norms are constant, electoral changes can increase or reduce the number of female politicians.
18. Given the fact that the ILO and OECD only publish first digit ISCO data, Anker’s data constitute the best available source for standardized comparison of advanced industrial countries because he uses more detailed two-digit and three-digit level data. He has also screened out countries whose data were not internationally comparable. As far as the percentage of female managers in private sector is concerned, Anker’s data offer the best available source for a comparative study. The Luxembourg Employment Study does private/public breakdowns, yet not only is the number of countries in the data set small but the data come from very different years.
19. He is currently compiling data for the late 1990s. Because some countries have switched from ISCO 68 to ISCO 88, some of the occupational categories will be different for the latest round of international data (personal communication with Richard Anker).
20. Maria Charles and David Grusky (2004), in their highly innovative study, use separate segregation scores for manual and nonmanual jobs. FDOM and MDOM emphasize “concentration” to a greater extent than segregation indices used in Charles and Grusky.
21. There are no systematic statistics on the percentage of workforce who have trained through apprenticeships nor on gender breakdown of apprenticeships. What is available remains sketchy.
23. Gender breakdown for private and public sector jobs is difficult to come by. ISSP data used for this information only generated the two sets of countries shown here. For instance, the ISSP data did not include such breakdown for the United States.

24. Although Anker’s data uses ISCO two-digit data, I used the ISCO one-digit data for control. Because ISCO one-digit category includes a much more heterogeneous group of occupations than do ISCO two-digit data, this control may have reduced the impact of tenure on female managers to a greater extent than a two-digit level control would have.


27. In contrast, the United States moved to a more general education system early on. See Claudia Goldin (2001).

28. Some scholars have noted such intracategory variations within the Anglo-American liberal welfare states as a reaction to Esping-Andersen’s taxonomy (O’Connor et al. 1999).

29. For the role of politics, see Rueda and Pontusson (2000) and Huber and Stephens (2001).

REFERENCES


