

OCCUPATIONAL SEGREGATION

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In this article, we describe trends in and patterns of occupational segregation and discuss their implications for the gender gap in wages, an especially important form of inequality. We take on four questions in turn: Is the U.S. occupational structure deeply segregated by gender? Is segregation declining? Which occupations are most segregated? And is the gender gap in wages driven mainly by occupational segregation?

How Much Segregation Is There?

In the United States and all late-industrial societies, the division of labor is expressed through occupations, each of which is a bundle of tasks and roles tagged with such familiar labels as doctor, lawyer, computer programmer, teacher, nurse, carpenter, plumber, and so on. Because occupations are a source of identity and determine access to a wide range of economic and noneconomic rewards, it is important to ask whether women and men typically end up in the same ones. In other words, is there much occupational segregation?

In a hypothetical world with no occupational segregation, we might expect about 48 percent of workers in every occupation to be women, because about 48 percent of paid workers are women. This expectation is wildly off the mark. In reality, occupations vary enormously in the share of workers who are women, ranging from about 3.5 percent in occupations such as home appliance repairers to 95 percent in occupations such as secretaries and child care workers. This is a simple—but profound—form of gender inequality that is too often seen as natural or inevitable.

As of 2016, about half of women would need to shift into a new occupation to eliminate all occupational segregation by gender. This hypothetical desegregation effort could occur if 49 percent of women moved out of their current female-dominated occupations and into male-dominated occupations.¹ Alternatively, 49 percent of men could move from male- to female-dominated occupations, or about a quarter of women

KEY FINDINGS

- Nearly half of the women in the labor force would have to move to a different occupation to eliminate all occupational segregation by gender.
- Gender segregation increased in the 1950s and 1960s, declined quite sharply in the 1970s and 1980s, but stalled starting in the 1990s. If the average annual rates of change since 1970 were to continue, it would take 150 years to reach full integration; if post-2000 rates continued, it would take 320 years.

and a quarter of men could switch to occupations not dominated by their own gender. In technical terms, this degree of occupational segregation can be expressed by the index of dissimilarity D , which in 2016 was 0.49, or equivalently 49 percent.

Levels of gender segregation also vary by race. Hispanic women are slightly more segregated from Hispanic men ($D=51\%$) than white women are from white men ($D=50\%$). Black women ($D=47\%$) and Asian women ($D=39\%$) are somewhat less segregated from black and Asian men, respectively.² The relative “success” of black women on this measure is due in part to the extreme disadvantage faced by black men. That is, because black men are so profoundly underrepresented in managerial and other desirable occupations, it’s easier for women to “catch up” to them. If instead white men are used as the reference category, then black and Hispanic women have the highest levels of segregation ($D=54\%$), while white and Asian women have the lowest levels ($D=50\%$).

Trends in Segregation

To put current levels of segregation in context, Figure 1 presents trends in occupational segregation from 1950 through 2016.³ Between 1950 and 1970, segregation increased overall, although not for black or Hispanic workers. This is likely

a continuation of the resegregation of the labor force after World War II.⁴ Segregation declined by 13 percentage points in the 20 years between 1970 and 1990, but by only 3 percentage points over the next 20 years, with some variation by race. In the post-recession era, integration shows signs of increasing, but at nowhere near the pace of the 1970s and 1980s. If the average annual rates of change since 1970 were to continue, it would take 150 years to reach full integration; if post-2000 rates continued, it would take 320 years.

Why have rates of segregation remained so high? One answer lies in the resistance of female-dominated occupations to integration. Their average pay is typically lower, so there is less economic incentive for men to enter them. It's also less acceptable in American culture for men to aspire to "women's occupations" than the reverse.⁵ Another answer, though, lies in resegregation: When formerly male-dominated occupations begin to integrate, they often pass the point of full integration and continue to feminize (e.g., veterinarians).

What Occupations Do Men and Women Hold?

Segregation scholars often differentiate between segregation across occupations that differ in their tasks ("horizontal segregation") and segregation across occupations that differ on

some ordered criterion, such as pay ("vertical segregation").⁶ Both forms of segregation are very common. Most child care workers are women, and most bus drivers are men, but the pay of child care workers and bus drivers is about the same. This, then, is a form of horizontal segregation. "Glass ceilings," by contrast, are a form of vertical segregation in which men hold the positions in a company with the highest pay, most authority, greatest chances for promotion, and so on.

Figure 2 graphs the percentage of women in different occupations in 2015 and 2016. In this figure, detailed occupations (e.g., lawyer, carpenter) are grouped into big categories such as professional, managerial, or craft occupations.

Horizontal segregation often takes the form of women disproportionately working in occupations that emphasize non-manual skills and men disproportionately working in those that emphasize manual skills. For example, women constitute 73 percent of workers in clerical occupations, but less than 4 percent of workers in craft occupations. Horizontal segregation also occurs within major groups such as the professions, where women are more likely to work in occupations that are "people-oriented" rather than "object-oriented."⁷

FIGURE 1. Trends in Occupational Segregation by Race, 1950–2016

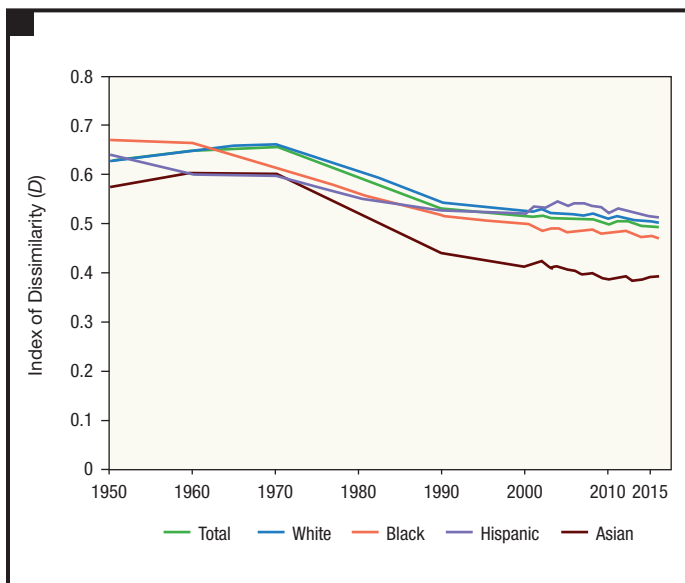
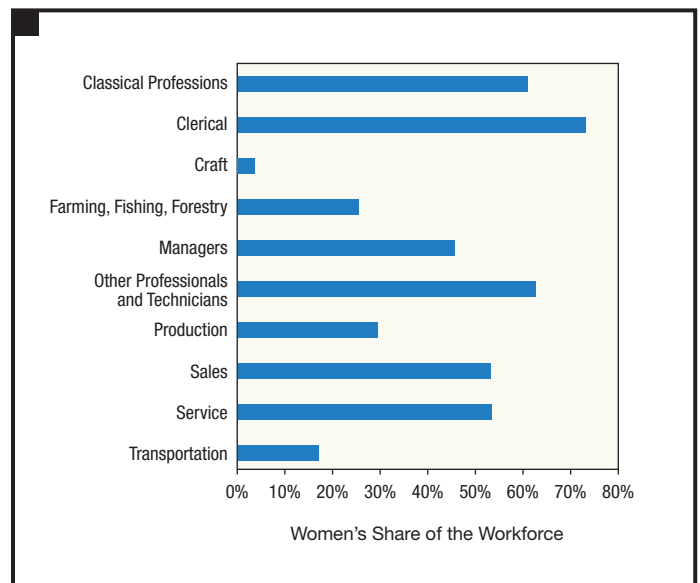


FIGURE 2. Women's Share of the Workforce by Major Occupation Groups, 2015–2016



Source: Figures 1–2 are based on authors' analysis of IPUMS Census and American Community Survey data.

Vertical segregation is also very strong. As the percentage of women in an occupation increases, the median wages of that occupation decrease ($r=-0.21$, across all 474 detailed occupations that are coded in the census data). This negative correlation is stronger in sales (-0.89), production (-0.67), and “other professional and technician” occupations (-0.62), weaker (-.07) in craft occupations (where there is little variability in the percentage of women), and slightly positive in farming and clerical occupations ($r=.05$ in both). Overall, only 20 percent of American women work in occupations where women’s median hourly wage is at least 95 percent of men’s median hourly wage. Only 5 percent work in occupations where women’s mean wage is at least 95 percent of men’s mean wage.⁸

Why Does Occupational Segregation Matter?

Segregation is of interest in its own right as an indicator of inequality, but it’s also a key source of other forms of inequality, such as the gender gap in wages. In 2016, a college-educated white woman with average experience who works 40 hours a week has a predicted hourly wage of \$5.00 less (about 10%) than a white man with similar attributes.⁹ This gap decreases to \$4.10 after adjusting for between-occupation pay differences, implying that occupations “explain” about 18 percent of the human capital-adjusted gender gap in wages. The share varies by race and is sensitive to the other covariates included in the model, but it is typically greater than the shares due to education or experience.¹⁰

It follows that as occupational segregation declines, so too does the gender gap in wages. But the gap-reducing effects of desegregation have been countered by gap-increasing changes in occupational wages. Even though women have entered many professional and managerial occupations, the

wage disparities between “male” and “female” occupations have also grown since the 1970s, muting the effect of integration on the gender wage gap.¹¹

Conclusions

Occupational segregation is the result of “push” and “pull” factors rooted in social interaction and social structure. These factors include discrimination against women or mothers, gender-specific socialization, gender-linked traits or “natural” abilities, cultural beliefs about men and women’s competence and double standards of evaluation, the household division of labor, workplace experiences (e.g., sexual harassment), government policies that prohibit within-job discrimination but allow disparate pay for comparably skilled jobs, and work-family policies.

One lesson can be drawn from this literature: Any serious effort to understand gender inequality in labor market outcomes, including wages, cannot simply “control away” occupations. We cannot, for example, take the very low share of women among Silicon Valley computer engineers as a given, and only ask whether women are paid less than men once they become computer engineers. These within-occupation pay inequalities are important, but so too are the social processes that lead to segregation, and in particular vertical segregation, in the first place. If the goal is to reduce gender inequality in wages, we need to develop better policy that alleviates occupational segregation itself, not just within-occupation pay differentials.

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NOTES

1. Unless otherwise noted, all statistics presented in this article are from our analysis of data from the Census (1950–2000; Ruggles, Steven, Katie Genadek, Ronald Goeken, Josiah Grover, and Matthew Sobek. 2017. *Integrated Public Use Microdata Series: Version 7.0* [dataset]. Minneapolis, MN: University of Minnesota), American Community Survey (2001–2016; Ruggles et al., 2017), and, for covariate-adjusted models of hourly wages, Current Population Survey (2013–2016; Center for Economic and Policy Research. 2017. CPS ORG Uniform Extracts, Version 2.2.1. Washington, D.C.). A “female-typed” occupation is one in which the share of women exceeds the share of women in the paid labor force; a “male-typed” occupation is the reverse.

2. Segregation among American Indians/ Native Alaskans and “other races” isn’t presented because of small sample sizes, but these groups are included in race-pooled estimates. Races are mutually exclusive, and imputed (from ancestry and other covariates) in censuses collected before that racial group (e.g., Asian) was explicitly included in the race

question; see the IPUMS documentation for details.

3. In constructing Figure 1, we calculated D using the occupation scheme with which the data were originally collected. We obtained similar trends when we harmonized occupations to the 2010 and 1990 schemes.

4. For trends in the early 20th century, see Weeden, Kim A. 2004. “Profiles of Change: Sex Segregation in the United States, 1910–2000.” In *Occupational Ghettos: The Worldwide Segregation of Women and Men*, eds. Maria Charles and David B. Grusky. Stanford, CA: Stanford University Press, 131–178.

5. England, Paula. 2010. “The Gender Revolution: Uneven and Stalled.” *Gender and Society* 24(2), 149–166.

6. See Levanon, Asaf, and David B. Grusky. 2016. “The Persistence of Extreme Gender Segregation in the Twenty-First Century.” *American Journal of Sociology* 122(2), 573–619. Also Charles, Maria, and David B. Grusky. 2004. *Occupational Ghettos: The Worldwide*

Segregation of Women and Men. Stanford, CA.: Stanford University Press.

7. See, for example, Lipka, Richard A., Kathleen Preston, and John Penner. 2014. “Women’s Representation in 60 Occupations from 1972 to 2010.” PLOS ONE. <https://doi.org/10.1371/journal.pone.0095960>.

8. The disparity is greater for mean than for median wages because means are pulled up by especially high earners, most of whom are men.

9. We find similar results in models of logged wages but present “raw” results because they are easier to interpret.

10. Blau, Francine, and Lawrence M. Kahn. 2016. “The Gender Wage Gap: Extent, Trends, and Explanations.” IZA Discussion Paper 9656. Last accessed January 24, 2018.

11. See Blau and Kahn, 2016.