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Glass Ceiling Shattered?

By *Eva M. Meyersson Milgrom*

The new National Academy of Sciences report on gender in sciences and engineering, *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*, calls urgently for America to stop wasting the talents of its women. Greater efforts must be made, it says, to end discrimination and “subtle unequal treatment” so that women, whose talents match those of men, can contribute equally to science and the academy, as well as to business, government, and culture.

But is it true that discrimination is what keeps women from contributing equally? If not, what are the barriers to women’s contributions and what policies can our country adopt to promote women’s contributions?

In 1986, two *Wall Street Journal* reporters coined the term “glass ceiling” to describe the dearth of women in top ranks within the professions, sciences, and management, but there is little evidence of direct discrimination against women

today in pay and promotions.

The wages of men and women who do the same work for the same employer in the United States and countries like Norway and Sweden differ by less than 2 percent for blue collar workers and less than 5 percent for white collar workers. The current gender pay gap depends not on unequal pay for equal work for the same employer but on the fact that, compared with men, women work in lower-paying jobs or for lower-paying establishments.

Discrimination in promotions can be evaluated by studying an employee’s “reached hierarchical rank” in the organization. The overall gap in reached rank between men and women is about 3 ranks, but if we focus on men and women with the same education, working full time for the same employer, and with the same job tenure, the gap is less than 0.5 ranks. Simple employer discrimination in recruiting, promoting, and firing

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About The Author

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can account for at most a small fraction of the gender rank gap.

Where else might the cause lie? There could be *supply-side* problems – different behaviors by women than by men with the same opportunities-and institutional problems – ways in which our institutions guide women into choices that waste their talents.

Supply-Side Factors: Employees

Women have traditionally behaved differently from men in ways that affect their qualifications for being promoted, although these patterns have been changing. Recent cohorts of women invest more in education than men do. In 2002, women earned 58 percent of all U.S. baccalaureate degrees. The academic achievements of women professors, however, have not matched those of men. Much of the difference is found among women at ages where they may be bearing children and raising families. The NAS report acknowledges that “women take more time off early in their careers to meet caregiving responsibilities” and this is the most critical time in a career for developing human capital.

According to supply-side reasoning, several effects keep women from acquiring the experience needed for top positions.

Women’s different choices can be rational adaptations within the family (women work part time to a higher extent than men), gender specific socialization (women have less confidence than men), or differences in preferences (women like competing

less than men). These attitudes and the resulting behaviors result in a “frozen pipeline” – a lack of qualified women whom employers can appoint to positions of leadership (U.S. Department of Labor 1991).

A subtle effect can be due to *anticipated* discrimination. If a woman expects to be discriminated against, she may invest in different types of education, seek different occupations, and work fewer hours, simply because she doesn’t expect to be rewarded for investing in the usual job skills.

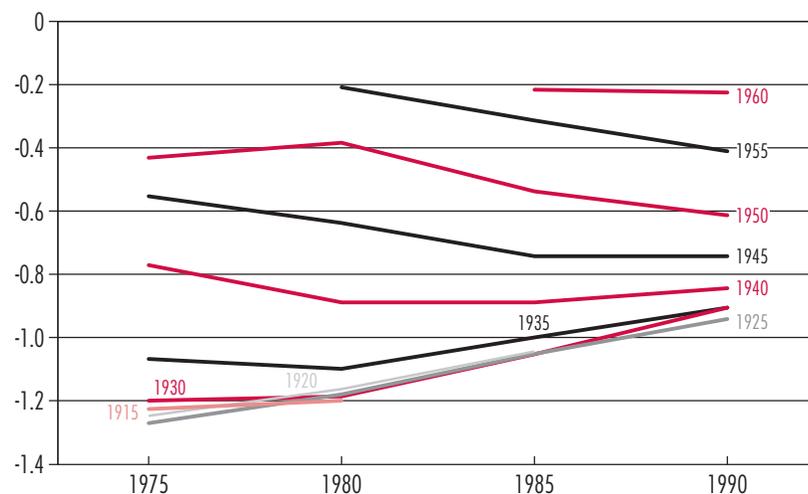
Women have traditionally made very different educational choices and these contribute to the glass ceiling for decades into the future. As late as 1975 to 1980, for every female graduate in civil engineering in Sweden there were about 11 male graduates. The situation was similar in the United States. When men and women make the same educational choices and work

full time, there is relatively little difference in the level they reach in the organization. In the Swedish case for 1990, the difference between reached rank for women and men is only about .452 of a rank. And even this difference is most likely due to the differences in tenure.

There is also a clear life-cycle effect. Women are at their most productive ages just when family chores often weigh heavily. The average rank gap between men and women is tiny (-.001) between the ages of 26-35, increases between the ages of 36-60, and then decreases again at higher ages, as might be expected if the difference were due to responsibilities at home.

When organizations looked for experienced leaders with relevant credentials to promote in the 90s, they had an unbalanced labor supply to draw on for top positions. By 2000 this pool had changed, yet the effects will persist. In the Swedish data, there is a

Figure 1
Effect of Being Female on Rank. Full Regression. Separately by Birth Cohort for Each Year.



clear trend to show a decreasing gender rank gap for women in the later cohorts. [Figure 1]

Besides supply and demand factors, there may also be institutional factors, by which I refer to all the factors not controlled by employers that may make it easier for men to achieve top positions in management, the professions, and the sciences. Of major importance are wage and income distribution, the provision for child care services, and the educational system.

Institutional Factors

To reach the top of the career ladder often requires exceptional amounts of effort and time. When women bear the primary burden of family chores, the economic return to pursuing a top-level job depends on the difference between the prospective wage and the cost of hiring others to do the household chores. Wage compression, that is, less wage inequality between professional workers and home care and child care workers, then discourages the pursuit of careers more for women than for men.

A second institutional feature important for women's choices is availability of child care services. The effects of child care are not straightforward, however. Reducing the costs of raising children may lead to increased fertility, which in turn may be detrimental to female careers. Furthermore, policies that offer mothers substantial periods of paid and unpaid maternity leave, the right to work shorter hours, and other benefits to help reconcile work with family led

to unintended consequences that made it easier for women to work part time instead of full time.

A third institutional feature is that employers seek employees with specific educational credentials and the type of credentials that matter may change over time. Often the neurosciences, star attorneys, and computer scientists end up in the highest paid jobs. They are often men's choices, where women choose to enter careers as radiologists, biologists, and family lawyers/judges.

Policies of the Past: Policies for the Future

Ours is not the first generation to seek to create better opportunities for women and there are important lessons to be learned from past policy failures. Policies like family leave that make it easier for working women to raise families and for mothers to do productive work have encouraged part-time work among women, which creates a barrier to career advancement. Proposed policies to create a separate track for women or mothers in the academy could have a similar effect, segregating women into different kinds of jobs that slow their professional development. Similarly, modifying standards, as the NAS report suggests, to recognize women's different values, say for teaching over research, might simply relegate women to lower-prestige jobs. It will exacerbate segregation rather than alleviate it.

The policies that both benefit women and promote their professional development are quite

different. First, we need to create expectations that women will be treated equally by creating clear rules for hiring, evaluations, and promotions so that the role of bias is reduced. This does not mean that evaluations should be mechanical, but where subjectivity is necessary blind reviews or other neutral procedures should be used whenever possible.

Second, it is critical to begin to prepare both men and women better for the future by teaching programs that begin in pre-school and kindergarten. Both boys and girls should be encouraged to love challenges and aspire to high achievement. Both sexes should be taught nurturing skills so that future roles are not dictated by gender-specific training.

Third, there is a conflict between current family policies and the desire to promote women to high positions. High divorce rates, with women most often getting custody of any children and men paying child support, encourage women to devote more time to home and less to work than men do.

Even with the best policies, constructive change will take time. The skills and attitudes needed to move into top positions are developed over a long period of years and today's leaders' qualifications depend on their education 20, 30, or even 40 years ago. It will take time for women to catch up with men and caution not to institute aggressive and counterproductive policies while the current generation of young women builds its qualifications.

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