POZNAŃ UNIVERSITY OF ECONOMICS AND BUSINESS
Research Papers in Economics and Finance *Vol. 8, No. 2, 2024: 105–134*
https://ref.ue.poznan.pl *https://doi.org/10.18559/ref.2024.2.1900*

The economic activity of women in families from different cultures

Jacek Jankiewicz[1] **Przemysław Garsztka**[2]
Jyoti Thakur[3]

Abstract

The presented analysis uses data from time-use surveys which were conducted in India and Poland in the late 1990s and early 2000s. The calculations made use of statistical information describing individual households and their members. The applied method of multiple regressions for cross-sectional data made it possible to take into account selected socio-demographic and economic characteristics of the analysed members of the population. The results obtained served for assessing the impact of such characteristics as marital status as well as children presence on the production activity of women. We present the time allocation of individuals with similar characteristics, but at different stages of their life cycles. Performing analogous estimations for Poland and India made it possible to directly compare the situation of women in these countries. Despite considerable differences in terms of social and cultural norms between the analysed societies, the situation of women living in them is in some respects similar. However, marked differences were also observed such as those related to economic activity depending on the level of education. Also, the influence of marriage on the allocation of time is different, as illustrated by comparing the situation of married women to those without a partner.

Keywords

- Polish and Indian families
- time allocation
- economic activity of women
- developing countries

Article received 2 November 2024, accepted 9 December 2024.

Suggested citation: Jankiewicz, J., Garsztka, P., & Thakur, J. (2024). The economic activity of women in families from different cultures. *Research Papers in Economics and Finance*, *8*(2), 105–134. https://doi.org/10.18559/ref.2024.2.1900

[1] Poznań University of Economics and Business, al. Niepodległości 10, 61-875 Poznań, Poland, corresponding author: jacek.jankiewicz@ue.poznan.pl

[2] Poznań University of Economics and Business, al. Niepodległości 10, 61-875 Poznań, Poland, przemyslaw.garsztka@ue.poznan.pl

[3] National Council of Applied Economic Research (NCAER), India Centre, 11 Indraprastha Estate New Delhi 110002, India, jthakur@ncaer.org

Introduction

People's use of time is an interesting source of data for both economists and sociologists. Representatives of these sciences usually have different goals when analysing time allocation and they use different methodologies; however, the demarcation lines are sometimes blurred, as exemplified by this article. The time use survey is a very powerful ally in the movement to value unpaid care work, which is the work done primarily by women around the world (Benhabib et al., 1991; Bridgman, 2013, p. 3). The significance of time use data for developing social policies increases many fold with the realisation that the wellbeing of people depends not just on money or market consumption, but also on how they spend their time.

The first scientific introduction to social analysis using statistics on the allocation of time is deemed to be the study by Sorokin and Berger, published in 1939, entitled "Time budgets of human behaviour" (Gershuny, 2011, pp. 5–6). Economic time budget analyses began with research into households' money budgets and living conditions (Niemi, 1995, p. 2). Mincer (1962, p. 65, 1963, pp. 71–72) focused on activity of women in his works, and the author presented the process of decision making in which the allocation of time between housework and market work is decided. In his analysis, he referred to non-market activity of a productive nature.

The present study uses data from time use surveys which were conducted in India during 1998–1999. These results are currently the only available source of such statistical data in the country. The main aim of the paper is to analyse the situation of women using data about their activities and the amount of work which takes place outside the market, i.e. for which they are not remunerated. The significance of this study lies in the fact that the Ministry of Statistics and Programme Implementation (n.d.) of the GOI conducted the first fully-fledged time use survey in India in 2019, which is first of its kind for a developing economy. It will be possible to compare the data with the newest wave of TUS in Poland, which took place in 2023, and the database will be prepared and accessible soon.

A complementary aim was a comparison of the situation of women in two different countries from various parts of the world. For this purpose analogous estimations for Poland and India were carried out. For a comparative analysis, such databases were selected which were created only a relatively few years apart. That is why the present study uses data from time use surveys which were conducted in Poland and India in the years 2003–2004 and 1998–1999, respectively. In the first half of the 2000's, Poland was still considered to be a developing country. India is also striving for the status of a developed country, and insights from this paper, especially with regard to women, could be helpful in understanding household as well as individual level determinants that facilitate the entry of women into the sphere of economic activities. Furthermore, this study could serve as a baseline

analysis for subsequent comparative studies between India and other countries, which could be possible once the Polish Central Statistical Office (CSO) completes the preparation of data from the latest time use survey, conducted in 2023. Thus, at this juncture, the paper can only shed some light on the situation of women in India at the time of the first pilot survey. However, it also seeks to bridge a gap, as there have been no other attempts to compare India's time use survey data with that of another country.[4]

Gender roles in a country which is governed by the socio-cultural milieu of the region have a huge impact on women's allocation of time between household work and market work. In various ways India and Poland are countries located in two entirely different worlds, but when it comes to women's gender roles both countries have various similarities. In both India and Poland (Narkowicz & Kumar, 2021), there are strong patriarchal social values which influence every aspect of women's life, whereby the man is responsible for providing a source of monetary income, and the woman is responsible for taking care of the family and running the house.

A strong role is played here not only by tradition and culture but also by religious teaching (Catholics are the largest religious community in Poland; while in India there are two big religions, Hindusin and Islam). The choice of Poland for comparison is dictated by the fact that such traditional values and attitudes are most apparent in this country among the countries of Central and Eastern Europe (new EU members). India, on the other hand, is a significant country (not only demographically) because of its highly patriarchal orientation representing a completely different cultural and social conditioning. A comparison of the two countries thus provides the opportunity to describe and assess to what extent the position of women in a traditional society based on the so-called Catholic values is similar to the role they play in a multicultural and multi-religious society. Due to limited space in the article, we focus on economic aspects, and more specifically on production activity.

Although Poland is a much smaller country than India (both in terms of the population and area), it is one of the largest EU countries. In addition, Poland is characterised by the special position of its agricultural sector in comparison with other EU members. It has the greatest fragmentation of agriculture and the largest percentage of the population which depend on agriculture (GUS, 2013, p. 169). Therefore, it is a good candidate for comparison with India, which is demographically still an agro-based economy with two-thirds of the population directly depending on agriculture for their livelihood.

[4] One of the most important reasons is, among others, that it is difficult to compare India with any other country, e.g. in terms of population. Only China may be considered similar.

In order to create the best conditions for comparison, and at the same time to capture certain phenomena more accurately, only nuclear families and single persons were taken into account. In this way, the focus was on the impact of selected characteristics of individuals and households on their productive activity in the market and beyond. This was achieved, inter alia, by eliminating from the analysed samples such families where the activity of a woman (for example, the amount of her household work) could be influenced by the presence of additional adults other than the partner, like older parents or grandparents. Distinguishing in the databases those families in which there were children, their impact on the allocation of a woman's time was also taken into account.

The study focused on showing the differences and similarities in terms of the position and activity of women in societies with significant differences in the tradition, culture and influence of religion on the lives of their members. The analysis was based on the assumption that improvements in women's position are mainly achieved through activation in the labour market, financial independence and socialisation (contact with other members of society). In pursuing the goal described, a working hypothesis was adopted that in countries where women are more active in the labour market, inequalities in the total work done by women and men are lower. Putting it differently, professional activation contributes to levelling inequalities in the scope of production activity (regardless of whether it is paid or not). The phenomenon of large scale home production in developing countries has long been recognised in the literature on the subject (Goldin, 2006; Jankiewicz, 2018, p. 147).

Despite considerable differences in terms of social and cultural norms between the analysed societies, the situation of women living in them is in some respects similar. However, marked differences were also observed, such as those relating to economic activity depending on the level of education. Additionally, the influence of marriage on the allocation of time is different, as illustrated by comparing the situation of married women to those without a partner. The general characteristics of the samples considered in the analysis indicate significant differences between the societies of Poland and India. Although these differences hamper direct comparisons between the results of the calculations, they lead to formulating interesting conclusions at the same time.

The calculations made use of statistical information describing individual households and their members. The applied method of multiple regressions for cross-sectional data made it possible to take into account selected socio-demographic and economic characteristics of the analysed members of the population. The results obtained served as a basis for assessing the impact of such characteristics as marital status, children and family size on the production activity of women. The characteristics of the analysed women's partners as well as their material status were also considered significant.

1. TUS data

1.1. India

In 1998, the government of India conducted the first pilot time use survey in six states. In order to make the sample representative, the survey tried to cover the length and breadth of the country by selecting six states from six different regions; namely, Haryana in the north, Madhya Pradesh in the centre, Gujarat in the West, Orissa in the East, Tamil Nadu in the South and Meghalaya in the north-east of the country. The total number of households surveyed was 18,591 and the survey was coordinated by the Social Statistics Division of the Central Statistical Organisation. The geography of India is extremely diverse; thus, with a view to capturing seasonal variations in the actives, the field work was spread over one year, from July 1998 to June 1999.

The study had two main objectives: 1) to quantify the economic contribution of women in the national economy and 2) to study gender discrimination in household work. A three-stage stratified sampling design was adopted to collect data; where the first stage was the district, the second stage was the village/urban block, and the third stage was the household. Due to various methodological lacunae, such as low literacy levels, restrictions on women, etc., the interview method rather than a diary or observation method was deemed best to collect data. Data was collected for three types of days; viz. normal, weekly and abnormal days; and the recall period was one day.

An analysis of the data showed that the level of labour force participation was 47.5%, with 51.7% found to be outside the labour force, and the proportion of unemployed being less than 1%. The other significant finding highlighted by the survey was the difference in the way male and female populations of the country spent their time on SNA (System of National Accounts) and Non-SNA activities. Each week males spent around 42 hours on SNA activities while females spent only 19 hours on SNA activities. However, females spent more time on extended SNA activities (34.6 hours), as compared to their male counterparts (3.6 hours). Unpaid labour was another dimension underscored by the survey. The data revealed that in India there were various economic activities for which no payment was made and in most cases these activities were performed by the females of the household. The proportion of unpaid activities by females was 51%, while for males the percentage was 33%.

In 2013, the Ministry of Statistics and Programme Implementation (MOSPI) of the Government of India announced a plan for conducting a country-wide time use survey.

1.2. Poland

In Poland, the first time budget study was carried out in the 1950s. Adamczuk (1990, pp. 22–26), among the first significant studies in terms of methodology, included research carried out in 1962–1963 on a sample of railway drivers. The first nationwide survey was conducted in 1968–1969, with subsequent ones in 1975–1976 and 1984 (Wnuk-Lipiński, 1971).

Since the beginning of systemic economic transformation in Poland, only two full editions of time budget research have been carried out on a representative sample of households. The first one was organised by the Polish Central Statistical Office (CSO) in the period from 1 June 2003 to 31 May 2004, at the very moment of the country's entry into the European Union structures (the information from that database is used in this analysis). The methodology recommended by Eurostat was used for this purpose, thanks to which the statistics obtained are highly comparable to similar information that is published in other European countries. The aforementioned survey comprised a sample of 10,256 households (GUS, 2005, p. 11).

The statistical and econometric estimations presented in the article were prepared from microeconomic data on the time structure of individual people who were selected to keep records in their diaries. Such persons were asked to record their activities for two days; one weekday (Monday to Friday) and one weekend day (Saturday or Sunday). The database also contained diaries filled in on holidays. The agents selected for the survey were aged 15 and above. When filling out the diaries, respondents recorded their activities (main and secondary) by describing them in fixed 10-minute intervals, which meant that they chronicled their daily activities in a diary with 144 rows. At the same time their task was to provide information about accompanying persons as well as places where the activities were carried out as well as any means of transport that were used.

In order to enable this form of information to be used in the planned calculations, it had to be transformed. To begin with, the detailed list of 198 activities used by the Polish CSO was divided into 36 categories. Finally, these categories were assigned to four main groups of activities: market work, home production, leisure and personal care.

2. Methodology

The interest of researchers in the time use of agents increased significantly after Becker (1965) published his theory regarding the household production function (HPF) and time allocation. Critical remarks about the original Becker proposal are

often supplemented with a plea for treating non-market time as homogeneous (Mattila-Wiro, 1999, p. 11). Due to the fact that in this version of the theory there is no division into the various categories of activity, it is difficult to use it for time use survey data analysis. Such types of statistics offer detailed information on the activities performed by the agents throughout the day. Juster and Stafford (1991, p. 505) emphasise that the need to distinguish between leisure and work done at home had already been noticed by Reid (1934); hence, her proposed criterion of a "third person". Such a division is also necessary from the point of view of analysis, which, taking into account data on time use, serves to give a better description of changes in the quality of life and the well-being of individuals.

Gronau (1977, 1986), perceiving this significant drawback in Becker's theory, introduced a significant modification into the model. He argued that the HPF theory may offer more accurate predictions about consumer decisions if activities in the non-market sphere were clearly divided into production and consumption (leisure). The proposed modification created the possibility of using household time use data and significantly facilitated the empirical verification of predictions obtained using the modified version of the HPF model.

In the concept of Gronau, only the effects of home production have close substitutes in the form of goods and market services. The time allocation for consumption (leisure) has few, if any, market equivalents (Gronau, 1986, p. 282). Thus, according to an additional formulated assumption, domestic production can be seen as a close substitute for market work.

The economic analysis of decisions made by agents, performed using TUS data, requires that daily activities should be allocated to three or four basic time categories (depending on the adopted methodology). The most basic units from which to start any analysis of activities and their division are the so-called episodes. They can be defined as activities in which the respondent is involved in particular circumstances at a specific place and time (Harvey, 2002, p. 27).

The assignment of particular activities to specific categories of time is a key task preceding any analysis of the decisions made by household members. This translates into the final results of calculations and conclusions drawn on their basis. That is why it is worth mentioning the methods and criteria for such categorisations that appear in literature.

For instance, Gronau (1977, p. 1114) presents the consumption time as the difference between the total number of hours per year (365 × 24 h = 8,760 h) and the sum of time declared by respondents for market and household work. Activities undertaken to satisfy physiological needs do not explicitly appear here as a separate category. This is not an isolated way of presentation, Graham and Green do the same (1984, p. 278). However, some authors see the validity of distinguishing a fourth category of activities. For example, Benhabib, Rogerson and Wright (1991, p. 1167), isolate consumption (leisure), market work and home production

from the time resource, which they describe as discretionary time. In their view, a person may more or less freely dispose of only that part of the day which is left after the depletion of time intended for sleep, personal hygiene and several other activities (personal care).

Additionally, Hawrylyshyn (1974, p. 29), who refers to the HPF theory, lists four categories of time: biological needs, market activity, production in the non-market sphere and activities that bring pleasure and relaxation. Aas (1978, pp. 133–134), in his recommendations regarding the methodology of collecting data on time use, suggests that in the most basic terms, activities should be divided into four main aggregates:

- essential time, when basic physiological needs are satisfied,
- contracted time, under which the person fulfils their obligations arising from employment contracts, or more generally from paid work,
- time of duty, which must be spent on keeping the household, bringing up children, providing food, cleaning, etc.,
- free time, the remaining part of the day that one has after allowing for the three categories listed above.

In this article, the activities recorded in the Time Use Survey (TUS) are categorised into four primary groups: market work time (*M*), home production time (*H*), leisure (*L*) and self-care (*P*). Tables A1 and A2 in the Appendix provide a detailed breakdown of the specific activities included in each category. The method of encoding the EDU characteristics for individual countries is described in Tables A3 and A4.

The estimations of the parameters that are presented in the further part of the article were obtained by performing regression estimations for cross-sectional data, where the general form of the model can be written:

$$T_{(M,H)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_N X_N + \varepsilon_{(M,H)} \tag{1}$$

where:

$T_{(M,H)}$ – market work or household work time
X_n – variables describing the socio-economic characteristics of people, $n = 1, \ldots, N$
β_n – parameters of the equation, $n = 1, \ldots, N$
$\varepsilon_{(M,H)}$ – random component.

The analysis includes the characteristics that are most often indicated in the literature as the determinants of domestic and market work (Connelly & Kimmel, 2009; Giménez-Nadal et al., 2010; Gimenez-Nadal & Molina, 2013; Kalenkoski et al., 2017; Sevilla-Sanz, 2009). In addition, the authors tried to use those factors which were captured in both databases in the same way.

In the case of the Polish time use survey, completed activity diaries were obtained for 25,204 persons (only adults were taken into account). Using the same criterion for India, there were 28,086 persons chosen for further calculations.

3. Samples

When examining production activity, both market and non-market spheres were taken into account, which is particularly important in developing countries. The calculations presented are based on information about persons assigned to two separate populations – people living within a relationship and those living without a partner. Table 1 presents descriptive statistics for the samples consisting of respondents who were in a relationship, who completed the diary and were between 18 and 59 years of age. This range was adopted to focus on people of working age. In addition, families from this population were divided into childless and those that had children.

Table 2 describes a subpopulation of those living with spouses, where an additional condition was applied, according to which both adults were working in the market. Table 3 contains descriptive statistics for isolated population, where a single adult (usually a woman) takes care of children or lives alone.

In all the cases presented, the basic unit is a person. Standard deviations are given in brackets. They inform about the average deviation from the expected value expressed as the average level of a given characteristic or variable. For example, the household time of women equals 180.68 (Poland, families without children), meaning that the observed values may differ on average from the expected value by 111.04 minutes. Most of the values contained in the table should be understood as informing about a significant dispersion of the analysed observations.

Not all the values contained in the tables have been calculated for all the selected samples. For example, the average expenditure/income *per capita* was calculated only for people who chose to provide such information when they were surveyed.

On average, regardless of whether there are children in the household or not, women always work longer in the non-market sphere than men. The opposite situation emerges if market activity time is considered, as in this respect men work longer in both countries. What differs significantly between the compared populations is the scale of the disproportions. Considering the amount of time spent on work, and treating the daily sum of minutes allocated to market and home production (referred to later on in the article as “all work”) as 100%, it can be seen that in India the situation of women is much worse when compared to Poland. In

Table 1. Descriptive statistics of all families with two parents, separately with and without children (average and standard deviations in brackets)

Characteristics	Poland		India	
	no children	with children	no children	with children
Household time – women	180.68 (111.04)	262.53 (142.42)	331.92 (139.88)	425.23 (168.58)
Household time – men	98.09 (90.73)	126.66 (109.73)	24.65 (55.87)	33.27 (65.04)
Market time – women	516.33 (159.04)	482.36 (167.91)	219.33 (199.33)	185.72 (189.34)
Market time – men	592.78 (165.00)	586.79 (170.41)	500.98 (165.71)	526.31 (152.88)
No of children 0–2 y.o.	–	0.19 (0.40)	–	0.37 (0.55)
No of children 3–6 y.o.	–	0.38 (0.57)	–	0.78 (0.79)
No of children 7–12 y.o.	–	0.70 (0.77)	–	0.68 (0.83)
No of children 13–18 y.o.	–	0.64 (0.08)	–	0.48 (0.72)
Family size	2	3.86 (0.94)	2	4.72 (1.38)
Expenditure/Income *per capita*	1101.64 (1336.19)	987.99 (785.56)	687.52 (474.96)	519.80 (319.00)
% EDU1 – women	14.59	8.16	81.18	76.02
% EDU1 – men	15.03	13.26	69.15	58.72
% EDU2 – women	59.79	68.33	13.59	17.86
% EDU2 – men	61.27	72.52	21.92	28.05
% EDU3 – women	25.62	23.51	5.22	6.11
% EDU3 – men	23.70	14.21	8.93	13.23
Age – women	43.67 (11.90)	36.05 (6.73)	38.48 (12.59)	32.95 (7.99)
Age – men	44.30 (11.66)	36.93 (6.94)	40.77 (11.73)	37.47 (8.14)
N	627	1884	2310	16115
N – women	281	723	1302	8554
N – men	346	1161	1008	7561

Note: EDU – education level: "primary" (EDU1), "secondary" (EDU2) and "high" (EDU3). Detailed description of education levels in Poland and India are included in Tables A3 and A4 respectively in Appendix; N – size of the samples.

Source: own calculations using TUS data from Poland and India.

the former country, almost all household chores are performed by women. The percentage of their daily allocation of time for home production is as much as 93% (regardless of whether there is a child in the family or not). In Poland, the proportion is between 65% to 35% to the disadvantage of women (when there are no children) and 67% to 33% (when there are children).

When comparing the time spent on "all work", it can be seen that women in both countries carry out more of it than men. When there is a child in the family, the disproportion is even greater. In the case of Poland, this is a change from 6 to over 31 minutes a day; in India, the difference in total working time varies from almost 26 to over 51 minutes per day.

It is also worth noting that from the point of view of total working time, Polish respondents work longer than their counterparts in India. In the case of childless women, it is almost 146 minutes a day, while for mothers the difference is almost 134 minutes. The comparison of men's working time shows even greater discrepancies. Childless men in Poland work on average 165 minutes longer, and for fathers the difference is slightly smaller, amounting to 154 minutes per day. It should be emphasised that in order to be able to draw conclusions about these differences on the effects of production, it would be necessary to have additional information about efficiency (productivity of market and homework) which, taking into account the data used, cannot be measured here.

In addition, the societies compared differ in the number and age of children. In India, the size of families is greater (an average of 4.72 people vs 3.86 people in Poland). It can also be noted that in India there are clearly more young children, aged 0–6 years, than in Poland. Additionally, there are notable differences in structures as far as education levels are concerned. However, it is important to acknowledge that the method of categorising education levels involves a degree of subjectivity and is based on rough approximations. Consequently, any conclusions drawn regarding education should be approached with caution. Nonetheless, based on this analysis, it can be observed that in Poland, individuals with education at the EDU2 level form the majority, accompanied by a relatively high proportion of people with the highest level of education. In contrast, in India, the majority of the population sampled falls under the EDU1 level, with this category being predominantly represented by women.

The average values of expenditure/income *per capita* were calculated in national currencies; therefore, they should not be compared between the two countries. However, it can be noted that in families without children, in an expected way, higher amounts are spent on consumption as compared to the average expenditures of families with children. Of course, this does not prejudge the actual distribution of monetary income (and resources in general) within families. None of the databases contains information on the distribution of resources among members of a household.

Table 2. Descriptive statistics of adult spouses, both working in the market, separately with and without children (average and standard deviations in brackets)

Characteristics	Poland		India	
	no children	with children	no children	with children
Household work – women	181.50 (116.85)	270.02 (144.36)	242.30 (109.89)	286.85 (141.38)
Household work – men	103.30 (92.29)	136.67 (113.127)	33.66 (65.43)	33.27 (58.49)
Market work – women	511.38 (155.88)	474.91 (169.28)	406.03 (153.56)	407.41 (164.08)
Market work – men	596.14 (171.48)	578.92 (166.36)	502.58 (151.64)	532.17 (135.04)
No of children 0–2 y.o.	–	0.15 (0.37)	–	0.32 (0.53)
No of children 3–6 y.o.	–	0.34 (0.54)	–	0.76 (0.78)
No of children 7–12 y.o.	–	0.71 (0.77)	–	0.70 (0.81)
No of children 13–18 y.o.	–	0.67 (0. 80)	–	0.49 (0.69)
Family size	2	3.84 (0.93)	2	4.63 (1.31)
Expenditure/Income *per capita*	1125.01 (1079.94)	1026.00 (778.29)	592.49 (389.76)	430.62 (311.82)
% EDU1 – women	12.92	7.89	89.51	86.83
% EDU1 – men	10.75	10.71	81.23	73.69
% EDU2 – women	56.46	68.11	7.21	7.53
% EDU2 – men	60.75	71.77	14.44	17.79
% EDU3 – women	30.62	23.99	3.28	5.63
% EDU3 – men	28.50	17.52	4.33	8.52
Age – women	41.83 (12.42)	35.83 (6.55)	37.11 (11.80)	33.38 (7.81)
Age – men	42.78 (11.90)	37.73 (6.71)	40.83 (11.44)	37.99 (7.85)
N	423	1139	582	2534
N – women	209	420	305	1314
N – men	214	719	277	1220

Note: see Table 1.

Source: own calculations using TUS data from Poland and India.

On average, in the sample describing India, women are clearly younger compared to the population analysed in Poland. This applies to both childless women and mothers. In the case of men, the differences in age are clearly smaller (Polish fathers are even slightly younger).

It turns out that selecting from the available statistical material only such spouses where both people work does not significantly change the discrepancy in the amount of time spent on household work between men and women. In Poland, it is around 2/3 to 1/3 when comparing women with men (Table 2). In India, working women still perform the vast majority of household chores, doing near 90% of the total household work when counted in minutes per day.

However, an interesting phenomenon can be seen when considering the total working time (all work). In Poland, when both partners work in the market, the difference between men and women in this respect clearly decreases. In childless couples, it can even be observed that a small advantage for men (6 minutes a day) appeared in this respect. In contrast, in India, the disparities significantly increase, compared to those observed in Table 1, to the disadvantage of women. It turns out that if women work for money in India, their total working time per day is longer than their partners by 112 minutes in families without children, and as much as 129 minutes in families with children. Thus, entering the labour market means that women in India will work on average even more than their husbands, as compared to the situation when they stay at home. This can significantly discourage them from entering the labour market.

Summarising this description, it can be noted that in the case of the sample of couples working in the market, the advantage of the total working time of Polish women in relation to Indian residents significantly melts (by about 100 minutes for childless women and 84 minutes for mothers).[5] However, the average time expenditure of men hardly changes, regardless of whether they have children or not.

Households where both parents work and have children do not differ significantly in their average size from the sample described in Table 1. Accordingly, the average number of children in Polish families is smaller than analogous family units in India.

A significant convergence in "all work" time between the two countries is observed only among individuals living without a partner, which is particularly notable for single parents. Following the established comparison framework, when the average household work time of single men and single women is combined, women contribute approximately 60% of this total, while men account for about

[5] The difference in Table 1 for childless women is 697 – 551 = 146, and in Table 2, in case of childless women, the difference decreases to 693 – 648 = 45 minutes on average.

Table 3. Descriptive statistics of singles, separately with and without children (average and standard deviations in brackets)

Characteristics	Poland		India	
	no children	with children	no children	with children
Household work – women	249.75 (154.98)	338.04 (182.38)	194.63 (102.38)	300.17 (149.54)
Household work – men	201.51 (158.20)	178.01 (166.97)	128.42 (102.76)	175.45 (144.78)
Market work – women	195.06 (259.95)	172.36 (244.54)	371.31 (187.87)	324.53 (190.45)
Market work – men	244.94 (280.92)	263.36 (302.22)	476.15 (176.54)	458.03 (155.37)
No of children 0–2 y.o.	–	0.06 (0.26)	–	0.159 (0.40)
No of children 3–6 y.o.	–	0.12 (0.34)	–	0.56 (0.70)
No of children 7–12 y.o.	–	0.46 (0.65)	–	0.85 (0.79)
No of children 13–18 y.o.	–	1.37 (0.81)	–	0.62 (0.75
Family size	1	3.63 (1.09)	1	3.19 (1.03)
Expenditure/Income *per capita*	819.39 (874.93)	686.99 (807.55)	882.78 (765.61)	491.70 (371.24)
% EDU1 – women	11.93	16.93	80.79	81.82
% EDU1 – men	20.21	19.82	49.89	77.53
% EDU2 – women	59.43	70.60	6.62	12.78
% EDU2 – men	60.99	69.60	24.83	12.36
% EDU3 – women	28.64	12.47	12.58	5.40
% EDU3 – men	18.79	10.57	25.28	10.11
Age – women	42.82 (13.33)	39.59 (7.99)	45.47 (10.48)	36.86 (7.16)
Age – men	44.09 (11.13)	43.53 (6.89)	37.029 (11.63)	39.43 (8.14)
N	701	676	749	441
N – women	419	449	302	352
N – men	282	227	447	89

Note: see Table 1.

Source: own calculations using TUS data from Poland and India.

40%. However, the proportions are almost reversed when considering the allocation of market work time, with men contributing about 60% and women about 40%.

What is more, singles in India spend more time engaged in market work on a daily basis compared to singles in Poland, regardless of whether or not there are children in the household. In addition, it is also worth noting that in terms of total working time, single Indian men from the selected sample work longer than women. This observation, in comparison with the results in Tables 1 and 2, suggests a significant role for the institution of marriage in terms of the impact on labour activity disproportions between men and women in this country. Differences in this regard between genders are clearly smaller in the group of people who have no partner than in the sample who are married. From the point of view of average working time, it may be concluded that men are the primary beneficiaries of marriage in India.

The next part of the article presents the results of the estimations of parameters for the regression models. The variables describing the socio-demographic characteristics of selected populations are used here to describe market work time and household work time.

4. Results of estimations

The following tables (A5 and A6 in the Appendix) contain the results of the estimation for the dependent variable in the form of the daily market work time measured in minutes (*M*). The subsequent tables (A7 and A8) present the results of calculations in which non-market work time (*H*) becomes the dependent variable. In the case of models estimated for TUS data from India, model parameters were obtained taking into account the control variables. Given India's complex social structure, which is characterised by many religions and a specific caste system, binary (0–1) variables were used in the estimation to indicate whether respondents belonged to a Scheduled Tribe or Scheduled Caste (2 variables) and their professed religion (8 variables). To ensure the clarity of the results, the parameters are presented only for the explanatory variables included in the models.

Models 1–4 describe the working time (market or non-market) of people who live with a spouse. Models 5 and 6 describe the production of single people, and the parameters of models 7 and 8 were estimated taking into account only information about women. In the case of models 2, 4 and 8, an additional assumption was made that adult family members were labour market active and had a paid job. The standard deviations of estimations of the linear regression model parameters obtained with OLS are given in brackets.

The variable Sex is coded 0 for males and 1 for females. It can be seen that in the case of models 1–4 a change of sex from "man" to "woman" contributes to a decrease in market time in both countries. As in statistical descriptions, it can be seen that in India the influence of gender on limiting market activity is stronger than in Poland. The average drop is about 90 minutes a day in Poland, reaching as much as 342 minutes in the case of India (model 3).

In the cases as presented, the age of respondents plays a relatively small role. Along with an increasing number of years, market work time is rather limited. The exceptions are the estimates of the parameters in models 3 and 4 for India, but their values show that this feature has virtually no significance.

However, differences between the compared countries arise when taking into account the impact the presence of children has on the supply of market labour. In Poland, this impact is negative, albeit relatively small. In India, however, having children contributes to increased involvement in market work.

In India, regardless of whether there are children or not in a two-parent family, a higher level of education contributes to limiting the involvement in market work. However, in the case of childless couples, the impact of this variable is clearly stronger. Under Polish conditions, it does not play a significant role, as in models 1 and 2 the estimated parameters are not even statistically significant.

The Exp variable was treated as a proxy for the prosperity level of households. However, the impact of incomes (or expenses) *per capita* on the family can be neglected. Even if the estimated parameters are statistically significant, their impact on the time spent in the marketplace seems negligible.

The Emp value was introduced as a control variable. It plays a role in models where the person does not have to work (there is no limiting assumption). Then, the parameter estimates for such variables as Sex are obtained when controlled for the condition of being employed.

In the group of people living without a partner, men are clearly more active in the labour market. Again, in each of the analysed models (5 and 6) in India, gender is more important in the context of market activity; however, differences between countries are not as large as in the case of families in which there are two adults. Additionally, people from the selected sample limit their involvement in market work with age; however, the impact of this feature is relatively small (in models 6 and 8 for India, the parameter is not statistically significant).

The influence of children on limiting market work time is relatively small. Single parents simply need to work to earn money for themselves and a child. As in previous estimates, in the case of singles, the Exp variable is not important for describing the variability of the dependent variable. This is most likely due to its low quality in the sense that it informs about the average, not actual, distribution of income or expenditure between members of a household. Additionally, due to its nature, people could introduce false data when providing such information.

The estimations of parameters in models 7 and 8 show that the institution of marriage has a limiting effect on women's involvement in market work. The largest negative impact, 112 minutes a day, appears in the case of women in India (model 7).

The negligible significance for the number of children (Kid) in shaping female market work time (models 7 and 8) is quite surprising. The parameter's values relate to the average time reduction regarding each subsequent child in the family. This can be commented on by considering two elements. Firstly, if they have already decided to enter the labour market, women try not to limit this activity even if the number of children in the household increases. Secondly, when there are several children in the family, the older ones start to carry about the younger ones, partially replacing the parents which, with the greater value of this variable, can have a restrictive effect on the time spent on the youngest children.

The previously observed similarity between the two countries in terms of women's longer household work compared to men is confirmed by the Sex variable parameters in Table A7 in the Appendix. There is clearly a greater impact of gender in India. This is especially true for couples with children (models 3 and 4). In extreme situations, a change of gender from "man" to "woman" brings about an increase in the daily household workload of more than 6 hours.

Increasing age regarding the examined persons has little practical influence on the dependent variable values. However, the number of children translates into an increased involvement in household work, though to a greater extent in Poland than in India. For example, the parameter in model 4 reveals that for each additional child in a household the average home production time increases by almost 20 minutes a day. The level of education though is not important (statistically insignificant parameters), or it contributes to a growing involvement in household work (model 3 for both countries).

In the case of singles (Table A8 in the Appendix, models 5 and 6), gender influences the amount of time spent in the non-market sphere, but to a much lesser extent than in married households. However, the impact of the level of education is ambiguous.

In models 7 and 8 (Table A8 in the Appendix), which only include information about women, civil status (married or not) clearly had an impact on involvement in household work. Married women tend to spend more time on such duties; for instance, Indian women up to 109 minutes a day. In their case the presence of children also has a greater impact on involvement in home production and care.

In model 8, concerning Polish women for whom an additional condition (assumption) of working in the market was placed, the only determinant of time at home was education. It seems that Polish women active in the labour market do not change their involvement in household work after their change of civil status, or with the appearance of children.

Conclusions

A report published by the UN in 1980 revealed that "women represent half the global population and one-third of the labour force; they receive only one-tenth of the world income and own less than one percent of world property. They are also responsible for two-thirds of all working hours" (United Nations, 1980). Unfortunately, even today, economic justice is an elusive dream for women all over the world. According to an ILO report (International Labour Organisation, 2017), only 49.4% women worldwide are officially in the labour force, while for men the rate is 76.1%. Therefore, women's participation in the global labor market is 26.7 percentage points lower than that of men. Time use statistics provide a comprehensive account of time spent on various activities, thus enabling the reasons behind the low participation of women in the economic sphere to be probed more deeply.

The issue of time use has become the subject of numerous economic and sociological analyses in recent decades (Jarosz, 2013, pp. 2–3). They have been mainly concerned with such issues as the decision to enter the labour market, the range of labour in the supply of agents and the time spent on production in the non-market sphere (Hamermesh, 1996, p. 1). This article conforms to this type of analysis; thus, when examining production activity, both market and non-market activities were taken into account. The conclusions, which were formulated on the basis of the results obtained, should obviously be treated with caution. This particularly applies to the comparisons between Poland and India. Such reservations result from different methodologies of data collection during TUS editions in the above mentioned countries. In India, time use data was collected for three types of days: normal, weekly variant and abnormal day; similarly, the Polish dataset also had data for three types of days: weekday, weekend and holiday. However, the tools used for data collection in both countries were different. In Poland, the education levels were high, so the diary method was employed; while in India, at the time of the pilot survey, the literacy levels were low, so the most suitable method for data collection was the interview method. Although the tool employed for data collection will have a limited impact on the quality of the data collected, the Polish dataset already had the activities categorised into four main groups; market work, home production, leisure and personal care, with no such categorisation being present in the Indian data. However, the method of analysis, and more precisely the coding of individual features and the selection of the respondents' samples, was aimed at mitigating the problem. In order to overcome this shortcoming, the activities in the Indian dataset were coded by the authors in the four broad categories in a similar way to the Polish data.

The results presented here are confirmed by observations recorded in other studies, according to which men and women are characterised by a different struc-

ture of all work (Bertola et al., 2002; Bianchi et al., 2000). Regardless of whether there are children in the household or not, women from both countries work longer on average in the non-market sphere compared to men. The situation is the opposite where the allocation of time on remunerative work in the market is concerned. What differs significantly between the compared populations of individual countries is the scale of the disproportions in the scope of work performed by women in comparison with men, which is higher in India than in Poland. This shows that women in India have less autonomy over their time as they are tied to unpaid household chores, which in turn hinders their market engagement. This point can be very significant in explaining the precarious drop in female labour force participation in India as reported by various studies.

It was also shown in the article that women perform more "all work" (i.e. market and non-market work) per day compared to men; which is considered, in particular, a feature of developing countries (Aliaga & Winqvist, 2003; Apps, 2003; Haddad et al., 1995). The comparisons presented in our article show that the problem of such disproportion was greater in India at the turn of the 20th and 21st century than in Poland; and when children appeared in the family this disproportion was even larger.

It was also noticed that in selected samples, in terms of total working time (all work), Poles worked longer per day than the citizens of India; and at the same time the differences between men from both countries were greater than between women. Only singles worked longer in India than single people in Poland, and it did not matter if they had children or not.

It can be concluded that the hypothesis formulated at the beginning of this article, namely that being professionally active contributes to reducing inequalities in the scope of outlays on productive activity, seems to be true. When the "all work" time was measured for couples where both spouses work in the market, the difference between women and men in Poland is clearly decreased. However, in India working women also seem to work a "second shift[6]" at home as they still perform the majority of household duties. Thus, in this scenario, for women to enter the labour market in India means that on average they will work even longer than their husbands compared to the situation in which they stay out of the labour market. In an obvious way this may discourage women from activity in the labour market. Therefore, social policy (or social education) should be conducted in a way to evoke the consciousness that women active in the labour market should have less household work, and men should take up some household duties. Only then will marriage not have a negative impact (or be smaller) on the market ac-

[6] In her book entitled *The second shift*, Arlie Hochschild (1989) explains that the household responsibilities that a wife and mother takes care of, aside from working in her paid job, add up to at least 40 hours each week.

tivity of women in India. The India government is running a flagship programme of "Beti bachao, Beti Padhao" along with many other programmes for women's empowerment. However, the results of this paper clearly indicate that unless the conditions inside Indian households change, no programme is going to result in women's empowerment in India.

Significant convergence in all working time (both home and market) can be seen in the two countries only in the case of people living without a partner. This is particularly evident when it comes to single parents. In addition, it is also worth noting that in terms of "all work", single men in India work longer than women. Once again, this suggests a significant role for the institution of marriage in creating work time disparities between men and women in the nation of India. It is an even stronger factor than having children.

Based on the calculations made, differences can be pointed out in the role the institution of marriage plays in the compared societies. In Poland, people with partners in the samples presented in Tables 1 and 2 are characterised by an equally high activity in the labour market. However, in India, there are significant differences between the populations in the case of women's market activity. On the other hand, households of singles and single parents raising children in Poland are characterised by a lower amount of market work time than in analogous Indian households. Thus, it can be seen that having a family in Poland activates women in the labour market (the working time of women with a family is higher than single women). From the perspective of labor market activity, marriage has a positive impact in Poland, whereas in India, it does not translate into the same effect for active women. In fact, it even limits labor market participation among the general population (Table A6, models 7 and 8). Estimations of the parameters in the models show that the institution of marriage reduces women's involvement in market work. The largest negative impact, as much as 112 minutes a day, was seen in the case of women in India.

In the case of India, the exception is single women, who are characterised by a similar level of market activity as men. The recommendation for Indian social policy, which can be formulated on the basis of the results presented here, is the need to put more emphasis on the role of women's market activity. There should be an emphasis on increasing women's contribution to the economic development of the country.

In the case of Poland, the traditional family model works better when it comes to the market activity of women. Singles are clearly less active in this respect. In addition, in India, the presence of children does not have such a negative impact on the professional activity of mothers as in Poland. That is why Polish policy aimed at increasing fertility should be supplemented with programmes increasing activity on the labour market (e.g. support through greater access to institutions such as nurseries and kindergartens).

In the case of market labour, gender inequalities are more visible in India, being the most important determinant of market time in both countries. Estimations of the parameters of the regression equations showed that in India the influence of gender on limiting market work time is stronger than in Poland. In the latter case, the average drop is about 90 minutes a day, but in the case of India it is as much as 342 minutes. These findings clearly indicate the prevalence of gender bias in the Indian market. Thus, there is a need to plan policies which can help women in India overcome these biases. Additionally, in the group of people living without a partner, men are clearly more active in the labour market.

The two compared societies show a similarity in terms of the greater average number of women's household work minutes compared to men. However, the impact of gender on this type of disproportion is again greater in India than in Poland. In the most extreme situation, the change of gender from man to woman increases the daily workload of household work by more than 6 hours. In the case of single people, gender also influences the time spent in the non-market sphere, but to a much lesser extent than in the case of spouses.

The estimates presented here also showed the impact of civil status (marriage) on household work involvement. Married women perform such duties for longer time, and for Indian women it is up to 109 minutes a day. In the case of the latter, the presence of children has a greater impact on their involvement in home production and care compared to Polish women.

The analysis presented here is obviously not exhaustive. A complimentary problem that should be looked at in the future is the daily rhythm in the work of individuals. Hamermesh (1996, p. 2) points out that such knowledge can be useful not only to describe activities in the labour market, but also information about activities shaping the well-being of individuals. The degree of coordination in the spouses' time expenditure on paid work translates, among other things, into the possibility of maintaining social relations and everyday family contacts. If the rhythm of the spouses' work during the day is not aligned the possibility of spending time together decreases, for both them and their children. This influences their quality of life, the durability of their relationships, relationships with children, etc. These issues should be the next steps in time allocation descriptions for members of Polish and Indian households.

Appendix

Table A1. Activities included in the four main time categories in Poland

Market work (*M*)	Household work (*H*)	Leisure (*L*)	Personal-care (*P*)
– market work – study – work breaks – travel for work	– meal preparation – household work – shopping – childcare – volunteering – travel	– religion – social life – culture & entertainment – passive resting – physical activities – hobbies – playing – reading – TV – listening – other relaxation – travel	– sleeping – eating – self-care – travel

Source: authors division into main categories.

Table A2. Activities included in four main time categories in India

Market work (*M*)	Household work (*H*)	Leisure (*L*)	Personal-care (*P*)
– primary production activities – secondary activities – trade, business and services – learning	– household maintenance, management and shopping for own household – care for children, the sick, elderly and disabled in own household – community services and help to other households	– social and cultural activities, mass media, etc.	– personal care and self-maintenance

Source: authors division into main categories.

Table A3. Education levels – Poland

EDU1	EDU2	EDU3
– incomplete primary education – primary – 2 years of vocational education	– 3–4 years of vocational education – secondary	– higher education

Source: authors division into main categories.

Table A4. Education levels – India

EDU1	EDU2	EDU3
– not literate – literate without formal schooling: EGS/ NFEC/ AEC – literate without formal schooling: tlc – literate without formal schooling: others – literate: below primary – primary	– middle – secondary	– higher secondary – graduate and above in agriculture – graduate and above in technology – graduate and above in medicine – graduate and above in other subjects

Source: authors division into main categories.

Table A5. Results of the estimation for the market work time, in case of pairs of adults (in minutes per day)

Independent variables	Model 1		Model 2		Model 3		Model 4	
	Poland	India	Poland	India	Poland	India	Poland	India
Sex	–89.6 (15.42)***	–289.9424 (7.6417)***	–93.2 (18.7)***	–104.5995 (12.86)***	–92.0 (9.59)***	–342.26 (2.88)***	–87.7 (10.93)***	–119.41 (6.36)***
Age	–3.3 (0.67)***	–0.9515 (0.3116)**	–3.6 (0.78)***	–1.714 (0.561)**	–1.35 (0.64)*	0.899 (0.169)***	–1.16 (0.78)	1.1028 (0.3887)**
Kid	–	–	–	–	–12.6 (4.64)**	3.02 (1.18)*	–13.95 (5.52)**	6.276 (2.65)*
EDU	11.1 (12.98)	–29.3311 (7.3923)***	2.54 (16.03)	–33.384 (15.19)*	–15.7 (9.22)	–17.707 (2.416)***	–9.3 (10.8)	–10.376 (6.41)
Exp	0.01 (0.006)**	–0.0219 (.009)*	0.019 (0.009)	0.04 (0.018)*	0.05 (0.006)***	–0.046 (0.005)***	0.06 (0.007)***	–0.012 (0.012)
Emp	124.4 (160.9)	238.9755 (25.792)***	–	–	103.8 (69.17)	257.52 (12.44)***	–	–
Constant	573.3 (163.2)***	386.44 (55.318)***	718.7 (50.32)***	656.13 (70.86)***	522.8 (75.28)***	265.18 (21.31)***	587.23 (39.26)***	398.17 (31.92)***
N	445	2310	299	582	1 451	15 568	1 045	2456
R^2	0.142	0.4136	0.153	0.123	0.147	0.5231	0.176	0.1629
F	14.49	115.63	13.24	8.01	42.02	1137.23	44.28	36.56

Note: α = * 0.05; ** 0.01; *** 0.001; Sex – 0 male, 1 female; Age – values in years; Kid – number of kids 0–18 y.o.; EDU – education level; Exp – expenditure *per capita* (India), income *per capita* (Poland); Emp – control variable for employment status, 0 not employed, 1 employed; *N* – sample size; *F* – F stat.

Source: authors' calculations based on Polish and Indian TUS data.

Table A6. Results of the estimation for market work time, singles (models 5 & 6) and women (models 7 & 8) (in minutes per day)

Independent variables	Model 5		Model 6		Model 7		Model 8	
	Poland	India	Poland	India	Poland	India	Poland	India
Sex	–33.1 (17.4)	–44.803 (13.24)**	–54.5 (22.13)*	–102.38 (19.89)***	–	–	–	–
Married	–	–	–	–	–38.5 (10.43)***	–112.5 (6.38)***	–43.5 (21.04)*	–8.98 (7.92)
Age	–5.7 (0.71)***	–4.1 (0.577)***	–2.95 (1.22)*	1.27 (1.09)	–2.1 (0.36)***	2.01 (0.22)***	–1.78 (0.79)*	0.17 (0.38)
Kid	–	–	–4.4 (8.83)	–7.81 (7.84)	–2.7 (3.18)	–4.67 (1.43)***	–13.2 (6.15)*	1.89 (2.52)
EDU	–32.1 (15.0)*	22.17 (9.24)*	–2.22 (18.7)	–31.96 (15.92)*	–21.97 (7.14)**	–31.32 (3.65)***	–44.5 (14.23)**	–23.99 (6.96)***
Exp	–0.005 (0.015)	–0.006 (0.009)	0.002 (0.016)	–0.01 (0.02)	0.13 (0.006)***	–0.07 (0.006)***	0.01 (0.01)	0.03 (0.01)**
Emp	266.4 (22.51)***	201.51 (17.13)***	270.4 (24.02)***	202.82 (25.76)***	–	–	–	–
Constant	399.9 (48.6)***	445.3 (57.42)***	203.2 (70.7)***	301.58 (90.5)***	238.5 (23.37)***	336.1 (23.16)***	464.1 (50.06)***	388.58 (32.66)***
N	574	749	561	446	3 073	9 784	1 330	2 313
R^2	0.37	0.28	0.276	0.28	0.147	0.14	0.017	0.015
F	66.78	24.39	35.13	13.95	105.85	113.38	4.63	2.73

Note: see Table A5; Married – marital status, 1 if married, 0 if not.

Source: authors' calculations based on Polish and Indian TUS data.

Table A7. Results of the estimation for household work time, pairs of adults (in minutes per day)

Independent variables	Model 1		Model 2		Model 3		Model 4	
	Poland	India	Poland	India	Poland	India	Poland	India
Sex	91.6 (10.0)***	306.1 (4.7)***	87.7 (12.7)***	209.3 (7.8)***	136.7 (7.14)***	381.1 (2.18)***	132.5 (8.51)***	241.4 (4.54)***
Age	1.9 (0.43)***	–0.05 (0.19)	2.09 (0.53)***	0.5 (.34)	–0.56 (0.48)	–2.82 (0.13)***	–0.84 (0.61)	–2.6 (0.28)***
Kid	–	–	–	–	13.9 (3.45)***	7.12 (0.9)***	19.8 (4.3)***	2.21 (1.89)
EDU	–9.8 (8.42)	–2.62 (4.6)	–9.4 (10.92)	–0.57 (9.18)	20.2 (6.86)**	9.17 (1.83)***	16.7 (8.42)*	3.81 (4.58)
Exp	–0.006 (0.004)	0.01 (0.006)**	–0.006 (0.006)	–0.014 (0.01)	–0.017 (0.004)***	0.03 (.004)***	–0.03 (0.005)***	0.014 (0.008)
Emp	62.6 (104.4)	2.9 (16.02)	–	–	–30.9 (51.5)	–17.47 (9.42)	–	–
Constant	–18.0 (105.8)	8.4 (34.35)	45.6 (34.29)	21.7 (42.8)	130.2 (56.06)*	138.5 (16.14)***	125.3 (30.58)***	201.52 (22.79)***
N	445	2 310	299	582	1 451	15 568	1 045	2 456
R^2	0.205	0.66	0.186	0.57	0.256	0.71	0.27	0.595
F	22.65	315.25	16.78	76.81	82.73	2512.27	75.46	275.93

Note: see Table A5.

Source: authors' calculations based on Polish and Indian TUS data.

Table A8. Results of the estimation for household work time, singles (models 5 & 6) and women (models 7 & 8) (in minutes per day)

Independent variables	Model 5		Model 6		Model 7		Model 8	
	Poland	India	Poland	India	Poland	India	Poland	India
Sex	39.7 (12.07)**	44.83 (8.18)***	151.4 (16.65)***	107.1 (17.21)***	–	–	–	–
Married	–	–	–	–	20.56 (10.19)*	109.36 (5.55)***	14.90 (13.2)	32.83 (6.54)***
Age	4.1 (0.49)***	1.42 (0.36)***	1.8 (0.92)*	–1.96 (0.95)*	1.24 (0.36)**	–2.97 (0.18)***	–0.34 (0.43)	–1.79 (0.31)***
Kid	–	–	14.1 (6.64)*	9.49 (6.78)	–4.8 (2.86)	23.34 (1.2)***	–2.42 (3.13)	11.71 (2.08)***
EDU	26.5 (10.37)*	–11.09 (5.7)	19.0 (14.06)	35.999 (13.78)**	27.79 (6.76)***	9.58 (3.07)**	22.45 (7.37)**	10.79 (5.75)
Exp	–0.011 (0.01)	–0.013 (0.006)**	–0.007 (0.01)	–0.023 (0.021)	–0.03 (0.003)***	0.04 (0.005)***	–0.004 (0.003)	–0.017 (.009)
Emp	–60.2 (15.56)***	0.49 (10.58)	–114.2 (18.07)***	–91.48 (22.29)***	–	–	–	–
Constant	18.81 (33.59)	136.67 (35.49)***	113.3 (53.19)*	264.33 (78.31)***	111.2 (21.65)***	328.76 (21.3)***	136.15 (26.19)***	326.96 (26.96)***
N	574	749	561	446	2 261	9 784	1 602	2 313
R^2	0.192	0.16	0.248	0.2	0.04	0.15	0.008	0.083
F	26.97	11.95	30.54	8.83	18.88	117.45	2.47	15.92

Note: see Table A5.

Source: authors' calculations based on Polish and Indian TUS data.

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