

Wages, taxation system and distribution of domestic chores

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Domestic chores and paid work are unequally distributed between men and women. Elena Stancanelli shows that the taxation system has an impact on the allocation of chores between spouses. Joint taxation system discourages wives who earn much less than their husbands from working. Moving to a separate taxation system would tend to equalize the time devoted to professional activities and domestic work between spouses.

Almost every day we carry out some domestic tasks: we shop for food; we cook; we set and unset the table; we wash up the dishes; we do the laundry; and we take care of children. Some also go out to work for pay in the market.

The conventional economic model assumes that individuals arbitrate between working for pay in the market or enjoying time off-work. All the time off-work is considered as “pure enjoyment”, ie “leisure”, in the economist jargon. One of the first economists to realize that time off work was not all “pure enjoyment” or “leisure” is Becker, who received the Nobel prize in economics in 1992.¹ But Becker cannot be credited for having paid a lot of attention to household chores. One of the first economists to study the time individuals allocate to domestic tasks is Gronau², who focused on how married men and women shared their time between market work and domestic work. Recent studies point out that one should go further and distinguish non-market time across different activities like, in particular, domestic tasks

¹ See Becker, G. S. (1965), “A Theory of the Allocation of Time”, *The Economic Journal*, Vol. 75, No. 299, p. 493-517.

² See Gronau, R. (1976), "Leisure, Home Production and Work. The theory of the allocation of time revisited", NBER Working paper No. 137, May.

and childcare³. The standard economic model is about a “rational” individual taking “economic” decisions. This standard model not only ignores household chores, but also it does not take into account that individuals may be part of a larger household and their decisions may not be independent from each other. One of the first economists to put forward an economic model for the household as a whole rather than the individual was Becker back in the sixties. The current literature in this area has developed fast and it now considers couple households as made up of two individuals, each with his own utility function⁴.

Let us consider a couple with children and assume that their household income would increase -for example, because of a promotion or some inheritance. Will they use part of the extra money to buy more cleaning services, or rather to eat out more often? Economic policies like equality of opportunity or income taxation affect men and women’s employment prospects and the rewards from work and may thus also impact on how spouses share on paid and unpaid work. The research I am surveying here analyzes how household income and wages affect the time that spouses dedicate to paid work, domestic tasks and childcare⁵.

Figure 1 provide some information on how men and women all over Europe divide their time between market work, domestic work and “leisure” (see Figure 1). Here domestic work is broadly defined to include also time spent caring for children. Leisure includes activities like going out, doing sports, watching television and similar uses of time. In Figure 1, we see that in most countries, the amount of market work performed by women is very close to that of domestic work done by men. Now, this European sample includes individuals aged up to seventy years, and also includes week days and weekend days. So we find that on average time spent in paid work by men is roughly 4 hours per week; and time spent doing domestic work by women is about the same. Men enjoy on average more leisure time than women do.

³ See:

Kooreman, P. and Kapteyn, A. (1987), “A disaggregated analysis of the Allocation of Time within the Household”, *The Journal of Political Economy*, Vol. 95, No. 2, p. 223-249.

Kimmel J. and Connelly R. (2007), “Mothers’ Time Choices. Caregiving, Leisure, Home Production, and Paid Work”, *The Journal of Human Resources*, vol. XLII (3), p. 643-681.

⁴ For a review of the literature, see Sofer C. (2004) « Les choix relatifs au travail dans la famille : modélisations économiques des décisions du ménage et applications », *Travail et Emploi*, n° 102, p. 79-89.

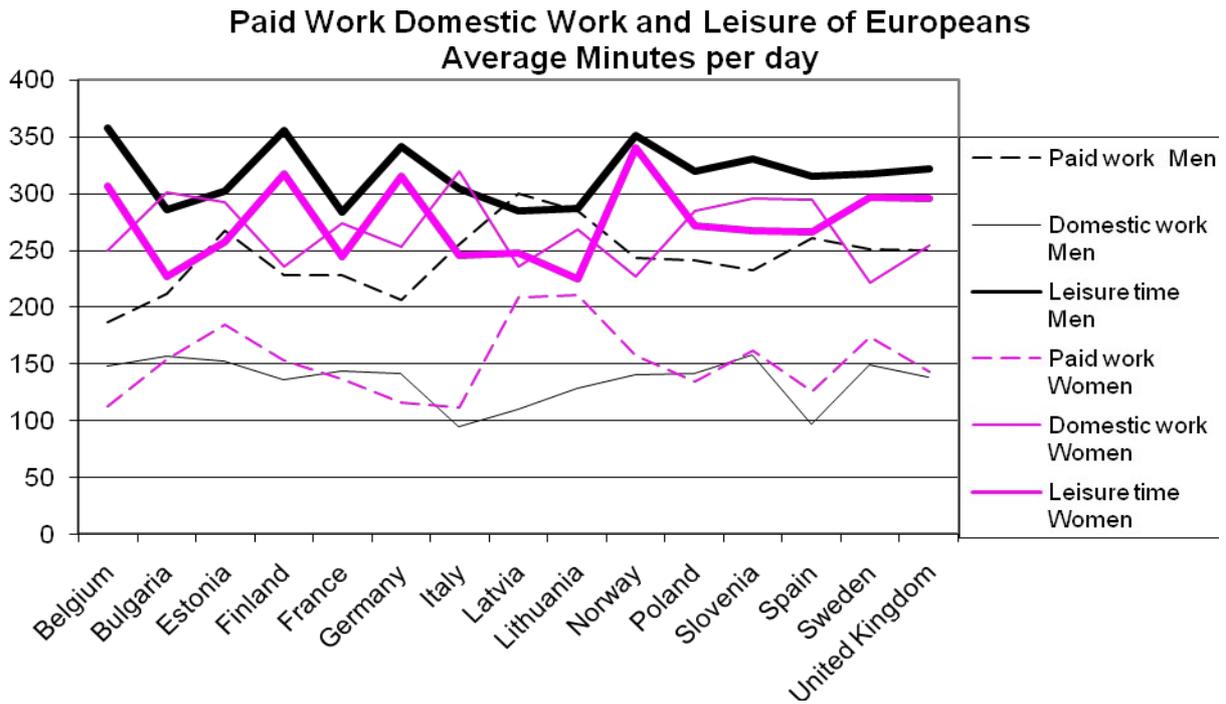
To go further, see papers from a workshop we organized at Nice in June 2008, <http://www.gredeg.cnrs.fr/Colloques/HDTW/Index.htm> for more details).

⁵ See:

Hersch J. and Stratton L. (1994), “Housework, and the Division of Housework Time for Employed Spouses”, *The American Economic Review*, vol.84 (2), p. 120-125.

Kalenkoski C., Ribar D. and Stratton L. (2008), “The Influence of Wages on Parents’ Time Allocation of Time to Child Care and Market Work in the United Kingdom”, *Journal of Population Economics*, forthcoming.

Connelly R. and Kimmel J. (2007), “Spousal Influences on Parents’ Non-Market Time Choices”, IZA DP No. 2894



Source: Author's calculations. Harmonized European Time Use survey (HETUS): persons aged 20-74 years. The years covered vary country by country. Domestic work includes childcare time and excludes travelling time. Paid work excludes travel time to work. All activities are measured in minutes per day.

Let us then look at how spouses share on paid and unpaid work in France⁶. Here we only consider people aged up to sixty years and average their time over week days, excluding the weekend. We separate childcare –defined as time spent feeding the children, dressing them, bathing them, walking them somewhere, helping them with homework and playing with them – from domestic work which includes activities like shopping, cleaning, doing the laundry, washing up the dishes, doing paperwork and going to administrative offices. We also analyze time spent on domestic work by adopting a broader definition of domestic work – denoted as “domestic work*” in Table 1- which includes in addition to the preceding list of activities also time spent taking out pets, doing the garden, doing jams, knitting and sewing.

⁶ See:

Rapoport, B., Sofer, C. et Solaz, A. (2009) «Household Production in a Collective Model: Some New Results » *Journal of Population Economics*, forthcoming.

Anxo, D. , Flood L. , Letizia Mencarini, L., Pailhé, A. , Solaz A. and Tanturri, M. L. (2007), "Time Allocation between Work and Family over the Life-Cycle: A Comparative Gender Analysis of Italy, France, Sweden and the United States," IZA Discussion Papers 3193.

We find that women dedicate more time to domestic work and childcare than men; while the opposite holds for paid work, husbands do the bulk of it. A typical French husband (equivalent to the median of the distribution) works 8 hours per day, while the typical French wife is a housewife and works then zero hours for pay (see Table 1 below). Instead, the typical French wife spends one hour per day taking care of children (here we look at children of all ages up to eighteen) and over three hours doing domestic work. Her husband devotes no time to the children and twenty minutes to domestic work. If we adopt a different, broader, definition of domestic work (domestic work*), we see that the typical husband would spend one hour a day doing unpaid domestic work. This clearly pictures a very unequal balance of paid and unpaid work carried out by husbands and wives.

Table 1. Paid and unpaid work carried out by representative French spouses.

	Minutes per day, French couples 1998-99.			
	Paid work	Childcare	Domestic work	Domestic work*
Wife	0	60	220	230
Husband	480	0	20	60

Source: author’s calculations. Enquête emploi du temps, France, 1998-99. Sample of all couples aged below 60 years, and excluding early-retirees and other inactive people. Median minutes per day.

Median, or typical, behavior of course hides that people are very different from each other. In Table 2, we show what part of, respectively, domestic work, childcare and paid work is carried out by the husband. First, we have summed together the total time spent by husband and wife on each given task; and, next, we have calculated what fraction of the total paid work, domestic work and childcare done by the couple is carried out by the husband. For example, assume that the husband works 8 hours per day and the wife zero hours. The total paid work time for that couple is 8 hours, and the husband in that couple carries out all (100%) of that. In Table 2, we read that the median husband (located at 50% of the distribution of husbands) does all (100%) of paid work done by the couple; and about one tenth of the childcare (to be precise, 12%) and the domestic work (to be precise, 13%) provided by the couple. Using a broader definition of domestic work, we see that the median husband does about a quarter (26%) of all the domestic work done by the couple.

Let us now look at the part of domestic work and childcare carried out by men that are further away from typical behavior (so far from the 50% of the distribution of husbands). The bottom decile of men (10% in the first column denoted “husbands’ population”) do half of the paid work carried out by the couple; so in, say, about one every ten couples, the husband and the wife share equally on paid work. But on the other hand, we also see that some husbands do not contribute at all to domestic work and childcare in their household, and these are all carried out only by their wife. If we move up to the ninth deciles (90% in the first column denoted “husbands’ population”), husbands are doing half of the domestic work carried out by the couple (51%). So there again, we see that in say one every ten couples husbands do the same amount of childcare and domestic tasks as their wives do. So there are some husbands that share equally in the amount of unpaid tasks carried out by the household but they are a minority of the population of husbands.

Table 2. Husbands’ percentage of the total time dedicated by the couple to respectively paid work, childcare and domestic work.

Husbands’ population	Paid work	Childcare	Domestic work	Domestic work*
1%	0	0	0	0
5%	11	0	0	0
10%	50	0	0	0
25%	67	0	0	6
50%	100	12	13	26
75%	100	41	33	47
90%	100	75	51	61
95%	100	100	64	73
99%	100	100	100	100

Source: author’s calculations. Enquête emploi du temps, France, 1998-99. Sample of all couples aged below 60 years, and excluding early-retirees and other inactive people.

Our research focuses in particular on the effects of wages and income on the time dedicated to household tasks by spouses⁷. We specify three time-use choices -paid work, childcare, and housework- and we find that parents’ paid working time increases if the person’s own wage is higher. Instead, the time dedicated to domestic work falls if the person’s

⁷ See: Bloemen, H. and Stancaelli, E. (2008), “How do parents allocate time: the effects of wages and income”, IZA DP No. 3679.

own wage increases. Interestingly, the time spent with children is not found to vary if the person's own wage changes. Next, we conclude that domestic and parental time of women is independent of (does not vary with) the wage of their husband. On the contrary, domestic work and time dedicated to children by fathers will increase if their wife's wage increases. We also conclude that if the non-labour household income increases –this includes rents, dividends, welfare, other transfers- parents will spend more time in unpaid activities, like childcare and domestic work and less time in paid work. Our results also indicate that higher educated parents spend more time with their children than lower educated people do. And that married women spend more time doing domestic work than cohabiting women do.

In a related paper, we analyze the impact of taxation on the spouses' allocation of time to paid and unpaid work⁸. Theoretical economic work on the optimal taxation of couples shows that household chores should be accounted for⁹. In particular, the taxation of the rewards from work may affect not only on the time that spouses allocate to market work but also the time devoted to household chores.

Take, for example, two households with identical total earnings, no other income and the same number of children; where the first couple consists of dual-earners and the second one, of a male-breadwinner and a housewife. This last can devote more time to household tasks than the dual-earners, and, thus, their “full income” -which includes monetary income and also domestic production-will be larger than that of the dual-earners. Indeed, the dual-earners will have either to give up some of their leisure time to perform household chores or to buy household services from the market. Under a joint taxation system of spouses, like the one currently in place in the United States or in France, the two households will bear the same tax burden. It follows the joint taxation implicitly rewards the male-breadwinner household. Under separate taxation, instead, the incomes of the husband and the wife are not summed up for tax purposes, but everyone pays their income tax as if they were single people.

⁸ See van Soest, A. and Stancanelli, E. (2008), “Income Taxation, household chores and spouses' labour supply: a discrete choice model for French couples”, mimeo, December 2008 Tilburg University.

⁹ See:

Boskin, M. J. (1975), “Efficiency aspects of the differential tax treatment of market and household economic activity”, *Journal of Public Economics*, 4, 1-25.

Apps, P. (1982), “Institutional inequality and tax incidence”, *Journal of Public Economics*, Vol. 18, pp. 217-242

Apps, P. F. and Rees, R. (1988), “Taxation and the Household”, *Journal of Public Economics*, 35, 155-169.

Apps, P. F. and Rees, R. (1999a), “The Taxation of trade within and between households”, *Journal of Public Economics*, 73, 241-263.

Apps, P. F. and Rees, R. (1999b), “Joint vs individual taxation in models of household production”, *Journal of Political Economy*, 107, 393-403.

Sandmo, A. (1990), « Tax Distortions and Household Production », *Oxford Economic Papers*, 42, 1, 78-90.

Joint taxation is generally considered to be advantageous also for dual-earner spouses with large earnings differences -where he earns much more than she does- as it brings down his tax rate by more than it increases hers. In particular, if the husband makes much more money than his wife, the tax rate on his earnings will be lower than if he were not married; while her tax rate will be higher than if she were a single woman. It follows that under joint taxation, women with earnings much lower than their husband may be discouraged from working at all-as if they withdraw from the labour market, the couple will pay much less taxes, which may become financially more advantageous than paying for babysitting for example.

Indeed, our simulations¹⁰ suggest that moving from joint taxation of married couples to a system of separate taxation of the incomes of the spouses would, on the one hand, increase the time that married men devote to household chores, and decrease their paid work time; and, on the other side, increase married women's market work and decrease their supply of unpaid household work. Thus, we find that moving from joint taxation to separate taxation would go in the direction of equalizing market and non-market work of husbands and wives.

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¹⁰ See van Soest, A. and Stancanelli, E. (2008), "Income Taxation, household chores and spouses' labour supply: a discrete choice model for French couples", mimeo, December 2008 Tilburg University.