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The Gender Wage Gap and Pay Equity: Is Comparable Worth the Next Step?

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Summary

Women's participation in the labor market has undergone considerable change in the last few decades, with more than half of all women now in the workforce. In addition, legislation and regulations have, since the 1960s, prohibited discrimination against women in employment and pay. Although women's pay relative to men's has increased over time, so that today women typically earn 76-79 cents for every dollar earned by men, the persistence of the gender wage gap in the face of these changes has prompted concern in some quarters about the equity or fairness of the market's wage-setting process (hence the terms "pay equity" and "fair pay").

Studies have estimated that perhaps one-half of the observed gender wage gap can be justified by productivity differences, measured by work experience and educational attainment for example. If women had the same human capital attributes as men, they might earn about 80% as much as men. Job-related factors (e.g., occupation and industry of employment) affect relative earnings as well. Studies that include both sets of characteristics estimate that they might explain two-thirds of the observed wage gap. If women were like men in terms of their individual and job attributes, they might earn about 90% as much as men. Some believe that the unexplained portion of the wage gap represents discrimination; others, an inability to accurately measure and include all factors that affect gender differences in pay.

"Comparable worth" supporters contend that corrective action is needed because employment discrimination relegates women to different jobs than men and wage discrimination causes women's work to be "devalued," that is, paid lower wages than jobs predominantly employing men. A comparable worth policy would extend the current mandate of equal pay for equal work to equal pay for equivalent work *within a firm*. (It thus would not directly address sex segregation in employment by job, occupation, industry, and firm size.) Under comparable worth, an employer would, through such means as an unbiased job evaluation, determine those jobs that had equal total scores for such job attributes as skill, effort, responsibility, and working conditions. The employer would then raise the wages of jobs deemed underpaid (e.g., jobs having wages below other jobs with the same total scores). In this manner, workers would no longer incur a wage penalty for employment in traditionally female jobs.

The size of a worker's paycheck would be unrelated to supply/demand conditions in the labor market under a comparable worth policy. Some highly rated jobs within a firm may not warrant a pay increase if there is an abundant supply of workers in the labor market to perform them, however. In other words, legitimate (nondiscriminatory) pay differentials can exist between jobs equally rated by an evaluation. Critics regard the substitution of job evaluations for market conditions to determine relative wages as a critical flaw of comparable worth: by eliminating wage differentials between "equivalent" male- and female-dominated jobs, it could increase unemployment of women in the short run as well as remove the strongest motivation for women to overcome discrimination in the long run. This report will be updated as warranted.

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The Gender Wage Gap and Pay Equity: Is Comparable Worth the Next Step?

Women's participation in the labor market has undergone considerable change in the last few decades. Women comprised 47% of all workers in 2003, up from 33% in 1960. More than one-half of the noninstitutional female population age 16 or older has been in the paid work force since 1979, according to U.S. Bureau of Labor Statistics' data. The majority of today's married women have forsaken the traditional role of full-time child care givers for the dual role of unpaid homemakers and paid workers.

Over the same period, legislation was enacted with the intent of mitigating labor market discrimination against women among other groups. The Equal Pay Act of 1963, an amendment to the Fair Labor Standards Act, mandates equal pay for men and women employed in the same or substantially same jobs in a firm. The Civil Rights Act of 1964 prohibits discrimination in employment and compensation against women and other protected classes of workers. E.O. 11246 also forbids labor market discrimination and requires affirmative action for protected classes of workers at federal contractors and subcontractors.

One constant over time, however, has been the lower wages of women compared to men. The persistence of the gender wage gap in the face of workplace antidiscrimination edicts and of significant changes in women's labor force participation has prompted concern in some quarters about the "equity" or "fairness" of the market's wage-setting process.

It is contended that corrective action, which goes beyond current law, is needed because ongoing discrimination against women is distorting the allocation of human resources and creating inefficiencies in the labor market. Others believe that the pay gap reflects differences in freely chosen labor market qualifications between the sexes that legitimately affect relative wages. They assert that as the work expectations, schooling, and labor market experience of women and men continue to converge, the wage gap will narrow further in the absence of additional intervention, which could itself impede economic efficiency.

This report examines the trend in the male-female wage gap and the explanations offered for its existence. Remedies proposed for the gender wage gap's amelioration are addressed, with an in-depth focus on the comparable worth approach to achieving "pay equity" or "fair pay" between women and men.

The Male-Female Wage Gap

The issue termed pay equity or more recently, fair pay, originates from the chronic fact that women as a group are paid less than men. In 1960, half of all women employed year-round full-time (i.e., 50-52 weeks, at least 35 hours per week) earned more than \$3,257 and half earned less than that amount; in the same year, the median annual earnings of men employed year-round full-time were \$5,368. More than 4 decades later, according to U.S. Bureau of the Census data for 2003, the median earnings of women with a strong commitment to the workforce were \$30,724 while those of men were a substantially greater \$40,668.

It is often noted that even when comparisons are made between similar groups, women still earn less than men. Women with a bachelor's degree employed year-round full-time earned \$47,910 in 2003, while similarly educated men earned an average of \$69,913. Male high school graduates were paid \$38,331 on average, well above the \$27,956 paid to female high school graduates. Women typically earn less than men of the same age, as well. The wage gap tends to widen as age increases: according to Census Bureau data for 2003, female 15-24 year olds were paid 79% as much as male 15-24 year olds; female 25-44 year olds earned 67% as much as males in the same age group; and, female 45-64 year olds were paid 59% as much as male 45-64 year olds. Although these disparities between seemingly similar groups of men and women sometimes are taken as proof of sex-based wage discrimination, they have not been adjusted to reflect gender differences in *all* characteristics — such as differences in school course work among those with the same educational attainment¹ — that can legitimately affect relative wages.

The size of the male-female wage gap has shrunk at a slow and uneven pace over the years. (See **Table 1.**) In the 1960s and 1970s, women employed year-round full-time typically earned less than 60 cents for every dollar earned by men. The gap narrowed steadily during the 1980s, so that by the end of the decade women were being paid about 70 cents on the dollar. According to the data series on annual earnings of year-round full-time workers (columns 2 and 5) and on weekly earnings of full-time workers (columns 3 and 6), the ratio of female-to-male wages fluctuated erratically during the 1990s, and the ratios derived from the two series at times moved in different directions. The extent of improvement in the gender wage gap that occurred during the 1980s does not appear to have been sustained during the 1990s. More recently, the trend seems largely positive. And, in 2003, women typically earned 76-79 cents for every dollar earned by men. Despite substantial changes in women's labor force participation over the 40-plus year period, however, the observed or unadjusted wage gap has narrowed by just 15 percentage points.

¹ A portion of the wage gap between male and female college graduates is due to gender differences in majors which, in turn, affect the occupations in which they subsequently work. Charles Brown and Mary Corcoran, "Sex-Based Differences in School Content and the Male-Female Wage Gap," *Journal of Economic Literature*, vol. 15, no. 3, part 1, July 1997; and June O'Neill, "The Gender Gap in Wages, Circa 2000," *American Economic Review*, vol. 93, no. 2, May 2003 (hereafter cited as O'Neill, *The Gender Gap in Wages, Circa 2000*).

Table 1. Ratio of Female-to-Male Earnings

Year	Year-round full-time workers ^a	Full-time workers ^b	Year	Year-round full-time workers ^a	Full-time workers ^b
2003	75.5	79.4	1981	59.2	64.6
2002	76.6	77.9	1980	60.2	64.4
2001	76.3	76.1	1979	59.7	62.5
2000	73.7	76.0	1978	59.4	n.a.
1999	72.2	76.5	1977	58.9	n.a.
1998	73.2	76.3	1976	60.2	n.a.
1997	74.2	74.4	1975	58.8	n.a.
1996	73.8	75.0	1974	58.8	n.a.
1995	71.4	75.5	1973	56.6	n.a.
1994	72.0	76.4	1972	57.9	n.a.
1993	71.5	77.1	1971	59.5	n.a.
1992	70.8	75.8	1970	59.4	n.a.
1991	69.9	74.2	1969	58.9	n.a.
1990	71.6	71.9	1968	58.2	n.a.
1989	68.7	70.1	1967	57.8	n.a.
1988	66.0	70.2	1966	57.6	n.a.
1987	65.2	70.0	1965	59.9	n.a.
1986	64.3	69.2	1964	59.1	n.a.
1985	64.6	68.2	1963	58.9	n.a.
1984	63.7	67.8	1962	59.3	n.a.
1983	63.6	66.7	1961	59.2	n.a.
1982	61.7	65.4	1960	60.7	n.a.

Source: U.S. Bureau of the Census data on year-round/full-time workers, and U.S. Bureau of Labor Statistics data on full-time workers.

Note: The wage gap based on annual data is wider than the wage gap based on weekly data because women generally work fewer weeks and hours per week than men. In addition, the annual data include self-employed workers who have larger earnings differences by gender than the wage and salary workers covered by the weekly series. Regardless of the interval, the gender wage gap would be wider if all workers were compared because relatively more women than men work part-time or part-year schedules.

n.a. = not available

a. Based on median annual earnings of all workers age 15 or older (14 or older before 1980) employed year-round full-time (i.e., 50-52 weeks in a year and at least 35 hours in a week), including the self-employed. Before 1989, earnings covered civilian workers only.

b. Based on median weekly earnings of wage and salary workers age 16 or older employed full-time.

Reasons Suggested for the Wage Gap

The persistence of the gender wage gap has led to a search for explanations. Basically, two schools of thought have developed. The human capital explanation has a supply-side focus, that is, it looks at the personal characteristics of working women and men. The sex-segregation-in-the-workplace or discrimination explanation has a demand-side focus, that is, it looks at the characteristics of the jobs in which women and men typically work. The human capital model focuses on the voluntary choices made by women; the discrimination model, on the restrictions faced by women.

The Human Capital Explanation

One school of thought asserts that women earn less than men because of the division of labor within the family which results in productivity differences between the sexes.² Anticipated family responsibilities are believed to influence women's decisions about the amount and kind of investment in education/training (e.g., number of years of schooling, subject matter of course work, and general versus firm-specific training) as well as the length and pattern of time devoted to market work (i.e., total years and timing of work experience, intermittent/continuous participation, and part-time/part-year or full-time/full-year schedules). Because women expect to spend fewer years than men in the labor force, it is less profitable for women to invest in market-oriented skills. According to the human capital explanation, then, women's smaller human capital investment lowers their productivity, and hence their earnings, relative to men's.

The discontinuous employment history of women is thought to further depress their relative wages.³ Because skills deteriorate with prolonged non-use, women's wages upon reentering the labor force initially are lower than their wages had been when they exited the labor force to bear and care for their children. It is argued that women who anticipate moving in and out of the labor force choose to enter occupations having the least earnings penalty for intermittent employment, that is, occupations having the lowest rate of skill depreciation. Therefore, women more so than men would prefer employment in jobs in which wage growth is not closely

² Jacob Mincer and Solomon Polachek, "Family Investments in Human Capital: Earnings of Women," *Journal of Political Economy*, vol. 82, part 2, Mar./Apr. 1974; and, Jacob Mincer and Solomon Polachek, "Women's Earnings Re-examined," *Journal of Human Resources*, vol. 13, no. 1, winter 1978.

³ Solomon Polachek, "Occupational Segregation among Women: Theory, Evidence, and a Prognosis," in Cynthia B. Lloyd, Emily S. Andrews, and Curtis L. Gilroy (eds.) *Women in the Labor Market* (New York: Columbia University Press, 1979); Solomon Polachek, "Occupational Self-Selection: A Human Capital Approach to Sex Differences in Occupational Structure," *Review of Economics and Statistics*, vol. 63, no. 1, 1981; Jacob Mincer and Haim Ofek, "Interrupted Work Careers: Depreciation and Restoration," *Journal of Human Resources*, vol. 17, no. 1, winter 1982; Moon-Kak Kim and Solomon Polachek, "Panel Estimates of Male-Female Earnings Functions," *Journal of Human Resources*, vol. 29, no. 2, spring 1994; and Audrey Light and Manuelita Ureta, "Early Career Work Experience and Gender Differentials," *Journal of Labor Economics*, vol. 13, no. 1, Jan. 1995.

linked to skill accumulation generally and firm-specific training particularly. As a result of this *voluntary choice*,⁴ women who do not expect to work continuously would want jobs that offer a smaller reward for additional work experience (i.e., jobs with a flatter experience-earnings profile) than would continuous workers. Human capital theory thus not only attempts to explain the relatively lower wages of women, but also the difference in the occupational distributions of men and women.

The division of labor within the family could have a more direct impact on women's wages than through its effect on human capital accumulation. Married women continue to be largely responsible for child care and other energy-intensive household responsibilities. Because they consequently expend more effort than men on these family duties, it arguably reduces the effort that women can put into market work. If wages and market work intensity are positively related, then married women's wages will be lower than those of married men — even for workers having the same human capital endowments.⁵ Some analysts also believe that household duties affect married women's occupational preferences by encouraging them to seek less-demanding jobs which allow them to economize on the energy they expend on market work.⁶

Researchers have tried to explain the existence of the wage gap by estimating the proportion that is due to differences in the average amounts of human capital accumulated by female and male workers. The residual or unexplained portion of the pay differential is due to differences in the rates of return (reward) to working women and men with the same productivity-related characteristics. Because productivity rarely can be directly observed, commonly used proxies include amount and quality of formal education, on-the-job training, hours of work, job tenure, and amount and continuity of labor market experience.

⁴ The human capital explanation assumes that individuals' preferences/choices are voluntary. It does not consider the possibility of pre-labor market (societal) discrimination. For example, social norms/customs may constrain women's ideas about appropriate careers (e.g., becoming a nurse rather than a doctor). For more information on the relationship between socialization and occupational choice, see Margaret Mooney Marini and Mary C. Brinton, "Sex Typing in Occupational Socialization," in Barbara F. Reskin (ed.) *Sex Segregation in the Workplace: Trends, Explanations, Remedies* (Washington, D.C.: National Academy Press, 1984). In addition, the access of workers to firm-specific on-the-job training may be constrained by the organizations that employ them; thus, the amount of specific human capital accumulation may not entirely reflect individual preferences. For more information on this point, see Don Tomaskovic-Devey and Sheryl Skaggs, "Sex Segregation, Labor Process Organization, and Gender Earnings Inequality," *American Journal of Sociology*, vol. 108, no. 1, July 2002.

⁵ According to one analysis, gender differences in personal and job characteristics explain 27-30% of the wage gap when housework was not considered; when the gender difference in housework was taken into account, about 38% of the wage gap could be explained. Joni Hersch and Leslie S. Stratton, "Housework, Fixed Effects, and Wages of Married Workers," *Journal of Human Resources*, vol. 32, no. 2, spring 1997.

⁶ Gary S. Becker, "Human Capital, Effort, and the Sexual Division of Labor," *Journal of Labor Economics*, vol. 3, no. 1, Jan. 1985 supplement.

While, to some, the unexplained portion of the gender pay gap indicates the existence of sex-based wage discrimination, to others it indicates the limits of knowledge. For the residual to solely reflect discrimination — that is, all earnings differences between the sexes not accounted for by differences in their human capital attributes — then all relevant variables must be included in the empirical studies and the included variables must be measured accurately. However, productivity characteristics may be omitted from studies because they are difficult or impossible to measure (e.g., motivation) or are not included in a particular data set (e.g., field of specialization in school), and they may be imprecisely measured (e.g., use of potential rather than actual work experience).

Based on its review of seven empirical studies, the National Academy of Sciences found that less than one-half of the wage gap between the sexes could be explained by human capital variables alone.⁷ While this finding lends credence to some researchers questioning of the ability of the skill depreciation hypothesis to account for the wage gap over the long-run and to explain the different occupational distributions of women and men,⁸ it also reflects the inherent difficulty of accurately measuring all productivity-related characteristics. In addition, the finding gives support to claims that factors other than productivity affect wages, including the presence and strength of unions, the industry of employment, and the size of firms.

The Discrimination Explanation

In contrast to human capital theorists, other researchers look to job-related variables as justification for the existence of the wage gap. Some focus particularly on the relationship between sex segregation in the workplace and women's comparatively low wages. Segregation encompasses the clustering of women and men in different occupational groups, in different occupations within these larger groups, in different jobs within occupations, and in different industries or firms performing the same jobs.

Sex Segregation by Occupation. Gender integration of occupations would be expected to somewhat narrow the pay gap, given the relatively greater penalty women are estimated to experience from the low wage-high percent female

⁷ Donald J. Treiman and Heidi I. Hartmann (eds.) *Women, Work, and Wages: Equal Pay for Jobs of Equal Value* (Washington, D.C.: National Academy Press, 1981). (Hereafter cited as Treiman and Hartman, *Women, Work, and Wages*.)

⁸ Paula England, "The Failure of Human Capital Theory to Explain Occupational Sex Segregation," *Journal of Human Resources*, vol. 17, no. 3, summer 1982; John M. Abowd and Mark R. Killingsworth, "Sex, Discrimination, Atrophy, and the Male-Female Wage Differential," *Industrial Relations*, vol. 22, no. 3, fall 1983; Mary Corcoran, Greg J. Duncan, and Michael Ponza, "Work Experience, Job Segregation, and Wages," in Reskin, *Sex Segregation in the Workplace*; and Allison J. Wellington, "Changes in the Male/Female Wage Gap, 1976-1985," *Journal of Human Resources*, vol. 28, no. 2, spring 1993. (Hereafter cited as Wellington, *Changes in the Male/Female Wage Gap*.)

relationship.⁹ And, indeed, the gradual narrowing of the gender pay gap has occurred over a period when the occupational distributions of women and men slowly have become more similar.

In the 1960s, occupational segregation of the sexes declined somewhat, due partly to the movement of men into female-intensive jobs (e.g., elementary school teachers, librarians, and social workers).¹⁰ In the 1970s, gender segregation decreased to a greater extent, due primarily to both men and women entering neutral occupations.¹¹ Women also increased their presence in a few male-dominated occupations during the 1970s, with the greatest inroads being made in the rapidly expanding occupational groups of executive, administrative, and managerial workers as well as professional workers. (The pattern of and changes in sex segregation by occupation are sensitive to the percentages that researchers utilize to define female-dominated, male-dominated and neutral occupations.)¹²

The occupational distributions of women and men have kept converging over the ensuing decades, but at a progressively slower pace.¹³ The Index of Segregation is the share of women (men) who would have to change jobs for their occupational employment distributions to be identical. The index stood at about two-thirds in each census year through 1970. It then dropped substantially, from 67.7 in 1970 to 59.3 in 1980. The index (at 52.0) showed a further convergence by 1990 in the occupational employment patterns of women and men. Based upon Current Population Survey data, as opposed to decennial Census data, the index in 1990 was 56.4. Its level of 53.9 in 1997 reflected a continuing, albeit slowed, reduction in occupational sex segregation.

(It should be noted that national data underlie the above-described trend in occupational segregation. Most workers and organizations function in local labor markets, and the degree of occupational segregation by gender may vary from one area to another. Research suggests that the size of the wage penalty for working in female-dominated jobs is related to the degree of occupational segregation that exists in a given local labor market.¹⁴)

⁹ Stephanie Boraas and William M. Rodgers III, "How Does Gender Play a Role in the Earnings Gap? An Update," *Monthly Labor Review*, Mar. 2003.

¹⁰ Cynthia H. Chertos, Lois Haignere, and Ronnie J. Steinberg, *Occupational Segregation and Its Impact on Working Women* (New York: Center for Women in Government, 1982).

¹¹ Nancy F. Rytina and Suzanne M. Bianchi, "Occupational Reclassification and Changes in Distribution by Gender," *Monthly Labor Review*, Mar. 1984. Note: Neutral occupations were defined as having between 21% and 59% female employment; male-dominated occupations were defined as employing 20% or fewer women; and, female-dominated occupations as employing 60% or more women.

¹² Barbara H. Wooton, "Gender Differences in Occupational Employment," *Monthly Labor Review*, Apr. 1997.

¹³ Francine D. Blau and Lawrence M. Kahn, "Gender Differences in Pay," *Journal of Economic Perspectives*, vol. 14, no. 4, fall 2000.

¹⁴ Philip N. Cohen and Matt L. Huffman, "Occupational Segregation and the Devaluation of Women's Work Across U.S. Labor Markets," *Social Forces*, vol. 81, no. 3, Mar. 2003; (continued...)

Why Does Segregation Depress Women's Relative Wages? The crowding hypothesis offers one explanation of why occupational segregation is associated with lower earnings for women relative to men.¹⁵ According to this theory, women are excluded from many jobs due to the discriminatory tastes of employers, male employees, or customers. Because women have access to only a limited number of occupations, the supply of labor to those occupations increases which, in turn, reduces the capital-to-labor ratio. As a result, the productivity and wages of both women and men in the crowded, female-intensive occupations are depressed. Similarly, productivity and wages in male-dominated occupations are higher than they would otherwise be the case because the supply of labor to them is restricted. Discrimination, it is asserted, prevents labor mobility between the two sets of occupations which would equalize wages between male and female workers with the same human capital endowments.

The dual labor market theory offers another explanation for the relationship between occupational segregation and the wage gap.¹⁶ According to this model, the labor market has both primary and secondary sectors. The former is comprised of jobs having opportunities for advancement, offering good wages and working conditions, and providing job security. The latter is comprised of dead-end jobs, with low wages, poor working conditions, and substantial employee turnover. Because primary sector jobs require firms to invest in employee training, wage differentials can arise from this market segmentation. Primary sector employers will want to hire stable workers so that they have some assurance of recouping their training costs. Since women historically have tended to move in and out of the labor force more often than men, risk-adverse employers who rely on their impressions of the relative job turnover of all men and women when deciding about hiring individual men and women (i.e., statistical discrimination) would prefer men over women for primary sector jobs. The outcome, some analysts claim, is that women are relegated to the secondary, low-paying sector of the labor market.

It is suggested that limiting women to poor job opportunities could make their alleged high turnover a self-fulfilling prophecy because the jobs provide women little reason to stay with any one employer.¹⁷ Labor market discrimination could have other feedback effects "if it discourages women from making human capital investments, weakens their attachment to the labor force, and provides economic incentives for the family to place priority on the husband's career."¹⁸ As a

¹⁴ (...continued)

and Philip N. Cohen and Matt L. Huffman, "Individuals, Jobs, and Labor Markets: The Devaluation of Women's Work," *American Sociological Review*, vol. 68, no. 3, June 2003.

¹⁵ Barbara R. Bergmann, "Occupational Segregation, Wages and Profit When Employers Discriminate by Race or Sex," *Eastern Economic Journal*, vol. 1, nos. 2 & 3, Apr. and July 1974.

¹⁶ Peter B. Doeringer and Michael J. Piore, *Internal Labor Markets and Manpower Analysis* (Lexington, MA.: D.C. Heath and Company, 1971).

¹⁷ Barbara R. Bergmann, *The Economic Emergence of Women*, NY, Basic Books Inc., 1986. (Hereafter cited as Bergmann, *The Economic Emergence of Women*.)

¹⁸ Francine D. Blau, Marianne A. Ferrer, and Anne E. Winkler, *The Economics of Women*, (continued...)

consequence of discrimination's feedback effects on human capital variables, then, empirical studies that use these variables to explain the wage gap could understate discrimination's impact. Rather than the gender wage gap being due to either women's choices *or* women's constraints, the explanation likely is a mutually reinforcing combination of human capital differences between the sexes and discrimination against working women.

Some Portion of the Wage Gap Remains Unexplained. Studies have attributed the wage gap's existence to characteristics of both workers *and* jobs. Typical job characteristics include occupational prestige, supervisory status, union status, industry, occupation, and percent female. In those studies that adjust for differences in the employment distributions of men and women at the detailed occupational level, more of the gap is explained than in studies that adjust across major occupational groups.¹⁹ This was the case among the seven empirical analyses reviewed by the National Academy of Sciences which took into account job as well as worker characteristics: all but one of the studies that used detailed occupational classifications could explain between 30% and 71% of the male-female pay differential.²⁰

The results of empirical studies reviewed by the National Academy of Sciences and other researchers indicate that the addition of job-related variables to human capital variables increases the ability to account for differences between the wages paid to women and men.²¹ In one study, for example, taking human capital variables

¹⁸ (...continued)

Men, and Work (Upper Saddle River, NJ: Prentice Hall, 1998), p. 214. (Hereafter cited as Blau, Ferrer, and Winkler, *The Economics of Women, Men, and Work*.)

¹⁹ The greater explanatory power of studies that use more detailed occupational classifications is due to the fact that employment and earnings differences between men and women can be quite large even within occupational groups. For example, U.S. Bureau of Labor Statistics' data for 2003 show that within the major occupational group of professionals, women were 82% of elementary and middle school teachers while men were 93% of electrical and electronics engineers; among full-time wage and salary workers, female elementary and middle school teachers had median weekly earnings of \$757 and male electrical and electronics engineers had median weekly earnings of \$1,348. These intra-occupational differences are obscured in studies that use highly aggregated occupational categories.

²⁰ Treiman and Hartmann, *Women, Work, and Wages*.

²¹ Other reviews of empirical work on the male-female wage gap are included in Cynthia B. Lloyd and Beth T. Niemi, *The Economics of Sex Differentials* (New York: Columbia University Press, 1979); Naresh C. Agarwal, "Pay Discrimination: Evidence, Policies, and Issues," in Harish C. Jain and Peter J. Sloane, *Equal Employment: Race and Sex Discrimination in the United States, Canada, and Britain* (New York: Praeger Publishers, 1981); June O'Neill, "Earnings Differentials: Empirical Evidence and Causes," in Gunther Schmid and Renate Weitzel (eds.) *Sex Discrimination and Equal Opportunity: The Labor Market and Employment Policy* (New York: St. Martin's Press, 1984); Steven L. Willborn, *A Comparable Worth Primer* (Lexington, MA: D. C. Heath and Company, 1986); Glen G. Cain, "The Economic Analysis of Labor Market Discrimination: A Survey," in Orley Ashenfelter and Richard Layard (eds.), *Handbook of Labor Economics*, vol. 1 (Amsterdam: (continued...))

into account left 67.1% of the gender pay gap unexplained while the addition of job-related variables reduced the unexplained portion to 38.0%.²² According to the analysis, if women had the same human capital attributes as men, they would have earned 80.5% as much as men, and if women had the same occupational, industrial, and union characteristics as men, the adjusted ratio would have been 88.2%. Another study that included both human capital and job-related variables was able to account for somewhat more of the gender wage gap, but it still left about 20% of the pay disparity unexplained.²³ Generally, even those studies that incorporate both types of variables leave a substantial portion of the wage gap unexplained.

One of the job characteristics frequently included in empirical analyses, such as those described above, is occupation. However, to the extent that the difference in occupational distributions of women and men

partly reflects employment discrimination or unequal occupational access ... then clearly this gender difference cannot legitimately be used to help “explain” the gender wage gap.²⁴

In other words, the result of including occupation as an explanatory variable is underestimation of labor market discrimination to the degree that gender differences in occupational distributions reflect discrimination rather than personal preferences. The *feedback effect of discrimination* on other variables commonly included in empirical analyses (e.g., job tenure and unionization) also would lead to understatement of discrimination’s impact on women’s relative wages.²⁵

Because neither discrimination nor productivity can be measured directly, it is likely that debate will continue on precisely how much of the wage gap is due to each of them. By extension, disagreement also will continue about whether remedial action is needed; and, if so, what kind of action.

²¹ (...continued)

Elsevier Science Publishers, 1986); Francine D. Blau and Marianne A. Ferber, “Discrimination: Empirical Evidence from the United States,” *American Economic Review*, May 1987; and, Elaine Sorenson, “The Wage Effects of Occupational Sex Composition: A Review and New Findings,” in M. Anne Hill and Mark R. Killingsworth (eds.) *Comparable Worth: Analyses and Evidence* (Ithaca, NY: ILR Press, 1989).

²² Blau, Ferber, and Winkler, *The Economics of Women, Men, and Work*.

²³ U.S. General Accounting Office, *Women’s Earnings: Work Patterns Explain Difference Between Men’s and Women’s Earnings*, GAO-04-35, Oct. 2003.

²⁴ Michael P. Kidd and Michael Shannon, “Does the Level of Occupational Aggregation Affect Estimates of the Gender Wage Gap?” *Industrial and Labor Relations Review*, vol. 49, no. 2, Jan. 1996.

²⁵ Morley Gunderson, “Male-Female Wage Differentials and Policy Responses,” *Journal of Economic Literature*, vol. 27, Mar. 1989. (Hereafter cited as Gunderson, *Male-Female Wage Differentials and Policy Responses*.)

Reasons Suggested for the Trend in the Wage Gap

As shown in **Table 1**, the wage gap has narrowed gradually and sporadically over the years. Some assert that the intransigence of discrimination, despite enforcement of equal pay and employment legislation, accounts for the slow and fitful erosion of the wage gap. Others conclude that it is related to, among other things, the timing of market skill convergence between the sexes and to non-gender-specific changes in the labor market.

During much of the post-World War II period, the human capital endowments of women entering the labor force worked against contraction in the wage gap.²⁶ Working men's educational attainment increased more than working women's as a greater number of less educated than more educated women joined the labor force through the 1970s. In addition, the average work experience of employed women was held down by the entrance into the labor force of many women who had little or no prior experience. It is thus argued that the lack of skill convergence between working women and men during the 1970s kept the wage gap fairly constant, despite decreases in occupational and industrial segregation over the period.²⁷

The 1980s: Rapid Improvement in Women's Relative Wages

The situation changed in the 1980s, when the work experience and schooling of women increased relative to men. About 25% of the 1% per year reduction in the wage gap between 1976 and 1989 can be ascribed to the increase in the amount of women's work experience compared to men's, and another 35%-40% to the rise in the monetary return (reward) to an additional year of experience for women compared to men.²⁸ The relative gain in the level and reward to women's educational attainment accounted for a significant but smaller share of the wage gap's contraction.²⁹ In terms of schooling level, the incidence of college graduates among female labor force participants grew more than among male participants.³⁰ While the financial payoff for an additional year of schooling increased for all workers, the

²⁶ James P. Smith and Michael P. Ward, *Women's Wages and Work in the Twentieth Century* (Santa Monica, CA: The Rand Corporation, 1984).

²⁷ Fields, Judith and Edward N. Wolff, "The Decline in Sex Segregation and the Wage Gap, 1970-1980," *Journal of Human Resources*, vol. 26, no. 4, fall 1991.

²⁸ O'Neill, June and Solomon Polachek, "Why the Gender Gap in Wages Narrowed in the 1980s," *Journal of Labor Economics*, vol. 11, no. 1, part 1, Jan. 1993. (Hereafter cited as O'Neill and Polachek, *Why the Gender Gap in Wages Narrowed in the 1980s*.)

²⁹ Results from another study also suggest that the primary factor in the wage gap's narrowing was increases in women's average levels of work experience rather than of educational attainment. Wellington, *Changes in the Male/Female Wage Gap, 1976-1985*.

³⁰ Between 1992 and 2002, for example, the share of working women aged 25-64 with bachelor's degrees rose by almost 7 percentage points (from 25.0% to 31.5%) while the share of comparably aged working men with bachelor's degrees rose by a lesser 4 percentage points (from 27.5% to 31.7%). U.S. Bureau of Labor Statistics, *Women in the Labor Force: A Databook*, Report 973, Feb. 2004.

greater increase among women may be related to changes in their college schooling characteristics.³¹

Another 20% of the decrease in the wage gap can be attributed to the decline in wages of blue-collar workers — a predominantly male occupational group — compared to white-collar workers.³² Thus, some non-gender-specific factors changed the labor market in different ways for men and women during the 1980s. For example, decreases in unionization and employment shifts by industry (e.g., away from manufacturing) depressed men's wages more than women's, thereby narrowing the earnings differential between the two.³³ Increasingly unfavorable changes in the wage structure for low-paid workers over the period also seemingly harmed men more than women, with greater widening of male wage inequality and growing returns to intellectual vis-a-vis physical skill (strength). One economist has argued that intellectual skills are less equally distributed by gender than physical skills, and as a result, growth in the relative value of intellectual skills will increase wage inequality among men while simultaneously increasing the relative earnings of women (who are assumed to be more intellectually than physically endowed compared to men).³⁴ Others similarly have advanced the notion that an inverse relationship exists between trends in wage inequality among men and in the pay gap between the sexes.³⁵

The unexplained portion of the wage gap decreased during the 1980s as well. Interpretations of this finding are ambiguous, however: the improvement in women's unmeasured labor market attributes or a decline in discrimination, or some combination of the two, could have reduced the residual.³⁶ As women's relative level of measured productivity characteristics increased over the decade (e.g., work experience and occupational upgrading), it is possible that unaccounted for personal characteristics (e.g., work expectations and job motivation) also improved among women compared to men. As a result of women's increased commitment to the labor force and enhancement of their job skills during the 1980s, it is possible that employers' rationale for statistical discrimination may have diminished as well.

³¹ In a study of young workers with college educations, it was estimated that changes in college major and grades accounted for much of the decrease in the group's gender wage gap. While changes in the distribution of college majors among women contributed to the narrowing of the pay differential, more of the narrowing may be explained by increasing monetary rewards to women's skills compared to men's skills within a given major. (College grades was the measure of skills used in the study.) Linda Datcher Loury, "The Gender Earnings Gap Among College-Educated Workers," *Industrial and Labor Relations Review*, vol. 50, no. 4, July 1997.

³² O'Neill and Polachek, *Why the Gender Pay Gap in Wages Narrowed in the 1980s*.

³³ Francine Blau and Lawrence M. Kahn, "Swimming Upstream: Trends in the Gender Wage Differential in the 1980s," *Journal of Labor Economics*, vol. 15, no. 1, part 1, Jan. 1997.

³⁴ Finis Welch, "Growth in Women's Relative Wages and in Inequality Among Men: One Phenomenon or Two?" *American Economic Review*, vol. 90, no. 2, May 2000.

³⁵ Nicole M. Fortin and Thomas Lemieux, "Are Women's Wage Gains Men's Losses? A Distributional Test," *American Economic Review*, vol. 90, no. 2, May 2000.

³⁶ Blau, *Trends in the Well-Being of American Women, 1970-1995*.

The 1990s: Slowed Relative Pay Gains for Women

Although the adjusted wage gap narrowed further during the 1990s, it did so to a lesser extent than during the prior decade. According to one study, when human capital variables alone are taken into account, the ratio of women's compared to men's wages rose from 70.8% in 1979 to 81.9% in 1989, and then remained basically unchanged in 1998 (at 81.2%). When the specification was expanded to include job-related factors, the ratios were higher but the trend was the same: 81.6% in 1979, and 91.0% in both 1989 and 1998.³⁷

Differences in work experience by gender decreased less in the 1990s than in the 1980s, but it appears that relative increases in women's educational attainment played a much larger role in shrinking the pay gap during the 1990s than during the preceding decade. Consequently, work experience and schooling were estimated to have had a similar impact over the 20-year period when considered jointly.

More favorable changes for women in both occupational upgrading and deunionization occurred in the 1980s compared to the 1990s. Women moved into managerial and professional occupations and out of clerical and service occupations at about the same rate in both decades. Women's representation in blue-collar occupations did not expand to the same degree in the 1990s, however, as men more often lost/left those jobs during the 1980s. Similarly, gender differences in the pace of deunionization were larger in the 1980s than in the following decade.

But, unexplained gender differences in wages appear to have been the main contributor to the slowed convergence in women's and men's earnings during the 1990s as against the 1980s. One unmeasured characteristic that might have contributed to the slowdown is hours spent performing housework: as previously discussed, it has been argued that housework decreases the amount of effort put into one's job; and, the gender difference in this measure decreased much more quickly in the 1980s than the 1990s. If employers perceived that women had made a greater commitment to the labor force, more in the former than the latter decade, it could have prompted a reduction in statistical discrimination against women, again, more substantially in the 1980s as compared to the 1990s. In addition, the occupational upgrading women experienced in the 1980s put more of them in positions that might have been subject to "the glass ceiling," which could have impeded their wage advancement in the following decade. It has further been suggested that shifts in labor demand associated with, for example, technological change (e.g., computerization) were considerably more beneficial for women in the 1980s than in the 1990s.

³⁷ Francine D. Blau and Lawrence M. Kahn, *The U.S. Gender Pay Gap in the 1990s: Slowing Convergence*, NBER Working Paper 10853, Oct. 2004.

Policy Responses

Policy responses to the gender wage gap depend upon where the roots of the pay differential are thought to lie. Their effectiveness in raising the wages of women relative to men depends, in part, upon how much of the gap really is associated with each causal factor.

The explanations and remedies presented below are not necessarily mutually exclusive. For example, both socialization and employment discrimination might affect women's occupational distributions and wages; and consequently, multiple remedies would be appropriate.

Explanations and Remedies

Some think that even before women enter the labor market their career aspirations are shaped by societal factors which individuals, such as parents or peers, and institutions, such as schools or the media, inculcate in youngsters.³⁸ Proponents of this viewpoint would support measures directed at schools (e.g., Title IX of the 1972 Education Amendments, 1976 Vocational Education Amendment, and Women's Educational Equity Act) and at acquainting girls with role models employed in a broad range of jobs (e.g., Ms. Foundation for Women initiated "Take Our Daughters to Work Day" in 1995).

Others conclude that the wage gap is due to measured and unmeasured human capital differences between the sexes. They would argue that additional government intervention in the labor market is unnecessary because ongoing relative improvements in women's productivity characteristics will cause the wage gap to shrink further. With women continuing to opt for market work as a major lifetime activity, human capital theory suggests that women will increasingly make occupational choices that differ from those they made in the past which should, in turn, raise their relative wages. But, as nondiscriminatory (legitimate) reasons for the gender pay disparity "are unlikely to change radically in the near future unless the roles of women and men in the home become more nearly identical ... an unadjusted gender gap may be with us for quite a while."³⁹

Still others believe that labor market discrimination, in part manifested through sex segregation in the workplace, is responsible for the portion of the wage gap that cannot be explained by gender differences in productivity-related characteristics. Policy responses that these observers would support range from improved enforcement of antidiscrimination laws and regulations by the Equal Employment Opportunity Commission (EEOC) and the Office of Federal Contract Compliance Programs,⁴⁰ to government dissemination of information about and provision of

³⁸ This has been referred to as societal or pre-labor market discrimination.

³⁹ O'Neill, *The Gender Gap in Wages, Circa 2000*, p. 314.

⁴⁰ One study (Kimberly Bayard, Judith Hellerstein, David Neumark, and Kenneth Troske, "New Evidence on Sex Segregation and Sex Differences in Wages from Match Employee-Employer Data," *Journal of Labor Economics*, vol. 21, no. 4, Oct. 2003) estimated that
(continued...)

training in comparatively high-paying nontraditional jobs for women,⁴¹ to employers paying their female and male employees in comparable jobs the same wages.

Comparable Worth

The last approach has commonly been referred to as comparable worth. Comparable worth would extend the current mandate that an employer pay equal wages to workers in the same or substantially same jobs in a firm, to an employer paying equal wages to workers in equivalent jobs in a firm. Equivalent jobs typically have been defined as those whose performance involves commensurate skill (e.g., education and training requirements), effort, responsibility, and working conditions.

The idea motivating comparable worth is that the size of a worker's paycheck should be related to job content and not related to the predominant sex of employees in an occupation. Comparable worth proponents argue that some jobs are undervalued — that is, pay relatively low wages — *because* they are largely held by women. Some also believe that “the *kinds* of skills traditionally exercised by women [e.g., nurturing social skills] are valued less in wage determination than are traditionally male skills [e.g., physical or supervisory skills].”⁴² Supporters of this viewpoint thus have concluded that market-set wages are tainted by gender-based discrimination.

Rather than continuing to rely on supply and demand conditions in the labor market to determine wages, comparable worth advocates have proposed that a single job evaluation study of all jobs or key positions in a firm be conducted so they can be compared with each other in terms of such attributes as skill, effort, responsibility, and working conditions. Employers would then raise the wages of workers in all jobs or in female-dominated jobs deemed to be underpaid on the basis of the evaluation (i.e., jobs having wages below other jobs with the same total scores on the attributes included in the evaluation).

The comparable worth approach to wage determination has made the most headway in state and local governments. Public sector unions often have played a large role in organizations making comparable worth pay adjustments.

⁴⁰ (...continued)

about half of the gender wage gap is due to women having lower wages than men in narrowly defined occupations in the same firms, which suggests that enforcement of the Equal Pay Act might be effective in raising women's relative earnings.

⁴¹ In terms of nontraditional employment policy, P.L. 102-530 (Women in Apprenticeship and Nontraditional Occupations Act, WANTO) provides technical assistance to employers and labor unions to promote women's employment in apprenticeable and other nontraditional occupations. P.L. 102-235 (Nontraditional Employment for Women Act), which was in effect through FY1995, authorized the use of the Job Training Partnership Act's discretionary funds to develop demonstration programs to help women enter high-paying occupations where they were underrepresented.

⁴² Paula England, *Comparable Worth: Theories and Evidence* (New York: Walter de Gruyter, 1992), p. 40. (Hereafter cited as England, *Comparable Worth*.)

The usual function of unions to bargain with management over wages has prompted some to suggest that the collective bargaining process may be a more effective and practical means of narrowing the gender pay gap than relying on legislative or judicial action.⁴³ However, unions might be reluctant to press for comparable worth pay raises if they thought it would jeopardize membership solidarity. This could occur, for example, if workers in jobs determined to be overpaid through an evaluation were downgraded (i.e., had their pay cut) or red-circled (i.e., had their wage frozen at its current level or raised at a slower rate than that of underpaid workers). In addition, private sector unions have shown much less interest in the issue than have public sector unions. And, only about 15% of all workers are represented by labor unions.

Congressional Action. Comparable worth was considered by the 98th, 99th, and 100th Congresses. The primary focus of legislation introduced during the 1980s was the wage-setting practices of the federal government. While there was considerable debate on the issue, no legislation was enacted. (See **Appendix** for a legislative history covering this period.)

Comparable worth as a remedy for gender pay differentials continued to generate a great deal of controversy in the 1990s. When the 102nd Congress subsequently took up civil rights legislation (P.L. 102-166, the Civil Rights Act of 1991), the version considered by the House (H.R. 1) aroused dissent partly because some Members believed Section 102 (Pay Equity Technical Assistance) to be a stalking horse for eventually allowing comparable worth claims under Title VII of the Civil Rights Act of 1964, that is, allowing a job evaluation's finding of unequal pay for equally rated female- and male-dominated jobs to be used as evidence in a trial to prove the presence of sex-based wage discrimination.⁴⁴

The decade also marked a shift in the focus of comparable worth, which continues today.⁴⁵ Rather than seeking to apply the approach to the wage-setting practices of the federal government alone, proponents have tried to extend comparable worth to all employers subject to the Fair Labor Standards Act (FLSA) — predominantly firms in the private sector. The Fair Pay Act, which has been introduced in each Congress since the 103rd, would require that employees within an FLSA-covered firm who work in dissimilar but *equivalent* jobs — when viewed as a composite of skill, effort, responsibility, and working conditions — be paid equal wages regardless of *sex, race, or national origin*. The bill thus would expand the standard in the Equal Pay Act of 1963 (EPA, an amendment to the FLSA), which makes it illegal for covered employers to pay different wages to men and women who

⁴³ Marvin J. Levine, “Comparable Worth in the 1980s: Will Collective Bargaining Supplant Legislative Initiatives and Judicial Interpretations?” *Labor Law Journal*, vol. 38, no. 6, June 1987; and Robert H. Cohen, “Pay Equity: A Child of the 80s Grows Up,” *Fordham Law Review*, vol. 63, Mar. 1995.

⁴⁴ For a discussion of comparable worth claims in the courts see Sandra J. Libeson, “Reviving the Comparable Worth Debate in the United States: A Look Toward the European Community,” *Comparative Labor Law Journal*, spring 1995.

⁴⁵ For current legislative activity, see CRS Report RL30902, *Pay Equity Legislation in the 108th Congress*, by Charles V. Dale and Linda Levine.

hold jobs that require substantially the same skill, effort, and responsibility and that are undertaken in similar working conditions. Acceptable wage differentials between equivalent jobs would continue to be those based on a seniority or merit system, or a system linking pay to the quantity or quality of output. However, the bill would no longer allow “any factor other than sex” to be a legitimate reason for wage differences as it currently is under the EPA. The EPA prohibition against achieving its equal pay standard by reducing the wage of any employee would remain in force. In contrast, the Paycheck Fairness Act, which also has been introduced in several Congresses, would have the U.S. Department of Labor issue job evaluation guidelines based on objective criteria (e.g., education, skill, and decision-making responsibility) for *voluntary* use by employers.

Occupational Desegregation as a Remedy to the Wage Gap? The comparable worth approach to wage determination is endorsed by those who believe that the prohibition of gender discrimination in the Equal Pay Act of 1963, Title VII of the Civil Rights Act of 1964, and E.O. 11246 is not sufficient to reduce the male-female pay differential because of the intransigence of sex segregation in the workplace. They point out that, even if one thought workplace integration were an adequate remedy to the wage gap, it would take an extremely long time to achieve pay equity given the very slowly growing similarity in women’s and men’s occupational distributions. (See earlier discussion in this report on this point.)

Comparable worth adherents further observe that occupational desegregation as a remediation approach has its own drawbacks.

Since the influx of women continues to be largest in those occupations where it began, some initially male jobs have now “tipped” and become disproportionately female. Thus, further increases in the proportion of women in these jobs increase rather than decrease segregation.⁴⁶

Because occupational desegregation and job desegregation are not necessarily the same, proponents also contend that the increased occupational similarities between the sexes may overstate integration’s potential impact on relative wages. Within the occupation of bus drivers, for example, women tend to hold part-time low-paying jobs driving school buses while men tend to hold relatively high-paying jobs driving buses for city transit systems. It thus is asserted that the growing presence of women in nontraditional occupations may have unexpected outcomes — namely, resegregation as well as “ghettoization,” with women and men having the same occupational titles but working in different specialties — which limit its ability to reduce the wage gap.⁴⁷

Comparable worth advocates point out that occupational desegregation does not address directly the low wages of workers in female-dominated occupations.⁴⁸ They question whether it is reasonable to expect numerous women in the middle or near

⁴⁶ England, *Comparable Worth*, p. 16.

⁴⁷ Barbara F. Reskin and Patricia A. Roos, *Job Queues, Gender Queues: Explaining Women’s Inroads into Male Occupations* (Philadelphia, PA: Temple University Press, 1990).

⁴⁸ Bergmann, *The Economic Emergence of Women*.

the end of their worklives to pay twice: after having paid the first time through lower wages induced by occupational crowding, they would have to pay a second time through costs associated with changing jobs (i.e., forgone wages and benefits like pensions as well as educational/retraining expenses). A comparable worth policy would raise the wages of workers in traditionally female occupations who are unable or unwilling to change jobs.

Critics of comparable worth respond that the wage gap has in fact been narrowing because the productivity-related characteristics of working women have come to more closely resemble those of men. Some observers claim that employment discrimination rather than wage discrimination accounts for women's depressed earnings: if more nontraditional jobs were open to women, the wage gap would shrink (1) because female entrants to these occupations would receive higher pay and (2) because the supply of labor to traditionally female jobs would decrease thereby raising the wages of workers in those positions. According to both these perspectives, comparable worth is not directed at the real issues — namely, gender differences in human capital qualifications, and discrimination in hiring and promotions. While comparable worth opponents consequently might support more active enforcement of current antidiscrimination laws and regulations, they see no need for further government intervention in the market's wage-setting process.

Job Evaluation as a Wage-Setting Mechanism. Supporters of comparable worth believe that discrimination results in a misallocation of labor by steering equally productive women and men into different jobs and paying women relatively lower wages. Firms operating in such a labor market produce more of the goods/services that use “underpaid” female workers and less of the goods/services that use “overpaid” male workers than they would if the market were free of gender bias. Comparable worth advocates therefore reason that action is needed

to correct the market wage to remove the distortions caused by discrimination, [that is, to] bring wages closer to what they would be in a non-discriminating market, thus increasing efficiency and productivity.⁴⁹

According to this viewpoint, it is discrimination rather than comparable worth policy that interferes with the optimal functioning of the labor market. Job evaluation is the mechanism that comparable worth advocates usually propose to use for both redefining the status hierarchy of jobs as it relates to relative wages⁵⁰ and for adjusting market wages.

⁴⁹ Janice Peterson, “The Challenge of Comparable Worth: An Institutionalist View,” *Journal of Economic Issues*, vol. 24, no. 2, June 1990, p. 607.

⁵⁰ It has been suggested that the amount of controversy over comparable worth relates to its being about more than wages. In the view of some individuals, comparable worth “challenges basic cultural assumptions about the relative value of the activities of different groups in society.” It also “would redistribute not only economic resources, but also labor market power to women workers.” Ronnie J. Steinberg, “A Want of Harmony: Perspectives on Wage Discrimination and Comparable Worth,” pp. 24-25, in Helen Remick (ed.) *Comparable Worth and Wage Discrimination: Technical Possibilities and Political Realities* (Philadelphia, PA: Temple University Press, 1984).

This is the fundamental problem with comparable worth according to its critics, namely, the substitution of job evaluation for market conditions in the wage-determination process.

Wages differ not only because different jobs require different levels of skill, effort, or responsibility, but also because of the inherent scarcity of certain skills and talents relative to society's demand for such skills and talents.⁵¹

Some jobs may have a high "value-in-use" as measured by the inputs of skill, effort, and responsibility, but they may not warrant a high wage (i.e., "value-in-exchange" for labor services) if there is a plentiful supply of workers to perform them.⁵² Because of varying occupational supply/demand conditions, legitimate (non-discriminatory) pay differentials can exist between jobs that evaluations conclude are of equal value to employers.

Moreover, opponents assert that a requirement to equalize wages of jobs having the same total scores on evaluations would not allow the market to efficiently allocate labor across occupations. If sewing machine operators' wages were raised based on job evaluation findings, for example, the higher wages would prompt more workers than otherwise to enter the occupation. Because the demand for sewing machine operators did not change, however, firms would be unwilling to hire these new entrants and unemployment would increase. The wage determined by job evaluation would have sent an incorrect signal to workers, with misallocation of labor resources the result. Further, if demand for sewing machine operators were to subsequently increase, comparable worth would prevent firms from using higher wages to effectively signal this to workers: if they wanted to offer higher wages to attract more sewing machine operators, firms would also have to offer higher wages for other jobs found to be of equal and higher value — even though there was an ample supply of labor at the lower wage for the other jobs.

These inefficiencies, and the likelihood of different firms' job evaluations producing varying ratings for the same occupations, have led some critics to predict additional government intervention once comparable worth becomes the law of the land.⁵³ It is suggested that one form of federal intervention might be the development and administration of a national job evaluation system because the government would be the only entity capable of reconciling (possibly discriminatory) differences between firms in their evaluations' results. Some sort of regulatory or adjudicatory process could well be needed to, at the least, resolve disputes over the specifics of individual firms' evaluations and to decide when evaluations should be revised to reflect changes over time in job content. Another form of intervention might be

⁵¹ John Raisian, Michael P. Ward, and Finish Welch, "Pay Equity and Comparable Worth," *Contemporary Policy Issues*, Apr. 1986.

⁵² Gunderson, *Male-Female Wage Differentials and Policy Responses*.

⁵³ Michael Evan Gold. *A Dialogue on Comparable Worth* (Ithaca, NY: ILR Press, 1983); and Walter Y. Oi, "Neglected Women and Other Implications of Comparable Worth," *Contemporary Policy Issues*, vol. 4, Apr. 1986. For a discussion of the varying outcomes of different commercial job evaluations at one firm see E. Jane Arnault, Louis Gordon, Douglas H. Joines, and G. Michael Phillips, "An Experimental Study of Job Evaluation and Comparable Worth," *Industrial and Labor Relations Review*, vol. 54, no. 4, July 2001.

government in the role of labor allocator: because wages could no longer be used to attract workers to specific jobs under a comparable worth system, the government might have to encourage or direct people into occupations in order to resolve imbalances between supply and demand.

Comparable worth proponents respond that they have not endorsed a national job evaluation system, and that it is not unusual for some economists and business groups to make dire predictions about the effects of legislation which would increase government regulation of the labor market. In addition, supporters claim that a comparable worth policy is not intended to measure the inherent value of jobs, but rather to eliminate the wage disparities between female-dominated and male-dominated jobs that cannot be justified by differences in productivity requirements. As to the use of job evaluations in setting wages, comparable worth adherents contend that many firms have long used them and that wages set by market conditions actually are incorporated in job evaluations.

Depending on the type of system used, market wages have varying degrees of influence on the weights (i.e., relative importance) accorded the job attributes in evaluations. In fact, this is one of the problems with relying on job evaluations to achieve comparable worth according to its supporters. They find this drawback to be especially egregious at firms which conduct separate evaluations of female- and male-dominated job families (e.g., clerical workers and blue-collar workers, respectively). It is claimed that the use of multiple pay plans within a firm “is the single most important reason that the common practice of job evaluation has done little to close the sex gap in pay.”⁵⁴ For this reason, comparable worth advocates not only call for unbiased job evaluations but also for the same evaluation system to be applied across all job families within an establishment.

The job evaluation tool also has been criticized for its complexity and subjectivity.⁵⁵ Even before an evaluation is begun, definitions of a firm (e.g., an establishment within a multi-establishment enterprise with(out) regard to proximity of other locations) and of female- as well as male-dominated jobs (e.g., composed 60% or 70% by one sex) must be made. After developing job descriptions for all positions within a firm, the evaluators must select the job attributes or compensable factors to be analyzed. Then, for each job included in the analysis, they must assign a numerical value to each of the chosen attributes. In order to develop a total score for each job, the evaluators also must determine weights for the individual factors. For example, they must decide whether a job’s skill component is more important (i.e., given more weight) than a job’s supervisory component. After having gone through these several steps, a final decision must be made about how to relate scores to wages and whose wages should be adjusted (e.g., should the wages of all underpaid jobs be raised or just underpaid female-dominated jobs; should the wages of overpaid jobs be reduced, frozen, or given smaller increases; and, what level should wages be raised to — the average of all jobs or male-dominated jobs with the same total points, or some proportion of the difference between female- and male-dominated jobs with the same total points). Comparable worth opponents argue that

⁵⁴ England, *Comparable Worth*, p. 219.

⁵⁵ Raisian, Ward, and Welch, *Pay Equity and Comparable Worth*.

the decisions required at each stage of this complex procedure provide an opportunity for the biases of evaluators and others to affect the outcome.

Supporters of comparable worth acknowledge the possibility of bias by noting that job evaluations as typically conducted often have favored “men’s work” over “women’s work.” Sources of bias against women in job evaluations include writing job descriptions that omit some compensable factors typical of women’s jobs, giving lower ratings to women’s jobs on the factors that are included, weighting factors typical of men’s jobs (e.g., unsafe working environment) more heavily than those typical of women’s jobs (e.g., finger dexterity), and using separate evaluations of job families predominated by men and by women. Because of these practices, comparable worth proponents want bias-free evaluations to be conducted. The policy’s detractors suggest, however, that what actually could occur is the substitution of one set of biases for another.

The Economic Effects of Implementing Comparable Worth. Critics of comparable worth expect that its efforts to raise wages in female-dominated occupations could harm women through disemployment. If employers must raise wages of female-dominated jobs deemed to be underpaid by job evaluations, employment in those occupations will decrease unless demand is totally inelastic (i.e., demand does not change in response to a change in the wage). The higher labor costs resulting from comparable worth pay raises could lead firms to replace workers in previously underpaid positions with now cheaper labor-saving technology. In addition, the resultant increase in production costs could prompt a decrease in output and total employment, or an increase in prices to consumers. The outcome of implementing comparable worth under this scenario would be both reduced employment in traditionally female jobs and higher wages for the women still employed in those fields.

Opponents of comparable worth also expect its implementation would cause the wages of some women to fall. This is because some sectors or groups (e.g., small firms or part-time workers) often are not covered when a law is enacted.⁵⁶ Specifically with regard to a comparable worth policy, it is more likely that medium and large firms rather than small firms (e.g., those with fewer than 100 employees) would be covered because numerous different job titles are needed to conduct a job evaluation and because the cost of using job evaluations decreases as firm size increases.⁵⁷ Women who either were displaced from or were unable to get jobs in the part of the economy covered by comparable worth legislation would increase the supply of labor in the uncovered sector, thereby putting downward pressure on their own wages as well as the wages of other uncovered workers with whom they would most directly compete (e.g., other women).

⁵⁶ For example, the comparable worth policy in Ontario, Canada exempts private sector firms with fewer than 10 employees. Among covered firms, those with fewer than 100 employees are treated somewhat differently than larger firms. U.S. General Accounting Office, *Pay Equity: Experiences of Canada and the Province of Ontario*, GGD-94-27BR. Nov. 1993.

⁵⁷ Richard S. Smith, “Comparable Worth: Limited Coverage and the Exacerbation of Inequality,” *Industrial and Labor Relations Review*, vol. 41, no. 2, Jan. 1988.

The results of one analysis suggest that, if comparable worth were implemented with a small firm exemption, it could well help higher-paid women (more often employed by large firms) and harm lower-paid women (more often employed in small firms). Moreover, it appears that “occupational segregation is highest in the sector least likely to be the target of comparable worth policies and lowest in the sector most likely to be covered.”⁵⁸

Comparable worth advocates concede that there could be trade-offs for elevating wages in traditionally female occupations. But, as this is true of many policy initiatives, they do not consider it an adequate reason for maintaining the status quo. How much comparable worth actually would cost depends, in part, on “how many workers are displaced, how quickly, and what happens to them. At present, we simply do not know how severe these problems would be.”⁵⁹

Some believe that indirect benefits might flow from comparable worth’s direct costs. Women no longer able to get traditionally female jobs after the upward adjustment of the jobs’ wages might “leave the safe harbor of the female occupations and consider competing for jobs heretofore filled with males,”⁶⁰ while men might be more attracted to the now higher paying, traditionally female jobs. The implementation of comparable worth might thus encourage occupational desegregation. Comparable worth also might raise women’s aggregate compensation as they expand their presence in traditionally higher paid, male-dominated jobs and in now relatively better paid, female-dominated jobs.⁶¹

Comparable Worth’s Potential Impact on the Wage Gap. Comparable worth is intended to eliminate pay differences between jobs within a firm that are related to an occupation’s sex composition. Given its intrafirm focus, the policy will not affect the portion of the gender wage gap that is due to other manifestations of workplace segregation, including differences between the firms (e.g., large versus small) or industries (e.g., manufacturing versus services) in which women and men typically work.⁶² In order to estimate the potential effect on the wage gap of enacting comparable worth legislation, then, studies should control for job characteristics as well as measures of productivity in order to separate their impact from that of occupational segregation.

Generally, the more variables included in empirical analyses of the causes of the wage gap, the smaller the portion related to an occupation’s gender composition.

⁵⁸ Ibid., p. 237.

⁵⁹ Blau, Ferber, and Winkler, *The Economics of Women, Men, and Work*, p. 225.

⁶⁰ Barbara R. Bergmann, “Does the Market for Women’s Labor Need Fixing?” *Journal of Economic Perspectives*, vol. 3, no. 1, winter 1989, p. 57.

⁶¹ Peter F. Orazem and J. Peter Mattila, “Male-Female Supply to State Government Jobs and Comparable Worth,” *Journal of Labor Economics*, vol. 15, no. 1, Jan. 1998.

⁶² According to one estimate (Judith Fields and Edward N. Wolff, “Interindustry Wage Differentials and the Gender Wage Gap,” *Industrial and Labor Relations Review*, vol. 49, no. 1, Oct. 1995), 31%-38% of the observed wage gap may be explained by differences in women’s and men’s employment distribution by industry and by differences in their pattern of interindustry wage differentials.

Studies that use different units of analysis (e.g., occupations or individuals) also estimate varying magnitudes for the “wage penalty” caused by working in female-dominated rather than male-dominated occupations. Analyses that take into account the industry of employment produce smaller estimates of the effect of occupational segregation on the wage gap than do other studies. Results also can vary because of differences in time periods analyzed. For these reasons, studies have produced a wide range of estimates for the effect of an occupation’s gender composition on the wage gap (0% to 42%, according to one review).⁶³ Given the breadth of this range, empirical research conducted to date provides little guidance as to the potential impact of a comparable worth policy on the gender wage gap.

A more definitive answer about the potential magnitude of comparable worth’s impact on the wage gap also is lacking based on studies of state and local governments’ implementation of the policy.⁶⁴ Analyses conducted before the policy went into effect in five state governments and in San Jose, California predicted that women’s relative wages would rise by 15%. The researchers assumed that, when implemented, the policy would increase the pay in female-dominated jobs to the pay in male-dominated jobs deemed equivalent through job evaluation. In reality, however, most of the governments included in the two studies raised the wages of all underpaid jobs which likely made the actual increase in women’s relative wages less than the predicted increase.

Other studies examined the effect of comparable worth on the wage gap after the policy had been implemented.⁶⁵ While Iowa’s comparable worth policy also called for raising the wages of all (not just female-dominated) underpaid jobs, it originally called for pay cuts as well. In light of union objections, however, a compromise was reached which gave smaller wage increases to underpaid jobs in return for no pay cuts. A study of the actual experience with comparable worth in Iowa found, not surprisingly, that women’s relative pay rose by just 1.4%.⁶⁶ In Minnesota, by contrast, most of the comparable worth pay adjustments went to women on the state’s payroll and particularly to workers in female-dominated jobs (mainly women, by definition). One study estimated that the state government’s comparable worth policy was responsible for almost a 12% increase in women’s relative pay.⁶⁷ Thus, the manner in which comparable worth is implemented can

⁶³ Elaine Sorensen, *Comparable Worth: Is It a Worthy Policy?* (Princeton, NJ: Princeton University Press, 1994). (Hereafter cited as Sorensen, *Comparable Worth: Is It a Worthy Policy?*)

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ One study estimated that the degree of wage discrimination against female-dominated jobs in Iowa state government was greatly overstated, however, due to measurement error in job evaluation. Shih-Neng Chen, Peter F. Orazem, J. Peter Mattila, and Jeffrey J. Greig, “Measurement Error in Job Evaluation and the Gender Wage Gap,” *Economic Inquiry*, vol. 37, no. 2, Apr. 1999.

⁶⁷ In terms of comparable worth’s employment effect in Minnesota, it might have resulted in somewhat reduced job growth: while women on the state’s payroll actually increased by 17.2% between 1981 and 1988, their numbers would have increased by 20% in the absence (continued...)

substantially influence the policy's actual effectiveness in narrowing the gender wage gap.

Misgivings have arisen about how comparable worth has been implemented in some instances, because of the influence this can have on the achievement of pay equity. The "pay for points" approach would, in theory, adjust the wages of all jobs based on their job evaluation score, with overpaid jobs having their pay cut and underpaid jobs having their pay raised. Because of objections from (representatives of) workers whose pay is to be cut, however, this approach typically is compromised such that underpaid jobs receive smaller wage increases than they otherwise would have and no one's pay is reduced.

This compromise "pay for points" approach has three serious weaknesses: (1) it does not achieve the basic purpose of comparable worth — to eliminate the underpayment of "women's work"; (2) it does not target pay adjustments to female-dominated jobs; and (3) it is overly dependent on the job evaluation system. This approach cannot achieve equal pay for comparable worth because it relies on pay cuts to achieve this aim, but these cuts are never enacted. By targeting all underpaid jobs for pay adjustments, this approach increases the cost of comparable worth and undercuts the gains to female workers. Finally, it relies primarily on the job evaluation system to determine salaries, a system that is known to be subjective and arbitrary. A comparable worth policy only needs to eliminate the variation in wages that is negatively correlated with the "femaleness" of a job once job requirements are taken into account. This approach tries to eliminate *all* wage variation once job requirements are accounted for.⁶⁸

It appears that political considerations can erode comparable worth's ability to raise women's relative wages because the interests of a broader constituency come into play.⁶⁹

As with other policies, employers may be able to avoid comparable worth's mandate and thereby both limit its cost to them as well as its effectiveness as a remedy for the gender wage gap.⁷⁰ If a comparable worth policy were not universally applied, covered employers could contract out the functions of female-dominated jobs to uncovered firms. Similarly, they might increase their use of part-time or temporary workers if coverage did not extend to these groups. Possibly, jobs could be redefined in order to downgrade female-dominated jobs by shifting their more complex tasks to already higher paid employees (e.g., have managers assume the

⁶⁷ (...continued)

of comparable worth (a difference of some 420 jobs); male employment would have risen by 3.9% without the policy instead of 2.9% with the policy (a difference of about 160 jobs). A number of other studies also have shown small employment effects. See Shulamit Kahn, "Economic Implications of Public-Sector Comparable Worth: The Case of San Jose, California," *Industrial Relations*, vol. 31, no. 2, spring 1992.

⁶⁸ Sorensen, *Comparable Worth: Is It a Worthy Policy?* pp. 131-132.

⁶⁹ Lynda J. Ames, "Fixing Women's Wages: The Effectiveness of Comparable Worth Policies," *Industrial and Labor Relations Review*, vol. 48, no. 4, July 1995.

⁷⁰ Raisian, Ward, and Welch, *Pay Equity and Comparable Worth*.

word processing functions of their secretaries). Jobs might also be redefined in order to raise the wages of particular incumbents whom employers wanted to retain.

Concluding Remarks. Whether the proponents of the human capital explanation or the discrimination explanation are correct about the underlying reasons for the gender wage gap, the same end result is expected according to standard economic analysis — namely, depressed wages. Whether women limit their fields of work in order to fulfill family responsibilities or discrimination confines women to certain jobs, the market’s wage response is the same: the abundant supply of women to certain jobs relative to employer demand will prompt firms to use more women than otherwise and, in hiring each new worker, spread complementary inputs (e.g., capital) more thinly; this, in turn, decreases the productivity of workers in female-dominated jobs, and consequently, their earnings.

In neither the human capital nor the crowding model are the wages of predominantly female jobs necessarily depressed because employers (un)consciously decide that particular jobs should be devalued, that is, worth relatively low wages. Rather, it is the presence of numerous qualified persons ready to fill those jobs that removes the firm’s incentive to offer higher wages in order to attract more workers or to keep from losing workers already on the payroll.

Regardless of the reason for pay differentials, they are economically desirable from the perspective of an efficiently functioning labor market. Wage differentials encourage workers, especially new entrants, to seek higher paying jobs;⁷¹ and, they encourage firms to use more of the plentiful source of labor. If comparable worth were mandated, however, both these incentives would disappear. With wage differentials between “equivalent” female- and male-dominated jobs gone, the strongest motivation for women to overcome discrimination in the long run would be lost. In addition, female unemployment would increase in the short run without wage differentials to encourage workers to exit from or not enter crowded, traditionally female jobs. Comparable worth also would adversely affect the allocation of labor among occupations in which wage differentials might not be due to discrimination.

While the advocates of comparable worth have a plausible and empirically supportable case that discrimination is responsible for a substantial portion of the male-female wage gap, the policy itself offers a limited solution (i.e., raising the wages of workers in traditionally female jobs) which cuts two ways with respect to gender equity: (1) increasing unemployment in female-dominated fields, and (2) reducing women’s incentive to further integrate male-dominated jobs. These economic costs may be worth incurring, but that is a judgment for policymakers to make.

⁷¹ Even if women are traditionally excluded from higher paying jobs, the incentive still exists for them to *try* to obtain better positions. To the extent that women encounter discrimination in this effort, it is of the type that current law exists to remedy.

Appendix

H.R. 5680 passed the House in the 98th Congress but became stalled in the Senate. Title I of the bill, the Federal Pay Equity and Management Improvement Act of 1984, specified that a study of the federal classification systems be conducted to see if they discriminated against women. S. 958, the Civil Service Amendments Act of 1984, omitted such a study. No conference committee was appointed after passage of S. 958. The Senate subsequently voted down an amendment to a continuing resolution that would have adopted H.R. 5680. During consideration of the amendment, a compromise was reached on a pay equity study. In return for passage of a bill to reform the merit pay system and to reorganize the senior executive service, it was agreed that the General Accounting Office (GAO, now the Government Accountability Office) would report on methodologies for conducting a pay equity study of the federal classification systems; hearings would be held on the GAO report; and, legislation would be introduced to authorize a pay equity study based on GAO's findings.

GAO subsequently issued *Options for Conducting a Pay Equity Study of Federal Pay and Classification Systems* (GAO/GGD-85-37). It discussed two approaches for determining why some female federal employees earn less than male federal employees: an economic analysis to measure and explain gender wage differentials due to employee characteristics (e.g., educational attainment and seniority); and a job content analysis to examine job characteristics (e.g., skill level and working conditions). In GAO's view, an effective pay equity study would use both analyses. Then, during the 99th Congress, House and Senate committees held hearings on the GAO report. The House Committee on Post Office and Civil Service reported out H.R. 3008, the Federal Equitable Pay Practices Act of 1985. It would have established a Commission on Equitable Pay Practices which was required to contract with a private consultant, chosen from a list of experts drawn up by GAO, to conduct a pay equity study employing both an economic analysis and a job evaluation. The consultant's study and Commission recommendations were then to be forwarded to the President and the Congress. The House passed the bill as amended and referred it to the Senate Committee on Governmental Affairs. In the Senate, the Subcommittee on Civil Service held hearings on a similar bill, S. 519 (the Federal Employee Anti-Sex-Discrimination in Compensation Act of 1985), and S. 5, the Pay Equity Act of 1985, was proposed as well.

H.R. 387, the Federal Equitable Pay Practices Act of 1988, was introduced during the 100th Congress and was passed by the House. It was identical to the 99th Congress' H.R. 3008. S. 5, the Pay Equity Act of 1987, also was reintroduced but in a substantially revised form. It was a broad bill requiring that the Equal Employment Opportunity Commission develop guidelines for eliminating discriminatory wage-setting practices in the federal government and among federal contractors as well as furnish a report detailing its activities under the Equal Pay Act, and a Commission on Compensation Equity to select a consultant who would conduct a pay equity study of the government's pay system. The study included in S. 552, the Federal Employee Compensation Equity Act of 1987, was similar to S. 5's study, with both calling for conducting an economic analysis and job evaluation. The Senate took no action on this legislation.