THE PATTERNS OF NON-MONETARY TRANSFERS IN EUROPE: A HISTORICAL NTTA ANALYSIS BY AGE AND GENDER

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Abstract: This paper analyses the age patterns of production, consumption and net transfers in the form of unpaid work by gender and over time. Using National Time Transfer Accounts methodology, we present the historical results for several European countries for the first time. The results show that the evolution of age patterns over time is different for men and women and is highly affected by different demographic trends, as well as by institutional background of countries. We discover that despite differences over time and across countries, two main characteristics of age patterns do not change: transfers of unpaid work still flow, first, from women to men and secondly, from working-age population mostly to children and to a lesser extent to the elderly.

Keywords: Unpaid work · Intergenerational transfers · Historical estimates · Gender differences

INTRODUCTION

Intergenerational solidarity among young, working-age and old population is present in all societies and is very pronounced in European countries (Lee & Mason, 2011; Istenič, Šeme, Hammer, Lotrič Dolinar, & Sambt, 2016). Market transfers represent only one aspect of it since much of intergenerational exchange takes place at home in the form of unpaid work. Unpaid work, such as cooking, cleaning, shopping, care, etc., represents an important part of all economic activities and greatly contributes to the well-being of society and its individuals (Stiglitz, Sen, & Fitoussi, 2007). Neglecting unpaid work would result in misleading inferences about the size and direction of flows between both genders and among different generations. While market transfers mainly flow from men to women due to higher participation rates of men in the labour market, the situation is just the opposite when considering unpaid work. Thus, a complete understanding of inter-age and inter-gender flows requires that both market and non-market activities are taken into account (Kluge, 2014; Zannella, 2015; Vargha, Gál, & Crosby-Nagy, 2015).

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Despite its importance and size, unpaid work often remains an overlooked part of the economy. The System of National Accounts – which provides a base for the analysis of economic activities – captures unpaid work only in the form of satellite accounts (Ahmad & Koh, 2011). Including unpaid work in economic analyses is important to better understand the society in terms of individuals' well-being. Furthermore, combining the two counterparts – paid and unpaid work – can help improve the effectiveness of public policies in the socio-economic area (Miranda, 2011).

To gain a deeper insight into the patterns of unpaid work at different stages of a life time, an international team of researchers has recently developed a new system called the National Time Transfer Accounts (NTTA). Its main contribution is the introduction of the age dimension into the analysis of unpaid work.

We use National Time Transfer Accounts methodology to estimate the age profiles of production, consumption and net transfers of unpaid work for several European countries (Denmark, Germany, Italy, the Netherlands, Spain and the UK), focusing especially on those with longer time series.⁵ The age profiles show how much unpaid work people produce, consume or transfer on average at each specific age. We present the full accounts of comparative historical NTTA results for the first time and analyse how different economic and demographic trends, such as the increase in female labour force participation and ageing of population, as well as different institutional backgrounds of countries have had different implications for time allocation decisions. We analyse not only the evolution of production patterns in the last decades, but also extend previous analyses with the evolution of patterns of consumption and net transfers. We examine trends over time as well as the differences across countries, presenting the results for each age group and both genders.

The paper is structured as follows: introduction is followed by the second section about main trends in Europe that have had an effect on unpaid work in the last decades. In the third section we present the NTTA results and our findings. The fourth section concludes.

TRENDS

Demographic and economic changes in the last decades have had a profound impact on how people devote their time to different daily activities. Consequently, how much unpaid work people produce, consume and transfer changed not only on the individual level (for each age group), but also on the aggregate level. In this section we point out the main trends which have contributed to the changes in individuals' time allocation decisions in Europe.

⁵ Our research was conducted as a part of AGENTA project (full name Ageing Europe: An Application of

National Transfer Accounts for explaining and projecting trends in public finances), financed within the 7th Framework Programme. More information about the project can be found at http://www.agenta-project.eu/en/index.htm

Due to a changing family dynamics, the prevailing 'male breadwinner – female caregiver' household model had largely declined in most European countries by the end of the 20th century. Lack of family and social public policies had supported unequal burden of paid and unpaid work between men and women. In line with traditional view on gender ideology, men had been dominant in the labour market, while women had typically carried disproportionally higher burden of unpaid work. Their participation in labour market was far below nowadays levels (Haas, 2005).

New household models – such as 'one-and-a-half' and 'one-and-three-quarters' models – have widely emerged because women started to participate in labour marker in larger numbers. Indeed, Eurostat data (Employment rates by gender and nationality, 2016) show that from 1993 onwards, employment rates of women have increased for all observed countries. The lowest increase of 2 percentage points occurred in Denmark (where female employment rates are one of the highest in Europe), while Spain and the Netherlands experienced the largest increase (21.9 and 17.3 percentage points, respectively).

An increase in female employment rates can be attributed to implementation of numerous public policies and changing attitude toward women. Initiatives on gender equality, working-time regulations and public policies aimed at reconciling family and work life have widely emerged in the last decades (Pascall & Lewis, 2004). Flexible working arrangements, stronger social security systems, higher supply of childcare and elderly services, parental leaves, family and child allowances, etc. have given families more freedom to decide upon their participation in paid and unpaid work (Lewis, Knijn, Martin, & Ostner, 2008; Saraceno & Keck, 2008).

Active participation of women in the labour market seems to have influenced couples' decisions on the number of children. Fertility rates in Europe have declined and families have become smaller (Apps & Rees, 2005). Furthermore, couples have started to decide to have children later in life. The average age of women at first birth and at birth has increased in all the analysed European countries in the last decades (Mean age of women at childbirth by nationality, 2016).

The implication of these trends has been a steady decline of women's time dedicated to unpaid work (Kan, Sullivan, & Gershuny, 2011). Spending more time at work has limited the available time for other activities, including unpaid work. Additionally, it is probable that women have lowered their domestic standards due to tiredness after spending their time in paid employment. There have also been other factors which have contributed to the changing patterns of unpaid work (more efficient housework equipment emerged, more families could afford to outsource unpaid work activities due to higher disposable income, etc.) (Dex, 2009).

As a consequence of women's decision for paid employment and less time spent in unpaid work, an increasing need for men to take a more active role in unpaid work has emerged. This implies that the gender gap in production of unpaid work is becoming smaller over time (Kan et al., 2011).

Most of previous research (Gimenez-Nadal & Sevilla, 2012; Kan et al., 2011; Saraceno & Keck, 2008) in this field analyses the effect of these trends, but neglects the age dimension. A limited branch of research (Zagheni, Zannella, Movsesyan, & Wagner, 2015) includes the age dimension of historical estimates, but focuses only on evolution of production patterns. We keep the gender aspect over time and make one further step by exploring the historical changes not only of production patterns, but also of complete age patterns of consumption and net transfers in the form of unpaid work.

DATA AND METHODOLOGY

We used several datasets to compute the age- and gender-specific profiles of production, consumption and net transfers in the form of unpaid work. Our main data source of historical time-use data was Multinational Time Use Survey dataset (MTUS). It contains cross-nationally harmonized data on how people allocate their time in a day among different activities. Currently, MTUS collection includes nationally representative micro data from more than 20 – mainly European – countries (Fisher & Gershuny, 2016). Based on the MTUS database, we estimated production of unpaid work for the following countries and years: Denmark (1987, 2001), Germany (1992, 2001), Italy (1988, 2002), the Netherlands (1975, 1980, 1985, 1990, 1995, 2000, 2005), Spain (2003, 2010) and the United Kingdom (1974, 1983, 1987, 1995, 2001, 2005)⁶.

Depending on which time period they cover, we used four additional datasets to estimate the age profiles of consumption and net transfers of unpaid work. We used the EU Statistics on Income and Living conditions (EU-SILC) or European Community Household Panel (ECHP) for more recent data and Integrated Public Use Microdata Series (IPUMS) or Labour Force Survey (LFS) for older data (from mid-1970s to around 1990).

We followed NTTA methodology based on Donehower (2014a,b) and Vargha, Gál and Crosby-Nagy (2015). We applied additional methodological steps to account for the specifics of MTUS data. However, in this section we present only the general NTTA methodology, while a detailed description of specific methodological steps that we used for MTUS data is presented in the NTTA manual (Vargha, Šeme, Gál, Hammer, & Sambt, 2016).

MTUS dataset contains harmonized data and includes variables (i.e. daily activities) that are defined identically in all time use surveys. Therefore, the first step was to identify daily activities of unpaid work based on the 'third-person' criterion (Reid, 1934): an activity is classified as unpaid work if a person can pay someone else to do the activity on his or her behalf (while still receiving the benefits of this activity). The next step was to estimate the age profiles of production. MTUS dataset contains information on time use, age and gender of all respondents which enabled us to calculate the average production of unpaid work for each age and gender directly from the MTUS micro data (following the standard NTTA assumption

⁶ We additionally estimated the age profiles for Austria (1992), France (1998) and Slovenia (2000). Due to data availability, we could estimate the age profiles for these countries only for one year. Because the analysis of data over time is thus not possible, we decided not to present these results.

that unpaid work equals 0 for those aged below 10). Additionally, we split total unpaid work into two parts: childcare and housework.⁷

MTUS offers information only about producers of unpaid wok, but not about its consumers, the beneficiaries of household production. To estimate consumption by age and gender, we relied on several assumptions and allocated total household production of unpaid work among household members. By assumption, housework was allocated equally among all household members, while childcare was allocated only among children (those who are the beneficiaries of childcare services). If there were more children in one household, total household childcare production was not allocated equally among them, but rather in different shares based on equivalence scales for each country.

One should note that consumption profiles were estimated from one of the four abovementioned surveys (EU-SILC, ECHP, IPUMS or LFS). This is due to the lack of data about all household members in MTUS database. Namely, MTUS provides data about gender and age of respondents, but does not contain this information about all household members. This poses a problem because we cannot calculate total household production nor allocate it among household members to estimate their consumption. To overcome this problem, we first imputed production averages (estimated from MTUS) to one of the four surveys based on three characteristics of individuals: their age, gender and household type⁸. Because these surveys provide data about all household members, we could then calculate total household production and allocate it among all household members to measure consumption by age and gender.

The final step was to calculate the age profiles of net transfers as the difference between consumption and production at each age and for both genders. A person with positive net transfers experiences a lifecycle deficit (his consumption is higher than production, therefore he receives transfers of unpaid work), while negative net transfers denote a lifecycle surplus (a person's production is higher than his consumption, therefore he gives transfers of unpaid work to others).

RESULTS

In the following section we present historical estimates of the age profiles of unpaid work. The observed time period is different for each country, depending on the availability of time-use data. Thus, when interpreting the results please keep in mind that for some countries the analysis over time is possible for a very long time period (for around 30 years in the case

⁷ Childcare consists of the following activities: physical or medical childcare; teaching, reading, talking to, playing with a child; help with homework; supervision; childcare related travel; other childcare. Housework contains all other activities of unpaid work that are not childcare, f.e. cooking, cleaning, other domestic work, pet care, adult care, voluntary work, gardening, domestic travel, etc.

⁸ Household types were defined according to different combinations of the following characteristics: gender of individual, household size, number of children in the household and age of the youngest person in the household in which an individual lives.

of the Netherlands and the UK), while the observed time period is very short for other countries (e.g. only 7 years for Spain).

PRODUCTION

Our NTTA results reveal that the changes in production patterns over time are substantially different for men and women. Primarily as a consequence of new job opportunities and flexible working arrangements, more women have started to participate in labour market. Consequently, women reduced the time spent on unpaid work over the last decades, as presented in Figure 1. Compared to the initial levels, production of unpaid work in the Netherlands and Italy dropped for almost all of the age groups.

The Netherlands Italy 500 500 per day 300 300 200 200 100 20 80+ 804 Age Age 1975 -1980 -1990 1988 2002

Figure 1: Production of unpaid work, women, the Netherlands (1975-2005) and Italy (1988-2002)

Source: Multinational Time Use Study; Eurostat; Authors' own calculations

Specifically for the Netherlands, the fall was the largest during the peak at childbearing ages. Among all the analysed countries, Dutch women experienced one of the highest declines in production of unpaid work. These results are expected because the increase in female employment rate in the Netherlands had been one of the largest in Europe (from 51.9% in 1993 to 69.2% in 2015) (Employment rates by gender and nationality, 2016). The Netherlands introduced many work, family and taxation policies (Pascall & Lewis, 2004) which resulted in large increase in female part-time work and consequently, a huge fall in unpaid work especially for working age women.

A similar decreasing trend can also be found in other countries, however, the changes in production of unpaid work were differently pronounced across countries due to different institutional background. For example, the fall in unpaid work from the 1980s to the 2000s in Italy (Figure 1) was less pronounced than in the Netherlands because the state support for working mothers is lower. Additionally, role of religion, family-oriented views and traditional gender ideology are much more present in Italy than in most of other European countries.

⁹ The only exception is Denmark, where we see a different trend than in all the other countries: women do more unpaid work in 2001 than in the beginning of the observed time period, 1987.

This implies strong division of labour where women are expected to be responsible for the majority of unpaid work (Anxo et al., 2007; Zannella, 2015; Vargha, Gál, & Crosby-Nagy, 2015).

As a counterbalance of women spending less time on unpaid work, our results confirm that men started spending more time on unpaid work activities. The trend was upwards over the observed time period, although not necessarily for all age groups in all analysed countries. It seems that in some of the countries, for example in the UK (Figure 2), upwards trend levelled off at the turn of the century. In Denmark (Figure 2), as well as in most of the analysed European countries, the increase was the most pronounced at ages when men usually become fathers, as well as in retirement years. This implies that men devote more time to childcare activities and are more active in production of unpaid work after retirement.

The UK Denmark -2005

Figure 2: Production of unpaid work, men, the UK (1974-2005) and Denmark (1987-2001)

Source: Multinational Time Use Study; Eurostat; Authors' own calculations

NTTA results show gender convergence in production patterns over time. Because females produce less and men produce more in the form of unpaid work, the gap between male and female production is getting smaller over time. For example, in the UK gender differences for people from the age of 30 to 60 – when differences are the highest – varied on average from 3 to 4 hours per day in 1974, and only from 1.5 to 3 hours per day in 2005.

Another trend in production patterns arises due to changes in the timing of lifetime events. Lately, many industrialized countries have experienced a phenomenon of prolonged educational period, later entry into the labour market and consequently, decisions for delayed parenthood (Sobotka, 2010). Because production of unpaid work (especially in the form of childcare) is highly affected by the birth of children, the phenomenon of delayed parenthood is clearly visible in the age profiles. Over time, the age profiles of childcare production move to later ages and consequently, the age profiles of total production also move in the same direction.

In Figure 3, the shift to later ages is presented for the Netherlands. In the observed time period, the peak in childcare production moved to the right for both men (for around 7 years) and women (for around 9 years), which is in line with the increasing average age of Dutch

women at childbirth (Mean age of women at childbirth by nationality, 2016). However, this does not hold for all the analysed countries. Usually, the shift is more pronounced for women and less pronounced (or not visible at all) for men. Furthermore, although men contribute more of their time to childcare, childcare remains highly gender-segregated. In all the analysed countries, women still spend around 2-3 times more time taking care of their children than men.

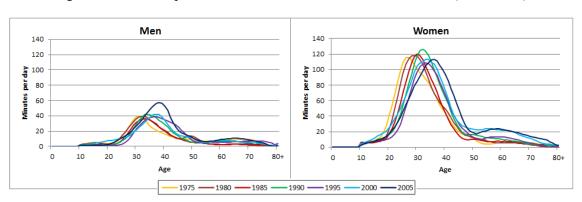


Figure 3: Childcare production, men and women, the Netherlands (1975-2005)

Source: Multinational Time Use Study; Eurostat; Authors' own calculations

CONSUMPTION

Household members are not only producers, but also consumers of unpaid work. Figure 4 shows male and female age profiles of consumption in the form of unpaid work for Spain and the UK. In contrast to production, consumption is very similar between genders: the differences arise only due to different household structure. Furthermore, consumption age patterns do not show a lot of variability across countries and over time. In all observed countries, the shape of the age profile of consumption did not change significantly over time: consumption remained the highest at young ages (mainly due to childcare) and the lowest from around 20s to 50s when people usually become parents and a large part of their produced unpaid work is consumed by their children rather than by themselves.

The most important change of consumption age patterns is noticeable for children. Namely, consumption at young ages is increasing over time. This increase is not characteristic only for the youngest children (newborns), but for all children below the age of 18. These results show that over time, per capita human capital investment in children is increasing because parents invest more and more of their time into their children and their development. Greater consumption of children over time is found in all analysed countries, although the Netherlands and the UK experienced a stagnation of this trend after the turn of the century.

In contrast, changes in consumption patterns are not clearly visible for the working-age and elderly population. In general, consumption at working ages is rather constant over time, with

only small changes over the years. Figure 4 illustrates this for the UK: although small changes in consumption of unpaid work for the working-age population occurred between different years, the overall change was rather negligible. The same is true for other observed countries.

Spain Men Women Minutes per day 300 200 400 300 Ain te 80+ The UK Men Women Minutes per day Age -1995 -2005

Figure 4: Consumption of unpaid work, men and women, Spain (2003-2010) and the UK (1974-2005)

Source: Multinational Time Use Study; Eurostat; EU Statistics on Income and Living Conditions; European Community Household Panel; Integrated Public Use Microdata Series; Labour Force Survey; Authors' own calculations

Historical estimates of consumption for the UK also reveal that at old ages, the trend was upwards most of the observed time period, but it became negative after year 2001. However, this trend is specific for the UK because historical changes of consumption patterns at old ages are different across countries. We discover that the main factor which drives consumption changes of the elderly in each country is the change in production levels. If the elderly stay active in retirement and dedicate some of their extra free time to unpaid work (i.e. they produce more), then they can also consume more at these ages.

NET TRANSFERS

Net transfers represent the difference between consumption and production at each age. As such, many trends that can be observed for production and consumption are also seen in the age profiles of net transfers. Typically, net transfers are positive for young and elderly people who are not able to support their total consumption only with their production. On the

contrary, working-age people usually produce more unpaid work than they consume and are able to transfer a part of their produced unpaid work to others, mainly to their children. Their net transfers are typically positive.

Because production of children equals 0 (for children below the age of 10) or is very low, the age patterns of net transfers for children closely follow the age patterns of consumption. In all analysed European countries, consumption of children is increasing over time, but their production is rather constant. Therefore, children receive an increasing amount of transfers over time to be able to cover their consumption needs. Figure 5 shows this trend for the Netherlands.

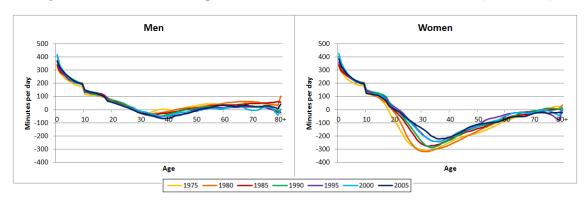


Figure 5: Net transfers of unpaid work, men and women, the Netherlands (1975-2005)

Source: Multinational Time Use Study; Eurostat; EU Statistics on Income and Living Conditions; European Community Household Panel; Labour Force Survey; Authors' own calculations

In the parenthood years, Dutch men transfer more and women transfer less in the form of unpaid work than in the beginning of the observed time period. The gap in the amount of unpaid work that men and women transfer to others is getting smaller over time. This is in line with the gender convergence in production levels. Another production trend is reflected in the age profiles of net transfers: the negative peak of net transfers for both genders shifts to the right because of the decisions for delayed parenthood. These patterns of net transfers are not common only in the Netherlands, but also in others European countries.

Changes in net transfers at old ages are differently pronounced across countries. In general, the transferred amount of unpaid work had slightly lowered in the observed time period or hadn't significantly changed for women. In contrast, elderly men are usually net receivers of transfers, but they had become less dependent on transfers in the last decades. This could be – among other factors – the consequence of developing public facilities for the elderly.

Italy stands out as the country where men remain net receivers of transfers even in their parenthood years when people usually become net givers. However, Figure 6 reveals that their dependency on transfers from others is lower than in the past. Italy is also specific because women – despite their declining production over time – still transfer much more unpaid work compared to other European countries, especially at old ages. The amount of transferred

unpaid work at elderly ages is most likely higher due to traditional gender ideology and the level of government support that the elderly receive. We would expect familial transfers to be higher in countries where government support is weak and facilities for the elderly are in a limited supply. This is indeed the case in Italy where families are the ones primarily responsible for their elderly relatives by law and tradition (Bettio & Verashchagina, 2012). A similar level of transferred unpaid work is observed in Spain, but is much lower in other analysed countries.

Despite the differences among countries, two main characteristics of the age patterns of net transfers do not change over time: transfers of unpaid work still flow, first, from women to men and secondly, from working-age population mostly to children and to a lesser extent to the elderly. While children are becoming more dependent on non-monetary transfers in the form of unpaid work, the opposite is true for the elderly population in most of the analysed countries.

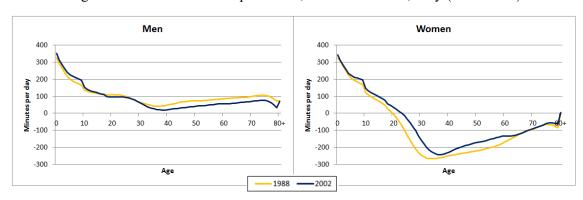


Figure 6: Net transfers of unpaid work, men and women, Italy (1988-2002)

Source: Multinational Time Use Study; Eurostat; EU Statistics on Income and Living Conditions; European Community Household Panel; Labour Force Survey; Authors' own calculations

CONCLUSIONS

Decisions on how people allocate their time among different daily activities, especially paid and unpaid work, differ greatly between genders and across age. In order to completely understand production and consumption patterns at different stages of a life, both paid and unpaid work should be taken into account. We use time-use data to gain an important insight on how different factors, such as age, gender and time, influence the decisions for an often overlooked part of the economy – unpaid work. Our aim was to focus on the age patterns of unpaid work by using NTTA methodology. The analysis included the age and gender aspect and extended previous research by analysing changes in the age patterns of production, consumption and net transfers in the form of unpaid work over time.

In the last half of the century, differences in production of unpaid work between both genders have become smaller. Women have started to participate in labour market in larger numbers

and consequently lowered the amount of time spent on unpaid work. Thus, a need for men to take over some of the burden of unpaid work has appeared. In general, men in all analysed countries have started to dedicate more of their time to unpaid work. Another trend in production patterns is the shift of the first peak to later ages which implies that postponing the birth of children is a common phenomenon in European countries. The shift is more pronounced for women than men.

Consumption age patterns are very similar across countries and between genders. Historical NTTA estimates show that consumption patterns do not change significantly over time. The largest change is visible for children because their consumption has increased over time. This implies that parental investment in children's human capital is growing over time because parents tend to invest more of their time into children than they used to.

As the difference between consumption and production at each age, net transfers arise to fill this gap. Historical evolution of net transfers shows that due to increasing consumption, net transfers at young ages have also increased in the past decades. We discover that at parenthood ages, women transfer less and men transfer more of their produced unpaid work than they used to. The negative peak of the age profiles shifts to later ages due to decisions for delayed parenthood. Furthermore, the elderly have become less dependent on net transfers – especially men who are usually net receivers at these ages, while women are usually net givers (but changes in net transfers are much lower for women than men).

Although the amount of transferred unpaid work has changed in the past decades, their direction remains the same: first, net transfers between genders flow from women to men, which is the opposite than in the market economy. Secondly, transfers mainly flow from the working-age people to their children (who are becoming more dependent on transfers of unpaid work over time), as well as to the elderly (who are becoming less dependent).

REFERENCES

Ahmad, N., & Koh, S. (2011). Incorporating Estimates of Household Production of Non-Market Services into International Comparisons of Material Well-Being. *OECD Statistics Working Paper No.* 7. Retrieved July 10, 2016, from http://dx.doi.org/10.1787/5kg3h0jgk87g-en

Anxo, D., Flood, L., Mencarini, L., Pailhé, A., Solaz, A., & 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 Paper Series No. 3193*. Retrieved July 11, 2016, from http://ftp.iza.org/dp3193.pdf

Apps, P., & Rees, R. (2005). Gender, time use, and public policy over the life cycle. *Oxford Review of Economic Policy*, 21(3), 439-461.

Bettio, F., & Verashchagina, A. (2012). Long-Term Care for the elderly. Provisions and providers in 33 European countries; European Commission's Expert Group on Gender and Employment Issues (EGGE). Luxembourg: Publications Office of the European Union.

Dex, S. (2009). Review of future of paid and unpaid work, informal work, homeworking, the place of work in the family (women single parents, workless households), benefits, work attitudes motivation and obligation. *Beyond Current Horizons*. Retrieved July 11, 2016, from http://www.beyondcurrenthorizons.org.uk/wp-content/uploads/ch4_dexshirely_paidunpaid work20090116.pdf

Donehower, G. (2014a). NTA/CWW Time Use and Gender Workshop [PowerPoint slides]. Retrieved July 10, 2016, from http://www.cww-dpru.uct.ac.za/sites/default/files/image_tool/images/74/Workshop Africa 1 Orientation.pdf

Donehower, G. (2014b). Incorporating gender and time use into NTA: National Time Transfer Accounts Methodology. *Manuscript*. Berkeley: University of California, Dept. of Demography. Retrieved July 11, 2016, from http://www.ntaccounts.org/web/nta/show/Gender,%20Time%20use

Eurostat. (2016a). *Employment rates by gender and nationality*. Retrieved July 11, 2016, from http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsi emp a&lang=en

Eurostat. (2016b). *Mean age of women at childbirth by nationality*. Retrieved July 11, 2016, from http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_find&lang=en

Fisher, K., & Gershuny, J. (2016). Multinational time use study – User's guide and documentation. Centre for Time Use Research. Retrieved July 10, 2016, from http://www.timeuse.org/sites/default//files/9727/mtus-user-guide-r9-february-2016.pdf

Gimenez-Nadal, J. I., & Sevilla, A. (2012). Trends in time allocation: A cross-country analysis. *European Economic review*, 56(6), 1338-1359.

Haas, B. (2005). The Work-Care Balance: Is it Possible to Identify Typologies for Cross-National Comparisons? *Current Sociology*, 53(3), 487-508.

- Istenič, T., Šeme, A., Hammer, B., Lotrič Dolinar, A., & Sambt, J. (2016). The European NTA Manual. AGENTA project. Retrieved July 10, 2016, from http://www.agenta-project.eu/Jacomo/upload/publications/d-1.4-submitted.pdf
- Kan, M. Y., Sullivan, O., & 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.
- Kluge, F. A. (2014). The economic lifecycle by gender results combining monetary and time use estimates. *Comparative Population Studies*, 39(4), 707-726.
- Lee, R., & Mason, A. (Eds.) (2011). *Population Aging and the Generational Economy. A Global Perspective*. Cheltenham: Edward Elgar Publishing Limited.
- Lewis, J., Knijn, T., Martin, C., & Ostner, I. (2008). Patterns of development in work/family reconciliation policies for parents in France, Germany, the Netherlands, and the UK in the 2000s. *Social Politics: International Studies in Gender, State & Society, 15*(3), 261-286.
- Miranda, V. (2011). Cooking, Caring and Volunteering: Unpaid Work Around the World. *OECD Social, Employment and Migration Working Papers, No. 116.* Retrieved July 10, 2016, from http://dx.doi.org/10.1787/5kghrjm8s142-en
- Pascall, G., & Lewis, J. (2004). Emerging Gender Regimes and Policies for Gender Equality in a Wider Europe. *Journal of Social Policy*, 33(3), 373-394.
- Reid, M. G. (1934). Economics of household production. New York: J. Wiley & Sons.
- Saraceno, C., & Keck, W. (2008). The institutional framework of intergenerational family obligations in Europe: A conceptual and methodological overview. *Multilinks project Workpackage 1, WZB Berlin.* Retrieved July 10, 2016, from http://www.multilinks-project.eu/wp-content/uploads/2009/04/Report_Saraceno_Keck_Nov081.pdf
- Stiglitz, J. E., Sen, A., & Fitoussi. J.-P. (2015). Report by the Commission on the Measurement of Economic Performance and Social Progress. Retrieved July 11, 2016, from http://www.stiglitz-sen-fitoussi.fr/
- Vargha, L., Gál, R. I., & Crosby-Nagy, M. O. (2015). Household production and consumption over the lifecycle: the National Time transfer accounts in 14 European countries. *Agenta working paper No. 4*. Retrieved July 10, 2016, from http://www.agenta-project.eu/Jacomo/upload/publications/agenta wp 092015 vargha copy1.pdf
- Vargha, L., Šeme, A., Gál, R. I., Hammer, B., & Sambt, J. (2016). Manual of NTTA methodology and guidelines to the AGENTA NTTA data explorer. AGENTA project. Retrieved July 10, 2016, from http://www.agenta-project.eu/Jacomo/upload/publications/d-2.3-submitted.pdf
- Zannella, M. (2015). Reallocation of resources between generations and genders in the market and non-market economy. The case of Italy. *The Journal of the Economics of Ageing*, 5, 33-44.

Zagheni, E., Zannella, M., Movsesyan, G., & Wagner, B. (2015). A Comparative Analysis of European Time Transfers Between Generations and Genders. (s.l.): Springer Netherlands.