

# Behind the Pay Gap



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 Female  
 Male

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By Judy Goldberg Dey and Catherine Hill



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# **Executive Summary**

## **Women have made remarkable gains in education**

during the past three decades, yet these achievements have resulted in only modest improvements in pay equity. The gender pay gap has become a fixture of the U.S. workplace and is so ubiquitous that many simply view it as normal.

*Behind the Pay Gap* examines the gender pay gap for college graduates. One year out of college, women working full time earn only 80 percent as much as their male colleagues earn. Ten years after graduation, women fall farther behind, earning only 69 percent as much as men earn. Controlling for hours, occupation, parenthood, and other factors normally associated with pay, college-educated women still earn less than their male peers earn.

Individuals can, however, make choices that can greatly enhance their earnings potential. Choosing to attend college and completing a college degree have strong positive effects on earnings, although all college degrees do not have the same effect. The selectivity of the college attended and the choice of a major also affect later earnings. Many majors remain strongly dominated by one gender. Female students are concentrated in fields associated with lower earnings, such as education, health, and psychology. Male students dominate the higher-paying fields: engineering, mathematics, and physical sciences. Women and men who majored in “male-dominated” subjects earn more than do those who majored in “female-dominated” or “mixed-gender” fields. For example, one year after graduation, the average female education major working full time earns only 60 percent as much as the average female engineering major working full time earns.

The choice of major is not the full story, however. As early as one year after graduation, a pay gap is found between women and men who had the same college major. In education, a female-dominated major, women earn 95 percent as much as their male colleagues earn. In biological sciences, a mixed-gender major, women earn only 75 percent as much as men earn. Likewise in mathematics—a male-dominated major—women earn only 76 percent as much as men earn. Female students cannot simply choose a major that will allow them to avoid the pay gap.

Early career choices, most prominently occupational choices, also play a role in the gender pay gap. While the choice of major is related to occupation, the relationship is not strict. For example, some mathematics majors choose to teach, while others work in business or computer science. One year after graduation, women who work in computer science, for instance, earn over 37 percent more than do women who are employed in education or administrative, clerical, or legal support occupations. Job sector also affects earnings. Women are more likely than men to work in the nonprofit and local government sectors, where wages are typically lower than those in the for-profit and federal government sectors.

The division of labor between parents appears to be similar to that of previous generations. Motherhood and fatherhood affect careers differently. Mothers are more likely than fathers (or other women) to work part time, take leave, or take a break from the work force—factors that negatively affect wages. Among women who graduated from college in 1992–93, more than one-fifth (23 percent) of mothers were out of the work force in 2003, and another 17 percent were working part time. Less than 2 percent of fathers were out of the work force in 2003, and less than 2 percent were working part time. On average, mothers earn less than women without children earn, and both groups earn less than men earn.

The gender pay gap among full-time workers understates the real difference between women’s and men’s earnings because it excludes women who are not in the labor force or who are working part time. Most college-educated women who are not working full time will eventually return to the full-time labor market. On average, these women will then have lower wages than will their continuously employed counterparts, further widening the pay gap.

What can be done about the gender pay gap? To begin with, it must be publicly recognized as a problem. Too often, both women and men dismiss the pay gap as simply a matter of different choices, but even women who make the same occupational choices that men make will not typically

end up with the same earnings. Moreover, if “too many” women make the same choice, earnings in that occupation can be expected to decline overall.

Women’s personal choices are similarly fraught with inequities. The difference between motherhood and fatherhood is particularly stark. Motherhood in our society entails substantial economic and personal sacrifices. Fatherhood, on the other hand, appears to engender a “wage premium.” Indeed, men appear to spend *more* time at the office after becoming a father, whereas women spend considerably less time at work after becoming a mother. Women who do not have children may still be viewed as “potential mothers” by employers, who may, as a result, give women fewer professional opportunities.

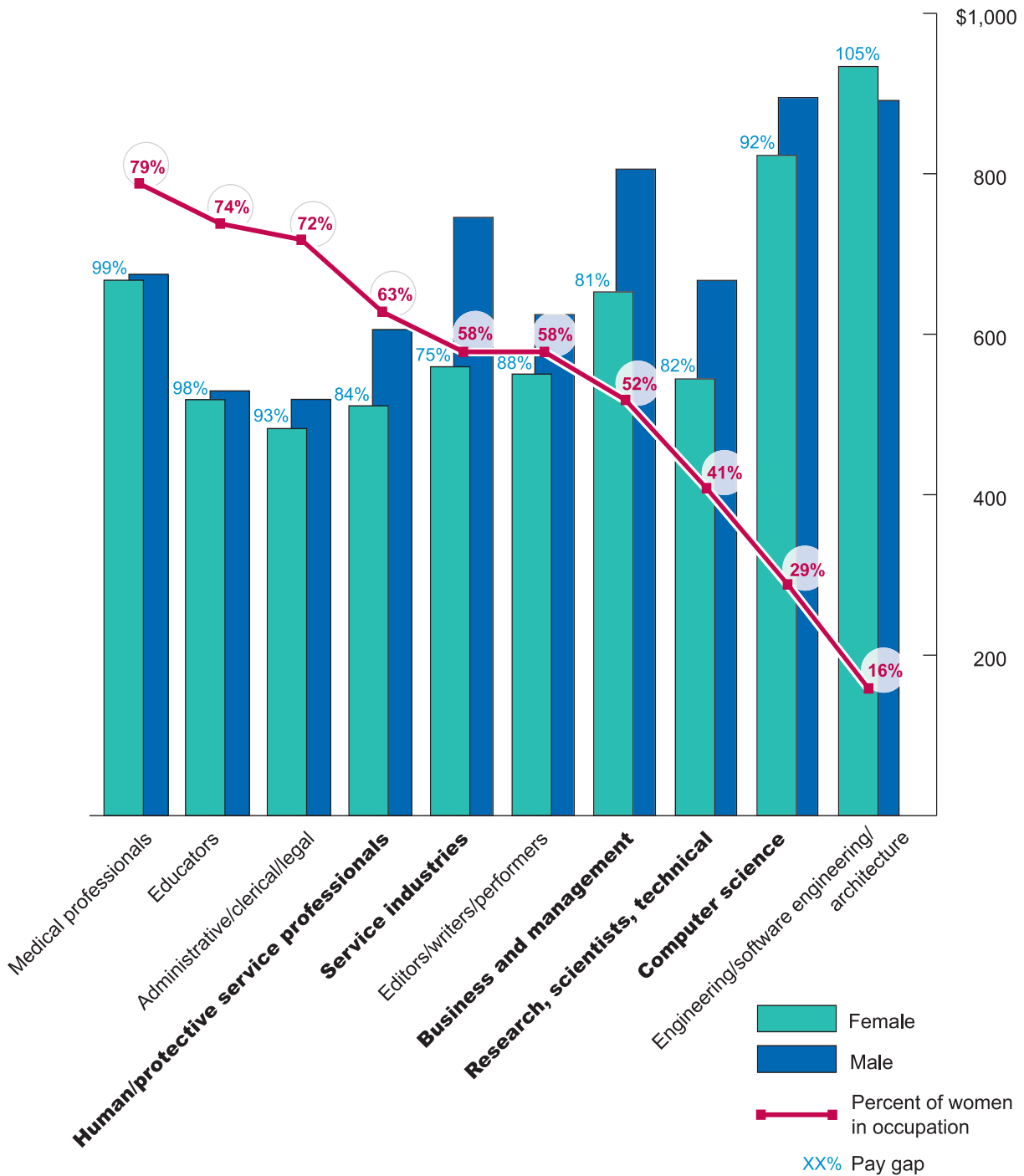
Ideally, women and men should have similar economic opportunities and equal opportunities to enjoy meaningful unpaid work, such as parenting. Improving women’s earnings could have positive consequences for men who would like to spend more time with their children but who can’t afford to reduce their work hours. Likewise, workplace accommodations for parenting could be valuable for fathers as well as mothers. Other groups may also benefit from greater flexibility in the workplace, including older workers seeking “partial retirement,” students hoping to combine work with study, and workers with other kinds of caregiving responsibilities.

The pay gap between female and male college graduates cannot be fully accounted for by factors known to affect wages, such as experience (including work hours), training, education, and personal characteristics. Gender pay discrimination can be overt or it can be subtle. It is difficult to document because someone’s gender is usually easily identified by name, voice, or appearance. The only way to discover discrimination is to eliminate the other possible explanations. In this analysis the portion of the pay gap that remains unexplained after all other factors are taken into account is 5 percent one year after graduation and 12 percent 10 years after graduation. These unexplained gaps are evidence of discrimination, which remains a serious problem for women in the work force.

Women’s progress throughout the past 30 years attests to the possibility of change. Before Title VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972, employers could—and did—refuse to hire women for occupations deemed “unsuitable,” fire women when they became pregnant, or limit women’s work schedules on the basis of gender. Schools could—and did—set quotas for the number of women admitted or refuse women admission altogether. In the decades since these civil rights laws were enacted, women have made remarkable progress in fields such as law, medicine, and business as well as some progress in nontraditional “blue-collar” jobs such as aviation and firefighting.

Despite the progress women have made, gender pay equity in the workplace remains an issue. Improvements to federal equal pay laws are needed to ensure that women and men are compensated fairly when they perform the same or comparable work. Flexibility, meaningful part-time work opportunities, and expanded provisions for medical and family leave are important to help women and men better balance work and family responsibilities. Making gender pay equity a reality will require action by individuals, employers, and federal and state governments.

**Figure 8. Average Weekly Earnings of 1999–2000 Bachelor's Degree Recipients Employed Full Time\* in 2001, by Gender and Occupation**

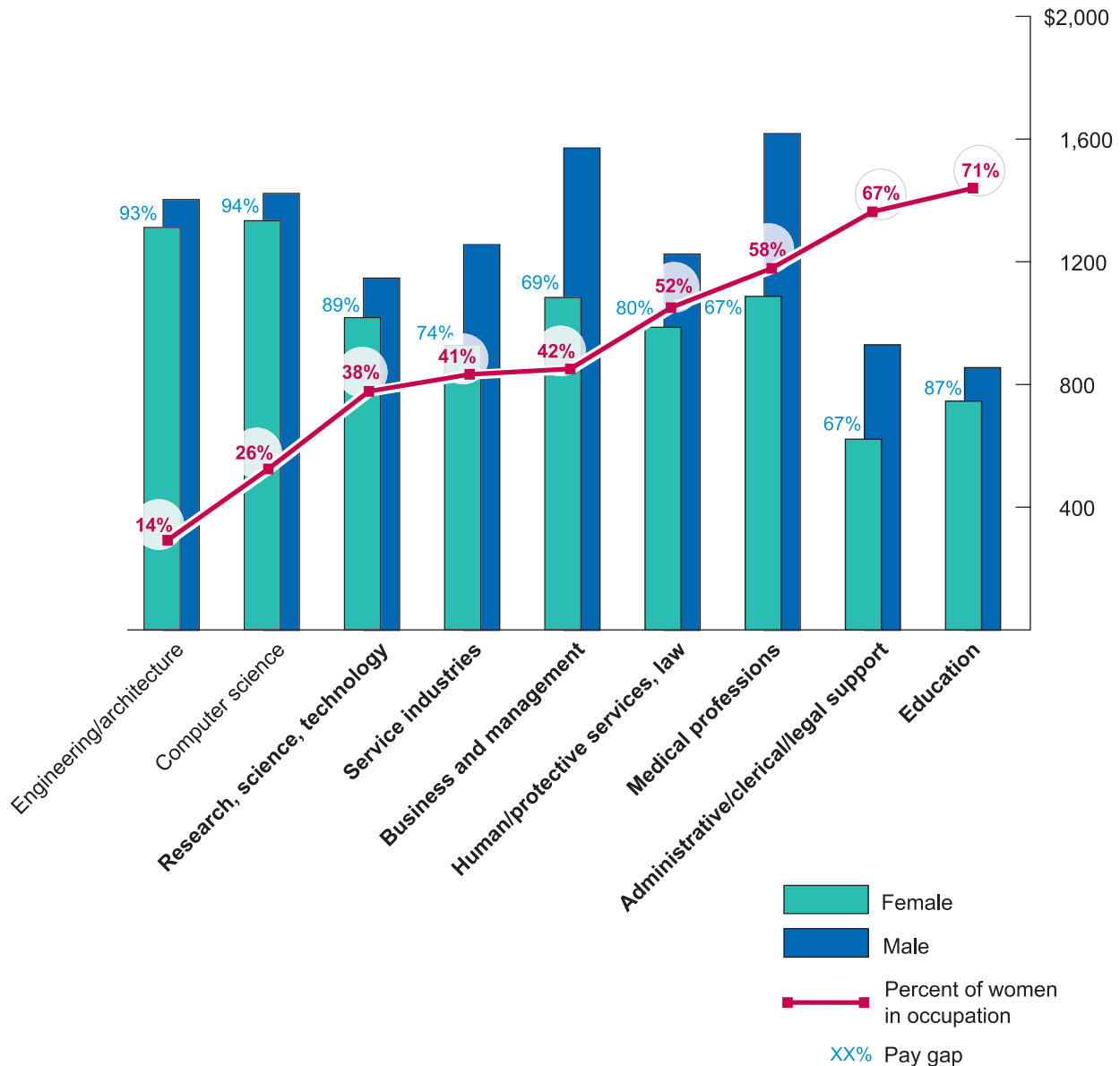


\* Includes respondents with multiple jobs, regardless of hours worked in any job; for these respondents, earnings are for the primary job. Notes: Excludes graduates older than 35 at bachelor's degree completion. **Bold** indicates a significant gender difference ( $p < .05$ , 2-tailed  $t$ -test).

Source: U.S. Department of Education, National Center for Education Statistics, 2000–2001 Baccalaureate and Beyond Longitudinal Study.



**Figure 15. Average Weekly Earnings of 1992–93 Bachelor’s Degree Recipients Employed Full Time\* in 2003, by Gender and Occupation**



\* Includes respondents with multiple jobs, regardless of hours worked in any job; for these respondents, earnings are for the primary job. Notes: Excludes graduates older than 35 at bachelor’s degree completion. **Bold** indicates a significant gender difference ( $p < .05$ , 2-tailed  $t$ -test). Source: U.S. Department of Education, National Center for Education Statistics, *2003 Baccalaureate and Beyond Longitudinal Study*.

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