

# **A comparative analysis of European transfers of time between generations and genders**

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## **Abstract**

This study provides estimates of non-monetary transfers between generations and genders, and complements existing work developed by the National Transfer Accounts (NTA) project. We use time use data from the Harmonised European Time Use Survey (HETUS), and the Multinational Time Use Study (MTUS), to evaluate the extent of transfers of time between generations and genders across European countries. We estimate age and sex-specific profiles of time spent in unpaid productive activities (e.g., housework, childcare, care for the elderly). The unpaid working time is then allocated to those age groups that benefit from it (e.g., children for childcare, everybody in the household for housework) in order to estimate age-specific consumption profiles of time. We observe large transfers of time from females to males, and from adults to children and the elderly. Preliminary results indicate that there are similar patterns across countries, but also large variations. For instance, the extent of gender inequality in domestic work is much bigger in southern European countries. As we develop our models, we expect to be able to provide more precise statements on life course differences in household production and consumption, over time and across countries. The estimation of the time spent in activities such as childbearing, and caring for the elderly, allows us to evaluate the strength of intergenerational ties and the extent of incentives and disincentives for particular fertility choices in different social and institutional settings.

## **Introduction**

A large quantity of goods and services are produced by household members for their own consumption, without involving market transactions. Despite the economic and social importance of unpaid work, these productive activities are largely invisible to traditional national economic accounts. As a consequence, traditional measures of intergenerational transfers typically ignore household production, and thus underestimate the overall value of goods and services produced over the life cycle, in particular, the economic contribution of females.

Recently, there have been efforts to evaluate the extent of household production, and to integrate it into national accounts (e.g., Abraham and Mackie 2005). The estimation of non-market activities has become possible thanks to the increasing availability of time use surveys. Within the European Union, Eurostat has supported a series of projects, since the early 1990s, to harmonize time use statistics across countries.

In this study, we estimate unpaid work and household production, by age and gender, in a comparative perspective. In particular, we evaluate the size of transfers between people of different age and gender, or at different stages of their life course, across European countries. European time transfers have been discussed in the literature in the context of changing family patterns (e.g., Albertini, Kohli and Vogel 2007) mainly using SHARE data. Our paper contributes to the existing literature by providing an analysis of transfers of time by both age and sex, with a focus on the interaction between fertility choices, intergenerational ties, and patterns of non-monetary transfers. The available data allow us to answer questions such as: to what extent females contribute more to household production than males, across countries? How much help with childcare do young couples receive from their relatives? How much time do people spend to provide care to their elder parents? How much does the time investment on additional children vary across European countries? How much does the help that the elderly receive vary with the number of their adult children?

## **Data and Methods**

We use data from the Harmonised European Time Use Survey (HETUS) and the Multinational Time Use Study (MTUS). HETUS is a result of the collaboration between Eurostat and national statistical agencies. The database provides comparable time use data for 15 European countries, available through a web interface. MTUS is a collection of time use surveys that have been harmonized to allow for comparative analyses. Large samples of micro data, with information on the allocation of time to various activities of daily life are available for over 20 countries around the world.

We identified a set of unpaid productive activities that meet the “third party criterion”, i.e. people can potentially pay somebody else to do the activities for them (Reid 1934): childcare, grocery shopping, cooking, cleaning, gardening, etc. We then evaluated the mean time dedicated to these activities by gender and age groups, and used a smoother to obtain a smooth profile of time used for unpaid productive activities by age.

The profiles of household production by age are allocated to members of the household to estimate age and sex-specific profiles of consumption of time. For those activities that target specific age groups, such as childcare, or care for the elderly, the time produced is divided equally among those in the respective age groups. For other general activities, such as cooking or gardening, the time is divided equally among all members of the household.

## **Preliminary Results**

Figure 1 shows the estimated age and sex-specific profiles of average daily time dedicated to domestic activities, for five selected countries. Females tend to spend more time in domestic activities than males virtually at all ages. Time dedicated to domestic activities grows with age. For males, it slowly grows in a monotonic way. For females it reaches a peak between age 40 and 50, and then tends to either stabilize or slightly decrease. The age patterns are fairly similar across countries, but there are important differences in levels between genders. Figure 2 shows estimates of average daily time dedicated to domestic activities, by gender. The bars are the areas under the curves in figure 1, divided by the age range considered. The 15 countries in the bar plot are ordered from high gender inequality in domestic production (on the left) to low gender inequality (on the right). Gender inequality is measured as the ratio between female and male time dedicated to domestic activities. We observe that in southern Europe females spend, on average, more than twice as much time as males in domestic activities. Nordic countries, such as Norway and Sweden, are the ones with the smallest imbalance between sexes.

When we consider specific activities, such as childcare, we see significant differences between the sexes in virtually all countries (see figure 3). When we account for differences in labor force participation, and we compare people in similar occupational situations (people who either worked or did not work during the week before the interview), we observe a more balanced distribution of time dedicated to childcare (see figure 4). For a country like Sweden, there is a reversal of roles, with males spending more time than women in childcare activities, given the same occupational situation. In Italy, females spend much more time than males in childcare, even when we control for participation in the labor force.

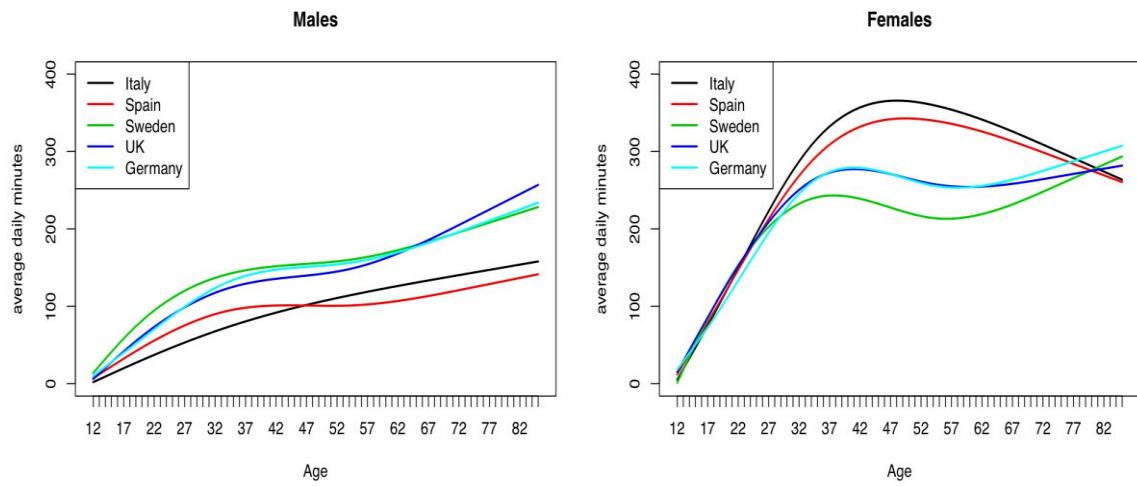
Our preliminary results show that there is evidence of fairly high levels of gender specialization across European countries. The results also show that there is a large amount of household work produced by females that is invisible to national economic accounts, which thus tend to underestimate the economic contribution of females.

As we develop our analysis, we expect to include in the paper age and sex-specific profiles of time consumption and transfers. The profiles of time transfers will provide information on the level and distribution of the time cost of childbearing, and on the extent of familial support for the elderly. The paper will provide a novel comparative analysis of time transfers by age and gender with a focus on the interaction between fertility choices, intergenerational ties, and patterns of non-monetary transfers.

## References

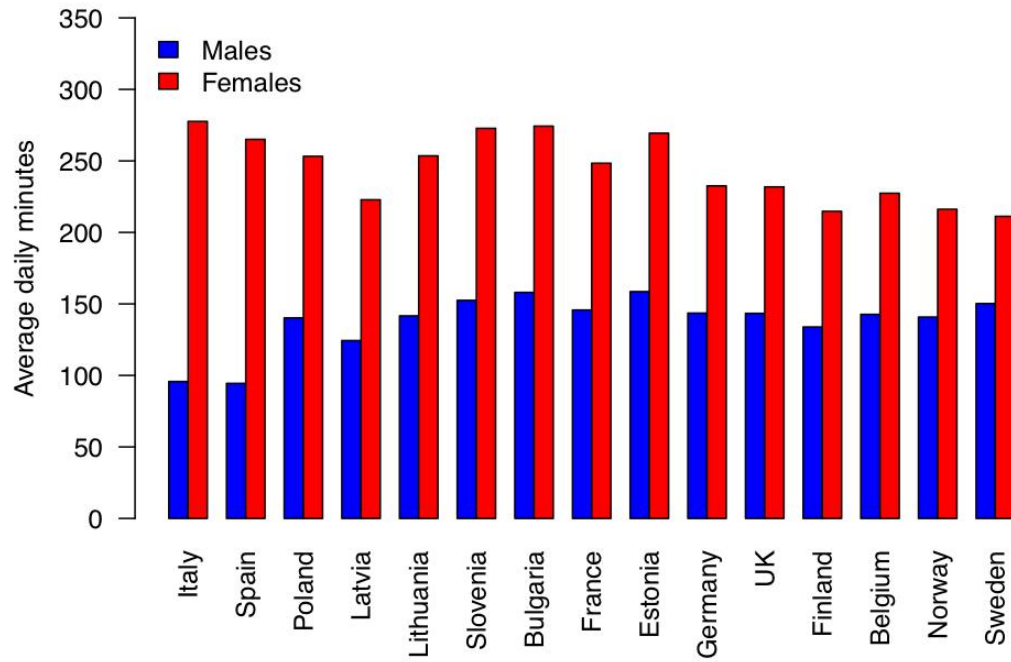
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## Figures



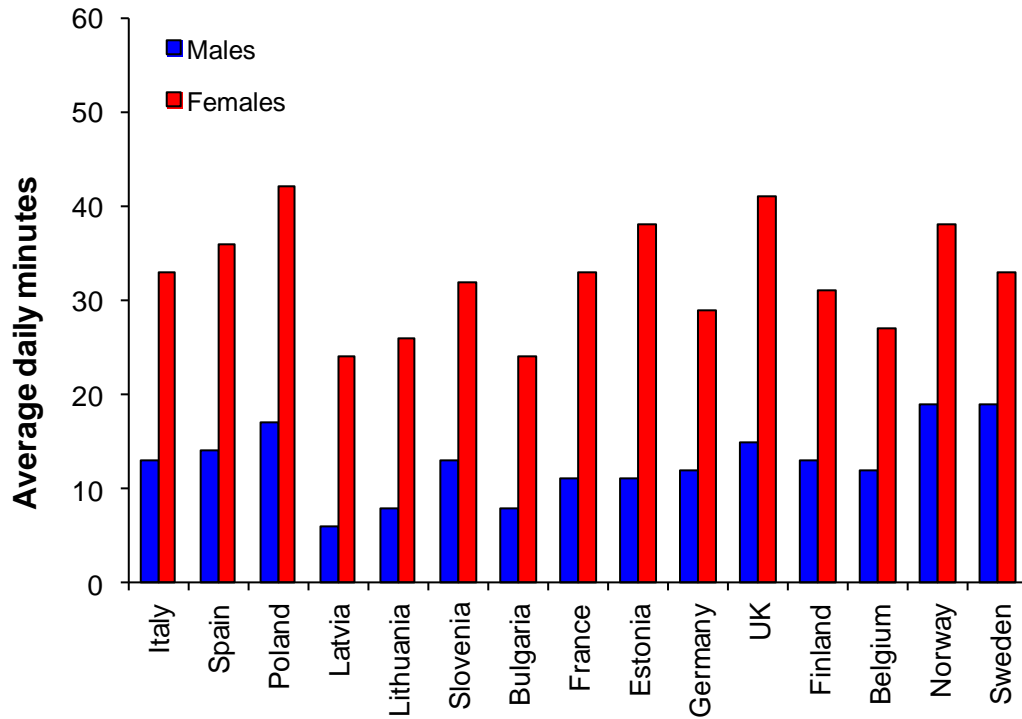
**Figure 1: Estimated age and sex-specific profiles of average daily time dedicated to domestic activities, for five selected countries. Data source: own elaborations on HETUS database.**

## Domestic activities

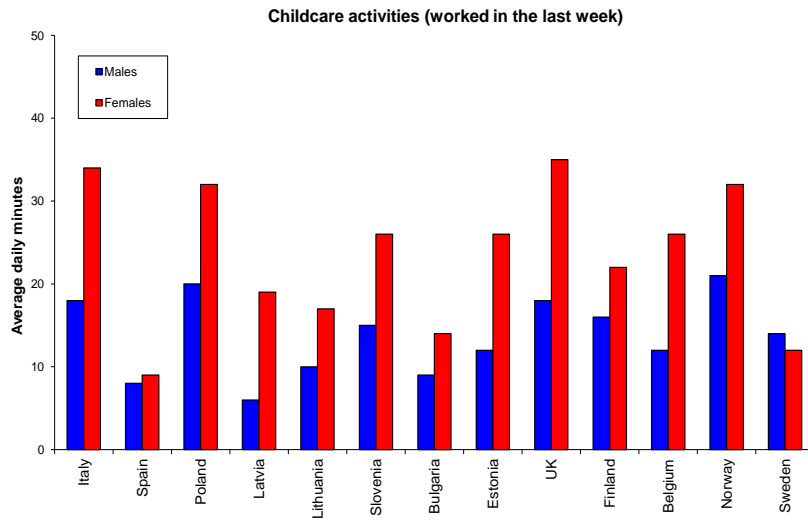


**Figure 2: Estimated average daily time dedicated to domestic activities, by gender, for countries in the HETUS database. The countries in the plot are sorted from high gender inequality (on the left) to low gender inequality (on the right). Data source: own elaborations on HETUS database.**

### Childcare activities



**Figure 3: Estimated average daily time dedicated to childcare activities, by gender, for countries in the HETUS database. Childcare activities include: physical care, supervision of child; teaching, reading, talking with child; transporting a child. Data source: own elaborations on HETUS database.**



**Figure 4: Estimated average daily time dedicated to childcare activities, by gender, for people that worked during the week before the survey. Data source: own elaborations on HETUS database.**