

# Trends in U.S. Gender Attitudes in 1977-2018: Gender and Educational Disparities

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## Supplemental Material

### Data

We use twenty-one waves of the General Social Survey from 1977-2018 ( $N = 57,224$ ) to construct the graphs in Figure 1 (Smith et al. 2019).

### Measures

Figure 1 displays historical trends in responses to four survey questions that have been frequently used in research on U.S. gender attitudes (Brewster and Padavic 2000; Brooks and Bolzendahl 2004; Cotter, Hermsen, and Vanneman 2011; Mason and Lu 1988; Shu and Meagher 2018). The exact text of the four survey items and response options is listed below:

1. FECHLD: “A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.” (Response options: strongly agree, agree, disagree, strongly disagree)
2. FEFAM: “It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.” (Response options: strongly agree, agree, disagree, strongly disagree)
3. FEPRESCH: “A preschool child is likely to suffer if his or her mother works.” (Response options: strongly agree, agree, disagree, strongly disagree)
4. FEPOL: “Most men are better suited emotionally for politics than are most women.” (Response options: agree, disagree)

We recoded the first three items into binary measures (agree/disagree), and we recoded all measures so that the reference category is the less-egalitarian option (i.e., 1=agree/0=disagree for FECHLD, and 1=disagree/0=agree for FEFAM, FEPRESCH, and FEPOL). We use binary measures for three reasons: (1) the differentiation between agreement and disagreement is more salient than variation in the level of agreement or disagreement; (2) dichotomizing the three items with 4-category response options facilitates direct comparisons with the one binary item (FEPOL); and (3) we simplify our presentation and interpretation.

Other covariates include gender, education, and age. Historically, the GSS measured gender as a binary identity (male/female), though in 2018 they introduced expanded gender identity options. We include the binary indicator to estimate historical trends in gender attitudes. In the education models, education is a binary variable for any college attendance (defined as 13 or more years of school; reference = 12 or fewer years of school). In the gender models, we include a control for the highest year of education (in years). The education models include a control for gender. All models include a continuous measure of the respondent’s age, which the GSS top-codes at 89 years old.

## Analysis

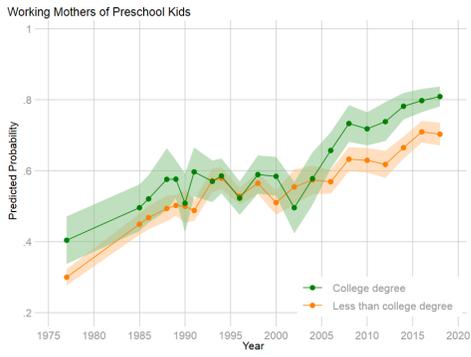
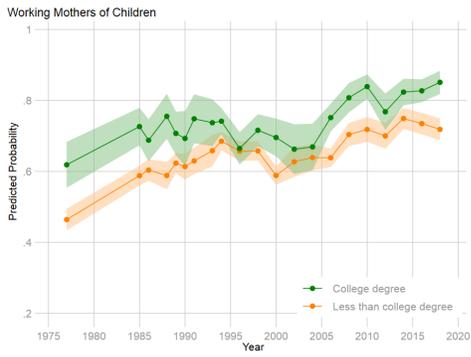
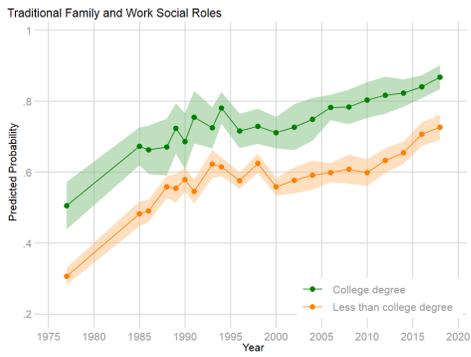
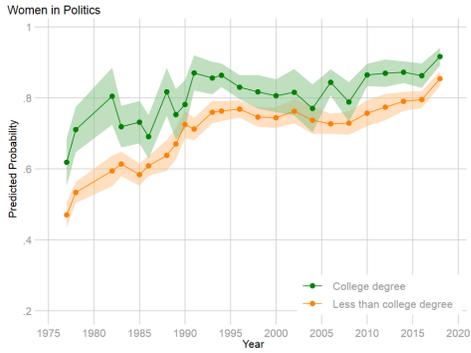
We constructed eight logistic regression models to estimate historical trends in the four survey items by gender and education. The gender models include an interaction between survey year and gender, with controls for age and education (in years). The education models include an interaction between survey year and college attendance, with controls for age and gender. All models were estimated with the recommended survey weights in Stata 15.

Figure 1 shows changes in the predicted probability of egalitarian gender attitudes by gender and education over time, adjusting for demographic controls. The plots display the full marginal effects predictions by survey year and individual gender and education; in other words, we estimate the average predicted probability of  $y=1$  across all observed cases at each level of the interaction between survey year and either gender or education, respectively. The unadjusted trends (without controls for age, education, and gender) are substantively similar to the adjusted trends. By presenting the adjusted trends, we present more conservative estimates of the gender and educational effects on gender attitudes over time.

The code required to replicate the figures in the main text and supplemental file can be found at <https://osf.io/pej5d>.

## Robustness Check

We use a binary measure of any college attendance (i.e., 13 or more years of education) in the education models, motivated by the hypothesis that any exposure to higher education may influence individual gender attitudes, even without completion of a degree. However, another commonly used educational measure is college degree attainment. As a robustness check, we estimated another set of educational models, with education measured as college degree completion (i.e., 1 = respondent's highest degree is a bachelor's or graduate degree, 0 = less than bachelor's degree). Figure A1 displays these results, which are substantively similar to the results presented in Figure 1.



**Figure A1.** Historical trends in U.S. attitudes about four dimensions of gender equality, by college degree attainment. The connected points are estimates from weighted logistic regression models that include an interaction between survey year and college degree. Models also include controls for age and gender. The shaded areas are 95% confidence intervals. Data source: General Social Survey, 1977-2018 ( $N = 57,224$ )

## References

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