



Trends in Women's and Men's College Majors across Four Decades in Norway

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Abstract

Women are now more likely to receive college degrees than men, yet important differences remain in the college majors of women and men. This visualization depicts women's and men's college majors across four decades in Norway. The authors document the movement of women into higher paying majors and show that men are increasingly majoring in fields that are gender integrated. However, women remain overrepresented in female-dominated majors, and men remain in overrepresented in majors that have historically been well paid. This visualization thus underscores the progress that has been made in achieving gender parity in education as well as the challenges that remain.

Keywords

gender, education, inequality

Women have surpassed men in the likelihood of completing higher education, yet gender segregation by college majors remains a substantial concern (Charles and Bradley 2009; Gerber and Cheung 2008). In particular, to the degree that women are overrepresented in fields that have lower returns in the labor market, we might find that women's increased college graduation rates fail to translate into labor market equality. We plot women's and men's college majors over time, showing how the higher education landscape has changed across the past four decades in Norway in terms of the proportion of men in a major (*x*-axis) and the relative earnings of men in that major (*y*-axis).

Given work on occupational segregation underscoring the importance of both women's movement into historically well-remunerated, male-dominated spaces and men's movement into feminized contexts (England 2010), we report not only trends in women's majors but also trends in men's majors. To obtain a measure of earnings for educational fields that is not depressed by gender differences in earnings, we rank all majors by their average earnings for male graduates and use this as our proxy for the value of this major in the labor market. Values for an educational field's mean male earnings (*y*-axis) and proportion of men (*x*-axis) are calculated using the preceding cohort, so that Figure 1 depicts the concentrations of women and men in fields that were previously characterized by high earnings for men or were male dominated (i.e., this allows us to see if all the women in a cohort major in a previously male-dominated field).

We show that across four decades in Norway, women are increasingly moving into higher paying majors. The median woman was in a major ranking at the 25th percentile of male earnings in the 1980s, compared with a 43rd percentile major in the 2010s, and a critical mass of women now major in fields in the top 20th percentile. However, the gender composition of women's majors is relatively consistent over time.

For men, we see a trend away from male-dominated fields and toward majors that are closer to gender parity. In the 1980s, the median man was in a major that was 86 percent male, while in the 2010s the median man was in a major that was 57 percent male. That said, the majority of men remain in relatively highly remunerated majors.

This figure highlights both the convergence of women's and men's majors (women are increasingly graduating with majors that have been historically well compensated; men are increasingly in gender-integrated majors) and the ways in which they are not converging (women remain primarily in female-dominated majors; men remain in majors that have historically been well paid). In doing so it underscores the substantial progress that has been made in achieving gender parity, as well as the substantial work that remains.

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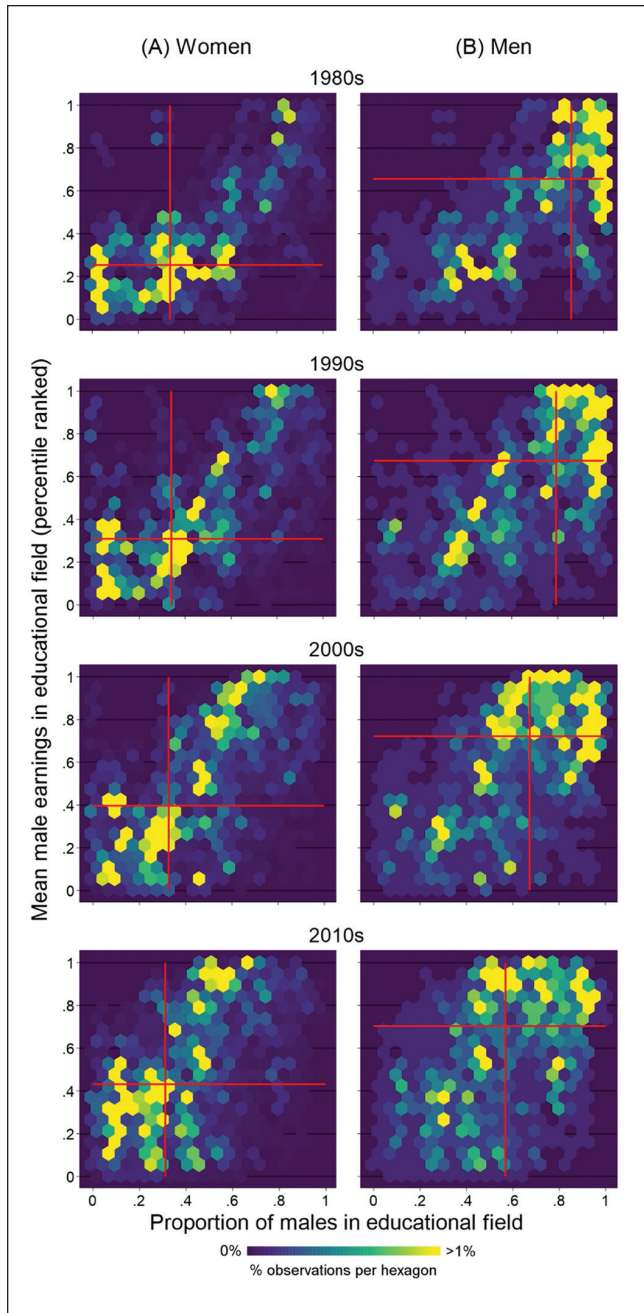


Figure 1. Heat plots of the bivariate distribution of the proportion of men (x -axes) and mean male earnings (y -axes) within educational fields separately for male and female graduates from higher education across four decades in Norway, 1980 to 2018. Detailed college majors (six-digit educational fields of study in higher education) are based on highest educational degree obtained by age 30 using administrative data from Norway. The proportions of men within educational fields are calculated for persons 40 to 55 years old separately for each year. Mean male earnings within educational fields are calculated for persons 40 to 55 years old separately for each year. Percentile ranks of mean male earnings are based on the distribution of educational fields

(continued)


Figure 1. (continued)

and not individual person observations. The color intensity of each hexagon cell describes the percentage of the total number of male and female graduates, respectively, in the given cell from 0 percent (dark blue) to 1 percent or more (bright yellow). The vertical and horizontal red lines in each plot refer to the median of proportion male and mean male earnings within educational fields, respectively, for men and women in each decade. The heat plots were produced using the Stata module heat plot (Jann 2019). The Online Supplement provides a detailed description of the data used for the visualization.

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Supplemental Material

Supplemental material for this article is available online.

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