



# DEMOGRAPHIC RESEARCH

*A peer-reviewed, open-access journal of population sciences*

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## ***DEMOGRAPHIC RESEARCH***

**VOLUME 40, ARTICLE 3, PAGES 49–60**

**PUBLISHED 16 JANUARY 2019**

<https://www.demographic-research.org/Volumes/Vol40/3/>

DOI: 10.4054/DemRes.2019.40.3

*Descriptive Finding*

## **Stability and change in family time transfers and workload inequality in Italian couples**

**Marina Zannella**

**Alessandra De Rose**

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## **Stability and change in family time transfers and workload inequality in Italian couples**

**Marina Zannella<sup>1</sup>**  
**Alessandra De Rose<sup>2</sup>**

### **Abstract**

#### **OBJECTIVE**

This article analyses changes from 2003 to 2014 in the magnitude and directions of family time (i.e., non-market) transfers and in the gender distribution of total work among Italian couples.

#### **METHODS**

The study draws on microdata from the 2003, 2009, and 2014 Italian Time Use Surveys. First, we follow the National Transfer Accounts methodology to estimate gender-specific age profiles of production and consumption of unpaid domestic work and of the related time transfers within families. Then, we focus on couples and build an indicator of workload inequality. Finally, we perform a multivariate statistical analysis to describe the characteristics of the partners associated with gender inequality in the division of work disfavoursing women.

#### **RESULTS**

Female non-market work decreased by an average of 36 minutes per day during the 2003–2014 period. However, women continue to be net donors of time transfers within the family and to perform the bulk of the work within the couple. Households where both partners do not work in the market or where only the woman has a market job show the highest levels of inequality, with women contributing to about 70% of the couples' total working time.

#### **CONTRIBUTION**

This study sheds light on the provision of informal welfare within Italian families by illustrating, with an age- and gender-specific focus, the recent evolution of time transfers. It also contributes to the literature on the gender division of work both by introducing a new indicator of the workload inequality between partners, and by providing further evidence of the persistency of gender asymmetries in Italian couples.

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<sup>1</sup> Sapienza Università di Roma, Rome, Italy. Email: [marina.zannella@uniroma1.it](mailto:marina.zannella@uniroma1.it).

<sup>2</sup> Sapienza Università di Roma, Rome, Italy. Email: [alessandra.derose@uniroma1.it](mailto:alessandra.derose@uniroma1.it).

## **1. Introduction**

Unpaid time for household production and servicing represents a relevant contribution of families and especially of women to welfare. A large body of time use literature has shown the existence of a significant gender gap in unpaid work, especially for couples with young children (Bianchi et al. 2000; Hook 2010; Anxo et al. 2011; Menniti et al. 2015). A recent branch of research has moved beyond the traditional analysis of gender differences in the use of time by estimating the consumption, in addition to the production, of unpaid work and allowing for measures of family time transfers (e.g., Zagheni and Zannella 2013; Hammer, Prskawetz, and Freund 2015). Those studies have shown the existence of large flows of time transferred from women to men during most of the lifecycle, although the magnitude of these transfers varies considerably across countries (Zagheni et al. 2015). The gender gap in domestic work is particularly relevant in Southern European countries, where a lack of social policies combines with traditional gender ideology to result in large-sized unpaid domestic servicing and informal care through the family, the responsibility for which falls disproportionately on women. A recent analysis in Spain showed that, despite rapid shifts toward dual-earner families in recent decades, Spanish women continue to provide considerably more time transfers and thus work longer total hours than men (Rentería et al. 2016). However, that study used a single year (2009) and does not allow for an evaluation of the temporal progression of gender differences in the use of time. Existing research presents evidence for a gradual convergence in levels of paid and unpaid work among men and women over time, but women still do the bulk of routine housework and caring (Kan, Sullivan, and Gershuny 2011).

This article draws on microdata from Italian time use surveys (TUS) to analyse changes over time in both the magnitude and directions of family time transfers and in the gender distribution of total work within couples. We additionally aim to describe the characteristics of the partners that are significantly associated with workload inequality in Italian couples. Italy represents a particularly interesting case, as it is the European country with the greatest gender gap in housework and time transfers (Vargha, Gál, and Crosby-Nagy 2017). We expect gender inequalities in time use to have decreased over the years as an effect of the increased female participation into the labour market. Indeed, like Spain, female employment has grown considerably, from 35.9% in 1993 to 46.4% in 2009. However, the rate of increase has slowed (46.8% in 2014) with the general decline in Italian employment levels after the beginning of the 2009 economic crisis (Checchi and Leonardi 2015).

## 2. Data and methods

The study builds on microdata from the Italian TUS for 2003, 2009, and 2014 (with sample sizes of 21,075/18,250/19,039 households and 55,773/44,606/44,866 individuals, respectively). In a first step, we use the National Transfer Accounts (NTA) methodological framework in order to estimate gender-specific age profiles of the production and consumption of unpaid domestic work and of the related time transfers (United Nations 2013; Donehower 2014). Productive household activities are identified by relying on the third-party criterion (Reid 1934), that is, whether it is possible to pay somebody else to perform the activity in the market. Then, gender-specific age profiles of time production can be directly calculated from the microdata as the average time devoted to each activity by age and gender. By contrast, time use surveys do not report any direct information on how unpaid domestic time produced within the family is consumed by its members. Time consumption is therefore estimated by assuming that all time produced within a family is consumed by its members and that time consumption varies with age but not with gender. Unpaid domestic activities fall into two main categories: general activities benefiting all members of the household (cleaning, cooking, etc.), and age-targeted activities benefiting specific groups, such as childcare and adult care. The consumption of domestic time for household  $j$  ( $C_j$ ) is thus expressed as a linear function of the number of household components ( $N_j$ ) by their age ( $x$ ), with age limits ( $a$  and  $b$ ) varying according to the nature of the activity considered:

$$C_j = \sum_{x=a}^b \alpha(x) \cdot N_j(x), \quad (1)$$

where  $a = 0$  and  $b = 90+$  for general activities,  $a = 0$  and  $b = 17$  for childcare, and  $a = 18$  and  $b = 90+$  for adult care (Zagheni et al. 2015; Zannella 2017).

Parameter estimates are used as weights to assign the production of unpaid work activities within the household to the consumption of its members by age. In addition to unpaid work activities performed within the household, unpaid time for helping non-household members (i.e., non-cohabiting family members) is also considered: We calculate the production profiles as the average time devoted to these activities by age and gender, and assume a similar age profile for the consumption of time produced by household and non-household members (Donehower 2014). Finally, net time transfers are calculated as the difference between consumption and production at each age. A positive difference indicates that the production of time for care and household servicing exceeds the consumption, generating a surplus that is entirely transferred to other household members, since no time savings are possible. Conversely, a negative

difference indicates a time deficit: consumption falls short of production and, hence, must be satisfied through transfers.

In a second step, we focus on a subsample of 28,742 couples with partners aged 25 years and over and provide estimates of their total working time (including both paid and unpaid family work). We assume that equality in the distribution of the couple's total workload is achieved when total work is symmetrically distributed between the partners (i.e., each partner performs 50% of the couple's workload). We therefore calculate our indicator of the workload inequality within the couple (WIC) as follows:

$$WIC = 100 \cdot \frac{WTW - 0.5 \cdot CTW}{CTW}, \quad (2)$$

where WTW and CTW are the total hours worked by the female partner and the couple, respectively. Theoretically, indicator values range from -50% to +50%. A value equal to zero indicates that the couple's total work is equally distributed between genders, whereas positive indicator values mean that total work is disproportionately distributed towards women.

Finally, we use multivariate statistical analysis in order to describe those sociodemographic characteristics of the couple and of each partner that are significantly related to the values of the indicator. Specifically, we use a linear model where the dependent variable is the value of the WIC indicator and the explanatory variables are the following: year (2003, 2009, 2014); geographical area of residence (North, Centre, South); couple's working arrangement (neither working, male breadwinner, female breadwinner, two earners); couple's education (homogamy high/medium/low, heterogamy she/he higher); presence of at least one preschool child (aged 0–5 years); age group of man and of woman (25–44, 45–64, 65+); and day of the week (Monday–Friday, Saturday–Sunday). Descriptive statistics on the average time devoted to total and unpaid work by couples according to the different variables considered, together with their sample size, are reported in Table 1.

**Table 1: Couples' total and unpaid working time**

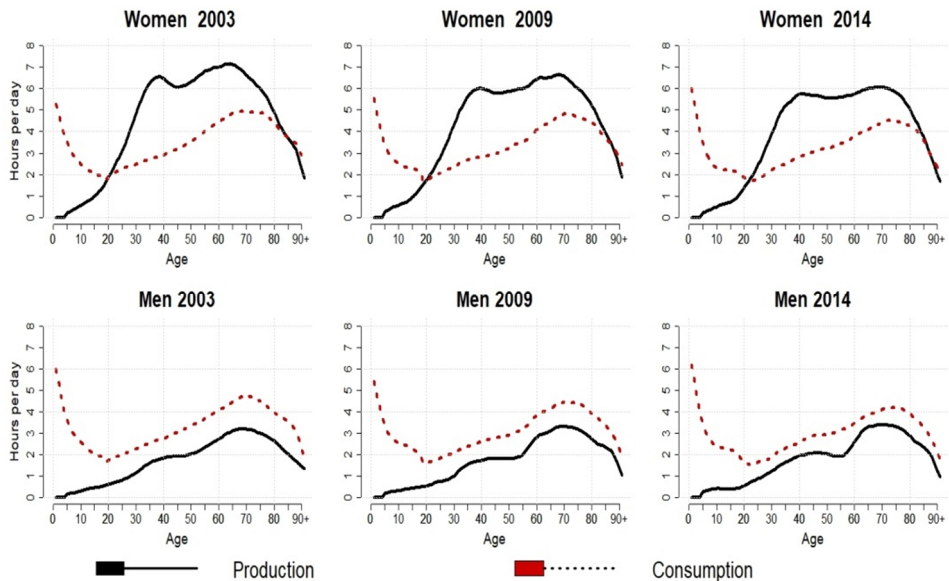
Variables	Sample size	Total work		Unpaid work	
		Average daily hours	Standard error	Average daily hours	Standard error
<b>Year</b>					
2003	11,447	15.33	0.062	8.93	0.036
2009	8,192	15.36	0.069	8.75	0.042
2014	9,103	14.72	0.067	8.80	0.042
<b>Geographical area</b>					
North	13,093	15.08	0.057	8.58	0.035
Centre	5,017	15.47	0.091	8.66	0.055
South	10,632	15.02	0.061	9.26	0.036
<b>Couple's work</b>					
Neither working	7,531	9.91	0.048	9.77	0.038
Male breadwinner	8,488	16.96	0.062	9.83	0.038
Female breadwinner	1,750	14.56	0.122	8.92	0.093
Two earners	10,973	18.93	0.062	7.03	0.039
<b>Couple's education</b>					
Homogamy, high	1,587	16.84	0.167	7.64	0.101
Homogamy, medium	5,898	16.94	0.087	8.34	0.055
Homogamy, low	12,346	13.54	0.051	9.34	0.032
Heterogamy, he higher	4,044	15.23	0.102	8.71	0.062
Heterogamy, she higher	4,867	17.05	0.094	8.39	0.058
<b>Child 0–5 years</b>					
Yes	5,322	19.13	0.082	10.12	0.055
No	23,420	14.30	0.042	8.55	0.025
<b>Man's age</b>					
25–44	2,487	17.99	0.125	8.36	0.086
45–64	14,486	18.03	0.052	8.59	0.035
65+	11,769	11.78	0.045	9.14	0.032
<b>Woman's age</b>					
25–44	4,367	18.27	0.093	8.62	0.066
45–64	15,129	17.52	0.052	8.58	0.034
65+	9,246	11.07	0.046	9.20	0.035
<b>Weekend</b>					
Yes	18,592	11.17	0.042	8.75	0.030
No	10,150	16.70	0.060	8.85	0.038

### 3. Trends in unpaid work and time transfers

Figure 1 shows the gender-specific age profiles of time production and consumption, revealing substantial gender differences and the existence of relevant changes over the considered period. During the last decade, the overall levels of household production remained fairly stable for men. Nevertheless, the qualitative pattern of the male

production curve changed, showing a more pronounced M-shape over time. An M-shaped age pattern of time allocated to household and family care, reflecting lifecycle events with an initial hump at childbearing ages and a second at retirement/grandparenting ages, is a common finding in comparative studies of time use (Vargha, Gál, and Crosby-Nagy 2017; Zagheni et al. 2015). Our results for men are particularly relevant for childbearing ages, with the first hump being more clearly marked in 2014 compared to previous years. For instance, men aged 25 to 49 years increased their unpaid work by an average of 13 minutes per day from 1h 32min in 2009 to 1h 45min in 2014, whereas the levels of their unpaid work had slightly declined between 2003 and 2009. However, the upward trend in men’s unpaid work at childbearing ages may not solely be an effect of their greater paternal involvement; it can partly be explained as an indirect effect of the economic crisis (Hofferth and Goldscheider 2010). Indeed, Italian men were more likely to be unemployed after 2009 and thus to have more time to spend at home: according to Istat (2016), the average time devoted to paid work decreased by 19 minutes per day between 2009 and 2014, whereas it increased by 13 minutes per day during the previous period (2003–2009).

**Figure 1: Per capita gender- and age-specific profiles of production and consumption of unpaid domestic time (2003, 2009, and 2014)**

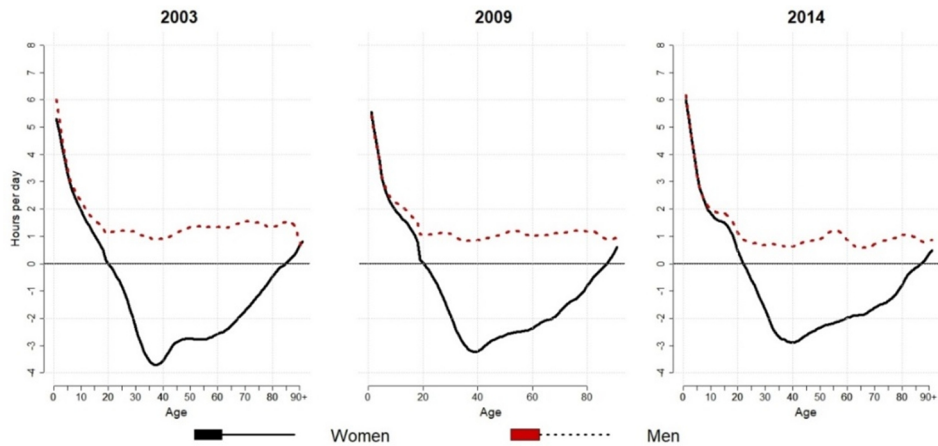




By contrast, women's household production shows a decreasing trend and a flattening of the typical M-shape over time. On total, women reduced their non-market work by an average of 36 minutes per day during the considered period. The effects of childrearing were more evident in 2003 than 2014 with women aged 25–34 years devoting 53 minutes less to family work (passing from five to four daily hours, approximately). Previous research has highlighted the existence of relevant gender disparities in the levels of unpaid domestic work performed by male and female Italian children (Istat 2016; Zannella 2017). However, female time production begins to increase slightly later in 2014 than in previous years, indicating an attenuation of gender disparities in unpaid domestic work at young ages.

The consumption curve is similar between genders. However, important differences between men and women can be observed when looking at their profiles of time transfers (Figure 2), which were obtained by comparing the corresponding sex- and age-specific profiles of consumption and production of unpaid domestic time. Newborns receive the highest amount of time transfers, at an average of about six hours per day. Time transfers are generally high for children at early ages, after which they start to gradually decline. Looking at time transfers after age 20 reveals a drastically different situation between genders. Starting from this age and for virtually all of the remaining life-course, women produce more domestic time than they consume, whereas consumption of domestic labour continues to exceed production for men. In other words, women become net donors and men continue to be net beneficiaries of family transfers in the form of time. Interestingly, the size of this asymmetry has diminished during the period under consideration, with women giving about 35 minutes less time to men in 2014 compared to 2003. Nevertheless, the gender direction of time transfers has remained unchanged over the last decade, with women donating time to men within the family. These results are in line with previous NTA research reporting evidence for a universal pattern of women providing considerably more informal welfare in the form of household and family care than men (Zagheni et al. 2015).

**Figure 2: Per capita gender- and age-specific profiles of net family time transfers (2003, 2009, and 2014)**



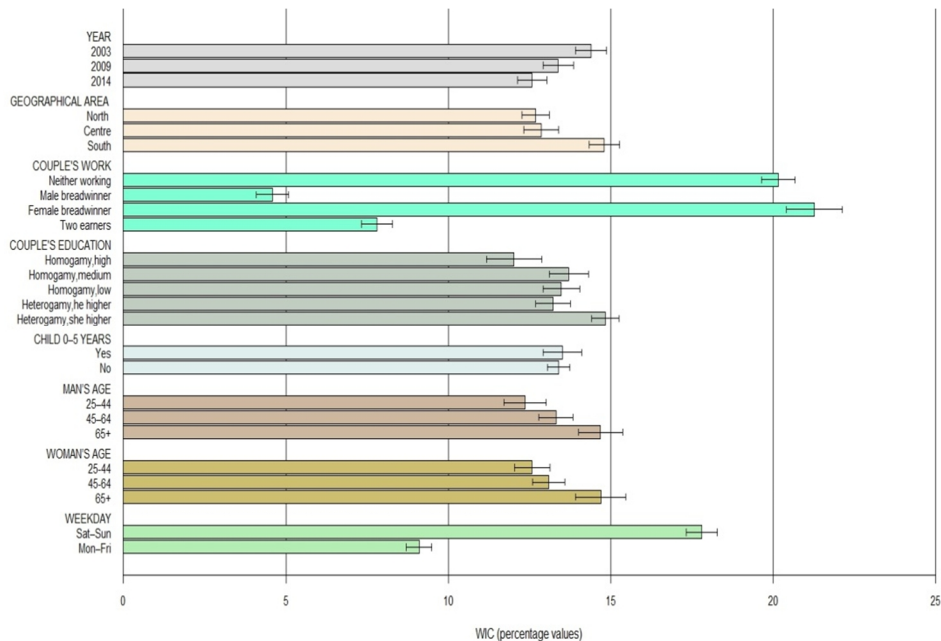
#### 4. Workload inequality in couples

The effect of the gender imbalance of time production and consumption is a disproportionately higher amount of non-market work performed by women. The results of the regression analysis of the WIC indicator demonstrate that this imbalance in non-market work is also reflected in the distribution of total work within couples (Figure 3). For all variables considered, estimates of the WIC are positive and indicate that the division of work between partners is heavily biased towards women. Nevertheless, our results indicate a slight attenuation of the size of this asymmetry over time: values of the WIC index decreased by about 2 percentage points in 2014 compared to 2003. WIC indicator values are higher for Italian couples living in the South compared to those living in the North and Centre. This may be explained by different reasons. First, men devote less time to paid work because of higher unemployment rates in the South (Istat, Labor Force Survey, Unemployment rate – provincial level, data available at <http://dati.istat.it>). Second, women allocate more time to unpaid domestic work partly due to the existence of more stringent gender roles in this part of Italy (De Rose et al. 2008). Furthermore, according to a recent study conducted by Gimenez-Nadal and Molina (2014) in Spain, high regional unemployment rates are associated with more time devoted to household production by women.

The most significant results are related to the couple's working arrangements: The bulk of work is more equally distributed in dual-earner and male-breadwinner couples

than in couples where both partners are not employed (e.g., retired couples) or where only she works. In these latter typologies, in fact, women contribute more than 70% of the total working hours. Looking at the partners' educational pairings reveals that total work is the least equally distributed among couples where both partners have low education levels.

**Figure 3: Predicted values of the workload inequality within couples (WIC) indicator, according to different variables**



Note: Theoretically, indicator values range from -50% to +50%. A value of zero indicates that the couple's total work is equally distributed between genders, whereas positive indicator values mean that total work is disproportionately distributed towards women. For more details on the calculation of the indicator, see section 2.

Having a preschool child increases the workload of couples by an average of five hours per day as compared to couples without children aged 0–5, who average 14 hours of work per day (see Table 1). However, the presence of a young child does not significantly increase the WIC indicator values. This may be explained by the limited time that mothers of small children devote to paid work in Italy (OECD 2017), as well as by the evidence of a greater participation of male partners in household and family care when they are fathers of small children (Bloemen, Pasqua, and Stancanelli 2010; Kan, Sullivan, and Gershuny 2011). WIC indicator values are positively associated with

age and are particularly high at retirement ages, suggesting that men do not significantly increase their contribution to household chores and care after leaving the labour market. Finally, women's share of the total workload is higher on weekdays, when they are more likely to combine work and family responsibilities. However, an unequal distribution of the couple's work unfavourable to women is also found on weekends. All in all, our results document the existence of a robust and persistent workload inequality in Italian couples, which remains even after controlling for all relevant variables that are sources of heterogeneity.

## **5. Concluding remarks**

In this paper, we estimated gender-specific age profiles of non-market production (i.e., time), consumption, and transfers in Italy for the years 2003, 2009, and 2014. Then, we focused on couples and provided a measure of the workload inequality between partners. Consistent with our expectations, the findings show a substantial decrease in women's non-market work over the period under consideration. However, our results indicate levels of household production to be relatively stable for men, although with relevant differences among age groups. As a consequence, women are still net donors and men net beneficiaries of time transfers within the family. Similarly, the WIC indicator results demonstrate that – despite the existence of a narrowing in gender differences over time – total work continues to be unevenly distributed towards women in Italian couples. Workload inequality is a robust phenomenon; it holds after controlling for different characteristics of couples and of individual partners. Our findings are consistent with previous literature, which suggests that 'iso-work' (i.e., similar total hours worked by men and women) does not hold in Mediterranean countries characterised by stringent gender roles (Gimenez-Nadal and Sevilla 2014).

## **6. Acknowledgements**

This study is based upon work from the "AgeWellAccounts" research project within the Joint Programming Initiative (JPI) "More years, better lives – The challenges and opportunities of demographic change" (MYBL).

## References

- Anxo, D., Mencarini, L., Pailhé, A., Solaz, A., Tanturri, M.L., and Flood, L. (2011). Gender differences in time use over the life course in France, Italy, Sweden, and the US. *Feminist Economics* 17(3): 159–195. doi:10.1080/13545701.2011.582822.
- Bianchi, S.M., Milkie, M.A., Sayer, L.C., and Robinson, J.P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces* 79(1): 191–228. doi:10.1093/sf/79.1.191.
- Bloemen, H., Pasqua, S., and Stancanelli, E. (2010). An empirical analysis of the time allocation of Italian couples: Are Italian men irresponsible? *Review of Economics of the Household* 8(3): 345–369. doi:10.1007/s11150-009-9083-4.
- Checchi, D. and Leonardi, M. (2015). *Labour market measures in Italy 2008–13: The crisis and beyond*. Geneva: International Labour Organization, Research Department.
- De Rose, A., Racioppi, F., and Zanatta, A.L. (2008). Italy: Delayed adaptation of social institutions to changes in family behaviour. *Demographic Research* 19(19): 665–704. doi:10.4054/DemRes.2008.19.19.
- Donehower, G. (2014). Incorporating gender and time use into NTA: National Time Transfer Accounts methodology [electronic resource]. Berkeley: University of California, Department of Demography. <http://www.ntaccounts.org/web/nta/show/Gender%2c%20Time%20use>.
- Gimenez-Nadal, J.I. and Molina, J.A. (2014). Regional unemployment, gender, and time allocation of the unemployed. *Review of Economics of the Household* 12(1): 105–127. doi:10.1007/s11150-013-9186-9.
- Gimenez-Nadal, J.I. and Sevilla, A. (2014). Total work time in Spain: Evidence from time diary data. *Applied Economics* 46(16): 1894–1909. doi:10.1080/00036846.2014.887194.
- Hammer, B., Prskawetz, A., and Freund, I. (2015). Production activities and economic dependency by age and gender in Europe: A cross-country comparison. *The Journal of the Economics of Ageing* 5: 86–97. doi:10.1016/j.jeoa.2014.09.007.
- Hofferth, S. and Goldscheider, F. (2010). Does change in young men's employment influence fathering? *Family Relations* 59(4): 479–493. doi:10.1111/j.1741-3729.2010.00617.x.

- Hook J.L. (2010). Gender inequality in the welfare state: Sex segregation in housework, 1965–2003. *American Journal of Sociology* 115(5): 1480–1523.
- Istat (2016). *I tempi della vita quotidiana*. Roma: Istat.
- Kan, M.Y., Sullivan, O., and Gershuny, J. (2011). Gender convergence in domestic work: Discerning the effects of interactional and institutional barriers from large-scale data. *Sociology* 45(2): 234–251.
- Menniti, A., Demurtas, P., De Rose, A., and Arima, S. (2015). Housework and childcare in Italy: A persistent case of gender inequality. *Genus* 71(1): 79–108.
- OECD (2017). *The pursuit of gender equality: An uphill battle*. Paris: OECD Publishing.
- Reid, M. (1934). *Economics of household production*. New York: John Wiley.
- Rentería, E., Scandurra, R., Souto, G., and Patxot, C. (2016). Intergenerational money and time transfers by gender in Spain: Who are the actual dependents? *Demographic Research* 34(24): 689–704. doi:10.4054/DemRes.2016.34.24.
- United Nations (2013). *National Transfer Accounts manual: Measuring and analyzing the generational economy*. New York: United Nations.
- Vargha, L., Gál, R.I., and Crosby-Nagy, M. (2017). Household production and consumption over the life cycle: National Time Transfer Accounts in 14 European countries. *Demographic Research* 36(32): 905–944. doi:10.4054/DemRes.2017.36.32.
- Zaghene, E. and Zannella, M. (2013). The life cycle dimension of time transfers in Europe. *Demographic Research* 29(35): 937–948. doi:10.4054/DemRes.2013.29.35.
- Zaghene, E., Zannella, M., Movsesyan, G., and Wagner, B. (2015). *A comparative analysis of European time transfers between generations and genders*. Netherlands: Springer Brief in Population Studies. doi:10.1007/978-94-017-9591-3.
- Zannella, M. (2017). *Age and gender in economic activities and transfers within and beyond the market*. Netherlands: Springer Brief in Population Studies.