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PART-TIME EMPLOYMENT IN TURKEY: AN EMPIRICAL ANALYSIS

The purpose of this study is to investigate the effects of personal, household and regional characteristics on likelihood of being part-time employed at Turkish labour market using the individual data obtained from the household labour force surveys of 2006–2008. The data are analyzed using both probit and logit models. The results indicate that urban residing individuals are less likely to be part-time employed compared to rural residing ones, and females are more likely to be part-time employed than males. In addition, being married increases the likelihood of being part-time employed for females, while it declines the likelihood of being part-time employed for males, and increase in education level seem to decline the probability of being part-time employed for both genders. Furthermore, regardless gender, having more children in a household increases the probability of part-time employment.

Keywords: *employment; part-time employment; gender; Turkey.*
JEL Classification: J21, J16.

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ЧАСТКОВА ЗАЙНЯТІСТЬ У ТУРЕЧЧИНІ: ЕМПІРИЧНИЙ АНАЛІЗ

У статті досліджено вплив особистих, родинних і регіональних характеристик на ймовірність часткової зайнятості на турецькому ринку праці. Використано індивідуальні дані Огляду трудових ресурсів домогосподарств за 2006–2008 роки. Дані проаналізовано за допомогою пробіт- і логіт-моделей. Результати показали, що ймовірність часткової зайнятості для міського населення менша, ніж для сільського, а жінки частіше працюють неповний робочий день, ніж чоловіки. До того ж, шлюб підвищує ймовірність часткової зайнятості для жінок і знижує для чоловіків, а підвищення рівня освіти знижує таку можливість для обох статей. Незалежно від статі, наявність більшої кількості дітей у сім'ї підвищує ймовірність часткової зайнятості.

Ключові слова: *зайнятість; часткова зайнятість; стать; Туреччина.*
Табл. 3. Літ. 36.

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ЧАСТИЧНАЯ ЗАНЯТОСТЬ В ТУРЦИИ: ЭМПИРИЧЕСКИЙ АНАЛИЗ

В статье исследовано влияние личных, семейных и региональных характеристик на вероятность частичной занятости на турецком рынке труда. Использованы индивидуальные данные Обзора трудовых ресурсов домохозяйств за 2006–2008 годы. Проанализированы данные с помощью пробит- и логит-моделей. Результаты показали, что вероятность частичной занятости для городского населения меньше, чем для сельского, а женщины чаще работают неполный рабочий день, чем мужчины. К тому же, брак повышает вероятность частичной занятости для женщин и понижает для мужчин, а увеличение уровня образования понижает такую возможность как для женщин, так и для мужчин. Независимо от пола, наличие большего количества детей в семье повышает вероятность частичной занятости.

Ключевые слова: *занятость; частичная занятость; пол; Турция.*

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Introduction and Literature Review. Over the past three decades there has been a notable increase in part-time employment, especially in industrialized countries. Changes at labour market, new technologies, and economic uncertainty, ongoing reductions in working time, market stagnation, world depression and globalization forced organizations to find alternative forms of working (Latham and Swiercz, 2009: 371). As mentioned by Clifford et al., "structural factors such as high unemployment and growth in the service sector (traditionally employ part-time and seasonal workers), coupled with the decline of the manufacturing sector (traditionally full-time employment) have supported the growth of part-time employees in most of the European Union countries" (Clifford et al., 1997: 557).

Although there are lots of different variations of legal and statistical definitions of part-time work between countries, the ILO Convention No.175 defines part-time work as follows; "the term 'part-time worker' means an employed person whose normal hours of work are less than those of comparable full-time workers". The reason that the concept of a "comparable" worker is mentioned is that "the number of hours per week or per month that are regarded as being normal for full-time employees vary considerably according to the profession or activity concerned" (ILO, 1992: 5). The Turkish Labour Law, Article 13, describes part-time workers similar to ILO definitions. According to this article, "when the normal weekly work time of the worker is established substantially less than an equivalent worker employed on a full-time labour contract, such contract is a part-time labour contract" (ILO, 2012). Hence, there is no clear cut-off point for working hours in the Article 13 of the Turkish Labour Law.

As it is well known, cross-national comparisons of part-time work are difficult, due to the countries' different cultural, legislative, and economic environments, however, it can be identified that a significant percentage of employers have augmented their use of part-time workers across Europe with the northern countries of the EU (for example, the Netherlands, Switzerland, Germany, France, and the United Kingdom) showing greater increases than their southern counterparts such as Spain, Greece, Portugal and Turkey (Clifford et al., 1997). Recently, the Netherlands and Switzerland had the largest proportion of high users of part-time employees, 36.1% and 25.9% respectively (OECD, 2009). The UK is in third place with 22.9% for 2008. However, in southern countries such as Italy, Spain, Greece and Portugal part-time employment is less than 10% of the workforce (OECD, 2009). In Turkey, part-time work is relatively a recent phenomenon; even there is no recorded data on it before the 1990s. However, part-time work started to grow after the 1990s and it assumes an increase in future because its main driving forces – women's growing labour force participation, employer's wish for flexibility and service sector development – seem to persist (Palaz, 2003).

Since 2000, women's rates of part-time work widely exceed men's rates of part-time work in most of the OECD countries and especially in the Netherlands and Switzerland, where the gender gap in part-time employment is also very high. It seems that part-time work is female-dominated. Studies on part-time work (Beechey and Perkins, 1987; Rubery and Fagan, 1995; Eser, 1997; Gregory and Connolly, 2008) show that in most countries part-time work tends to be concentrated in conventional female activities such as clericals, sales and services sectors which pay low

wages, give few fringe benefits and little job security. In Turkish case, part-time work appears to be largely a female phenomenon (women's share in part-time employment is nearly 60% in 2008). In Turkey, both labor force participation and part-time employment rates are low for females (24.5 and 9.0% respectively in 2008). In fact, these low female participation rates are not surprising for Turkey. During the last 50 years Turkey has been experiencing a huge transformation from an agriculture economy to an industrial one. This has been accomplished with fast urbanization and has affected the composition of the labour force. In addition, there have been social changes, such as increasing educational attainments and opportunities and sectoral changes, as a result of moving from the agricultural sector to the service or industrial sector. In Turkey, migration from rural to urban areas negatively affected the female participation rate more than male because, while women have traditionally been a source of employment in agriculture as unpaid family workers, they cannot participate in urban labour force after migration.

As suggested by Bolle (1997: 557), there are some arguments for and against part-time work in the literature. From the workers' point of view it offers a better balance between working life and family responsibilities, training, leisure or civic activities. It can also make it easier for workers to enter the labour market or retire. For employers it can enable not only greater flexibility in responding to market requirements, for instance by increasing capacity utilization or extending opening hours, but also productivity gains. Also, part-time work is seen as offering a solution to rising unemployment for policy-makers. The growth of part-time work might lower the number of jobless or at least, the number of people registered as unemployed. For instance, part-time work is seen as an instrument to increase the employment rate in the European Union (Allaart and Bellmann, 2007: 557).

Part-time work has some disadvantages as well. Such workers are generally at a disadvantage in comparison with the colleagues who do equivalent work full time. Their hourly wages are lower; they are ineligible for certain benefits; and their career prospects are more limited (KEIG, 2009). For employers, in addition to organizational difficulties, there are some fixed costs per worker, for example recruitment, training or social security contributions subject to wage ceilings, which may increase overall labour costs if the proportion of work done by part-timers increases (Bolle, 1997: 557). Further, as it is mentioned above, part-time work is overwhelmingly women's work. Hence, this type of work is seen as responsible for occupational segregation and unequal treatment of female workers if it is not freely chosen (Palaz, 2003: 9).

Studies on part-time employment became very popular recently in Turkey (Kusaksiz, 2006; Palaz, 2003; Ozturk, 2003; Tarcan, 2000; Eser, 1997). However, little attention has been paid to the econometric analysis of part-time work due to unavailability of data. The purpose of this paper is to investigate the incidence of part-time work, using the Turkish Household Labour Force Survey 2006–2008. This paper seeks to fill the gap in the literature on econometric analyses of part-time work in Turkey.

The Data and Methodology. The data used in this study is obtained from the Turkish Household Labour Force Surveys (HLFS) of 2006, 2007 and 2008. The HLFS survey is representative of Turkish population and has been conducted by Turkey Statistical Institute (TURKSTAT). This survey is gathering information

mainly on the working age population of Turkey (TURKSTAT, 2011). In this paper we mainly focus on the information related to "part-time employed" individuals[4]. In the HLFS survey there are two alternative ways of obtaining who are in the "part-time employed" group. The first one is that using a cut-off value of 30 usual working hours per week in the reference job. The second one is that in the survey employed individuals are asked in a question[5] to group themselves as part-time or full-time workers. The first and the second approaches yielded 36,145 and 34,618 individuals as part-time employed in the total of 407,984 employed individuals. In the following sections of the article we initially provide the econometric model and then discuss the estimation results[6].

Econometric Model. This part explains the econometric model to be used to investigate the determinants of part-time employment in Turkey. In the analysis, we focus on the behaviour that a survey participant makes a choice between two discrete alternatives; "part-time employment" or "full-time employment". Consequently, our outcome variable is binary, either the individual part-time employed (taking the value of one) or full-time employed (taking the value of zero). Due to the fact that our dependent variable of interest is binary, the most appropriate model is the binary choice model. In these models, we focus on the response probability and its determinants. The logit and the probit models are two types of mostly preferred models in the literature, able to handle binary response variables (Greene, 2005; Wooldridge, 2002; Verbeek, 2004). We have estimated both models using maximum likelihood estimation method. In the following section, we provide and discuss our findings[7].

Estimation Results and Discussion. Table 1 shows the estimation results under logit and probit models for the full data as well as for the data under gender separation. For the interpretive and comparative purposes we computed the "odds-ratios (exponentiated coefficients)" for each alternative model and presented them in Table 1. As can be seen from Table 1, the estimation results of both probit and logit models are similar, with a slight difference, in terms of sign and significance level. Since the models are non-nested, to select the best fitting model one can use information criterions, such as Akaike (AIC) and Schwartz criterions, and select the model with the minimum value. Table 1 provides only the AIC values[8]. Thus, we select the logit model as the best model for each alternative case. Therefore, discussion of the results in this section is presented based on this specification in Table 1 (see "column 1" for the full data, columns "2 and 3" for the data under gender separation).

The odds-ratios of living in an urban location are less than one and statistically significant at the 1% significance level for the full data as well as for the data under gender separation (Table 1). This finding may be indication of the fact that individuals who live in urban areas are less likely to be part-time employed compared to indi-

[4] For the detailed explanations of the definition see TURKSTAT (2011).
[5] Question number 46 in 2006 and 2007 HLFS surveys.
[6] In this study, we employed both definitions of "part-time" employment. However, both definitions yielded very similar results. Therefore, to save space, we focus on the findings under the second definition of part-time employment. The results under the first definition are available from the authors upon request.
[7] For more details and explanations on these models, see Greene (1997), Gujarati (2003) Wooldridge (2005) and Baltagi (2008).
[8] For the detailed explanations on information criterions see Baltagi (2008) and Greene (2005).

viduals who live in rural areas. It is also observed from the "full" data estimates that the odds-ratio for the "female" dummy is greater than one. This implies that, being female increases the probability of working part-time. We found contradicting results for males (see column 3) and females (see column 2) when we look at the effects of being "married" on being part-time employed. While the odds-ratio for this variable is less than one for "males", it is greater than one for females. This can be interpreted in the way that married males are less likely to work part-time compared to non-married males, but married females are more likely to work part-time in comparison with non-married females. In accordance with the functionalist theory, part-time work is universally functional for households and society. The theory separates between men's role as wage earners and main breadwinners and women's primary role as mothers and wise responsible for childcaring and housework and secondary wage earning (Fagan and O'reilly, 1998; 3). Thus, part-time work is more appropriate than full-time work for women who can combine the two roles. This kind of gender division was seen in most societies, especially in more conventional ones such as Turkey.

Table 1. **Estimation Results under Logit and Probit Models**[a]

	Logit			Probit		
	Full Data	Female	Male	Full Data	Female	Male
Urban	0.757*** [0.014]	0.799*** [0.021]	0.738*** [0.020]	0.865*** [0.008]	0.883*** [0.013]	0.867*** [0.011]
Female	1.866*** [0.055]			1.344*** [0.020]		
FemMar	2.402*** [0.097]			1.667*** [0.035]		
Married	0.681*** [0.022]	1.647*** [0.049]	0.776*** [0.031]	0.807*** [0.013]	1.320*** [0.022]	0.875*** [0.017]
Head	1.077*** [0.030]	1.189*** [0.047]	0.849*** [0.033]	1.038*** [0.015]	1.109*** [0.025]	0.936*** [0.018]
Number of Individuals in a Household	0.962*** [0.007]	0.970*** [0.010]	0.961*** [0.010]	0.978*** [0.004]	0.980*** [0.006]	0.978*** [0.005]
Number of Earners in a Household	0.978*** [0.008]	0.935*** [0.011]	0,987 [0.012]	0.993* [0.004]	0.963*** [0.007]	1,001 [0.006]
Number of Children	1.165*** [0.011]	1.212*** [0.016]	1.106*** [0.015]	1.084*** [0.005]	1.122*** [0.008]	1.053*** [0.007]
Number of Elderly	1.053*** [0.016]	1,013 [0.020]	1.109*** [0.025]	1.036*** [0.008]	1,01 [0.011]	1.060*** [0.012]
Primary School	0.898*** [0.018]	0.817*** [0.020]	0.840*** [0.030]	0.929*** [0.010]	0.892*** [0.013]	0.907*** [0.017]
Junior High School	0.751*** [0.021]	0.838*** [0.035]	0.675*** [0.029]	0.844*** [0.012]	0.901*** [0.022]	0.813*** [0.017]
High School	0.669*** [0.024]	0.534*** [0.031]	0.688*** [0.035]	0.808*** [0.015]	0.704*** [0.021]	0.833*** [0.020]
Vocational High School	0.487*** [0.021]	0.411*** [0.029]	0.486*** [0.028]	0.693*** [0.014]	0.614*** [0.022]	0.705*** [0.019]
University	0.413*** [0.022]	0.243*** [0.021]	0.548*** [0.038]	0.651*** [0.016]	0.493*** [0.021]	0.744*** [0.023]
Age20–24	0.712*** [0.024]	0,991 [0.048]	0.533*** [0.027]	0.823*** [0.014]	0,981 [0.027]	0.728*** [0.017]
Age25–34	0.557*** [0.019]	0.762*** [0.037]	0.422*** [0.021]	0.728*** [0.013]	0.847*** [0.023]	0.653*** [0.016]
Age35–44	0.554*** [0.020]	0.750*** [0.037]	0.446*** [0.025]	0.728*** [0.014]	0.840*** [0.024]	0.673*** [0.018]
Age45–54	0.800*** [0.030]	0.893** [0.046]	0.784*** [0.045]	0.897*** [0.017]	0.935** [0.027]	0.885*** [0.025]

The End of *Table 1*

	Logit			Probit		
	Full Data	**Female**	**Male**	**Full Data**	**Female**	**Male**
Age55 and more	1,036	0,98	1,077	1.042**	0,989	1.060**
	[0.041]	[0.054]	[0.064]	[0.022]	[0.031]	[0.031]
Professionals	7.376***	7.657***	7.921***	2.408***	2.670***	2.461***
	[0.512]	[1.059]	[0.641]	[0.072]	[0.169]	[0.083]
Technicians and associate professionals	2.361***	1.997***	2.779***	1.435***	1.426***	1.542***
	[0.165]	[0.284]	[0.229]	[0.042]	[0.091]	[0.051]
Clerks	1,086	0,936	1.325***	1,009	1,019	1.119***
	[0.086]	[0.138]	[0.139]	[0.033]	[0.066]	[0.046]
Service workers, shop and market sales	2.490***	2.876***	2.143***	1.432***	1.657***	1.354***
	[0.149]	[0.380]	[0.151]	[0.035]	[0.099]	[0.038]
Skilled agricultural and fishery workers	8.955***	7.849***	10.052***	2.782***	2.886***	2.862***
	[0.517]	[1.027]	[0.658]	[0.066]	[0.171]	[0.075]
Craft and related trade workers	2.979***	7.732***	1.677***	1.537***	2.807***	1.238***
	[0.175]	[1.018]	[0.118]	[0.037]	[0.169]	[0.034]
Plant and machine operators and assemblers	1.803***	0.620***	2.266***	1.290***	0.810***	1.398***
	[0.120]	[0.110]	[0.164]	[0.035]	[0.062]	[0.040]
Elementary occupations	5.152***	5.807***	4.363***	2.023***	2.408***	1.863***
	[0.296]	[0.756]	[0.291]	[0.048]	[0.142]	[0.050]
Observations	407984	110335	297649	407984	110335	297649
Wald chi2	39045,5	11820,5	14919,2	38268,9	12603,2	14063,1
Prob>chi2	0	0	0	0	0	0
Psedue R-Sq	0,235	0,207	0,166	0,235	0,205	0,165
Log-Likelihood	-87296,3	-41891,1	-44520,3	-87350,3	-41989,2	-44537,3
AIC	0,4281	0,7600	0,2994	0,4284	0,7618	0,2995

a Definitions of the explanatory variables are provided in the Appendix Table 1. Further, to save some space the coefficients of the region of residence dummies are not presented in Table 1, but are available from the authors upon request.

Robust standard errors in brackets.

*** significant at 10%; ** significant at 5%; *** significant at 1%.**

Although men are considered as heads of households in Turkish family structure, there are considerable amount of families with female heads. It is found that being a head of household increases the likelihood of working part-time for females but as the exact opposite situation was found for males. With regards to the number of individuals within the household we find that the odd-ratios for this variable are smaller than 1 and statistically significant for the full data as well as for the data under gender difference. This finding implies that, regardless gender, the increase in a household size declines the likelihood of part-time employment. Similarly, odds-ratios for the full data set and females are statistically significant and smaller than 1 for the variable of number of earners within a household. This result indicates that increases in the number of earners within a household decreases the probability of working part-time for all the data set and females. On the other hand, with regards to the effect of number of children[9] in the family, it is observed that the odds-ratios for this variable are greater than 1 and statistically significant. These results are indication of the fact that increases in the number of children in a family increase the likelihood of working as a part-time for the full data as well as for the data under gender separation but the effects of this variable is larger for females than for males. This is consistent with the literature that married women with children are more likely to work part-time than their coun-

[9] The number of children in the family under 15.

terparts. Regarding to the studies on part-time employment, it is seen as offering a solution to reconcile paid work and unpaid housework and caring work which is considered women's responsibility in almost all countries. In general, part-time work is seen as an appropriate option for women and in like manner it is overwhelmingly women's work in most countries. For example, in Britain, a majority of women still leave the labour market when they have children and return to paid work, mostly part-time after several years' absence due to the lack of available childcare facilities and they experience downward mobility (Beechey and Perkins, 1987). Also as indicated in Sandor's (2011) study on part-time work in Europe "the composition of the household, in the sense that decisions on the hours that might be worked are not usually taken by individuals in isolation but rather in the context of household as a whole. Their decisions towards labour supply depend on the division of roles among the members of the household. The presence of children (especially of young children) increases the probability of women working part-time. This is due largely to the fact that women in nearly all the EU countries still shoulder the main burden of unpaid household and family work" (Sandor, 2011: 6). In addition, the effect of elderly in a family for both males and all the data set, are similar to those being observed for the variable of the number of children within a family and it is statistically significant for both all the data set and males but insignificant for females.

Education level is also an important factor which determines part-time work. Regarding the relationship between educational levels and part-time work we observed statistically significant differences between the reference level "illiterate" and other educational levels for males and females. Accordingly, being in any level of education compared to illiterate reduces the likelihood of part-time work. Another important finding is that the increase of women's education decreases the possibility of part-time work even faster. It is a well-known fact that education is a very important determinant of female labour force participation. The relationship between educational attainment and participation rate is more determinant for women than for men. However, the increases in education has a negative effect on part-time work. This could be the reason that most part-time jobs are in the lower grade and lower paid occupations in service sector industries where educational attainments are not required.

Another important factor that determines the probability of part-time work is age. It is known that education, childcare responsibilities and age are important factors that affect both men and women's decision to work as part-timers. As mentioned by Bolle (2001: 224), part-time work makes it easy for young persons to enter the labour market, and allows older workers to withdraw from wage employment. This argument was also supported by Sandor (2011: 4) that the highest presence of part-timers shows at the beginning and at the end of people's working lives whereas full-time employment is concentrated in the middle years. These results suggest that part-time work may facilitate the gradual entry of young persons into the labour market as well as the gradual withdrawal from wage employment for older workers. Therefore, we expect that part-time work is prevalent between the age of 15–25 and over 50 for both genders. Our estimations show statistically significant differences between the reference age group of 15–19 and other age groups for both males and females. On the other hand, the age category of 15–19 and 55 and over are statistically insignificant, so there is no difference between them in terms of working as part-timers. Emergence in this way should be

interpreted as statistically insignificant. The odds-ratios is smaller than 1 for the variable of age group 15–19 years compared to other age groups implying the decrease of the likelihood of part-time work. On the other hand, minimum odds-ratio values are observed for females and males in the age group of 35–44 and 25–34 respectively. Another observation for the age groups is that the likelihood of working part-time increases for the age group 55 and over for the entire data set and both genders. Furthermore, the total results for all age groups prove that the likelihood of working part-time initially decreases then increases as the age increases. These outcomes support the idea that part-time work is more suitable for younger, older and women with children who want to re-enter labour market after interruption in employment.

With regards to the occupational groups we find that for males and female's odds-ratios of all the occupational groups are larger than 1 and mostly statistically significant. This means that with any occupational groups are more likely to work part-time compared to base group of "legislators, senior officials and managers". The main reason for that could be due to the selected base category itself where part-time work is rare in this kind of occupational groups. For all the data sets and for men, most likely to work part-time occupational group is "skilled agricultural and fishery workers" while for females it is "craft and related trade workers". Further, for the entire data set, the probability of working as a part-timer is the lowest in the occupational group of "plant and machine operators and assemblers" for females and "clerks" for males. This is consistent with the related studies for most countries, part-time work were found for clerks, sales and services sectors. Likewise Plantenga (1995), in her study on part-time work in the Netherlands, argues that most part-time jobs are for lower paid occupations in the service sector.

According to the number of individuals within a family we find that the odd-ratios for this variable are smaller than 1 and statistically significant for all the data set. This implies that the increases of household size decline the likelihood of working part-time for all the data set. Similarly, odds-ratios for all the data set and females are statistically significant and smaller than 1 for the variable of number of earners within the household. This result indicates that increases in the number of earners within a family decreases the probability of working part-time for all the data set and females. On the other hand with regards to the effect of number of children in a family, it is observed that the odds-ratios for this variable are greater than 1 and statistically significant. These results are indication of the fact that increases in the number of children in a family increase the likelihood of working part-time for all the data set and both males and females but the effect of this variable is larger for females than for males. This outcome is consistent with the literature that the responsibilities attributed women by traditional values such as looking after children and household duties affect their participation in full-time employment but not part-time employment. Women can find it easy to work part-time due to their dominant social roles as wives and mothers. This is consistent with the literature that women married with children are more likely to work part-time than their counterparts. Another finding is that the effect of elderly in a family, for both males and all the data set, are similar to those being observed for the variable of the number of children in a family and statistically significant for both all the data set and males but insignificant for females.

Table 2 provides the predicted probabilities of being part-time employed by gender considering regional difference. The highest probability of being part-time employed value, for both females and males, is seen at the region of Northeastern Anatolia, where agricultural and fishery jobs are prevalent. Also, Central Eastern Anatolia, Central Anatolia and Western Black Sea, respectively, are the other regions with the highest probability of part time employment for both males and females. However, the lowest probability of part-time employment is observed in the region of Istanbul, and then, respectively, the Eastern Black Sea, Aegean and Eastern Marmara. This outcome is consistent with our previous occupational groups' analysis results. We found that skilled agricultural and fishery workers are the most likely to work part-timers who generally work in rural areas. On the other hand, it is found that part-time employment is rare in plant and machine operators and assemblers occupational group where concentrated in Marmara regions.

Table 2. **Regional Differences in Predicted Probabilities by Gender**[a]

Geographical Regions	Female		Male	
	Probit	Logit	Probit	Logit
Istanbul	4.27	4.16	1.19	1.13
Western Marmara	19.29	19.05	6.58	6.43
Aegean	10.35	10.10	3.63	3.52
Eastern Marmara	15.88	15.84	3.73	3.71
Western Anatolia	19.16	19.63	4.65	4.73
Mediterreanean	25.01	25.10	5.87	5.94
Central Anatolia	33.63	33.72	3.92	3.92
Western Black Sea	32.55	32.50	9.73	9.96
Eastern Black Sea	8.84	8.53	2.93	2.79
Northeastern Anatolia	44.17	44.19	11.17	11.34
Central Eastern Anatolia	36.18	36.50	7.35	7.38
Southeastern Anatolia	5.27	4.72	2.10	1.95

[a] For the explanations on the coverage of regions see: www.tuik.gov.tr.

Concluding Remarks. This article investigates the main determinants of part-time employment in Turkey using logit and probit models. The individual level data set used in this study and the analyses carried out for both males and females separately. In general, it is found that urban residing individuals, regardless gender, are less likely to be part-time employed. As expected from the theory and found in many studies, females, whether married or non-married, are more likely to be part-time employed compared to males. Also, while female heads of household are more likely to be part-time employed, male heads of household are less likely to be so. Furthermore, a consistent result with the theory that increases in education level seems to decline the likelihood of being part-time employed for both genders. This means that individuals with higher human capital are more likely to be full-time employed. Finally, individuals whose occupation is other than "legislators, senior officials and managers" are more likely to be part-time employed.

On the basis of our results, it seems obvious to conclude that education, location, certain age group, being female and having family and childcare responsibilities of females are very important factors that affect the probability of working as part-timers. Especially, women who have lower education skills and live in rural areas have great tendency to get a part-time job. This finding reflects the continuing strength of traditional values emphasizing the importance of children care and household

responsibilities as the women's main duty and these responsibilities have a significant effect on their decision to work part-time.

There is high increase in participation in part-time work in Turkey, and it is expected that this form of employment will continue to expand in the future, along with the growth of the service sector and the need of using casual labour. There are some studies on the nature and concept of part-time work in Turkey but these studies have limited knowledge on this phenomenon in the descriptive setting. Therefore, more empirical research are needed to understand the determinants of part-time employment, the job attitudes and behaviours of part-timers, and their job satisfaction, job performance and turnover. Further, along with our findings it is also important to examine seperately part-time employed females, and their needs and outcomes of being part-timers in order to apply some policy implications to deal with the disadvantages they have associated with their work.

References:

Allaart, P., Bellmann, L. (2007). Reasons for Part-time Work: an Empirical Analysis for Germany and The Netherlands. International Journal of Manpower, 28(7): 557–569.

Baltagi, B. (2008). Econometrics. Springer Verlag.

Beechey, V., Perkins, T. (1987). A Matter of Hours: Women Part-time Work and the Labour Market. Polity Press. Cambridge.

Blossfeld, H.P., Hakim, C. (1997). Between Equalization and Marginalization: Women Working Part-time in Europe and the United States of America. Oxfort University Press. New York.

Blossfeld, H.P., Hakim, C. (1997). Introduction: A Comparative Perspective on Part-time Work. In: Blossfeld, H.P., Hakim, C. (eds.). Between Equalization and Marginalization: Women Working Part-time in Europe and the United States of America. Oxford University Press. New York. Pp. 1–21.

Bolle, P. (1997). Part-time Work: Solution or Trap? International Labour Review, 136(4): 557–579.

Clifford, N., Morley, M., Gunnigle, P. (1997). Part-time Work in Europe. Employee Relations, 19(6): 555–567.

Delsen, L. (1993). Atypical Employment and Industrial Relations in the Netherlands. Economic and Industrial Democracy, 14(4): 589–602.

Dex, S. (1988). Women's Attitudes Toward Work. Macmillan. London.

Eser, S. (1997). Part-time Calismanin Turkiye'de Kadin Istihdamina Etkisi. Bilim Serisi. 98. T.C. Basbakanlik Aile Arastirma Kurumu. Ankara.

Eszter, S. (2011). Part-time work in Europe. European Company Survey 2009. European Foundation for the Improvement of Living and Working Conditions. Luxembourg: Publications Office of the European Union.

Fagan, C., O'Reilly, J. (1998). Conceptualising part-time Work; The Value of an Integrated Comparative Perspective. In: O'Reilly, J., Fagan, C. (eds.). Part-time Prospects. Routledge. London & New York.

Genel Istihdam Komisyonu (1982). Yeni (Esnek) Calisma Esaslari Alt Komisyonu Raporu. DPT Ankara.

Greene, W.H. (1997). Econometric Analysis. Prentice Hall International Inc. 3rd Edition.

Greene, W.H. (2005). Econometric Analysis. 5th edition. Prentice-Hall International.

Gregory, M., Connolly, S. (2008). Feature: The Price of Reconciliation: Part-time Work, Families and Women's Satisfaction. The Economic Journal, 118(526): F1–F7.

Gujarati, D.N. (2003). Basic Econometrics. New York: McGraw Hill. 4 edition.

ILO (1992). Part-time Work. Report V(1). International Labour Conference. 80th Session. Geneva.

ILO (2012). http://www.ilo.org/dyn/natlex/docs/SERIAL/64083/63017/F1027431766/TUR64083.PDF last accessed, 15 March 2012.

KEIG (2009). Women's Labor and Employment Initiative Platform. Women's Labour and Employment in Turkey: Problems Areas and Policy Suggestions, http://www.wwhr.org/files/keigpolicyreportweb.pdf last accessed, 15 March 2012.

Kusaksiz, A. (2006). Kismi Sureli Calisan Iscilerin Avrupa Birligi'nde ve Turkiye'de Kismi Sureli Calismayi Tercih Etme Gerekceleri. Celal Bayar Universitesi I.I.B.F. Yonetim ve Ekonomi, 13(2): 19–29.

Latham, A., Swiercz, P.M. (2009). Flexible Work Practices: Women Only? Competition Forum, 7(2): 371–384.

Loutfi, M.F. (2001). What is Equality and How do We Get There? Women, Gender and Work. International Labour Office. Geneva.

OECD (2009). Employment Outlook. July. Paris.

Ozturk, O.D. (2003). Evidence on Negative Employment Effects of Minimum Wage in Inflexible Markets: Part-time Jobs and Female Labour Force Participation in Turkey. METU International Conference in Economics VII. September 6–9. 2003. Ankara. Turkey.

Palaz, S. (2003). Part-time Work in Turkey. G.U.I.I.B.F Dergisi, 5(3): 1–12.

Plantenga, J. (1995). Part-time Work and Equal Oppurtunities The Case of the Netherlands. In: Humpfries, J., Rubery, J. (eds.). The Economics of Equal Opportunities. Equal Opportunities Commission. Manchester.

Pur, N. (1991). Turkiye'de Kadin Isgucu Istihdami ve Kismi Sureli Calismalardaki Gelismeler. Hukuki Esaslari ve Sosyo-Ekonomik Yonleriyle Kismi Calisma. T.C Basbakanlik Aile Arastirma Kurumu. Egitim Serisi: 6. Ankara.

Rubery, J., Fagan, C. (1995). Gender Segregation in Societal Context. Work, Employment and Society, 9(2): 213–240.

Ruivo, M., Gonzalez, M.D.P., Varejao, J.M. (1998). Why is Part-Time Work so Low in Portugal and Spain. In: O'Reilly, J., Fagan, C. (eds.). Part-Time Prospects. Routledge. London and New York. Pp. 199–213.

Tarcan, E. (2000). Esnek Istihdamdaki Trend ve Isletmelerle Calisanlar Uzerine Etkileri. Gazi Universitesi Iktisadi ve Idari Bilimler Fakultesi Dergisi. 2 (3): 1–18.

TISK (2003). 4857 Sayili Is Kanunu ve Gerekcesi. Yayin No: 234. Temmuz. Ankara.

Turkish Statistical Institute (TURKSTAT) (2011). Household Labor Force Survey Database: http://www.tuik.gov.tr. last accessed July 2011.

Verneek, M. (2004). A Guide to Modern Econometrics. 2nd Edition. John Wiley & Sons, Ltd.

Wooldridge, J. (2002). Econometric Analysis of Cross-Section and Panel Data. MIT Press.

Wooldridge, J. (2005). Introductory Econometrics. South-Western Publication.

Appendix Table 1. **List and Definition of the Explanatory Variables**

1. Urban" is a dummy variable taking value 1 if a man or woman lives in a town of more than 20,000 inhabitants and 0 otherwise.
2. "Female" is a dummy variable taking value 1 for females and 0 otherwise.
3. "FemMar" is an interaction dummy variable, taking the value of one for married females and zero otherwise.
4. "Married" is a dummy variable taking value 1 for married individuals and 0 otherwise.
5. "Head" is a dummy variable taking value 1 if an individual is a head of household and 0 otherwise.
6. Education is a set of 6 dummies: The reference category includes those who are "Non-Graduate". The other education categories are "Primary School", "Junior High School", "High School", "Vocational HS", and "University".
7. Age is a set of 6 dummies: Age 15–19 (base category), Age 20–24, Age 25–34, Age 35–44, Age 45–54, Age 55 and over.
8. Occupation is a set of 9 dummies: The reference group is "Legislators, Senior Officials and Managers". The other occupation groups are "Professionals", "Technicians and associate professionals", "Clerks", "Service workers, shop and market sales workers", "Skilled agricultural and fishery workers", "Craft and related trade workers", "Plant and machine operators and assemblers", and "Elementary occupations".
9. The other remaining variables are; "Number of Individuals", "Number of Earners", "Number of Children" and "Number of Elderly" in a household.

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