## Heterogeneous preferences, female labor participation and life satisfaction

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## Abstract

While female labor participation rates have increased substantially in recent decades, in all age groups and at all educational levels there are both substantial fractions of women who work and women who decide not to participate in the labor market. Heterogeneity in preferences must be an important aspect of female labor participation therefore. As working preferences are intimately related to the well-being that women derive from working, heterogeneity of preferences is reflected in heterogeneity in well-being. The aim of this paper is to investigate the heterogeneity between women in how much working adds to their life satisfaction, and how life satisfaction of working and non-working women is affected by changes in the participation rate.

We develop a framework in which women vary with respect to a latent variable that describes their preference for work. Both the expected life satisfaction when not working and the (potentially negative) extra life satisfaction that can be derived from working vary with this latent factor. In addition to that, the utility of non-participating and participating women is affected by the participation rate in a region, representing utility interdependence and public-good effects.

The model can be identified by comparing the first and the second moment of the distribution of life satisfaction of working and non-working women across regions that vary in their participation rate. A crucial assumption is that the distribution of the latent variable is the same across these regions (controlling for regional differences in earnings capacity of women and men).

We estimate the model using three different data sets: The European Social Survey (ESS), The Eurobarometer and the German Socio Economics Panel (GSOEP). The first two data sets can be used to estimate the coefficients exploiting both regional and time variation in the participation rate. The GSOEP can only be used for comparisons across time. All three datasets provide similar estimates, although estimates using time variation are slightly less pronounced than estimates using cross-regional variation.

Our main findings are:

- The extra utility women derive from work varies substantially between women.
- When working, women with a higher tendency to work have a higher life satisfaction than women with a lower tendency to work. When not working, the order is reversed: women with a higher tendency to work have a lower life satisfaction than women with a lower tendency to work

- Within a country, an increasing participation rate raises the life satisfaction of working women and increases the life satisfaction of working women as a result of utility interdependence and public-good effects. The joint effect of utility interdependence and public goods is larger for working women than for non-working women, but relatively small compared to the impact of heterogeneity in preferences.
- Life satisfaction of married males follows the same patterns as life satisfaction of their wives (varying female participation) but the effects, especially those of utility interdependence and public goods, are much smaller.

Based on the estimates for the ESS, the participation rate at which individual utility is maximized is 39.4%. Average life satisfaction of women would be maximized at 49%.

We do various robustness checks and discuss the implications of the results for the measurement of well-being, developments in female happiness over time, and the design of policies. In particular, our results shed light on the decline in female happiness relative to that of men in Europe (and the USA) since the 1970s (Stevenson and Wolfers, 2009). This decline is paradoxical given the ongoing emancipation of women in the labour market, and our results strongly suggest that it is related to the rise in female labour force participation. We find that while labour force participation is good for the happiness of many work-oriented women, it is bad for the happiness of many other, more home-oriented women (Hakim, 2000). Therefore, policy makers should differentiate their policies with respect to these very different groups of women.

## References

- Hakim, Catherine (2000), *Work-lifestyle choices in the 21<sup>st</sup> century*, Oxford University Press.
- Stevenson, Betsey and Wolfers, Justin (2009), The paradox of declining female happiness, *American Economic Journal: Economic Policy*, American Economic Association, 1(2): 190-225.