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# Gender Features of Time Allocation, Gender Stereotypes and Labour Supply 

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#### Abstract

Securing the well-being, protection of human rights and equality on the ground of age, gender, race, nationality etc along with sustainable economic development becomes the most important goal for any country. Gender differences in labor market are a problem of many countries. Being a larger demographic group, women have played a vital role in employment and economic development. Despite longstanding striving for gender equality, the inequality manifests itself in labor markets around the world. There is no common opinion on the reasons of the existence of gender differences in economic literature. After decades of research most investigators would agree that there can be no single-factor explanation for gender inequality in the labor market. One of the conventional explanations of gender gap in employment sphere includes the differences in men's and women's preferences in working hours due their stereotypical roles in the private and public life. This paper is focused on the study of gender feature of time allocation and its impact on the labor supply by men and women. For this purpose, based on the different types of activity, particular: income getting or income increasing promote activity, non-monetary income obtain activity, income-make activity, non-income-make activity, indirect-receipts activity, the author introduces the time allocation model which includes parameters such as working time, leisure, non-working time, using time, free time and time for satisfying an individual's physiological needs. For the attribution of different types of practice to certain kinds of activity the "principle of dominant purpose of activity" was offered. According to given time allocation model, the pattern of features of labor supply by men and women is offered in the paper.


## Introduction

The investigation of labour market problems has a long history and still remains to be the problem under study. Despite longstanding analyses, the interest to-
wards the problem doesn't lessen up to now. Such a stable attention paid to labour market and employment sphere problems can be explained by numerous factors, some of which have a long-living history and some of which come on, show themselves or become a subject of re-examination and new commitment along the society development process. Thus, each stage of economical and social development and each stage of scientific progress adopts some kind of a particular approach towards the employment issues.

Today women, being a larger demographic group, play a vital role in employment and economic development. Despite this, women hold "disadvantaged position ... in labor markets around the world" (Glick 1991, pp. 15, 42) and they "continue to earn less than their male peers" (Equality at Work 2010, p. 117). Thereby, the focus of legislation documents and scientific researchers is essentially on women (Comprehensive proposal for the composite entity for gender equality 2010; Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) 1979; Segal 2004; Tanenbaum 2002) and "the promotion of gender equality in the world of work requires a set of short- and long-term policies that understand and address these interlinkages" (Equality at Work 2007, p. 117).

Despite long-time and ongoing efforts of many countries to promote gender equality, despite an adoption of statutes and policies for closing the gender gap in all fields of life Comprehensive proposal for the composite entity for gender equality 2010; Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) 1979; Equality at Work 2007; Equality at Work 2010; Spence1993; Thorndike 1914), the labour market is still labeled by a lack of gender equality. This issue can be seen in employment and occupation and includes gender pay differences, unequal career opportunities for men and women and differences of their representation in executive positions, an unequal division of parental insurance, etc.

There is no common opinion on the reasons of the existence of differences between women's and men's employment in economic literature. It is not clear what has caused those gaps/differences. After decades of research, most investigators would agree that there can be no single-factor explanation for gender inequality in the labor market and there are many potential reasons why men and women may differ in the employment sphere.

A conventional explanations of gender differences in employment sphere first of all includes discrimination (Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) 1979; Jaffee, Hyde 2000; Spence1993) i.e. any distinctions in norms of remuneration and promotion possibilities at identical personal characteristics when "people may be included or discouraged from even aspiring to a job because of their race, sex or religion" (Spence1993, p.18).

Other explanations include differences in a human capital and abilities (Pearson and Chatterjee 2002), differences due to historical and social influences, pre-
conception (Jaffee, Hyde 2000) preferences for work field [Bielby and Bielby 1989) etc. A usual analysis of gender gap of employment sphere includes differences in preferences for working hours because child rearing and family caring (Bielby, Bielby 1989; Glick 1991). All of these explanations to a greater or lesser degree are subject to influence of gender stereotypes.

In textbooks and in specialist literature, the duration of work day equals 24 hours and consists of only work time and leisure time (Frank 2006; Hugh and Ress 2004; Pindyck, Rubinfeld 2005; Hope 1999), but „leisure" time is not actually homogeneous. Its structure is substantially influenced by representations about men's and women's stereotypical roles in the public sphere and in family which still dominates in society. According to these views, men and women have various models of their economics behavior. The stereotypic representation recognizes that the main duty of a man is to earn money and to achieve promotion. To conform to these stereotypes a man should devote much time to work and less time to the household (Erickson, Gecas 1991; Hochschild 1989; Pleck 1985). In spite of the fact that women participation in labor market has increased and 'women have centered many of the professions previously reserved for men, and their earnings have become an essential part of household income' (Wirth 2004), the stereotypic representation and traditional belief still allocates the role of the housewife predominantly to the women (Hofstede 2001; Perry-Jenkings et al. 1992). It often happens that women, submitting to stereotypic views, conscientiously and voluntarily choose family as sphere of their primary activity (Arn-ania-Kepuladze 2008).

Despite differences in opinions, the stereotypic representation about men's and women's place and role in society renders significant influence on their labor supply and is directly connected with day's division into work and non-work time.

This paper aims to summarize some of the theoretical and practical issues and consider the correlation between gender stereotypes, gender feature of daynight time division and labor supply by men and women.

## Time parameters and time division

Usually, economic literature consider leisure and non-work time "as an identical categories" (Hugh, Ress 2004, p. 77) which "include play, sleep, eating and any other activities" (Frank 2006, p. 511; Pindyck and Rubinfeld 2005, p. 525). Leisure is also defined as a "term that describes enjoyable non-work activities" (Pindyck and Rubinfeld 2005, p. 525). Work time is defined as activities which make income.

In economics literature potential work time is considered 24 hours. Such approach actually completely identifies worker with material factors of production.

However, a person (worker) is the bio-social creature and beside satisfaction of social and economic needs he/she must satisfy biological (physiological) needs, such as sleep, eating etc. Thus, in reality a worker can't work 24 hours. This necessity is admitted by economists, but it is not considered in detail.

Proceeding from this, let me consider a worker's day in more detail.
A worker's day consists of working time when a worker works and receives the income, and non-working time.

Non-working time is very structure-intricate category.
Non-working time consists of the time to satisfy individual's physiological needs (primary needs) such as sleep, eating etc and free time such as rest, relaxation, recreation, play, work in household, training etc. At the same time or in other words, non-working time consists of the non-income-making activity (i.e. time for performance of the non-income-making activity) and indirect-receipts activity (i.e. time for implementation the indirect-receipts activity). Non-incomemaking activity can be defined as activity, not connected with any kind of returnbringing performance and includes satisfying physiological needs and spending time in a pleasurable way. Indirect-receipts activity can be defined as any sort of practice connecting with a) activity which promotes income getting or income increasing (G) (non-reimbursable activity as a necessary part of wage earning employment or training purposely to career enhancement, skill improvement etc. This kind of activity could be viewed as transaction costs for earning enhance); b) activity which obtains non-monetary income - any kind of activity purposely getting goods and services including, tidying, cooking, shopping etc. This type of unpaid activity can be performed by a third person who is paid for it, but for one reason or another is performed by family members (in our case - by men or women; by wife or husband); c) voluntary activity which includes childcare, elderly people care, child-rearing practices, interpersonal relationships such as emotional bond, psychological support etc. This type of activity is doubly-defined: on the one hand, childcare, old care and some kinds of interpersonal relationships can be performed by a "third" person e.g. by various kinds of specialists, psychoanalysts, etc, on the other hand, many kinds of interpersonal relationships have a very intimate, direct and private character and cannot be superseded by an act of "third" person. In the first case the activities attribute to indirect-receipts activity $\left(\mathrm{V}_{1}\right)$ and in second case - to the non-income-making activity $\left(\mathrm{V}_{2}\right)$ but not to leisure one.

On the other side, the day shares on used time (U) (when individual are concerned in their job i.e. realized the income-make activity and indirect-receipts activity) and leisure (L), when individuals rests, sleeps, eats and pleasantly spends time. In other words: on the one hand used time (U) includes work time (H) which is composed of income-make activity (paid work $H_{p}$ ) and unpaid work $H_{u}$. Leisure (L) consists of time to satisfying physiological needs ( S ) and of pastime (figure 1).

Figure 1. Day-Night Division Model

| Paid work ( $\mathrm{H}_{\mathrm{P}}$ ) | Unpaid work ( $\mathrm{H}_{\mathrm{U}}$ ) <br> Work in households, study, training, service, care etc |  |  | rest, <br> play <br> etc | sleep, eating etc. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Working time Or Income-make activity (H) |  |  |  |  | Time to satisfaction physiological needs (S) |
|  | Indir | eipts activity $\left.+\mathbf{O}+V_{1}\right)$ |  | Non-i | make activity $+\mathbf{P}+\mathbf{V}_{2}$ |
|  |  | Non | w 0 | ing | (N) |

Source: own work.

Used time $\left(\mathrm{U}=\mathrm{H}_{\mathrm{P}+} \mathrm{H}_{\mathrm{U}}\right)$ Leisure ( $\mathrm{L}=\mathrm{P}+\mathrm{S}$ )
Proceeding from the aforesaid for our labor supply analysis we would like to consider the following marks:

1. A worker's day-night time structure isn't homogeneous. It consists of working time $(\mathrm{H})$ and non-working time $(\mathrm{N}): 24=\mathrm{H}+\mathrm{N}$.
2. A worker as a bio-social creature compelled to satisfy their physiological needs as sleep, eating etc (S).
3. Non-working time ( N ) structure isn't homogeneous too. It includes non-income-make activity (M) and indirect-receipts activity (I): N = M + I. On the other hand, non-working time consists of a) time to satisfy one's physiological needs (S) and b) free time (F): $\mathrm{N}=\mathrm{S}+\mathrm{F}$.
4. Non-income activity (M) includes time to satisfy physiological needs (S), pastime ( P ) which is used for rest, relaxation, recreation, play, etc. and a second part of voluntary activity $\left(\mathrm{V}_{2}\right): \mathrm{M}=\mathrm{S}+\mathrm{P}+\mathrm{V}_{2}$.
5. Free time (F), in its turn, includes indirect-receipts activity (I), second part of the voluntary activity $\left(\mathrm{V}_{2}\right)$ and pastime $(\mathrm{P}): \mathrm{F}=\mathrm{I}+\mathrm{V}_{2}+\mathrm{P}$.
6. Used time (U) includes working time $(\mathrm{H})$ and free time except for pastime: $\mathrm{U}=\mathrm{H}+(\mathrm{F}-\mathrm{P})$ In other hand used time includes paid work $\left(\mathrm{H}_{\mathrm{p}}\right)$ and unpaid work $\left(\mathrm{H}_{\mathrm{U}}\right)$.
7. Leisure (L) includes time for satisfying person's physiological needs (S) and pastime $(\mathrm{P}): \mathrm{L}=\mathrm{S}+\mathrm{P}$.
8. Worker's work time $(\mathrm{H})$ is limited by necessity of satisfying physiological needs. So worker's work time can't continue 24 hours and equals $\mathrm{H}=24$ - S .

9 . Labor supply isn't limited by demand of labor.
10. Hourly wage level $\left(\mathrm{w}_{0}\right)$ doesn't change.

Proceeding from the aforesaid, at the beginning, let us conditionally divide a day into working time $(\mathrm{H})$, non-working time ( N ), which includes free time ( F ), and time to satisfy an individual's physiological needs (S) - sleep, eating etc. without which a person can't live long.

Now we shall make some explanations:
Worker's day-night time (24 hours) consists of working time (H) and nonworking time ( N ):

$$
\mathrm{H}+\mathrm{N}=24
$$

Non-working time (N) consists of free time (F) and time to satisfy physiological needs (S):

$$
\mathrm{N}=\mathrm{F}+\mathrm{S}
$$

The necessity of satisfying a worker's physiological needs objectively reduces a worker's working and/or free time.

For the case of simplicity we considered the used time (U) as differences between durations of day-night time and time of satisfaction of physiological needs $(\mathrm{S})$ and pastime ( P ):

$$
\mathrm{U}=24-\mathrm{S}-\mathrm{P}
$$

Non-working time ( N ), as a rule, can't be less that time for satisfying a worker's physiological needs (S) and, of course, can't be more that the 24 hours. Thus non-work hours as hours for satisfying physiological needs have bilateral restriction:

$$
\mathrm{S} \leq \mathrm{N} \leq 24
$$

Working time $(\mathrm{H})$ equals the differences between durations of day-night time and time of satisfaction of physiological needs (S) and free time (F):

$$
\mathrm{H}=24-(\mathrm{F}+\mathrm{S})
$$

Working time and free time can inter-complete each other or be inter-substituted by each other (when worker increases labor supply as much as possible, working time can be substituted by free time $\mathrm{U}+\mathrm{P}=\mathrm{H}$. When a person doesn't work, free time is substituted by working time and $\mathrm{F}=\mathrm{U}+\mathrm{P}$ ):

$$
\mathrm{H} ; \mathrm{F} \leq \mathrm{U}+\mathrm{P}
$$

Working time ( H ) can't be more that used time and pastime $(\mathrm{U}+\mathrm{P})$ are together and less that 0 (because a person cannot work at all but should sleep):

$$
0 \leq \mathrm{H} \leq \mathrm{U}+\mathrm{P}
$$

Uniting the aforesaid we shall receive:

$$
\begin{aligned}
& \mathrm{H}+\mathrm{F}+\mathrm{S}=24 \\
& \mathrm{~S} \leq \mathrm{N} \leq 24 \\
& 0 \leq \mathrm{H} \leq \mathrm{U}+\mathrm{P} \\
& \mathrm{U}=24-\mathrm{S}-\mathrm{P}
\end{aligned}
$$

## The principle of dominant purpose of activity

Some types of activities can have double loading: e.g. if the work in the household, such as agricultural activities, is performed as income-generating tool and if studying or training represents a necessary condition for income-generating work, the time for its realization can be considered as time usefully spent or used time; if activities in the household (e.g. flower cultivation as a pleasant time spending) or exercise (e.g. morning dozen, etc.) are used as pastime - we can refer them to leisure.

Sometimes it is very difficult to define the type of activity. For example, when parents play with a child - is this type of activity a kind of rest or childcare necessity?

Not so rarely, some sorts of activities can simultaneously be attributed to different practices. In such cases, the definition of their belonging is both difficult and important.

For example, a musician practices the new composition which he enjoys. The creative process brings him pleasure and he plans to include this composition into his new concert program. At the same time, when the composition is welllearned, he lets his children listen to his performance, because he wants them to enjoy and understand music. How can his activity be qualified: pleasant spending time, childcare or work? Of course, the musician's performance contains all this components but his main goal is to prepare a new concert program.

Another example is flower cultivation.
For comparison: flower lover grows flowers for pleasure. At the same time, he/she sells the superfluous quantity of flowers and gets additional income. Another person grows flowers for sale, and at the same time he/she gets a charge out of the process. By its exterior form both persons' activities are identical and contain similar components, but the intrinsic meaning of their activities is rather different because they have different goals: for the first person it is a hobby, the satisfaction of aesthetical needs and therefore can be recognized as pastime while in another person's case this activity satisfies his material needs and consequently is a work activity.

Therefore for the attribution of different types of practice to certain kinds of activity the principle of dominant purpose of activity can be used.

Such approach could be used as methodological base for the in-depth understanding and analysis of the household time allocation.

Time Parameters and Preferences in the Time Usage
The time to satisfy physiological needs is put in the usual labor supply model. It means that the necessity to satisfy a physiological needs reduces the prospective working time and/or free time and leaves the basic principals of neoclassical approach without changes.

So, without prejudice to generally principles of common neoclassical model of preferences, the Day-night's division parameters will be involved in it (Figure 2):

Figure 2. Day-night's division and Time/Income Usage Preferences (gender-neutral)


Source: own work.

## The gender stereotypes and the gender features of time allocation

Is the day-night time differently used by men and women? What factors influence gender features of time usage? How do gender stereotypes influence gender features of time allocation?

Gender stereotypes or system of social behavioral norms are highly significant institutional mechanism which orient men and women on different life strategies and prescribe them binary oppositional roles in private and public spheres.

Based on our research context, the dominance of patriarchal concepts of men's and women's stereotypical roles in society and family influences working and nonworking time gender correlation as well as the structure of non-working time spent by men and women. A number of investigations confirm this estimation.

Though a good deal of domestic work is getting marketable and women's labor force participation rates have risen considerably in recent decades, women retain primary responsibility for household labor and childcare.

According to Joyce P. Jacobsen men and women spend approximately equal time on self-care (including sleep) - $46 \%$ and $45 \%$ of week time respectively, but women spend 2 times more ( $14 \%$ of their weekly time) on housework and child care than men do ( $7 \%$ of their weekly time) (Jacobsen 2009, p. 56). According to the studies, the balance between paid labor and family/child care responsibilities affects work experience of married mothers. This effect is much greater for mothers of young children. Men are much less likely to place limits on work hours and/or career Moen, et al. (Moen et al. 1999, Moen et al. 2002) found that, if there are young children in the family, the weekly working-hours gap between men and women is nine hours on average. According to other data, the gap of working and non-working time spent by men and women is even more considerable (Women and men in Georgia 2008).

Despite the fact that the employment rate of women has been steadily rising over last years, women still work part-time more often than men do. As Hayghe's and Bianchi's investigations showed, though nearly three-quarters of all married mothers worked during a year, only 37 percent of them were employed full-time and year-round (Hayghe and Bianchi 1994). It means that having children contributes to decreased employment among women but men's labor participation and work time duration is relatively stable across all stages of life.

Other investigations (Becker et al. 1999) of work-family conflicts displayed that women's participation in the paid job to a considerable extent depends on their children age, while this is less true for men, who exhibit greater consistency in labor force status and commitment across all stages of their life.

While women's part in the paid labor force is constantly increasing, the social roles and expectations still differ for women and men.

Despite substantial change in women's employment patterns and in stereotypes once thought to undergird the gender division of labor, housework remains primarily "women's work" and wives' employment leads to only a very slight increase in husbands' housework time.

Men and women spend their non-working time in different ways as well. Although housework, like cooking, dishwashing and cleaning etc., is shared among those performing work daily in recent decades among both working and nonworking women, still women do most of almost all kinds of housework. According to researchers' data, women spend $63 \%$ of their non-working time on gardening and housework i.e. getting ready meals, washing-up, dusting the house or apartment, etc. For men this ratio equals to $46 \%$ (Household budgets and time use).

The proportion of non-working time spent by men and women in rural areas is more considerable (Women and men in Georgia 2008, pp. 57-59) since fewer women have paid work. The investigation of population aged 15-80 showed that women spend 3 times more on housework and have 2 times less free time than men do. The duration of men's paid work is 2 times longer than women's.

It is quite obvious that the duration of men's and women's work time is different and men and women spend their non-working time in different ways. Women everywhere spend more time on housework and men spend more time on a paid work. The constraining effect of family responsibilities is more obvious for women than for men. This phenomenon becomes apparent at every point in the life course and at a cross of culture: men consider public sphere more important while women concentrate on the private side.

Because of gender stereotypes and traditions, women reduce their working hours or exit labor force to take care of children or elderly family members.

Of course, such decision may be a woman's personal choice but more often she has to do part-time work in order to combine work and family responsibilities or leave labor market purposely to take family care.

How do the gender features of time use influence men's and women's preferences and labor supply by men and women?

Choice under Gender Stereotypes Impact
One of the factors which influence women's and men's decision-making is the prevailing view concerning woman's and man's place and role in the public and private sphere. Woman's aspiration to work, "make career" and to have a high income encounters difficulties to do so in reality.

In spite of the increasing women's participation in labor market, there is a significant number of people who support the traditional views on men's and women's allocation between private and public activity. According to genderstereotypical views on women's role and place in the family and labor market, families can be classified as traditional and egalitarian.

For traditional (patriarchal) family style men's and women's family roles are strictly differentiated. For these families professional self-realization of men is priority in comparison with women's professional self-realization and women carries the basic part of house. Even as a public sphere participant, women have to do considerably more household work and their choice and possibilities to prefer public sphere are strictly limited in traditional families. On the other hand, men are limited by necessity to participate in paid work too. Under such conditions, the choice and preferences of realization possibilities are limited for both women and men in traditional families.

Egalitarian families style is oriented towards a similar model of men's and women's behavior in public sphere and in a family.

It should be noted that there are differences between women. This difference originates from women's heterogeneity in their preferences and priorities in time division between family and work, in their lifestyle.

According to Hakim (2002), on the basis of the women's choice of lifestyle and their work-life preferences, three groups of women can be distinguished: home-centered or family-centered women, for whom children and family are main priorities throughout the life and who prefer not to work; adaptive wom-
en are the group who combine work and family, who want to work, but are not totally committed to work career; work-centered (career-centered) women for whom the main priority in life is employment and other equivalent activities other than maternity and family life and as a rule there are childless women (Hakim 2002, pp.158-193). Work-centered women, as well as work-centered men, have similar preferences.

Home-centered and career-centered women are a minority (Hakim 2006, pp. 288-289). The majority of women fall between the two extremes - home preferences and work preferences, and try to combine a paid work and a family. The adaptive women group is the largest (up to $60-80 \%$ ) among women. What is more, home-centered and work-centered as well as adaptive women may change their choice under the influence of some predictable and unpredictable events. For example, home-centered woman can change her preferences and get to work in case of losing a breadwinner or his losing a job; the adaptive women may pretermit job activities in case of delivering a child etc.

So, women and men can in different way use their working and non-work time.
The consideration of gender features of choice between job and family will be based on the following positions:

- there is the right for men and women to earn equal wages for equal quality and quantity work in many countries. Therefore the wage rate doesn't vary for men and women in this model;
- the vast number of women combines the paid work and family;
- men and women spend approximately equal time for satisfying physiological needs. Therefore the reduction of used time is identical for men and women;
- the gender stereotypical behavior model dictates a man an activity in public sphere and family material (tangible) security. In this case a man is compelled to devote more time to his work and less time to his family. That circumstance increases men's working time and reduces free time;
- despite substantial change in women's employment patterns and in stereotypes once thought to determine division of labor according to gender, housework remains primarily "women's work.
- in this model the families with traditional gender orientation and adaptive women will be considered. This choice is especially justified by following reasons: 1) egalitarian families are orientated on a similar behavioral model in a public sphere and in a family; 2 ) even people claiming to be independent from gender stereotypes follow them unconsciously; 3)the majority of women try to combine a paid work and a family; 4) the egalitarian orientation, first of all, to a greater extent is expressed predominantly by women, and the traditional type of gender behavior is usually supported both by men and women (МалкинаПых 2006, р. 166, 185).
- the patriarchal views connect a woman with the private sphere and oblige her to give priority to family, household. It increases woman's employment in
household and reduces her labor force supply in labor market. That circumstance increases women's non-working time and reduces working time.


## Gender features of time usage preferences

Taking into account all the aforesaid factors, the gender feature of time usage preferences and therefore of labor supply based on the significant institutional context such as gender stereotype will be considered.

Being based on stereotypical representations, a man will aspire to use his labor force as much as possible. Therefore, he will increase his labor supply. So, a man aspires to earn more and hence gives more preference to work and less - to the non-work time (Erickson and Gecas 1991; Perry-Jenkings et all 1992). Therefore, male increase his labor supply and his preferences curve $I^{\mathrm{M}}$ lay above an „neutral" indifference curve $\mathrm{I}_{1}$. (figure 3-A).

Our model labor supply by man completely corresponds to the described situation. The shaded triangle $X_{M} A^{M} X_{F}$ expresses a man's employment in public sphere. Rectangular $X_{M} A^{M} Y_{U} O$ expresses men's non-work time. Thus, proceeding from stereotypical representation, the man will aspire to increase working time at the expense of free time, and the remaining free time will be used for rest or for increasing his professional level.

As to women, as it has been noted and as a number of studies have shown, despite the increase in their participation in labor market, the gender stereotypes force them to perform family roles. Nevertheless, as many countries statistical data testify, female employment constantly increases. However, working women are not exempted from working around the house. According to the some researches, as it was shown, women's employment didn't exempt them from housework and, in general, women work longer (paid and unpaid) hours that men do and perform the majority of the unpaid household work (A new look through the glass ceiling: where are the women, 2002). In result, despite the fact that men's work time is longer, it didn't compensate for the gender distinctions in expenses of time for housework and it gives men more time for rest (Hochschild 1989) and working women often save time for work in public and private sphere at the expense of leisure and dream (Hakim 2002).

As researchers specify, housekeeping is the second, non-paid, work for women. So, working females are under threefold pressure: desire to self-realize in the public sphere, the necessity to earn money and the necessity to work on the household. All of these factors affect labor supply by women. The necessity to perform a family role reduces women's working time and increases the free time due to increase of the unpaid work and reduction of pastime. Influenced by gender stereotypes, females decrease individual labour supply and their preferences curve $\mathrm{I}^{\mathrm{F}}$ goes down along the budget constraint and lay below the „neutral" indifference curve $\mathrm{I}_{1}$ (figure 3-B).

Figure 3. Figure 3-A: Time division and Time Usage Preferences by men, Figure 3-B: Time division and Time Usage Preferences by women


Under impact of gender stereotypes men and women choose different behavioral models and display different preferences. So, men aspire to use his labor force as much as possible. Therefore, male increase his labor supply and their preferences curve $\mathrm{I}^{\mathrm{M}}$ lay above the „neutral" indifference curve $\mathrm{I}_{1}$.

So, according to gender stereotypical perceptions women predominantly use their free time for different kinds of household works. Therefore, working time used for paid work and free time, used for household work are substitute goods for women. As regards to men, according to our assumption they spend their free time predominantly as pastime. Therefore, working time and free time could be viewed as complement goods for men.

## Other viewpoints

In spite of that, the traditional model of behavior results from assumption that the preferences are consistent and constant, most of the economists today tend to the recognition that preferences are malleable and instable in the real life, that "preferences do not express themselves in a vacuum, but within the context of social and cultural institutions" (Hakim 2002, p.168).

The conclusion about preferences instability is based on the result of studies in experimental psychology. It has been shown that the preferences directly depend on the context (Tversky's "framing effect") (Tversky 1991) and are created through the process of choice (despite the fact that traditional microeconomics consider the choice to be based on preferences).

A case, opposite to the preferences stability and transitivity over time has been given on the base of empirical support too (the "fan paradox"). Furthermore, in the case of group making-decision when group members' preferences contradict each-other, the compromises should be found as preferences scale is being changed.

Developing the idea of preferences variability, Machine M. (1987) argued in favour of nonparallel transposes of indifferent curve in his "fanning out" theory.

Empirical investigations of preferences towards a family, work, leisure time, friends, etc. in the people's life cycle have shown that preferences of this kind are age-dependent and context-dependent. It has been found out that paid work is more important and preferential for capable - working-aged population, for those who have paid work and who are able-bodied aged unemployed; work is less important and preferential among those who are outside labour force, either due to child-care or other reasons. The investigation showed that leisure time tends also age-depending importance: while ageing leisure loses its importance and preference just as work does (Happiness Across the Life Cycle).

Proceeding from the foregoing one can assume that preferences are stabile and unchanged in a short-run period when so-called "context" or existing conditions are unvaried and fully corresponds to neoclassical economics but in a longrun period the preferences are changeable.

Using the time division and time parameter the instable preferences Model may be divelopend on the ground of individual's sex, age, marriage status etc.

## Conclusions

In this paper we have entered the day-night time's restriction factors and alongside with leisure and work time we have used such concepts as non-working time, using time, free time and time for satisfaction individual's physiological needs. This paper has introduced such concepts as income-generating or income
increasing promote activity, non-monetary income obtain activity, income-make activity, non-income-make activity, indirect-receipts activity. For the attribution of different types of practice to certain kinds of activity the "principle of dominant purpose of activity" was offered.

The day-night time's restriction helped to make more accurate the general microeconomics model of labour supply.

Based on this approach, on stereotypical representations about men's and women's gender roles in a society and in a family, and on numerous studies on day-night time used by men and women, we have considered the gender features of time budget and its impact on men's and women's preferences and labour supply. We have seen that men's non-work, and in particular free time's structure considerably differs from structure of women's non-work time. This restriction, most of all, depends on domination of gender stereotypes which limits women's wage-earning employment possibility and obliges men to increase participation in paid work. The impact of stereotypical views on men's and women's role in family and society greatly influences labour supply and the duration of men's and women's paid and non-paid work time. Based on such position in this paper, we have elaborated on labour supply model in the gender specific context separately for men and women.

The day-night time's restriction proposed could be used as methodological base for in-depth analysis of the household time allocation. The proposed gen-der-oriented labour supply model is usable for gender-based analyses of labour market functioning and for an eventual explanation of gender wage gap. The principle of dominant purpose of activity can be used for the attribution of different types of practice in certain kinds of activity.

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