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**Dynamics of the allocation of time in
post transition economies**

Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania 29, 83-92

2012

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej bazhum.muzhp.pl, gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

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DYNAMICS OF THE ALLOCATION OF TIME IN POST TRANSITION ECONOMIES

Abstract

The article presents the changes in the allocation of time of men and women. The Authors seek to answer the following questions: 1. What are the basic differences and similarities in men's and women's time allocation? 2. Which differences should be treated as diversities, i.e. where and if are there the limits of the androgenisation of men's and women's time use? 3. What are the relations between economic growth and gender oriented allocation of time? 4. How has the process of economy transformation affected the time allocation of the Polish population? The main source of information about the way people function in the public and private sphere will be the findings of the Time Use Surveys. The Polish Office for National Statistics (GUS) distinguishes six elementary groups of human activities: Paid work, Domestic Work, Free Time, Study, Travels and Personal Care. The Authors believe that all these activities, particularly the main three, should be taken into consideration when studying human economic behaviour.

Keywords: time use surveys, economical transformation, gender.

Introduction

Time allocation is an issue that the economists show growing interest in. Simultaneous observation of activities on the labour market, in households and of the ways

how people spend their free time gives us a full picture of the economic behaviour of the population. The characteristics of this behaviour, expressed by the time particular tasks take and by the percentage of people involved in them, is complementary to the characteristics of behaviour in monetary terms, which means the analysis of salaries and household expenses.

Time Use Survey (TUS) has proven to be a tool which is increasingly often used in the analysis of differences and similarities between the life quality of the chosen social groups, such as men and women, urban and rural population, the young and the old, the rich and the poor, the educated and the uneducated, etc.

The Time Use Surveys conducted by the Polish National Statistical Office (GUS) as well as scientific studies based on the TUS are the empirical realisation of G. Becker's postulate (1992) to include non-monetary and non-market phenomena to economic studies.

The aim of the paper is the statistical analysis of the differences, similarities and the changes in the allocation of time of women and men. The thesis of the paper is that the process of economy transformation has significantly affected the time allocation of women and men.

1. The Problem Characteristics in the Reference Literature

Time allocation can be examined on the micro and macro scale. In the micro dimension it means the combination of the forms of human behaviour the total duration of which equals a chosen time unit, usually a day (according to the PWN dictionary of economic terms). The micro scale TUS can be used as a tool for re-negotiating a *gender contract* between partners, as an instrument in economic analyses where time is treated as a resource and, finally, as a tool in the process of coaching or mentoring. On the basis of the individual time use survey we can improve one's time distribution between working and family life.

Time use survey on the macro scale is a method of describing and analysing the behaviour of large groups of people based on calculating the mean time of all the activities performed in one day. The structure of the TUS makes it possible to analyse the relations between such essential areas of human activity as work or studying and free time activities: leisure, entertainment or culture (see the PWN dictionary of economic terms). The survey results are of great diagnostic and prognostic value for

the social policy, empirical sociology and for the macroeconomic studies. In case of the latter the studies on time allocation have not been very common, but recently the subject is gaining popularity.¹

It should be noted that there is a difference between the terms of ‘time use’ and ‘time use survey’. The former refers to the population’s actual behaviour in time, while the latter means the study on people’s time allocation patterns carried out by statistical authorities, e.g. by the Polish GUS.

The Time Use Surveys as well as scientific studies based on the TUS are the realisation of G. Becker’s postulate² to include non-monetary and non-market phenomena to economic studies in order to improve their cognitive value. The postulate is particularly important in the context of the above thesis which refers to the East European countries, i.e. to the regions where the non-market economic activity has been very popular.

The principal purpose of the TUS, as delineated by the GUS³ is to obtain information about the volume of working time as well as about the volume and forms of spending free time. This information is taken into consideration when constructing the quality and the level of life indices. Another purpose of the TUS is to collect data concerning unregistered employment and to carry out the evaluation of household work which is the foundation of the so called satellite accounts. The TUS also helpful in estimating the women’s contribution to the economy and in initiatives aiming at the sufficient integration of unpaid work into national income accounts. The fact that the satellite accounts are not popular in the East European countries yet seems to result from these countries’ strong focus on the market processes, their transformation into capitalist economies and too much significance attached to the last part of the saying ‘Time is Money’.

As far as household activities are concerned we can identify about 50 household works being the counterparts of actual jobs existing on the labour market. Most of the household works remain unpaid and performed by women. Although the market offers plenty of services alleviating household chores, in the poorer countries

¹ R. Antonopoulos, I. Hirway, *Unpaid Work and the Economy. Gender, Time use and Poverty in Developing Countries*, Palgrave Macmillan, New York 2010; A. Picchio, *Unpaid work and the economy: a gender analysis of the standards of living*, Routledge, London and New York, 2003.

² G.S. Becker, *A theory of the Allocation of Time*, “Economic Journal” 1965, September; *idem*, *The economic way of looking at life*, “Nobel Lecture” 1992.

³ *Budżet czasu ludności w latach 2003/2004*, GUS, Warszawa 2005.

of Eastern Europe many families cannot afford them. To make matters worse, the local governmental policies aimed at the child, the disabled and the elderly care are inefficient.

Time use survey can help us realise how important the social reproduction of the total population is, including the working part of it. The reproduction is one of the most important issues together with the production and the exchange of the goods.⁴ The TUSs are also the instrument of promoting the concept of *total work*, i.e. the total of the time and value of the market and household work together.

2. Data

The analysis was carried out on the basis of the 1976–2004 panel data from Poland and the data from the HETUS – the Harmonised European Time Use Survey.⁵ The HETUS presents the structure and activities of everyday life in fifteen European states. The present study is based on the results of the surveys conducted in the countries that have undergone economic transformation such as Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia which have been compared with the surveys in other European countries.

3. Methods

The statistical comparative analysis of the population's time use in the East European countries (EEC) will be conducted on the basis of the mean duration of following main activities: Personal Care Total, Employment Total, Study Total, Domestic Work Total, Leisure Total, Travel Total and Unspecified Time Use. The author will present the percentage of the time devoted to individual activities on the 24 hour basis. Special attention will be paid to 3 forms of activities that are most essential in terms of the economic analysis, i.e. to the market and household work as well as to free time activities.

The dynamics analysis will contain the presentation and evaluation of time series of the selected time use variables. Due to irregular intervals between the obser-

⁴ A. Picchio, *op.cit.*

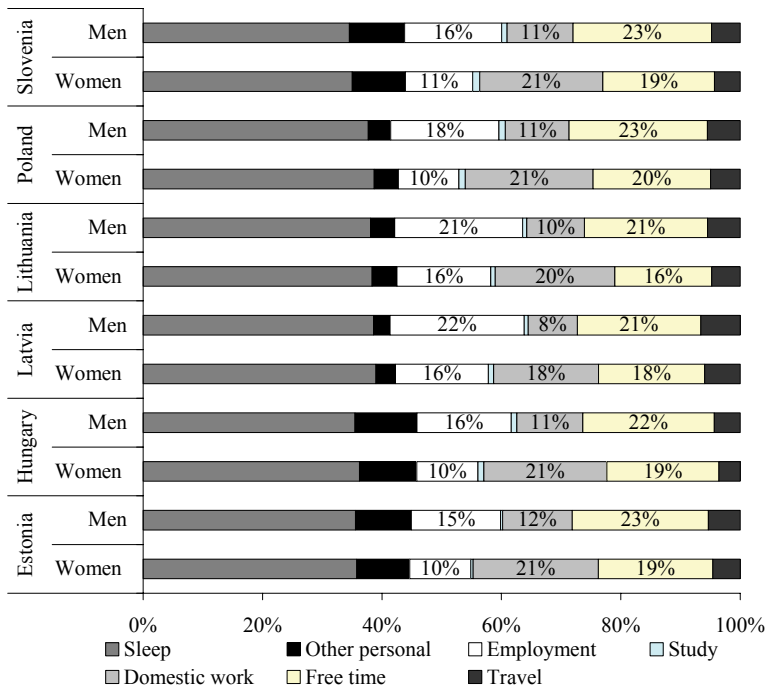
⁵ www.tus.scb.se.

vation periods (e.g. 1976, 1984, 1996, 2004) it is not possible to construct the trend functions describing the changes in time. With a view to that the author used absolute and relative changes. See more about these measures *Statystyka. Opis statystyczny*.⁶

4. Description of the Results

What are the basic differences and similarities in men’s and women’s time allocation in the post transition countries? This question can be answered on the basis of the results presented in Figure 1. Principal differences between genders can be observed in: employment, domestic work and free time. Other vast gender gaps

Figure 1. Time use surveys by gender in post transition countries
 (in % of total weekly hours)



Source: own study based on HETUS.

⁶ J. Hozer, *Statystyka. Opis statystyczny*, US, SPiR, Szczecin 1998.

can be seen in other personal activities which, due to their smaller importance, will not be analysed in detail. In all the EEC women stay at work shorter than men, because they are responsible for more household works. This is why in all the countries the women's household work time was much longer than the men's. Although the women's market work time was shorter, their total work time in those countries was visibly longer: in Latvia by 6%, in Slovenia by 17%. The presented time use surveys were published in 2005 and 2006 and they describe the period of 2001–2005.

The employment activities make up just a small part of the time use structures: 10–16% of the women's and 15–21% of the men's time. They are indirectly, but most strongly associated with the production process of market goods and services. The activities related to social reproduction, such as sleep, other personal, domestic work and free time are a considerably larger part of the time use structure and it seems important to take them into consideration when studying human behaviour from the economic point of view.

It is interesting how much free time both women and men in EEC have. When we look at the free time structure more closely, we can see that about 40% of free time in most countries is spent on TV watching.⁷ The employed people have less free time in comparison to the unemployed ones. The respondents having least free time are working mothers of children under 7 who are at the same time most burdened with work. It is a group whose total work time is the longest. Fortunately enough, their situation changes for better when the children enter school age.

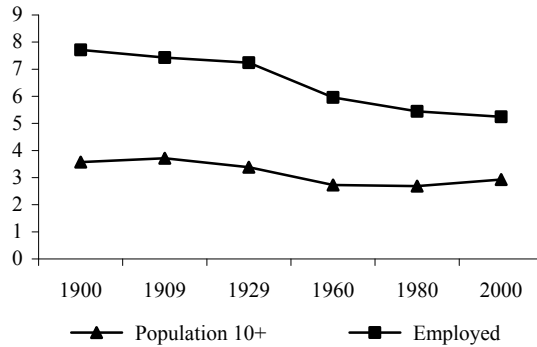
Shorter gainful work time of the women living in EEC is a consequence of their lower employment rates. In 2005 (when the time use survey was conducted) in Poland the women's employment rate was 52%, while that of men remained at 80%. In 2011 the gap is smaller: 58% and 80%, respectively.

When studying work time allocation in the 20th century⁸ Ngai and Pissarides observed the decrease in the mean gainful work time in the group of the employed (see Figure 2). In the population as a whole (i.e. also in the group of the unemployed) the fall was gentler followed by a slight increase after 1980. It is worth noticing that the values of gainful work time in this group are low, i.e. about 3 hours a day.

⁷ C. Aliaga, K. Winqvist, *How women and men spend their time? Results from 13 European countries*, in: *Statistics in focus, Population and Social Conditions*, theme 3.12.2003.

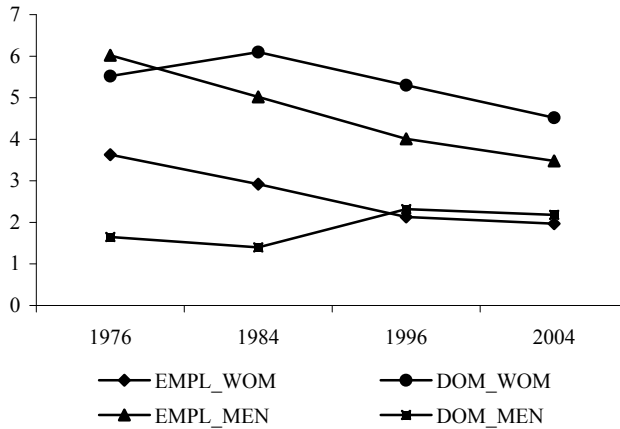
⁸ L.R. Ngai, C.A. Pissarides, *op.cit.*

Figure 2. Mean time of gainful work in Europe in hours daily



Source: own study based on L.R. Ngai, C.A. Pissarides, *Trends in Hours and Economic Growth*, “Review of Economic Dynamics, Elsevier for the Society for Economic Dynamics” 2008, Vol. 11 (2), pp. 239–256.

Figure 3. Mean time of gainful (EMPL) and domestic work (DOM) of women and men in Poland in the years 1976 – 2004



Source: own study based on the Time Use Surveys of 1976, 1984, 1996 and 2004.

The above analysis dealt with the general situation in Europe. In the further part of the study the author will attempt to answer the question: How has the process of economic transformation influenced the changes in the population’s time use? The

empirical analysis will be conducted on the example of Poland, one of the largest East European countries.

The Polish women's household work in the period of 1976–2004 was on average twice as long as their market work. Their household work time was characterised by low variability while their mean market work time was reduced by half in the study period (46%, see Table 1). It was a result of the significant decrease in the number of women in income earning jobs. That change was caused mainly by the economic transformation and related modifications of the Polish labour market. During all the three analysed decades the percentage of women working at home was high, reaching almost 100% of adult women.

Table 1. The absolute and relative increments of the time use variables

Variable	1976	2004	Absolute change	Relative change (%)
EMPL_WOM	3.63	1.97	–1.66	–46
DOM_WOM	5.52	4.52	–1.00	–18
EMPL_MEN	6.02	3.48	–2.54	–42
DOM_MEN	1.65	2.18	0.53	32

Source: own study based on the Time Use Surveys of 1976, 1984, 1996 and 2004.

The male market work time turned out to be longer than for women in all the examined periods, although it was systematically getting shorter from decade to decade (in 2004 shorter by 42% in comparison to 1976, see Table 1). Male household work time was shorter than the women's, but this particular parameter was growing significantly (32% growth in 2004 in comparison to 1976). That regularity resulted from social and cultural changes in the family model predominating in Poland as well as from the falling number of men participating in the labour market.

Conclusions

The statistical analysis of the basic day schedule activities displayed clear differences between men and women. The results concerning women are usually less favourable than the results of the population as a whole. The women's time use schedules demonstrate that they devote significantly less time to gainful work

(which leads to the feminisation of poverty), spend more time on unregistered and unpaid work and have much less free time.

The author has proven that the process of economy transformation affected significantly the time allocation of women and men. Its most important effect was noticeable fall in the mean gainful work time being a consequence of the higher unemployment rate. We can say that despite the above mentioned differences the men's and women's time use schedules are getting increasingly similar.

Studying the changes in the traditional gender roles R. Dahrendorf said in 1992 that in the future the female rhythm of work combining market work with household chores and childcare would become also a norm for men. Was he not right?

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ANALIZA ZMIAN ALOKACJI CZASU W KRAJACH PO TRANSFORMACJI GOSPODARCZEJ

Streszczenie

W artykule przedstawione zostały zmiany w zakresie alokacji czasu kobiet i mężczyzn. Autorzy podjęli się próby odpowiedzi na następujące pytania: 1. Jakie są zasadnicze różnice i podobieństwa w alokacji czasu kobiet i mężczyzn? 2. Które różnice należy traktować jako różnorodności? 3. Jakie są związki pomiędzy rozwojem gospodarczym a alokacją czasu wg płci? oraz 4. Jak proces transformacji gospodarczej wpłynął na alokację czasu ludności? Zasadniczym źródłem informacji o tym jak funkcjonują ludzie w sferze publicznej i prywatnej będą wyniki badania GUS „Budżet czasu ludności”. Wyodrębnia się sześć zasadniczych grup czynności w życiu człowieka: Czynności fizjologiczne, Praca zawodowa, Nauka, Praca domowa, Dojazdy i dojscia oraz Czas wolny. Autorzy uważają, że wszystkie aktywności (na czele z głównymi trzema Praca zawodowa, Praca domowa i Czas wolny) powinny być brane pod uwagę podczas badania ekonomicznych zachowań ludzkich.

Słowa kluczowe: budżety czasu ludności, transformacja gospodarcza, płeć.