PAULA ENGLAND

# Gender Inequality in Labor Markets: The Role of Motherhood and Segregation

## Abstract

*This article provides an overview of gender inequality in labor markets in the United States. I show trends in labor force participation, occupational segregation, and the pay gap. Though my main focus is the United States, I note where similar findings exist for other affluent nations. I explain what we know from past research about the causes of inequality and note the gaps in our knowledge. In broad brush strokes, the sex gap in pay in the United States has two major sources: the segregation of jobs and the effects of women's responsibility for childrearing. My major thesis is that at least in the United States, these two are largely unrelated. That is, the causes of segregation do not seem to be largely about women's mothering responsibilities, and the penalties for motherhood do not appear to flow largely through segregation. This thesis is at odds with much thinking among economists, who have seen segregation as a rational response by employers and employees to gender differences in intermittence of employment. In this economic view, women choose more "mother-friendly" jobs, which maximize their earnings conditional on intermittent and flexible employment but tradeoff on-the-job training, higher earnings, and steeper wage trajectories to do so.*

Summer 2005 Pages 264–288 doi:10.1093/sp/jxi014

## Labor Force Participation

Women's employment has increased dramatically, but scholars are not in agreement about the explanations. Economists attribute rising women's employment to rising wages that increased the opportunity cost of being a homemaker (Bergmann 1986). Demographer Valerie Oppenheimer (1970) points out that this was aided by disproportionate employment growth in the service occupations that had always hired mostly women. Of course, declining fertility has been both cause and explanation of increased employment; but women's employment rates have also increased dramatically even conditional on number and age of children (Cotter et al. 2004; Cohen and Bianchi 1999).

Many sociologists believe that women's increased employment was motivated by the increased need for two paychecks—that is, by a decline in men's real wages. The view that men's wages will negatively affect women's employment is also consistent with what economists call an income effect, in which the more alternative sources of income a family has, the less likely any given member is to be employed. But explaining increased women's employment in terms of a decline in men's wages doesn't fit the evidence very well. In favor of the hypothesis is the fact that, adjusted for inflation, men's wages in the United States are lower today than they were in the early 1970s (Bernhardt et al. 2001), so this has undoubtedly motivated the employment of some wives. Men's earnings are much higher than they were in 1900 or 1950 (even adjusted for changes in the cost of living), but women's employment was much lower then. Indeed, during most of the century, women's employment gains occurred while men's wages were also rising faster than inflation. Moreover, today employment levels are approximately the same for women with high-earning as with low-earning husbands (Jackson 1998, 98), and highly educated women are *more* likely to be employed than women with less education, despite having higher earning husbands (Juhn and Murphy 1997). Thus, women's employment is increasingly explained more by how much they can earn than by how much income husbands provide (Cohen and Bianchi 1999). Once many wives are employed, the increased living standards their paychecks afford create social comparison processes that make other couples perceive a need for comparable income, and this may further increase women's employment. Whatever the explanation, women's employment is firmly entrenched. Figure 1 shows increases by decade from 1950 to 2000. Increases were greatest in the 1970s and 1980s. The trend is flat in the 1990s. (On women's employment in Europe, see van der Lippe and van Dijk 2001).

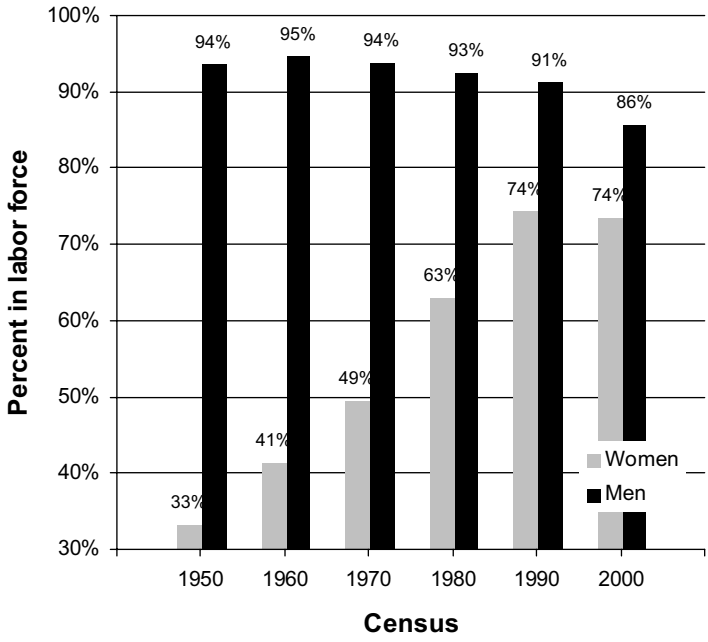


Figure 1. U.S. Labor Force Participation by Gender, 1950–2000.
*Source*: Integrated Public Use Microdata Sample from 1950–2000 Census data. Data include men and women 25–54 years of age. From Cotter et al. (2004).

Less well known is the fact that men's labor force participation is declining, although the magnitude of change here is much smaller than women's increases. The decrease in men's participation results from staying in school longer and retiring earlier, but figure 1 is limited to men age twenty-five to fifty-four, so the declines there are largely from discouraged workers giving up and dropping out of the labor force. Figure 1 maps women's and men's labor force participation together, showing movement toward convergence.

## Occupational Sex Segregation

Jobs are segregated by sex (Reskin 1993; Reskin and Roos 1990). Men predominate in upper management, the most prestigious professions, blue-collar crafts, certain kinds of manufacturing work, transportation, and constructions. Women numerically dominate professions such as nursing, teaching, and librarianship. Nonprofessional but white-collar occupations of clerical and (noncommission) retail sales work are largely done by women, as are manufacturing

jobs in nondurable goods industries (e.g., electronics, garments), and domestic and child care work.

Perhaps surprisingly, the concentration of men and women in sex-typical work does not vary much by race and ethnicity. For example, in 1993 the average percent female of the occupation women held was 65 percent for white women, 66 percent for African American women, and 67 percent for Latinas; these differences are not statistically significant (England et al. 1999, 149). Nor did the difference between the percent female in the occupations held by men differ significantly across the three race/ethnic groups. Thus, although there is substantial race segregation, such that black women and Latinas are often in different, less skilled, and less well-rewarded jobs than white women, the concentration in gendered jobs does not vary much by race.

Sex segregation characterizes jobs in other nations as well. Although there is some variation, Charles and Grusky (2004) show that the broad contours of which jobs men and women dominate are quite similar across affluent nations. (See also Anker 1998 on international comparisons of segregation.)

Figure 2 show trends in occupational sex segregation from 1950 to 2000, using a medium level of detail in occupational categories (N=179) that allows using identical categories for all decades. Segregation is measured with the index of dissimilarity, *D*, which, roughly speaking, tells what percent of either men and women would have to change occupations to render all occupations integrated with the same percent female as the workforce as a whole.[1] *D* decreased in most decades, but the decades of greatest decrease were the 1970s and 1980s; since 1990 declines have been much less steep.

Figure 2 also shows something ignored in most desegregation studies—that desegregation has much greater among those individuals with a college degree. This is because professional and managerial jobs have integrated much more than clerical or blue collar jobs (Cotter et al. 2004; Jacobs 2002). Women have entered male-dominated professions and managerial jobs in large numbers. But women have integrated formerly male blue-collar jobs much less; jobs such as plumber, carpenter, auto assembly, physical laborer have increased their representation very little. Men have entered women's jobs very little at any educational level. Overall, today college graduates work in dramatically less sex-segregated contexts than those at other educational levels.

Debates about what causes and perpetuates segregation often hinge on how much is explained on the supply versus the demand side of labor markets. In my view, both sides of the market are part of the explanation. However, I believe that scholarly literature generally

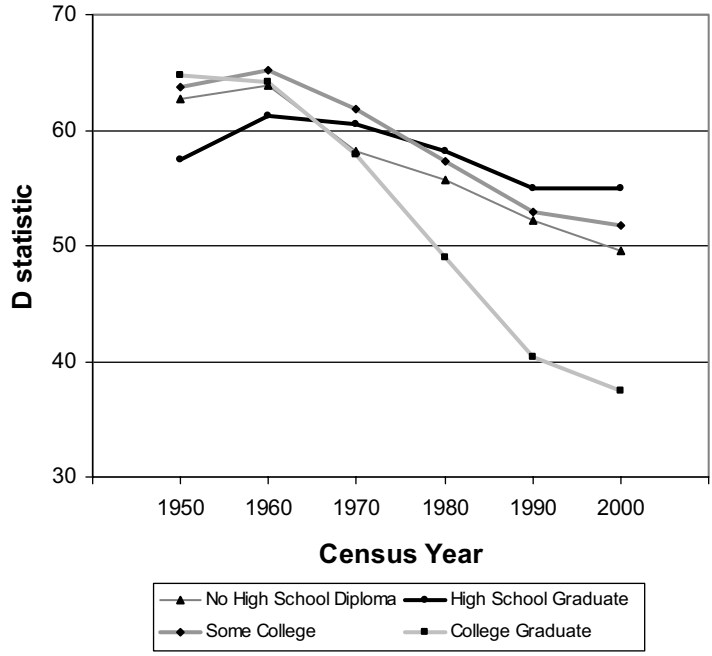


Figure 2. Occupational Segregation by Education, 1950–2000.
*Source*: Integrated Public Use Microdata Sample from 1950–2000 Census data. Data include men and women 25–54 years of age. Segregation is computed using the index of dissimilarity (see text) and using the most detailed occupational categories possible while still keeping consistent categories for all decades (N = 179 occupations). Original calculations provided by David A. Cotter, Joan M. Hermsen, and Reeve Vanneman.

misses the mark on understanding the supply side of the equation. Economists generally embrace a supply-side story that has not been well supported. Most sociologists reject the more sociological supply-side view that emphasizes gendered socialization, despite substantial support for it. Let us examine these two views.

*Socialization*

The simplest socialization thesis posits that cultural transmission creates different preferences, interests, and aspirations in males and females. These lead men and women to train for and apply for different jobs.[2] This view is quite sociological but is nonetheless unpopular among American sociologists of gender. For example, Jacobs (1989, 1999, 2001) argues that socialization is clearly not the whole story, pointing to the instability of many individuals' job aspirations and choices as they move through the life cycle. That is, correlations

between the sex composition of the job aspired to or held at two points in time, though positive, are surprisingly small. He argues that given this instability, some social forces other than early socialization must keep pushing women back into female spheres and males back into male spheres. This view, minimizing the role of socialization, is now popular among sociologists of gender. (For others taking this view, see Aries 1996; Bielby and Bielby 2002; Epstein 1988; Reskin and Roos 1990; Ridgeway and Smith-Lovin 1999.)

Why is socialization theory so unpopular among sociologists of gender? In part it is a fear that socialization seems to blame the victim and can be used against attempts to get employers to stop discriminating. It seems to be saying that women want what they get. (Of course, it is possible that women do want the jobs they choose but wish they were paid more.) Another reason for sociologists not to like socialization theory is their desire to differentiate their turf from that of psychologists. These considerations are extrascientific. However, social psychologists' research on "fundamental attribution error," referring to the tendency of people to explain behavior by characteristics of the person rather than the situation, even when the latter is the operative cause (Aries 1996, 19–20, 193), does provide one scientific reason to think that without constant reminders the other way, most people revert to explanations that exaggerate the role of internalized preferences over immediate social constraints. A final reason for the unpopularity of socialization views comes from the emerging popularity of the "doing gender" perspective. Grounded in ethnomethodology, this perspective emphasizes that gender is something we actively do, not something socialized once and for all (West and Fenstermaker 1993; West and Zimmerman 1983). In this view, women wear women's clothes, care for their families, and choose womanly jobs less because they want to or believe they should (as in an internalized socialization view) or out of fear of reprisals (as in a rational choice view of norms), but because if they don't, their actions will simply not make any sense to others. In this view, each of us is held accountable to make sense to others in terms of gender norms, even if none of us actually prefer or believe in the rightness of the norms. Unfortunately, we have little evidence allowing us to choose between the internalized socialization view and the "doing gender" view. Indeed, much of the evidence offered for the doing gender view seems equally consistent with a notion of internalized (though not entirely unchangeable) values or habits.

Whether it is seen as internalized norms or doing gender, some supply-side mechanism of men and women choosing gendered fields seems at play. The best evidence for this is that males and females aspire to very different jobs from very early ages and choose different

courses of study in school (England and Li 2005; Marini and Brinton 1984; Marini and Fan 1997; Xie and Schauman 2003). Girls and women are more likely to express interest in fields involving helping people, clerical work, and artistic expression. Although the impulse toward care work among women is probably linked in a broad historical sense to ideals of women as mothers, there is little evidence that these fields appeal to girls because they think they will be easier to combine with their own future roles as mothers. The sex composition of women's early occupational aspirations have an effect on the sex composition of the occupation attained (Okamoto and England 1999), although, as Jacobs (1989) notes, these effects are weak. Gender differences in aspirations differences have diminished greatly as women increasingly choose "male" fields of study and jobs. However, the trend toward increasing proportions of women choosing traditionally male college majors stalled out in the 1990s (England and Li 2005).

*Economists' Motherhood-Related Explanations of Segregation*

Economists have attempted to explain segregation with human capital theory. Formal education, one form of human capital, has never been the emphasis in explaining gender inequality, because in the United States, men and women obtain similar amounts of education (although the male distribution has a higher variance). Indeed, in recent cohorts, a higher proportion of women than men has gone to and graduated from college in the United States and most of Europe (Buchman et al. 2004). The question is why men and women getting the same amount of education would choose different fields. At first glance, it is hard to imagine any money-related motive that would lead women to choose "female" occupations, because they pay less (England 1992). Polachek (1981, 1984) argued, however, that women may be optimizing *lifetime* earnings. He argued that differences in men's and women's initial plans for continuity of employment mean that different kinds of jobs optimize lifetime earnings for men and women. Because more women than men plan breaks for childrearing, they choose jobs that have low depreciation of human capital during years away from the job and thus a lower drop in wage when one returns from a stint of home time. Polachek provided evidence for this thesis using broad occupational categories, but subsequent research using more detailed categories has *not* found higher wage drops for time out of employment in traditionally male than female jobs (England 1982, 1984).

A related argument is that jobs offering on-the-job training will, ceteris paribus, have lower starting wages (i.e., employers charge employees for some of their training costs) but steeper wage trajectories

with seniority. If this is true, women planning breaks would choose jobs with higher starting wages but less steep wage trajectories. Men and women planning continuous careers would pick jobs with lower starting pay but steeper trajectories. If this is what is generating segregation, one should find higher starting wages in female jobs (after adjusting for jobs' educational requirements). In fact, however, starting wages are lower in predominantly female jobs, net of other factors (England et al. 1996).[3] Moreover, some recent research finds that more women than men participate in on-the-job training, calling into question that motherhood leads women not to invest in future earning power (Simpson and Stroh 2002 find this for the United States, the United Kingdom, and Australia and do not consider other nations).

Estévez-Abe, in this volume, makes an argument in the spirit of economists motherhood-related supply-side theories of segregation—that women are less likely to choose and employers less likely to admit women into jobs with substantial on-the-job training, because such training increases the cost to the employer of losing a worker. She provides some evidence that economies with more of such jobs have greater segregation, especially in the presence of policies that require employers to grant parenting leaves to new mothers. However, she is not able to test whether women really earn more over the lifetime if they take jobs with more general but less on-the-job training. Given that economists' thesis linking women's mothering responsibilities with selection of jobs that penalize intermittency less than other jobs has not held up well to scrutiny in U.S. micro analyses, I suggest implementing such analyses before concluding that motherhood responsibilities and segregation are linked. On the supply side, my money is on socialization as the more important factor.

*Demand-Side Discrimination in Hiring/Placement*

The other leading explanation of segregation, focusing on the demand side, is that employers treat male and female applicants differently, consciously or unconsciously preferring men for male-traditional jobs (Reskin and Roos 1990; Bergmann 1986). This is undoubtedly part of the story. But despite two decades of research on segregation, we know embarrassingly little about how much of segregation arises because of discrimination by employers. Thus, we know little about whether or how discrimination generating segregation has declined. What we know is that segregation has declined, but that could come from either the supply or demand side or both. The problem is that most research on large samples uses surveys asking people about the jobs they hold, not the jobs for which they applied. A few analyses have begun to use applicant flow data from specific

organizations with mixed results. (See Petersen and Saporta 2004, 865–67 for a review.) We need more of these studies, although access to organizations' applicant flow data is difficult to obtain. We also need more experimental "audit studies" where identically described male and female applicants apply for jobs. One such study documented extensive discrimination against women applying for jobs as waiters in expensive restaurants (Neumark 1996).

What is an employer's motivation for engaging in hiring/placement discrimination that perpetuates segregation? There are two main ideas, paralleling the cultural (socialization) and economic supply-side theories of segregation. One idea is that employers are in the grip of arbitrary, socially constructed notions of what sex is appropriate for what job—owing to the same socialization or gender enactment that makes employees' aspirations gendered. For example, employers of child care workers may believe that only women know how to care for children (and may fear that men who apply are sexual predators). Or they may assume that men are better at construction work and thus prefer men for these jobs. Some employers may think that it is simply unseemly to have women negotiating contracts at out-of-town hotels. Such beliefs would affect hiring in these jobs. These are examples of the socialization of those in power to do hiring affecting segregation. In addition, workers may hold such gendered beliefs. This may lead to some degree of harassment of women in men's jobs. One version of this may be that men may fight to keep women out of "their" jobs because they feel they will lose status of their jobs are "polluted" by too many women. A theoretical model with this theme is developed by economist Claudia Goldin (2002).

Economists deemphasize discrimination because neoclassical theory implies that it should erode in competitive markets. However, there are two types of segregation-encouraging actions of employers that economists do think could have staying power. First are policies that use some hiring criterion other than sex, which gets more productive workers, on average, but has a disparate impact by sex. An example is requiring years of experience when hiring for supervisory positions or preferring those with military flying experience when hiring pilots. Economists do not see such policies as discrimination at all, because they define discrimination in terms of treating equally productive workers differently. But the policies may eliminate more women than men.

The second demand-side view, part of the now well-accepted economics of information, is statistical discrimination. Suppose that recognizable groups (by race or sex) differ in average productivity for some job in ways that is not fully reflected in easily measured things, such as education. Because it is expensive to measure individual

productivity before hiring, employers may use group (race or sex) averages formed by informal or formal data gathering to make predictions about individuals. This is called statistical discrimination. All women are treated like the average woman and all men like the average man (at least within groups with common measured credentials). In economists' thinking, this differential treatment creates only the degree of pay gap between men and women commensurate with the average productivity gap, although individuals atypical for their sex will have job assignments or pay inconsistent with their capabilities (Aigner and Cain 1977; for a sociological view, see Bielby and Baron 1986). Economists see this as one kind of discrimination that may not erode in competitive markets, as it may be profit-maximizing for employers, absent legal enforcement against it.

The motivation for statistical discrimination is the same as the motivation for requiring facially neutral credentials of all kinds (such as years of experience, educational degrees, or scores on a test), and both practices have in common that they involve statistical averaging. In the case of requiring credentials that are facially neutral by gender the goal is to get workers that are on average more productive, using a reasonably cheap screening device, such as credentials. Employers know that the assessment isn't accurate in every individual case, but given information costs, individual-level accuracy is sometimes too expensive to be afforded. The difference between requiring easily measurable credentials that have a disparate impact by gender and engaging in statistical discrimination against all women based on some knowledge of their lesser score on some hard-to-measure attribute is not motivation but legal status. Statistical discrimination is always illegal, whereas under U.S. law, using hiring criteria that have a disparate impact by gender is sometimes legal and sometimes illegal.[4]

If discrimination is statistical, in what types of jobs would employers discriminate against women the most? Discrimination should occur in jobs for which men are more likely to have the skills than women with the same educational credentials. For example, men are more likely to have learned auto repair from their fathers. But the other big statistical difference between men and women's behavior is childrearing responsibility. Of course, women's employment has become much more continuous since 1970, but women are still much more likely than men to spend some time not employed or employed part-time (Casper and Bianchi 2002; Cohen and Bianchi 1999). Thus, economists' thinking about statistical discrimination has focused on how employers might respond to the possibility of women quitting their jobs for childrearing. Here the information problem for employers is that women who plan to leave in a few

years have a motivation not to reveal this for fear they won't get hired or promoted. The jobs in which quit costs employers the most are those in which they provide substantial on-the-job training. In these jobs, if a worker quits, employers have to bear the expense of training a new worker. Thus, if they believe that on average more women than men will leave (because of childrearing), they will favor men in jobs offering training. The discrimination is a profit-maximizing response by employers to statistical generalizations they make from observable data about differences between men and women's skills or employment profiles. Estévez-Abe's argument in this volume is in this spirit. She takes as exogenous national differences in tendency to use on-the-job training versus that provided by educational institutions. Nations with more on-the-job training will be more likely to feature employers who engage in such statistical discrimination against women. Although such statistical generalizations get it wrong for many individuals and violate the law in most modern nations, if the statistical generalization is close to accurate, one can see how it is tempting for employers to engage in it, and it may be difficult to stop them from doing so.

We know embarrassingly little about how much of segregation is explained by statistical discrimination based on women's aggregate experience profiles. Consistent with this story, earlier research found U.S. women in jobs that offer less on-the-job training than the jobs held by men (Corcoran and Duncan 1979), although some recent research asking employees directly about whether they have received training have found that more women than men to participate in training, which is inconsistent with the hypothesis (Simpson and Stroh 2002). The idea that statistical discrimination is important is also consistent with the finding that it is those professional and managerial occupations that rely heavily on educational credentials paid for by the worker or the state that women have integrated the most effectively, compared to blue-collar trades, where training is often informal and on-the-job.[5] This is consistent with the picture painted by Estévez-Abe (this volume) using cross-national data. But other data are inconsistent with this picture. First, it is not clear that U.S. women have the higher turnover rates that would encourage employers to differentiate them from men—some studies show that although women leave the labor force for childrearing more, men change firms more. (For a review of evidence on turnover, see England 1992, chap. 1.) Men are more likely to leave to serve in the military or a prison sentence. Moreover, as already discussed, female jobs have not been shown to have the advantages (higher starting wages adjusted for education) that the theory implies. Jobs with more on-the-job training should have lower starting wages compensated for by steeper wage trajectories; thus

female jobs should have higher starting wages but lower returns to seniority. But they do not have higher starting wages, after controlling for education; they have lower starting wages. Overall, the evidence linking childrearing responsibilities with segregation through either the supply side or through statistical discrimination is weak.

## The Sex Gap in Pay

Trends in pay among full-time year-round workers are shown in figure 3. The pay gap declined little until about 1980 but declined rapidly in the 1980s. Since 1990 progress appears to be stalling out. In a proximate sense, the sex gap in pay is explained largely by two factors: women's childrearing responsibilities, which creates an experience gap, and the segregation of women into lower-paying jobs.

### *Mothering and the Pay Gap*

The main reason women have less experience and seniority than men is that they have taken some years to raise children. The assignment of childrearing to women rather than men probably has some root in biology but is also a matter of social norms. Once a couple starts a gender-specialized pattern, then small initial differences

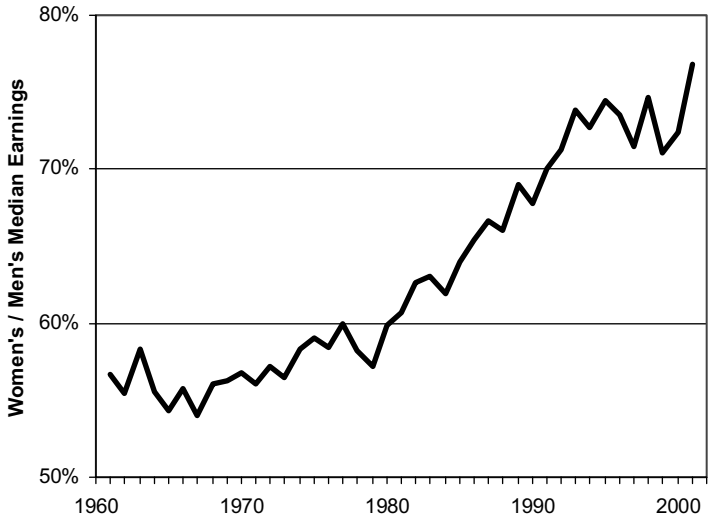


Figure 3. Ratio of Full-Time Women's to Men's Median Annual Earnings, 1961–2001.

*Source*: Integrated Public Use Microdata Sample from 1950–2000 Census data. Data include men and women 25–54 years of age. From Cotter, et al. (2004).

encourage later difference based on incentives for family income maximization (Becker 1991). The best studies examining the role of the experience gap use panel data that follow the same people for many years and thus afford good measures of their employment history. Wellington (1994) found that experience, seniority, and related measures of labor supply explained 37 percent of the sex gap in pay in 1976 (similar to what Corcoran and Duncan reported in 1979). These same factors explained a slightly larger proportion (42 percent) of the smaller pay gap that existed in 1985 (Wellington 1994), suggesting some diminution of differential treatment discrimination.[6] Sometimes motherhood leads to exits from employment; other times it leads women to take up part-time rather than full-time jobs (Cohen and Bianchi 1999). Part-time employment of women is more common in Europe than the United States. (For a discussion of European women's part-time work in Europe, see Tijdens 2002.) Women's employment has become more continuous (Goldin 1990), and this accounts for some of the decrease in the sex gap in pay (O'Neill and Polachek 1993; Smith and Ward 1984; Wellington 1993).[7]

*Segregation and the Pay Gap*

Whatever the causes of segregation (previously discussed), it is linked to the pay gap because predominantly female jobs pay less, on average, than predominantly male jobs. If we get detailed enough job categories, relatively little of the pay gap is within jobs (Petersen and Morgan 1995). Women's occupations pay less than those containing more men in most other nations as well, even controlling for the human capital of the incumbents and for occupational skill demands.[8]

But why do women's jobs pay less? Part of the reason for the higher pay of predominantly male jobs is that more of them involve authority over co-workers (England 1992, chap. 3; Wright et al. 1995). Also, women's occupations are concentrated in lower-paying (particularly service-sector) industries and firms and in the public sector (England 1992; Johnson and Solon 1986; MacPherson and Hirsch 1995; Tam 1997). Even within broad industry groupings, women are concentrated in lower-paying firms (Carrington and Troske 1993; Groshen 1991). Women's occupations also feature less occupationally specific training (Tam 1997).

Economists favor two explanations for the lower pay of occupations with a high percent of females. The first is compensating differentials. The idea is that the full pay of a job consists of both pecuniary (wage) and nonpecuniary compensation, the latter being the (dis)utility experienced from doing the work itself. Jobs with more comfortable, less hazardous working conditions can be filled

with lower wages, ceteris paribus. If women care more about nonpecuniary rewards (such as avoiding physical danger or having mother-friendly work conditions) than men, while men focus more on maximizing earnings, then women will trade off earnings for amenities by choosing safer, more mother-friendly jobs. Most tests have failed to find that greater nonpecuniary amenities explain much of the lower pay of women's jobs (England 1992; Glass 1990; Glass and Camarigg 1992; Jacobs and Steinberg 1990; Kilbourne et al. 1994.) The idea seems on first glance consistent with the finding that mothers earn less than nonmothers, even after controlling for part-time work status, experience, and seniority (Budig and England 2001; Lundberg and Rose 2000; Waldfogel 1997, 1998). (For evidence of the motherhood penalty outside the United States, see Arun et al. 2004; Harkness and Waldfogel 2003. Harkness and Waldfogel consider seven nations and show the highest motherhood penalty in the United Kingdom, followed by the other English-speaking nations—United States, Canada, Australia—and then Germany, with the lowest gap in Nordic countries.) But neither Glass (1990) nor Glass and Camarigg (1992) found women's jobs to have more mother-friendly characteristics. Similarly, Budig and England (2001) could not find any job characteristics (except part-time status) that reduced the motherhood wage penalty much. Nonmothers were as concentrated in female jobs as mothers. Thus, oddly enough, in the United States, segregation by sex does not seem to be largely about women choosing or being consigned to more mother-friendly jobs. Or if it is true, it has not been shown for the United States or any nation.

A second economic explanation for the lower pay in female jobs is crowding. Bergmann (1974, 1986) argues that women's jobs pay less because they are "crowded." In this view, women seeking to enter male occupations face sex discrimination in hiring, leading to a supply of applicants for traditionally female jobs that is larger than it would be in the absence of hiring discrimination, as women denied entrance to male jobs crowd the female jobs. This excess supply lowers wages in female jobs. Although this is plausible, it is very difficult to test directly.

Sociologists propose the devaluation thesis to explain the lower pay in female than comparably skilled male jobs. This thesis says that gender bias leads to seeing women's jobs as worth less pay. This is the type of wage disparity at issue in the debate about comparable worth, against which U.S. law provides little protection. The claim is that jobs filled mostly by women pay less than they would if the same jobs were filled mostly by men (Steinberg 2001). At first glance, this is easy to confuse with the more familiar kind of discrimination that

occurs when an employer does not provide equal pay for equal work, so that men and women in the same job with the same seniority performing the same work equally well are not paid the same. This would be a violation of the 1963 Equal Pay Act, as well as Title VII of the Civil Rights Act. Comparable worth involves a distinct issue because it refers to comparisons between the pay in different jobs, jobs that differ in that they entail at least some distinct tasks. The claim is that the difference between the pay of the two jobs results from gender bias in wage setting rather than from other factors about the jobs.

Evidence for the devaluation view is the finding that the sex composition of an occupation or job exerts an effect on its wage level. Such effects of sex composition, net of the factors already discussed, have led some researchers to conclude that employers set lower wages (relative to job demands) when jobs are filled largely by women. One type of study takes the U.S. Census's detailed occupational categories as units of analysis and researchers use national data to assess the effect on wages of different percentages of female workers, after controlling for education and skill requirements. Studies generally find that both men and women earn less when in a more "female" occupation (England 1992; England et al. 1988, 2001; Parcel 1989.) (Filer 1989 failed to find this penalty.) Other studies use individuals or person/years (with person fixed effects) as units and occupational or job sex composition as contextual variables. Such studies find a net negative effect on both men's and women's wages of the percent female in their occupation (England et al. 1988; Johnson and Solon 1986; Kilbourne et al. 1994; MacPherson and Hirsch 1995; Sorensen 1994; Tomaskovic-Devey 1993). (See Tam 1997, 2000; and England et al. 2000 for debate.) Studies of a single employer also generally find that female jobs pay less, relative to male jobs, than would be expected based on measures of job skill and demands (Acker 1989; Baron and Newman 1989; Nelson and Bridges 1999; Orzazem and Matilla 1989; Steinberg et al. 1986).

Sociologists believe that devaluation occurs through cultural and institutional mechanisms. Cultural ideas deprecate work done by women, and cultural beliefs lead to cognitive errors in which decision makers underestimate the contribution of female jobs to organizational goals, including the goal of increasing profits through increasing productivity. Once wage scales are set up, the disparities are perpetuated by organizational inertia in the form of using past wages within the organization to set present wages or the use of market surveys of wages in other firms to set jobs' pay levels. That is, wage scales get "institutionalized." Although the evidence of the penalty

for working in female jobs is quite strong, there is really no direct evidence on the mechanism producing it.

One example of the devaluation of women's work is the devaluation of care work—such as child care, teaching, health care service provision, counseling, and so forth (Cancian and Oliker 2000; Folbre and Nelson 2000). Care work pays less than other work requiring the same amount of skill, effort and risk (England and Folbre 1999; England et al. 2002). Some of this pay deficit may come from the more general devaluation of women's work. But this must not be the whole story because care work pays even less than other female jobs (controlling for education and other skill demands of the occupation) (England et al. 2002).[9] Moreover, care work is often in organizations where this is the entire mission of the organization. Thus, the opportunity of employers to pay noncare workers more than care workers doing similarly skilled work in the same organization is limited. Accordingly, we must look for explanations of the care penalty other than devaluation to get the whole story.

Another possible reason for the low pay of care work is that it is difficult to get all the indirect beneficiaries of care work to pay care providers. That is, care work creates positive externalities or public goods (England and Folbre 1999, 2000, 2003). In rational choice theory, public goods are defined (in part) in terms of the practical impossibility of keeping those who don't pay from receiving benefits from the good. This is called nonexcludability. Some jobs pay well because they involve providing a valuable good or service to someone who will be kept from getting the fruits of the work if he or she doesn't pay. Nonpayers are excludable. Caring labor deviates from this ideal type of excludability in that there is no way for the care provider to collect from many of the beneficiaries via market processes. Care providers contribute to the development of human capabilities that are of value not only to the client but to all those who interact with him or her. How could the teacher collect from the future employer or spouse of the student who later benefit from her labors? The work of caring is unusual in the extent to which benefits are spread beyond direct recipients of the service. This diffusion makes it easy for others to free ride, enjoying the benefits of care without paying the costs, making the work pay less than it would without this feature (England et al. 2001; England and Folbre 1999).

Care work may also pay badly because the "customers" that most need it often can't afford to pay much if anything. Children, the sick, the disabled, and the elderly are cases in point. Unless a third party (typically a family member, the state, or a nonprofit) subsidizes the caring labor, it will be badly paid, unpaid, or it will go undone. The fate of those who need care as well as of those who do the work is

affected by the affluence of third parties as well as their altruism toward care givers and recipients.

Finally, the low pay of care work may also be because the quality of care services is especially difficult to measure. Sometimes, the person receiving the service (e.g., children, the elderly with impaired capacities) is not competent to judge its quality. The subtle emotional aspects of care, such as warmth, nurturance, reassurance, and the sense of being cared for are very difficult for employers to monitor. Given the fact that the quality of care is hard to assess, one might ask why care workers not among those who generally receive an efficiency wage. In such models (discussed without reference to care work in Akerlof 1982; Bulow and Summers 1986; England 1992, chap. 2; Stiglitz 1987), higher wage costs can be counterbalanced by higher effort, which in turn leads to higher output per worker. The idea is that paying above market-clearing wages may elicit effort more cost-effectively than surveillance. One reason this may not operate for care work is that the efficiency-wage strategy hinges on the assumption that average output per worker can be measured, even if individual effort cannot. In the case of care services, however, outputs as well as inputs are difficult to measure (though it is important not to exaggerate the point and say that no assessments of quality can be made).

## Conclusion

The second half of the twentieth century saw dramatic changes in women's position in the labor market. The proportion of women in the labor force went from a third to about three-quarters. Segregation declined substantially. Women entered male-dominated professions and management positions, but there was much less flow of men into women's jobs or of women into male blue-collar jobs. Both the increase in the continuity of women's employment and the desegregation contributed to the decrease in the sex gap in pay. Change in all three indicators has stalled out in the 1990s in the United States, although no one has offered a good explanation of why this is.

I have focused on explanations of the inequality in jobs and pay. In a nutshell, the two things that contribute most to the sex gap in pay are women's responsibility for childrearing (affecting employment continuity, part-time job choice, and exclusivity of career focus) and segregation. Segregation is explained on the supply side largely by socialization or "doing gender," and on the demand side by hiring/placement discrimination. We don't have a good fix on which factor explains how much, but they undoubtedly reinforce each other.

Economic theorizing about segregation and the pay gap generally sees both to be a linked response to underlying supply-side differences in childrearing responsibilities. Although the link between segregation and the pay gap seems sound for the United States,[10] I argue that what generates segregation (and thereby some pay gap) and what generates the part of the pay gap linked to motherhood are largely unrelated. Segregation is maintained by social norms on the supply and demand sides—workers' ideas about what jobs are appropriate for them and employers' preferences. Economists' hypothesize that women are in the jobs that fit the average woman's childrearing responsibilities best, but also make women pay something for the mother-friendliness of their jobs. This does not fit the data well in the tests to date, at least in the United States.

## NOTES

1. *D* is a ratio in which the numerator is the proportion of women (men) who would have to change occupations from the current distribution to integrate occupations. The denominator is the number of moves women (or men) would have to make to integrate occupations if, instead of the current distribution, occupations were maximally segregated such that all occupations were entirely of one sex or the other. Occupations are considered to be integrated when women's (men's) proportion of each occupation is the same as women's (men's) proportion of the labor force as a whole. *D* is self-weighting; occupations employing more people count more than smaller ones. This is appropriate if we want to know how segregated the job experience of the average person is. *D* scores would undoubtedly be higher if I had more detailed occupational categories, revealing more of the existing segregation. However, there is no reason to think that the trends in figure 2 are misleading, because a constant level of detail is used for each year.

2. A view very much in the spirit of socialization theory, but with a clearer eye to the role of punishments for violation of norms, is offered by Badgett and Folbre (2003). They argue that women and men pick occupations in part with an eye to what will help them on the marriage market. Using a vignette study with undergraduate subjects, they show that women in male-typical and men in female-typical occupations were seen as less desirable dating partners than those in gender-typical occupations.

3. By "net of other factors," here and elsewhere, I refer to a statistical analysis that attempts to isolate the effect of the named variable after controlling for other variables that are causally prior to the variable of interest. Without such controls, I am less confident that I have isolated a causal effect, rather than just identified a spurious correlation not indicative of causation. Of course, models never perfectly control for all exogenous factors, so one can't be sure one has isolated causal effects.

4. Under the Griggs doctrine, U.S. law permits plaintiffs to win cases alleging discrimination with evidence of policies that have a disparate impact under certain conditions. But if employers can show that the required credential (e.g., years of experience) is relevant to performance in the job for which it is being used as a selection device, then its use is not considered discriminatory (Burstein and Pitchford 1900; England 1992, chap. 5).

5. Of course, the informal nature of much on-the-job training suggests another way that culture and socialization may affect discrimination; male co-workers may be unwilling to mentor women entering "their" fields, offering harassment instead. Goldin (2002) offers a formal pollution model of men trying to keep women out of their jobs because they fear women's entry will lead the fields to be viewed as less skilled.

6. The erosion of the sex gap in pay has come through a combination of increases in women's and decreases in men's inflation-adjusted average pay.

7. These studies assume that employment experience is exogenous to pay. However, initial low pay resulting from discrimination may increase women's exits from employment; Gronau (1988) provides evidence for this.

8. Studies from other nations largely have similar findings. They vary in how elaborate their controls for individuals' human capital and occupational skill demands are, but the following find an effect of an occupation's sex composition on incumbents' pay: Gunn (1992) for Norway; Le Grand (1997) and Hansen and Wahlberg (2000) for Sweden; Joshi and Paci (1998) for the United Kingdom; Wooden (2000) for Australia. However, using data and methods similar to U.S. studies, Baker and Fortin (2000) find no significant effect of occupational percent female on women's wages in the late 1980s, although there is an effect on men's wages. These data are before pay equity policies were instituted in Canada. Hansen and Wahlberg's (2000) analysis finds the penalty for being in a female occupation smaller in Sweden than the United States.

9. Some kinds of care work, such as live-in child care workers, are disproportionately women of color from immigrant groups, and the ethnic composition of such work may have contributed to its low pay (Hondagneu-Sotelo 2001). However, there no statistically significant difference in the proportion of white women, African American women, and Latinas in care work (England et al. 1999, 149), so it is unlikely that racialization contributed to the general devaluation of care. Women of color are in the least skilled and worst remunerated care work, which is an important issue of racial inequality.

10. Cross-national studies assert that there is little correlation between a nations' segregation level and its pay gap (Bettio 2002; Charles and Grusky 2004). However, most such studies necessarily use only a few extremely crude occupational categories when making this assessment. If more detailed categories were used, one might observe the relationship between segregation and the pay gap. Unfortunately, it is hard to establish detailed categories that are comparable across nations. The evidence presented here on the lower pay of predominantly female than male occupations within many European nations suggests a link between segregation and pay within (and, by extension, between) nations.

## REFERENCES

Acker, Joan. 1989. *Doing Comparable Worth: Gender, Class and Pay Equity*. Philadelphia: Temple University Press.

Aigner, D. J., and G. G. Cain. 1977. "Statistical Theories of Discrimination in Labor Markets." *Industrial and Labor Relations Review* 30: 175–87.

Akerloff, George A. 1982. "Labor Contracts as Partial Gift Exchange." *Quarterly Journal of Economics* 47: 543–69.

Anker, Richard. 1998. *Gender and Jobs: Sex Segregation of Occupation in the World*. Geneva: International Labour Office.

Aries, Elizabeth. 1996. *Men and Women in Interaction: Reconsidering the Differences*. New York: Oxford University Press.

Arun, Shoba V., Thankom G. Arun, and Vani K. Borooah. 2004. "The Effect of Career Breaks on the Working Lives of Women." *Feminist Economics* 10: 65–84.

Badgett, M. V. Lee, and Nancy Folbre. 2003. "Job Gendering: Occupational Choice and the Marriage Market." *Industrial Relations* 42 (2): 270–98.

Baker, Michael and Nicole Fortin. 2000. "Occupational Segregation and the Gender Wage Gap." *Applied Research Bulletin* 6: 7.

Baron, J. N., and Andrew Newman. 1989. "Pay the Man: Effects of Demographic Composition on Prescribed Wage Rates in the California Civil Service." In *Pay Equity: Empirical Inquiries*, eds. Robert T. Michael, Heidi I. Hartmann, and Brigid O. Farrell, 107–30. Washington, D.C.: National Academy Press.

Becker, Gary. 1991. *A Treatise on the Family. Enlarged Edition*. Cambridge: Harvard University Press.

Bergmann, Barbara. 1974. "Occupational Segregation, Wages and Profits When Employers Discriminate by Race or Sex." *Eastern Economic Journal* 1: 103–10.

———. 1986. *The Economic Emergence of Women*. New York: Basic Books.

Bernhardt, Annette, Martina Morris, Mark S. Handcock, and Marc A. Scott. 2001. *Divergent Paths: Economic Mobility in the New American Labor Market*. New York: Russell Sage Foundation.

Bettio, Francesca. 2002. "The Pros and Cons of Occupational Gender Segregation in Europe." *Canadian Public Policy—Analyse de Politiques* 28: S65–84.

Bielby, William, and James Baron. 1986. "Men and Women at Work—Sex Segregation and Statistical Discrimination." *American Journal of Sociology* 91: 759–99.

Bielby, William, and Denise Bielby. 2002. "Telling Stories about Gender and Effort: Social Science Narratives about Who Works Hard for the Money." In *The New Economic Sociology: Developments in an Emerging Field*, eds. Mauro Guillen, Randall Collins, Paula England, and Marshall Meyer, 193–217. New York: Russell Sage Foundation.

Buchmann, Claudia, Thomas A. DiPrete, and Troy A. Powell. 2004. "The Growing Female Advantage in American Higher Education: Do Family Processes Explain the Trend?" Unpublished manuscript.

Budig, Michelle, and Paula England. 2001. "The Wage Penalty for Motherhood." *American Sociological Review* 66: 204–25.
Bulow, Jeremy I., and Lawrence H. Summers. 1986. "A Theory of Dual Labor Markets with Application to Industrial Policy, Discrimination, and Keynesian Unemployment." *Journal of Labor Economics* 4: 376–414.
Burstein, Paul, and Susan Pitchford. 1990. "Social-Scientifkc and Legal Challenges to Education and Test Requirements in Employment." *Social Problems* 37: 243–57.
Cancian, Francesca, and Stacy J. Oliker. 2000. *Caring and Gender*. Thousand Oaks, Calif.: Pine Forge Press.
Carrington, William J., and Kenneth R. Troske. 1993. "Gender Segregation in Small Firms." *Journal of Human Resources* 30(3): 503–33.
Casper, Lynne M., and Suzanne M. Bianchi. 2002. *Continuity and Change in the American Family*. Thousand Oaks, Calif.: Sage.
Charles, Maria, and David B. Grusky. 2004. *Occupational Ghettos: The Worldwide Segregation of Women and Men*. Stanford, Calif.: Stanford University Press.
Cohen, Philip N., and Suzanne M. Bianchi. 1999. "Marriage, Children, and Women's Employment: What Do We Know?" *Monthly Labor Review* 122: 22–31.
Corcoran, Mary, and Greg J. Duncan. 1979. "Work History, Labor Force Attachment, and Earnings Differences between Races and Sexes." *Journal of Human Resources* 14: 3–20.
Cotter, David A., Joan M. Hermsen, and Reeve Vanneman. 2004. *Gender Inequality at Work*. New York: Russell Sage Foundation.
England, Paula. 1982. "The Failure of Human Capital Theory to Explain Occupational Sex Segregation." *Journal of Human Resources* 18: 358–70.
———. 1984. "Wage Appreciation and Depreciation: A Test of Neoclassical Economic Explanations of Occupational Sex Segregation." *Social Forces* 62: 726–49.
———. 1992. *Comparable Worth: Theories and Evidence*. New York: Aldine de Gruyter.
England, Paula, and Nancy Folbre. 1999. "The Cost of Caring." *Annals of the American Academy of Political and Social Science* 561: 39–51.
———. 2000. "Reconceptualizing Human Capital." In *The Management of Durable Relations*, eds. Werner Raub and Jeroen Weesie, 126–28. Amsterdam: Thela Thesis Publishers.
———. 2003. "Contracting for Care." In *Feminist Economics Today: Beyond Economic Man*, eds. Marianne Ferber and Julie Nelson, 61–80 Chicago: University of Chicago Press.
England, Paula, and Su Li. 2005. "Desegregation Stalled: The Changing Sex Composition of College Majors, 1971–2002." Presented at Annual Meetings of the American Sociological Association, Philadelphia, August 2005.
England, Paula, Michelle Budig, and Nancy Folbre. 2002. "The Wages of Virtue: The Relative Pay of Care Work." *Social Problems* 49: 455–73.
England, Paula, Karen Christopher, and Lori L. Reid. 1999. "Gender, Race, Ethnicity, and Wages." In *Latinas and African American Women at*

*Work: Race, Gender, and Economic Inequality*, ed. Irene Browne, 139–82. New York: Russell Sage Foundation.

England, Paula, George Farkas, Barbara Stanek Kilbourne, and Thomas Dou. 1988. "Explaining Occupational Sex Segregation and Wages: Findings from a Model with Fixed Effects." *American Sociological Review* 53: 544–58.

England, Paula, Joan M. Hermsen, and David A. Cotter. 2000. "The Devaluation of Women's Work: A Comment on Tam." *American Journal of Sociology*. 105: 1741–51.

England, Paula, Lori L. Reid, and Barbara Stanek Kilbourne. 1996. "The Effect of the Sex Composition of Jobs on Starting Wages in an Organization: Findings from the NLSY." *Demography* 33(4): 511–21.

England, Paula, Jennifer Thompson, and Carolyn Aman. 2001. "The Sex Gap in Pay and Comparable Worth: An Update." In *Sourcebook on Labor Markets: Evolving Structures and Processes*, eds. Ivar Berg and Arne Kalleberg. New York: Plenum.

Epstein, Cynthia Fuchs. 1988. *Deceptive Distinctions: Sex, Gender, and the Social Order*. New Haven, Conn.: Yale University Press.

Filer, Randall K. 1989. "Occupational Segregation, Compensating Differentials and Comparable Worth." In *Pay Equity: Empirical Inquiries*, eds. Robert T. Michael, Heidi I. Hartmann, and Brigid O. Farrell, 153–70. Washington, D.C.: National Academy Press.

Folbre, Nancy, and Julie Nelson. 2000. "For Love or Money—Or Both?" *Journal of Economic Perspectives* 14: 123–40.

Glass, Jennifer. 1990. "The Impact of Occupational Segregation on Working Conditions." *Social Forces* 68: 779–96.

Glass, Jennifer, and Valerie Camarigg. 1992. "Gender, Parenthood, and Job-Family Compatibility." *American Journal of Sociology* 98: 131–51.

Goldin, Claudia. 1990. *Understanding the Gender Gap: An Economic History of American Women*. New York: Oxford University Press.

———. 2002. "A Pollution Theory of Discrimination: Male and Female Differences in Occupations and Earnings." National Bureau of Economic Research Working Paper no. 8985.

Gronau, Reuben. 1988. "Sex-Related Wage Differentials and Women's Interrupted Labor Careers—The Chicken or the Egg." *Journal of Labor Economics* 6: 277–301.

Groshen, Erica L. 1991. "The Structure of the Female/Male Wage Differential." *Journal of Human Resources* 26 (3): 457–72.

Gunn, Elisabeth Birkelund. 1992. "Stratification and Segregation." *Acta Sociologica* 35: 47–62.

Hansen, J., and Wahlberg, R. 2000. "Occupational Gender Composition and Wages in Sweden." Discussion Paper 217, Institute for the Study of Labor (IZA), Bonn, Germany.

Harkness, Susan, and Jane Waldfogel. 2003. "The Family Gap in Pay: Evidence from Seven Industrialized Countries." *Research in Labor Economics* 22: 369–414.

Hondagneu-Sotelo, Pierrette. 2001. *Domestica: Immigrant Workers Cleaning and Caring in the Shadows of Affluence*. Berkeley: University of California Press.

Jackson, Robert Max. 1998. *Destined for Equality: The Inevitable Rise of Women's Status*. Cambridge, Mass.: Harvard University Press.

Jacobs, Jerry A. 1989. *Revolving Doors: Sex Segregation and Women's Careers*. Stanford, Calif.: Stanford University Press.

———. 1999. "Sex Segregation of Occupations: Prospects for the 21st Century." In *Handbook of Gender in Organizations*, ed. Gary Powell, 125–41. Thousand Oaks, Calif.: Sage.

———. 2001. "Evolving Patterns of Sex Segregation." In *Sourcebook of Labor Markets: Evolving Structures and Processes*, eds. Ivar Berg and Arne L. Kalleberg, 535–50. New York: Kluwer Academic/Plenum.

———. 2002. "Women in the Workplace and Higher Education: Unanticipated Detours on the Road to Gender Integration." *Contexts*.

Jacobs, Jerry A., and Ronnie Steinberg. 1990. "Compensating Differentials and the Male-Female Wage Gap: Evidence from the New York State Comparable Worth Study." *Social Forces* 69(2): 439–68.

Johnson, George and Gary Solon. 1986. "Estimates of the Direct Effects of Comparable Worth Policy." *American Economic Review* 76(5): 1117–25.

Joshi, Heather, and Pierella Paci. 1998. *Unequal Pay for Women and Men: Evidence from the British Birth Cohort Studies*. Cambridge, Mass.: MIT Press.

Juhn, Chinhui, and Kevin M. Murphy. 1997. "Wage Inequality and Family Labor Supply." *Journal of Labor Economics* 15: 72–79.

Kilbourne, Barbara S., Paula England, George Farkas, Kurt Beron, and Dorothea Weir. 1994. "Returns to Skill, Compensating Differentials, and Gender Bias: Effects of Occupational Characteristics on the Wages of White Women and Men." *American Journal of Sociology* 100: 689–719.

Le Grand, Carl. 1997. "Occupational Segregation and the Gender Gap in Sweden." Work—Organization—Economy Working Paper Series #50, Stockholm University, Department of Sociology.

Lundberg, Shelley, and Elaina Rose. 2000. "Parenthood and the Earnings of Married Men and Women." *Labour Economics* 7: 689–710.

MacPherson, D. A., and B. T. Hirsch. 1995. "Wages and Gender Composition: Why Do Women's Jobs Pay Less?" *Journal of Labor Economics* 13(3): 426–71.

Marini, M. M., and M. C. Brinton. 1984. "Sex Typing in Occupational Socialization." In *Sex Segregation in the Workplace: Trends, Explanations, Remedies*, ed. B. F. Reskin, 192–232. Washington, D.C.: National Academy Press.

Marini, M. M., and P. Fan. 1997. "The Gender Gap in Earnings at Career Entry." *American Sociological Review* 62: 588–604.

Neumark, David. 1996. "Sex Discrimination in Restaurant Hiring: An Audit Study." *Quarterly Journal of Economics* 111: 915–41.

Nelson, Robert, and William Bridges. 1999. *Legalizing Gender Inequality*. New York: Cambridge University Press.

Okamoto, Dina, and Paula England. 1999. "Is There a Supply Side to Occupational Sex Segregation?" *Sociological Perspectives* 42(4).

O'Neill, June, and Solomon Polachek. 1993. "Why the Gender Gap in Wages Narrowed in the 1980s." *Journal of Labor Economics* 11: 205–28.

Oppenheimer, Valerie. 1970. *The Female Labor Force in the United States*. Berkeley: University of California Institute of International Studies.

Orzazem, P. F., and P. Matilla. 1989. "Comparable Worth and the Structure of Earnings: the Iowa Case." In *Pay Equity: Empirical Inquiries*, eds. Robert T. Michael, Heidi I. Hartmann, and Brigid O'Farrell, 179–99. Washington, D.C.: National Academy Press.

Parcel, Toby L. 1989. "Comparable Worth, Occupational Labor Markets, and Occupational Earnings: Results from the 1980 Census." In *Pay Equity: Empirical Inquiries*, eds. Robert T. Michael, Heidi I. Hartmann, and Brigid O'Farrell, 134–52. Washington, D.C.: National Academy Press.

Petersen, Trond, and Ishak Saporta. 2004. "The Opportunity Structure for Discrimination." *American Journal of Sociology* 109: 852–901.

Polachek, Solomon. 1981. "Occupational Self Selection: A Human Capital Approach to Sex Differences in Occupation Structure." *Review of Economics and Statistics* 58: 60–69.

———. 1984. "Women in the Economy: Perspectives on Gender Inequality." Iin *Comparable Worth: Issue for the 80's: A Consultation of the U.S. Commission on Civil Rights*, 34–53. Washington, D.C.: U.S. Commission on Civil Rights.

Reskin, Barbara. 1993. "Sex Segregation in the Workplace." *Annual Review of Sociology* 19: 241–70.

Reskin, Barbara, and Patricia Roos. 1990. *Job Queues, Gender Queues*. Philadelphia: Temple University Press.

Ridgeway, C. L., and L. Smith-Lovin. 1999. "The Gender System and Interaction." *Annual Review of Sociology* 25: 191–-216.

Simpson, Patricia A., and Linda K. Stroh. 2002. "Revisiting Gender Variation in Training." *Feminist Economics* 8: 21–53.

Smith, J. P., and M. P. Ward. 1984. *Women's Wages and Work in the Twentieth Century*. Santa Monica, Calif.: Rand.

Sorensen, Elaine. 1994. *Comparable Worth*. Princeton, N.J.: Princeton University Press.

Steinberg, Ronnie. 2001. "Comparable Worth in Gender Studies." In *International Encyclopedia of the Social and Behavioral Sciences*, eds. Neil J. Smelser and Paul B. Baltes, vol. 4: 2293–97. London: Pergamon.

Steinberg, Ronnie., L. Haignere, C. Possin, C. H. Chertos, and D. Trieman. 1986. *The New York State Pay Equity Study: A Research Report*. Albany, N.Y.: Center for Women in Government, SUNY Press.

Stiglitz, J. E. 1987. "The Causes and Consequences of the Dependence of Quality on Price." *Journal of Economic Literature* 25: 1–48.

Tam, Tony. 1997. "Sex Segregation and Occupational Gender Inequality in the United States: Devaluation or Specialized Training?" *American Journal of Sociology* 102: 1652–92.

———. 2000. "Occupational Wage Inequality and Devaluation: A Cautionary Tale of Measurement Error." *American Journal of Sociology* 105: 1752–60.

Tijdens, Kea G. 2002. "Gender Roles and Labor Use Strategies: Women's Part-Time Work in the European Union." *Feminist Economics* 8: 71–99.

Tomaskovic-Devey, Donald. 1993. *Gender and Racial Inequality at Work: the Sources and Consequences of Job Segregation*. Ithaca, N.Y.: ILR Press.

Van der Lippe, Tanja, and Liset Van Dijk, eds. 2001. *Women's Employment in a Comparative Perspective*. New York: Aldine de Gruyter.

Waldfogel, Jane. 1997. "The Effect of Children on Women's Wages." *American Sociological Review* 62: 209–17.

———. 1998. "Understanding the 'Family Gap' in Pay for Women with Children." *Journal of Economic Perspectives* 12: 137–56.

Wellington, Allison J. 1993. "Changes in the Male-Female Wage Gap, 1976–1985." *Journal of Human Resources* 28: 383–411.

———. 1994. "Accounting for the Male/Female Wage Gap Among Whites: 1976 and 1985." *American Sociological Review* 59: 839–84.

West, Candace, and Sarah Fenstermaker. 1993. "Power, Inequality, and the Accomplishment of Gender: An Ethnomethodological View." In *Theory on Gender/Feminism on Theory*, ed. Paula England, 151–7. 4New York: Aldine de Gruyter.

West, Candace, and Don H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1: 125–51.

Wooden, Mark. 2000. "Gender Pay Equity and Comparable Worth in Australia: A Reassessment." *Australian Economic Review* 32: 157–71.

Wright, Erik Olin, and Janeen Baxter, with Elisabeth Birkelund Gunn. 1995. "The Gender Gap in Workplace Authority: A Cross-National Study." *American Sociological Review* 60: 407–35.

Xie, Yu, and Kimberlee A. Schauman 2003. *Women in Science: Career Processes and Outcomes*. Cambridge, Mass.: Harvard University Press.