

Beyond Accounting: Inequality, Assortative Mating and Labor Supply in the United States and Germany

Nico Pestel
IZA and University of Cologne

This paper assesses the effect of increasingly assortative mating on income inequality in the U.S. and Germany over periods of almost 30 years taking into account the importance of labor supply behavior related to the household context.

Income inequality has strongly increased in the United States as well as in Germany over the past 30 years. The literature has identified numerous factors that have contributed to this observation. In particular, the distribution of labor earnings, which make up the largest share of total household income, has become much more unequal over the past decades. An extensive literature is concerned with issues related to increases in inequality of hourly wages, like skill-biased technological change, the gender wage gap and changes in labor market institutions. Moreover, changes in labor supply behavior, in particular increases in the labor force participation of women, have been identified as significant determinants of earnings inequality.

In addition to this literature, several contributions have shown the importance of changes in household characteristics related to increases in income inequality. Among others, increasingly assortative mating of spouses within couple households has been found to shape the distribution of income as well. Increasing similarity of spouses in terms of earnings-related characteristics has an amplifying effect on inequality since it reduces the level of redistribution of resources within households. More specifically, when the share of couples with both partners either being high or low wage earners becomes more important, inequality will be higher than in a situation where couples with one high and one low wage earner dominate. This is also related to the increasing labor force participation of women, since this development has decreased the number of couple households with only one breadwinner.

However, previous studies analyzing the importance of female earnings in general and its increasing association with the earnings of their male spouses for inequality in particular can largely be classified as accounting approaches. This is due to the fact that the counterfactuals chosen in these analyses are quite coarse and are restricted to situations where, for example, female earnings are globally set to zero, are restricted to a certain mean level or where the distribution of female earnings is kept fixed. Moreover, in this literature the importance of behavioral effects (labor supply) has widely been ignored. This is however important, since earnings do not only reflect changes in a worker's productivity (the wage rate) but also depend on the number of hours worked. Working time is thereby considerably influenced by the household context. For individuals in couples, it depends on the household's collective utility maximizing decision on the allocation of both partners' available time on paid work, household production and leisure. Changes in household characteristics will therefore also be reflected in changing labor supply behavior.

For this reason we argue that the assessment of the effect of assortative mating on income inequality should be extended in two directions. First, the appropriate counterfactual to assortative mating in an observed sample of households, i.e. the observation of non-random sorting of spouses, should be a sample of randomly matched spouses. Second, labor supply behavior should explicitly be taken into account in order to disentangle the pure effect of assortative mating.

In this paper, we employ almost 30 waves of the U.S. Current Population Survey (March CPS), the German Socio-Economic Panel Study (SOEP) as well as the NBER's tax-benefit microsimulation model TAXSIM for the U.S. and comparable tax-benefit calculators for Germany and estimate a discrete choice household labor supply model for couples. This provides estimates on individual and household variables determining the observed labor supply decisions of couples over the period under consideration. These are, among others, the spouses' levels of education, age and the number of dependent children as well as various interactions. Then, we assign males and females from couple households randomly to each other by country. In this way we create samples of hypothetical couples, which serve as counterfactual benchmarks to assess the effect of non-random, i.e. assortative mating. Since characteristics of the partner – the household context – are important for an individual's number of hours worked, labor supply will respond to this hypothetical environment. In order to capture these labor supply reactions, we use the estimated coefficients from the sample of observed couples and predict the labor supply behavior of the hypothetical couples. This allows us to calculate the respective earnings of the randomly assigned individuals and hence total household income of the hypothetical couples. Differences in levels of income inequality between the distributions of observed and the hypothetical couples after labor supply adjustment allows quantifying the pure effect of assortative mating on inequality in the U.S. and Germany over a period of almost 30 years.