

UNIVERSITY OF NOTTINGHAM



Discussion Papers in Economics

Discussion Paper
No. 07/02

A New Labour Force:
An econometric analysis of multiple jobholding

By Constantinos Combos, Andrew McKay & Peter Wright
April 2007

A New Labour Force:

An econometric analysis of multiple jobholding

Constantinos Combos

Andrew McKay

Peter Wright¹

April 2007

Abstract

In this paper we model multiple jobholding empirically using a specially collected database for the region of Magnesia in Greece. We find that although income plays a major deterministic impact on multiple jobholding, other factors have a determining the final outcome of the individual's choice. These determining factors can either explain the amount of fixed costs that is involved towards taking up a second job, or the restrictions arising from the individual's personal and family characteristics.

¹ Address for correspondence: School of Economics, University of Nottingham, Nottingham, NG7 2RD, UK. Phone 44 (0) 115 9515470 Fax 44 (0) 115 9514159, E-mail peter.wright@nottingham.ac.uk

1. Introduction

Multiple jobholding is a common phenomenon in many OECD countries², but has received little attention despite its apparent prevalence. Our aim in this paper is to empirically model multiple jobholding in Greece. The Farm Structures Survey of Greece recorded that the number of farmers engaged in multiple job holding had increased from 28% in 1977 to 34.5% in 1985. Efstratoglou-Todoulou (1990) found however that the phenomenon of multiple jobholding showed significant variation between the regions of Greece. In particular, higher rates of multiple jobholding were found in the more non-agricultural orientated regions (especially those specialising in manufacturing and tourism). But multiple jobholding was also observed in regions with farm activities, including in areas with poor natural resources and agrarian structures.

Why should we be interested in this phenomenon? Firstly, multiple job holding may be becoming more prevalent as economies move towards more flexible working practices. Secondly, it appears that some of the most vulnerable groups in society engage in multiple job holding, as it is sometimes argued that ‘desperation’³ drives many people to search for a second job. In 2002, an article claimed that, in Denmark, ‘For 1m [workers], one job's just not enough’ and they need secondary employment to supplement their primary low wage job. Multiple jobholding also appears to be of interest to the tax authorities. A task force set up in Denmark to combat ‘moonlighting and other kinds of illegal work’⁴ indicated that secondary work is often located in the grey economy and outside the reach of the tax authorities.

This paper examines the extent and determinants of multiple jobholding in more detail, drawing on a specific survey conducted for this purpose. The paper begins with a short review of the related literature. Section 3 describes the area under study. Section 4 describes the data set. In Section 5 we model multiple jobholding empirically. The final section appraises the results and offer conclusions.

² For example, a 1994 study for the U.K. documented the rapid expansion of the multiple jobholders in Britain, from 677 thousands in 1984 to 1.1 million in 1994 (*The Guardian*, 4 October, 1994: p.8.

³ ‘...if didn’t do this, we’d be up the financial creek’, *The Guardian*, 1994:pp.8.

⁴ ‘Danish task force aims to stop clandestine work’. An article published in the *Nordic Business Report* on the 31st of December 2003. Item: FT 10015830185WNOR

2. Literature Review

What pointers does economic theory give us as to why people might hold multiple jobs? Historically, the first serious attempt to examine the choice between two or more activities was by Wilensky (1963) and Perlman (1966), who both focused on the hours constraint aspect of moonlighting. Perlman (1966) illustrated how standardization of the working week forces some to work more hours and others to work less in their main job than they would otherwise wish. Besides the role of a fixed working time-schedule, Perlman identifies the desire to attain a satisfactory level of income as a positive or 'push factor' towards a taking up a second job. But if the wage in their primary job increases, he expects 'underemployed workers' to remain single jobholders. Following this line of analysis, Paxson and Sicherman (1996) suggested that hours-constraints might prompt workers to take second jobs. On the other hand they found that workers take up second jobs when large changes occurred in work hours. The latter is also indicated by Alden (1977), who found considerable evidence to suggest that a reduction in the standard working week would result in greater double jobholding.

To identify the motivation for holding two jobs, Allen (1998) uses data that explicitly asked the respondents if they wish to work more hours. By focusing on married men and women, he found that unconstrained workers (without a fixed working schedule) were, in fact, *more* likely to have two jobs than others. This confirms the earlier results of Alden (1971), who found that 'necessity', especially having children of school age, was the primary motivation for multiple job holding. In a later study (Alden, 1977), he again found that the majority give economic reasons for double job holding, whilst the remainder mainly gave 'interest/social' reasons, or 'desire to keep two in case of failure of one'. As reasons for not taking a second job the workers cited issues such as desire for leisure, working sufficient hours already, or having family time commitments.

Further to this, Alden and Saha (1980) find that double jobholding is closely related both to the 'needs' of those in the lowest income brackets and to the 'aspirations' of those at the highest income levels, with overall there being a positive relationship between multiple job holding and total household income. In another study, Shishko and Rostker (1976) argued for moving beyond the general aspects of 'pressure' and 'aspiration', and suggested the reservation price of time was the vital determinant of multiple jobholding. Hunt, Hill, and Kiker, (1985) assert that a person takes a second job if the offered wage

is greater than the reservation wage at zero hours of work in the second job; and Bell, Hart, and Wright (1997) suggested that the reservation wage depends on the (constrained) number of hours worked in the primary job, as well as the number of hours worked in the second job. Renna and Oaxaca (2006) find that the wage obtained in each job negatively affects labour supply to the other, with an increase in non-labour income reducing the labour supply to both jobs. Another factor that is identified as being important empirically is liquidity constraints (Abdukadir, 1992).

What other factors have been found to systematically impact on multiple job holding, which we would want to control for in our study? Alden (1971) shows that multiple jobholding in UK appears to be greater in the rural regions than in non-rural regions, and that self-employment was the predominant form of engaging in a second job.

Sex and marital status also appear to affect the propensity for multiple jobholding. Kimmel and Powell (1999) found that women, those never-married and young persons are more likely to take second jobs. Alden and Spooner (1982) found that males hold more second jobs than females and that there is a distinct difference between male and female preferences over the type and category of the second job. Women tended to prefer secondary jobs to be waged, especially in the services sector, rather than self-employment. Men tended to prefer the opposite.

Krishnan (1990) analysed multiple job holding within a household model of labour supply, and found that there is a negative correlation between the husband's decision to moonlight and his wife's decision to work. She also found that moonlighters are younger, on average, and have larger families. The average family size and property income of moonlighters whose wives do not work are higher of those of moonlighters whose wives do work. In her data sample, moonlighters predominate in primary occupations such as management, police, construction, sales, and teaching.

Educational level is also often found to be an important determinant of multiple jobholding (Abdukadir, 1992; Shishko and Rostker, 1976). In their empirical investigation of the United States and Canada, Kimmel and Powell (1999) show that university-educated workers consistently maintained higher rates of double jobholding than other groups.

Bell, Hart, and Wright (1997) argue that the security of the primary job is of importance, and increasing uncertainty in the labour market may be important in explaining the increasing trend in multiple jobholding.

Finally, Hallberg, Findeis and Lass (1991) note that 'multiple jobholding' is often synonymous with part-time farming, pointing out that off-farm work is common for farm families across many countries. They found that the likelihood of part-time farming depends on proximity to urban labour markets; availability of health insurance benefits associated with off-farm opportunities; and uncertainty about the future. They point out that increased female work force participation and improved rural transportation, communication, and education have made off-farm activities more accessible. They also suggested that multiple jobholding allowed many small farms to survive, with off-farm earnings supplementing family income. Weersink, Nicholson and Weerhewa (1998) also indicate off-farm work is an important contributor to farm income. For males, the determining influence on off-farm activity is the financial position of the farm. For their spouses, family demographics, educational level, and social support policy appear to be more important.

3. The Area under study

This study is based on the region of Magnesia in Greece, drawing on the results of a survey specifically commissioned to look at multiple jobholding. Magnesia is largely situated in continental Greece and includes the north-eastern wards of Athens, as well as a number of islands. The region is well served with transport.

Magnesia has an urbanisation rate similar to national average (75 residents per km²), and its capital, Volos, is one of the country's most densely urbanised cities. In the 1991 census it had a population of 198,000. More than 60% of the adult population was married and there was also a relatively large number of widows (15% of the female population). The population was relatively poorly educated, with only 7% having completed higher education.

After the 1990s recession, which particularly hit the housing and public sectors, Magnesia experienced significant structural changes with a dramatic reduction in farming. To

compensate, Magnesia has become an increasingly popular tourist destination. This increased both employment and labour market participation. The sectors with the highest employment are manufacturing, followed by agriculture and trade, which together comprise about 49% of the province's total employed labour force. The province did not have a serious unemployment problem, though unemployment was higher for females and the young.

Almost half of Magnesia's labour force is in the tertiary sector (47%), 24% in the secondary sector and 16% in the primary sector (Table 1). However there is some disparity between the sexes. Female employment is concentrated in trade, hotels, manufacturing, education and health services, whilst males have a high representation in the agricultural and professional occupations. Hence, Table 2 indicates that females are concentrated in self-employment, science, trade, sales and office jobs.

Table 1: Economically active population in Magnesia by sector of economic activity

	Economically active population		
	Total	Employment	Unemployment
Primary Sector	10796	10753	43
Agriculture etc.	9839	9813	26
Fishery	692	682	10
Mines etc.	265	258	7
Secondary Sector	16967	16664	303
Manufacturing	10854	10670	184
Electr/gas/water	267	263	4
Construction	5846	5731	115
Tertiary Sector	32684	32113	572
Trade	9221	9101	120
Hotels/restaurants	2547	2487	60
Transportat/stor/telec	4595	4466	129
Finance/credit	1011	1010	1
Property, etc.	2022	1960	62
Public admin/defence	5635	5595	40
Education	3595	3514	81
Health, social care	2079	2052	27
Social services	1816	1772	44
Domestic care	161	154	7
Other	2	2	na
New	3503	na	3503
Have not declared	5372	3682	1690
Total	69322	63212	6110

Source: Census of Population 1991

Table 2: Occupational breakdown of employment by sex (%)

	Total	Male	Female
Scientists/self empl	14	10	24
Managers/admin.	1	2	1
Office clerks, etc.	10	7	17
Traders/sales pers	12	10	16
Services workers	10	9	13
Farmers, etc.	17	18	12
Profes/workers	34	41	15
did not know/declare	3	3	3

Source: Census of Population, 1991.

4. The data set and Core Determinants

The data used in this study comes from a survey designed to look at multiple jobholding, and carried out on behalf of the Greek General Configuration of Workers with financial support from the Government. The survey was carried out in July and August 1994, and consisted of a random sample of the adult population in Magnesia. Emphasis was given in the questionnaires to personal and family characteristics, income, education, days of work and occupational status.

The sample used in our analysis consists of those household heads who have worked 170 working days or more. We exclude those whose main job is seasonal, casual, or part-time; and those who have switched jobs or been unemployed for such a long period of time that they cannot be included in the sample. The final sample comprises 783 households, consisting of 2843 members. Descriptive statistics for this sample are given in Table 3.

Of the total number of multiple jobholders, 116 were males and only 17 were females. This is in contrast to single jobholders, where females accounted for 24.5% of the total. In terms of education, multiple job holders are found to be at the extremes of the educational spectrum. Workers who only have primary education are more likely to have a second job than those with other forms of education (29% compared to 21% with tertiary education and 17% with secondary education).

Table 3: Jobholding status by sex, educational level, and area

	By jobholding status			By educational status			By area of residency		
	Total	Males	Females	Primary education	Secondary education	Tertiary education	Semi rural	Rural area	Urban area
Single job holder	650	491	159	197	319	134	82	123	445
Multiple jobholder	133	116	17	51	54	28	61	45	27
Total	783	607	176	248	373	162	143	168	472

Multiple jobholders also seem to be concentrated in the semi-rural and rural areas, and to own smallholdings (Table 4). Indeed, of those that own their own land, more hold

multiple rather than single employment (94 compared to 82). Also, of the total number of multiple jobholders (133), around 82% were engaged in farming.

The survey also directly asked individuals their reasons for multiple jobholding. The results are presented in Table 5. Of the multiple job holders, 81% gave financial reasons for multiple jobholding (either because they earned a small income or wanted to increase their income). Only 1.3% of them took a second job because they have some spare time and 1.5% did so because they enjoyed it. It appears that commitments (mainly family related), lack of spare time and health reasons were important reasons for not taking up multiple employment. The survey also found that 12% preferred to fulfil their commitments in their primary job rather than taking another job. Finally, it is interesting to note that the 42% of respondents would like to be multiple jobholders if they were not restricted by time (31%) or health problems (11%).

Table 4: Respondents by working status

Working Status	Total
Single jobholder	
Farmer	89
Family Business	179
Non-paid family worker	4
Self-employed	175
Wage/salary worker	382
Multiple jobholder	
Farmer	23
Family Business	31
Non-paid family worker	0
Self-employed	31
Wage/salary worker	79
Farmers	
Farmer	89
Farmer with a non-paid job as a second occupation	6
Farmer with a self-employment as a second occupation	11
Farmer with a wage/salary job as a second occupation	6
Wage/salary workers	
Wage/salary worker	382
Wage/salary worker with a wage/salary as secondary job	4
Wage/salary worker with a farming job as a secondary occupation	52
Wage/salary worker with a non-paid job as a second occupation	9
Wage/salary worker with a self-employment as a second occupation	14
Self-employed / Family Business	
Self-employment only	175
Self-employment with a farming work as a second job	27
Self-employment with a non-paid work as a second job	1
Self-employment with a wage/salary work as a second job	3

Table 5: Reasons given for and against multiple jobholding

	Respondents	% of total respondents	% of multiple jobholders
Reasons for being multiple job holder			
Small income	79	10.2	63.7
Increase income	21	2.7	16.9
Enjoyment	12	1.5	9.7
Spare time	10	1.3	8.1
Other	2	0.3	1.6
No answer	652	84.00	
Reasons for not being multiple jobholder			
No income problem	30	3.9	4.7
No spare time	241	31.1	37.4
Commitments	93	12.0	14.4
Health reasons	82	10.6	12.7
Do not know	181	23.3	28.1
Other	18	2.3	2.8
No answer	131	16.9	

5. Econometric results

The econometric methodology that we employ in this paper is a logit model for the probability of multiple jobholding. We define someone as a multiple job holder if during the previous year, the individual held a full time employment and spent a minimum number of working days in another job⁵.

We selected our independent variables based on two criteria: first, those determinants suggested by the earlier theoretical review; and, second, those demographic and economic characteristics of the respondent that proved important in earlier empirical work.

The first group of variables included attempts to reflect time and other fixed commitments to the primary job. Hence we include the number of days spent working in the primary job. We also included factors affecting the fixed costs which might affect the likelihood of multiple jobholding. These included time needed to travel to the workplace and the possible risk that taking a second job might jeopardise the benefits from any social compulsory contributions and social benefits in the first job. Full definitions of the variables used are given in the Appendix, Table A2.

⁵ Individuals are judged as full-time if they spent an average of 25 hours per week or more during the last six months in their primary jobs. Those who worked in the armed forces are excluded from the analysis

We expect the gender of the individual to be important, as there are distinct differences between male and female preferences over the type and category of the second job, with males more likely than females to engage in multiple jobholding. Age is also likely to be a key determinant of multiple jobholding as the young on average are generally freer of family commitments. We would also expect that the proportion of dependent members in the household to exercise a positive effect on multiple jobholding, as they represent a fixed income commitment on the part of the 'bread winners'.

Concerning area of residency, we expect living in an urban area⁶ to be positively related to multiple jobholding. This is because workers may find it easier to obtain additional work in cities than in rural areas. Farm ownership is included since, as we saw in the previous section, ownership of farmland is likely to increase the probability of taking up farming as an additional job. Also, farmers with smallholdings are likely to need income from off-farm work to supplement their income. When the business is in a position to hire workers, or if there are family members who are willing to assist, then a self-employed individual or farmer may be more likely to have another job. Hence, we expect those working in the farming sector to show a positive relationship between the presence of hired workers and multiple jobholding.

Finally, we have also selected variables that are concerned with the general and relative characteristics of the primary job. We also include educational level and years of work experience.

⁶ Alden in 1971 has found that the extent of multiple jobholding is greater in the rural regions than that of non-rural regions

Table 6: The determinants of multiple job holding

Variable	1		2		3	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Constant	-0.068	-1.299	-0.090149	-1.559	-0.129551	-1.701
Age	-0.007	-3.703	-0.005914	-3.190	-0.004881	-2.475
Farm Owner	0.225	3.007	0.194636	2.730	0.276932	1.887
Urban resident	-0.026	-1.744	0.020388	0.381	0.057009	0.865
With tertiary education	0.057	3.170	0.009792	0.239	0.008533	0.204
Family Business	0.191	2.827	0.184195	2.677	0.191601	2.668
Manufacturing	0.049	2.534	0.038237	2.117	0.039952	2.129
Hotel job	0.244	3.371	0.212838	3.156	0.220492	3.167
Experience	0.006	3.467	0.005976	3.351	0.006270	3.348
With paid workers on farm	-0.067	-2.341	-0.066437	-1.266	-0.078470	-0.867
Dependency ratio	-0.044	-1.990	-0.046981	-2.089	-0.050041	-2.109
Business: compulsory contributions	-0.104	-2.933	-0.099651	-2.742	-0.101080	-2.740
Farming: compulsory contributions	-0.100	-2.507	-0.105633	-2.512	-0.107474	-2.518
Short distance to wage/salary work	0.038	2.040	0.033661	1.869	0.033289	1.805
Average working days in business	-0.076	-2.129	0.106928	2.648	0.114850	2.621
Small farm income	0.094	2.679	0.042320	1.953	0.045851	1.997
Small wage income	0.042	1.941	-0.077881	-2.217	-0.080065	-2.225
Working days (Waged work) 1-210	0.160	2.432	0.142145	2.203	0.146613	2.183
Working days (Waged work) 211-270	0.123	2.347	0.121049	2.288	0.127569	2.274
Working days (Waged work) 271-300	0.123	2.005	0.117365	1.977	0.124421	1.976
Working days (Waged work) 301-330	0.108	2.119	0.102779	2.008	0.109238	2.003
Male			0.023633	0.838	0.015077	0.455
With tertiary education*male			0.064476	1.711	0.067179	1.724
Urban resident*male			-0.044414	-1.346	-0.036303	-0.986
With paid workers on farm*male			-0.017176	-0.325	-0.006723	-0.074
Age*urban			-0.000252	-0.195	-0.001542	-0.838
Age*semi-urban			-0.000269	-0.675	-0.000314	-0.752
Secondary education*urban			-0.003241	-0.141	-0.003524	-0.150
Tertiary education*urban			-0.022073	-0.612	-0.022002	-0.590
Secondary education*farmer			0.034342	1.290	0.029216	1.067
Tertiary education*farmer			0.080864	1.324	0.074335	1.212
Farm owner*sex					0.000564	0.007
Farm owner*age					-0.001920	-0.959

Note: Marginal effects are reported in the table.

Table 7: Frequency of actual & predicted outcomes (model 1)

Actual	Predicted		Total
	0	1	
0	645	5	650
1	30	103	133
Total	675	108	783

Table 6 column 1 presents the most parsimonious representation of the data when no interactions terms are included. Table 7 shows that this model predicts 645 single jobholders out of 650, and 103 of the 133 multiple jobholders.

As can be seen from the results, an older person is the less likely to become a multiple jobholder. This is consistent with Renna and Oaxaca's (2006) finding that workers show an increased preference for one job later on in their lives. Workers with a tertiary level of educational level are more likely to be multiple jobholders. As Shishko and Rostker

(1976) point out, this may be because workers with skills and knowledge would like to put them into full use. Kimmel and Powell (1999) also found that university educated persons consistently maintain higher rates of multiple jobholding.

The ratio of dependent household members to the total household members also plays a significant and negative role in determining multiple jobholding. This concurs with the view that family time commitments may prevent multiple job holding.

Turning to the area of residency, urban residency was found to have a significant and negative impact on multiple job holding. This went somewhat against our priors, but could reflect the undergoing economic transformation of Magnesia. Also there might be differences between women and men living in urban areas as well as between different age and educational groups. As expected, when the distance to the primary job for wage/salary workers is shorter, multiple jobholding is more likely.

Multiple jobholding is also very closely connected with farm ownership. Ownership of farmland gives opportunities for multiple jobholding not only for farmers, but also for wage/salary workers and self-employees. If the primary job is in self-employment then, as expected, this has a significant and positive effect on multiple jobholding. The self-employed and farmers (the majority own a farmland) are more likely to be found with a second job than wage/salary workers. Also, when individuals work in manufacturing or in the hotel/room services, this has a positive and significant effect on multiple jobholding.

The variable representing the hiring of workers in the farm business was found to be significant and negative. This means that farmers employing waged workers are less likely to have multiple jobs. This might be associated with the difficulty of finding expert farm workers. As a consequence farmers often hire casual and inexperienced workers and this increases the need for training and supervision, so presumably reducing the opportunity for these farmers to engage in multiple jobholding.

The number of years of continued employment has a positive and significant impact on the probability that the worker will have a second job. This means that the longer the workers remain in one job the more preference they show towards taking up another job.

Concerning income, a low level of income from farming or wage activities is associated with an increased probability of multiple jobholding. The corresponding terms though was not significant for the self-employed.

In the case of wage/salary workers, unsurprisingly the fewer the number of days an individual works in their primary job, the greater the likelihood that they engage in multiple job holding. More time spent at work also discourages self-employed individuals from taking up a second a job.

We also found the payment of compulsory job contributions to be negatively related to multiple jobholding. This presumably represents a fixed cost of the primary job which the individual seeks to recoup, as well as the possibility that having a second job may risk the benefits which the contributions may offer.

It is interesting to note that, having controlled for other factors, sex was statistically insignificant in the parsimonious model. To investigate this effect further, column two interacts sex with some of the explanatory variables. We find that males living in urban areas are less likely to take up a second job. Also, male farmers who hired workers were also significantly less likely to hold second jobs. However these results were statistically insignificant at conventional levels. Males with tertiary education are more likely to take up a second job, at the 10% level of significance.

Examining further the behaviour of farm ownership as a determinant of second job holding, we added interactions with sex and age, though these effects proved to be insignificant.

6. Conclusions

This paper has conducted an empirical examination of the multiple jobholding. We find that although income plays a major deterministic impact on multiple jobholding, other factors have a determining the final outcome of the individual's choice, e.g. farm ownership, years of continued employment, and area of residency. These determining factors can either explain the amount of fixed costs that is involved towards taking up a second job, or the restrictions arising from the individual's personal and family

characteristics (e.g., dependent members, and educational level). The characteristics of the labour and product market also play an important role.

Appendix

Table A1: Comparison of raw sample and data used in the analysis

	Initial sample with 3602 members	Final Sample with 2821 members	Change between samples	% Change
Heads with work	985	783	212	21.5
Heads with two or more jobs	188	133	55	29.25
Children age <18	955	759	196	20.5
Members age >60	278	197	82	29.5
Children Age >=6	303	250	53	17.5
Members with two or more jobs	208	147	61	29.3
Employed members (all)	1572	1235	227	21.4
Household members	3602	2843	759	21.1

Table A2. Label, value, explanatory title, mean, and standard deviation of each of the selected variable

Variable	Value and explanatory title	Value and explanatory title	Mean	Std.Dev.
Multiple jobholder	0: the respondent is not a multiple jobholder	1: the respondent is a multiple jobholder	0.170	0.376
Age	Age of respondent		41.156	10.766
Farm owners	0: the respondent does not own a farmland	1: the respondent owns a farmland	0.225	0.418
Urban resident	0: The respondent does not live in urban area	1: The respondent lives in urban area	0.603	0.490
Higher education	0: The respondent did not attend tertiary education	1: The respondent attended or completed tertiary education	0.207	0.405
Family business work	0: the respondent is not a self-employed or an unpaid family worker	1: the respondent is a self-employed or an unpaid family worker	0.268	0.443
Manufacture job	0: with a wage/salary job that is not in the manufacturing sector	1: with a wage/salary job that is in the secondary sector	0.176	0.381
Hotel job	0: with a wage/salary job that is not in the hotels/rooms sector	1: with a wage/salary job that is in the hotels/rooms sector	0.005	0.071
Experience	Years of continued employment		17.746	13.711
Farm employer	0: Farmer did not hire agricultural workers	1: Farmer hired agricultural workers	0.087	0.282
Dependency ratio	Number of not working members over total number of household members		0.520	0.243
Business insurance	0:the respondent does not pay work contributions (when self-employee or a non-paid family worker)	1:the respondent does pay work contributions (when self-employee or a non-paid family worker)	0.221	0.415
Farm insurance	0:the respondent does not pay job insurance contributions (when farmer)	1: the respondent does pay jobs insurance contributions (when farmer)	0.129	0.335
Time to wage work	0: It takes more than 15 minutes to get to the wage/salary job or has no wage/salary job	1: It takes up to 15 (inclusive) minutes to get to the wage/salary job	0.837	0.370
Average business workdays	0: worked in family business less than 301 or more than 330 days or has no family business	1: worked in family business 301-330 (inclusive) days	0.124	0.330
Farm income	0: the farmer receives income from farming more than 1200000 drachmas	1: the farmer receives from farming between 1-1200000 (inclusive) drachmas	0.022	0.146
Wage salary	0: the wage/salary employee receives income from his wage/salary job of more than 1200000 drachmas or has no wage/salary job	1: the wage/salary employee receives income from his wage/salary job between 1-1200000 (inclusive) drachmas	0.051	0.220
Wage/salary _workdays1	0: the respondent worked in a wage/salary job more than 210 days or has no wage/salary job.	1: the wage/salary employee worked in his wage/salary job 1-210 (inclusive) days	0.011	0.107
Wage/salary _workdays2	0: the respondent worked as a wage/salary employee less than 211 or more than 270 days or has no wage/salary job	1: the wage/salary employee worked in his wage/salary job 211-270 (inclusive) days	0.261	0.439
Wage/salary _workdays3	0: the respondent worked as a wage/salary employee less than 271 or more than 300 days or has no wage/salary job	1: the wage/salary employee worked in his wage/salary job 271-300 (inclusive) days	0.024	0.154
Wage/salary _workdays4	0: the respondent worked as a wage/salary employee less than 301 or more than 330 days or has no wage/salary job	1: the wage/salary employee worked in his wage/salary job 301-330 (inclusive) days	0.257	0.437

References

- Abdukadir Gulmaz. (1992). 'Liquidity Constraints as a Cause of Moonlighting', *Applied Economics*, vol.24, no.12, pp.1307-1310.
- Alden Jeremy. (1971). 'Double Jobholding: A Regional Analysis of Scotland', *Scottish Journal of Political Economy*, vol.18, pp.99-112.
- Alden Jeremy. (1976). "The Nature and Extent of Double Jobholding in Great Britain", Ph.D. Thesis, University of Wales.
- Alden Jeremy. (1977). 'The Extent and Nature of Double Jobholding in Great Britain', *Industrial Relations Journal*, vol.8, pp.14-30.
- Alden Jeremy, and S. Saha. (1980). 'A Regional Analysis of Double jobholding in the UK, 1969-1975', *Regional Studies: The Journal of the Regional Studies Association*, vol.14, no.5, pp.367-379.
- Alden Jeremy and R. Spooner. (1982). 'Multiple Job Holders: An Analysis of Second-jobs in the European Community', Luxemburg: Office for Official Publications of the European Communities.
- Bell David, Robert Hart and Robert Wright. (1997). 'Multiple-job Holding as a 'Hedge' against Unemployment', Centre for Economic Policy Research, Human Resources, Discussion Paper no.1626, April.
- Efstratoglou-Todoulou, S., (1990). "Pluriactivity in Different Socio-economic Contexts: a Test of the Push-Pull Hypothesis in Greek Farming", *Journal of Rural Studies*, vol.6, no.4, pp 407-413.
- Hallberg Milton, Jill Findeis and Daniel Lass, eds. (1991). 'Multiple Job-Holding among Farm Families', (eds), 1991, Ames: Iowa State University Press (350 pp.)
- Hunt Janet, C. Hill and Billy Kiker. (1985). "The Effect of Taxation on Labor Supply: The Case of Moonlighting", *Applied Economics*, vol.17, issue.5, pp.897-905.
- Kimmel Jean and Lisa M. Powell. (1999). 'Moonlighting Trends and Related Policy issues in Canada and the United States', *Canadian Public Policy*, vol. 25, issue 2, pp. 207-231
- Krishnan Pramila. (1990). "The Economics of Moonlighting: A Double Self-Selection Model," *Review of Economics and Statistics*, vol. 72(2), pp. 361-367.
- Renna Francesco and Ronald Oaxaca, (2006). "The Economics of Dual Job Holding: A Job Portfolio Model of Labor Supply", IZA Discussion Paper No.1915
- Paxson Christina and Nachum Sicherman. (1996). "The Dynamics of Job Mobility and Dual-job Holding," *Journal of Labour Economics*, vol.14, no.3, pp.357-393.
- Perlman Richard. (1966). 'Observations on Overtime and Moonlighting', *Southern Economic Journal*, Oct.1966, vol.33, no.2, pp. 237-244.
- Shishko Robert and Bernard Rostker. (1976). 'The Economics of Multiple Job Holding', *American Economic Review*, vol.66, no.3, pp.298-308.
- Weersink Alfons, Nickolson Charles and Weehewa Jeeveka. (1998). 'Multiple Job Holding among Dairy Farm Families in New York and Ontario', *Agricultural Economics*, 1998, vol.18, issue 2, pages 127-143.
- Wilensky Harold. (1963). 'The Moonlighter: A Product of Relative Deprivation', *Industrial Relations*, Oct., vol.3, no.1, pp.105-124.