Modeling Paid Work Patterns in Greece from Daily Time-Diary Evidence

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Abstract

The paper studies the weekday and weekend paid work time-allocation patterns of people aged ten years old and older in Greece. To that end it makes use of the first ever time-use diary survey carried out in the country, between March 2013 and February 2014, and employs Heckman's sample selection bias correction approach to capture the heterogeneity (a) the households that provided complete information for all members versus those that did not, and (b) of those who participated in the labor market versus those who did not. The OLS estimations of the labor supply consider the impact of the recovered mills ratios, as well as people's gender, place of residence, country of birth, education, family composition, and other explanatory variables solicited in the survey.

Keywords: Labor supply, Time diaries, Selection-bias correction methods, Gender Economics
JEL Nr.: J22 (Time Allocation & Labor Supply), J16 (Economics of Gender), C24 (Truncated & Censored Models).

1. INTRODUCTION

The purpose of the paper is to empirically study people's time allocation to paid work –an all-important human resource– by econometrically analyzing the first proper diary survey carried out in Greece on a representative sample of the population and, hence, to contribute to the growing literature regarding time allocation and the labor supply that builds on the seminal works of Becker (1965), Heckman (1979) and others.

In our view, estimating people's engagement in paid work from microdata –while taking into account the personal and family information of those who are unemployed or not participating in the labor market– is both necessary for policy making (esp., in a country undergoing an eight-to-nine year long economic recession) and most

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relevant to a conference aspiring to help understand and address socioeconomic challenges in a rapidly changing world.

To the extend the survey solicited one weekday and one weekend diary from all individuals aged ten years old or older in the households considered, one of the paper's novelties is to estimate and compare the daily expressions (regarding Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday) to the weekday and weekend expressions of the labor supply function. Another novelty is the introduction of a preliminary probit analysis regarding the households that fully participated in the survey by providing complete diaries for all members aged ten or older and the households that did not fully participate in the survey, in addition to the usual sample selection bias correction (SSBC) step undertaken to capture the heterogeneity of labor market participants,[1] so that people's paid work allocation choices may be considered in the context of the entire time allocation activity of the household. Understandably, to the extent the data derive from daily diaries, they are likely to contain actual rather than expected (contractual) hours of work (Juster and Stanford, 1991). One is also mindful that though economical to run, compared to seven-day diary surveys, two-day diary surveys are likely to miss a good number of activities among respondents due to the shortness of the reference period (Prodromídis, 2014).

The rest of the paper is organized as follows: Section 2 presents the data, and Section 3 presents the method. Section 4 engages in the SSBC procedures. Section 5 provides and discusses the findings of the OLS day-to-day functional forms, and Section 6 the findings of their OLS weekday and weekend counterparts. Finally, Section 6 supplies the conclusions thoughts for further research.

2. A FEW WORDS ABOUT THE DATA

The data considered hereinafter were solicited from 7,137 individuals aged ten years old or older from 3,371 households, via a Harmonized European Time Use Survey carried out by Greece's Statistical Authority (ELSTAT) between March 2013 and February 2014, and contain:

- regional and population density information associated with people' place of residence;
- personal time-allocation information organized in ten minute intervals for a weekday and a Saturday or Sunday, across 112 distinct types of main and (occasionally) secondary activities, four of which are classified as related to employment and travel to/from paid work;
- information as to whether the aforesaid time-allocations were solicited on regular or vacation days;
- an independent week-long log regarding respondent's paid work involvement, obtained via interviews;

[1] The SSBC step is properly described by Killingsworth (1983), Killingsworth and Heckman (1986), and others.

- information for each and every respondent: gender, age, country of origin, highest level of educational attainment, type of paid work performed, sector of activity and salary range (if any).

According to the daily diaries, over 95% of the respondents lived in households that provided complete accounts of their members' activities. Of these respondents 71% (88%) abstained from paid work activities during the weekday (weekend) of the survey. However, those who did not abstain allocated between ten minutes[2] and twenty hours[3] in paid work activities, with women averaging between 6.3 hours (on Sundays) and 7.1 hours (on Tuesdays), men averaging between 6,8 hours (on Sundays) and 7,9 hours (on Mondays), women exhibiting higher variability on Mondays and Tuesdays, and men exhibiting higher variability on the other days. (See Abstract, Tables A1-6.)

In the analysis that follows, the time allotted primarily (mainly) to paid work is econometrically explained in terms of the other variables. A complementary analysis that explains people's overall time allocation to paid work, by considering both the cases that paid work featured as the main and as the secondary activity, is also underway.

3. METHODOLOGY

To deal with potential sample selection issues, we proceed as follows by engaging in:

- A probit analysis on (a) the households that provide complete diary information and (b) the households that do not; and estimate a SSBC measure that will be used as a regressor in the subsequent steps.
- A probit analysis on the individuals of the aforesaid subsample under item (a) who according to the diaries engage in paid work and the individuals who do not engage in paid work; and estimate a weekday and a weekend SSBC measure that will also be used as a regressor in the final step.
- OLS analyses on the positive (non-zero) hours of paid work provided by men and by women on (i) Mondays, Tuesdays, Wednesdays, Thursdays or Fridays, and Saturdays or Sundays, and (ii) weekdays and weekends.

4. PRELIMINARY ESTIMATIONS

The descriptive statistics of the households with complete and incomplete (or missing) daily diaries are provided in the Appendix, Table A1; and the binary choice is econometrically analyzed/explained in terms of the temporal and spatial aspects, plus the size of the retired and non-retired household population aged ten years old or older. See Table 1. According to the results, the likelihood of households returning a complete set of diaries (a) is higher in Northern Greece (Epirus, Macedonia, Western Thrace), the Aegean islands and Crete, i.e., the northern, eastern and southern part of the country, (b) decreases with the number of retired household members and in the

[2] Observed among men on a Monday, and among women on a Monday and a Tuesday.
[3] Observed among men on a Sunday, and among women on a Tuesday.

presence of a non retired household member,[4] (c) increases with the number of two or more non-retired household members, and –on the margin of the 1% significance level- as time goes by.

Table 1: The probit analysis of full household participation in the 2013-14 time-use survey

	Explained variable: return of complete diaries	coefficients	p-values
	Explanatory variables		
1	Constant	2.621	0.000
2	Time of interview (first day of interview)	0.001	0.011
	Place of residence		
3	Attica, Central Greece (reference)		
4	Northern Greece, Aegean islands and Crete	0.618	0.000
	Household composition		
5	Number of non retired members aged 10 y.o. or older	-0.956	0.000
6	Number of non-retired members aged 10 y.o. or older, squared	0.116	0.000
7	Number of retired members	-0.511	0.007
8	Number of retired members squared	0.210	0.069
	Statistics		
	Number of observations	3.371	
	Pseudo R^2	15.09%	

Turning to the members of the households with complete diary information,[5] we econometrically analyze their participation in paid work activities during weekdays and during weekends in terms of their own demographics, the paid work activity of other household members (to capture an elements of the broad household culture), the day considered, and the SSBC variable (inverse mills ratio) obtained from the previous step. Crucially, the regressors employed in the two steps vary. See Table 2.

According to the results, weekday participation in paid work is not different from one day to the next at the 1% significance level and decreases during vacation, while weekend participation in paid work is lower on Sundays compared to Saturdays. Both types of participation increase with age up to the age of 43-44 for men and 42 for women, and decline subsequently,[6] and also increase among the elderly (aged 82 years or older) and as the ratio of other household members who engage in paid work goes up.

[4] This is the result of the twice differentiable function with respect to number of non-retired people aged ten or older.
[5] The descriptive statistics are provided in the Appendix, Tables A2-3.
[6] This is the result of the twice differentiable function with respect to age.

Table 2: The probit analysis of people's paid work participation (households with complete diaries in the survey)

	Explanatory variables	Weekday coefficients	Weekday p-values	Weekend coefficients	Weekend p-values
	Constant	-5.446	0.000	-3.942	0.000
	Personal characteristics				
1	Male (reference)				
2	Age (≥ 10.y.o.)	0.283	0.000	0.161	0.000
3	Age square	-0.003	0.000	-0.002	0.000
4	Is elderly (≥82 y.o.)	2.797	0.000	1.259	0.000
5	Female	0.703	0.037	0.335	0.357
6	Age (≥ 10.y.o.)	0.219	0.000	0.125	0.000
7	Age square	-0.003	0.000	-0.002	0.000
8	Is elderly (≥82 y.o.)	2.317	0.000	1.117	0.008
	Household composition				
9	% of other members involved in paid work	0.514	0.000	0.493	0.000
	Diary day				
10	Monday (weekday reference)	-0.020	0.749		
11	Tuesday	-0.036	0.553		
12	Wednesday	-0.001	0.986		
13	Thursday	-0.064	0.311		
14	Friday	-0.020	0.749		
15	Saturday (weekend reference)				
16	Sunday			-0.363	0.000
17	Respondent filled out two weekdays and no weekend	0.502	0.116		
18	Respondent's day off	-0.569	0.000		
19	Sample selection correction (from Table 2)	0.671	0.000	0.460	0.029
	Statistics				
	Number of observations	6,803		6,782	
	Pseudo R^2	33.57%		17.65%	

Table 3: The OLS estimates of women's daily paid work in ten-minute time-units (obtained via robust standard errors)

	Explanatory variables	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
		coef.	p-val.	coef.	p-val.	coef.	p-val.	coef.	p-val.	coef.	p-val.	coef.	p-val.	coef.	p-val.
1	Constant	45.71	0.12	43.10	0.07	25.83	0.09	-3.08	0.86	24.55	0.40	3.82	0.85	-31.94	0.50
	Country of origin														
2	Greece (reference)														
3	Cyprus	24.03	0.00					28.55	0.00						
4	Bulgaria or Romania	0.06	0.99	0.87	0.88	-24.82	0.01	-6.64	0.20	-39.13	0.00	-3.43	0.63	-30.44	0.03
5	Other	-0.44	0.90	-1.69	0.75	1.22	0.72	-11.63	0.02	4.37	0.37	-0.05	0.99	4.04	0.55
	Highest formal educ. attainment														
6	None or unknown (reference)														
7	Primary level (K6)	-6.03	0.34	-1.97	0.85	14.30	0.13	6.52	0.64	-9.96	0.45	-6.03	0.22	37.84	0.02
8	Secondary level (K7-12)	-2.50	0.49	-2.94	0.77	14.25	0.11	12.71	0.35	-3.58	0.81	-4.69	0.20	34.13	0.02
9	Bachelor	-1.44	0.73	3.87	0.71	14.11	0.11	15.72	0.24	-9.64	0.53	-1.55	0.74	23.54	0.11
10	Master	-2.75	0.74	-2.19	0.84	13.35	0.16	14.94	0.30	-3.20	0.84	-13.26	0.52	90.96	0.00
11	Ph.D.			5.75	0.61	22.02	0.02	16.63	0.32	-0.58	0.97				
	Household composition														
12	Men aged 42-49 y.o.	-1.30	0.77	4.31	0.41	-0.57	0.83	-3.45	0.36	-7.02	0.09	-4.20	0.29	0.12	0.98
13	Men aged 50-57 y.o.	0.62	0.88	7.16	0.06	-4.27	0.23	1.77	0.62	-4.06	0.35	6.30	0.22	-1.67	0.72
14	Men aged 82 or older	3.76	0.81	13.90	0.13	-2.40	0.79	4.60	0.63	-0.44	0.96	6.26	0.61	12.06	0.09
15	Other women aged 42-49	-5.60	0.47	-8.36	0.20	14.98	0.00	-9.85	0.20	10.86	0.05	-13.69	0.01	13.20	0.02
16	Other women aged 74-81 y.o.	4.16	0.39	4.49	0.61	-9.70	0.06	-0.59	0.93	27.82	0.00	6.54	0.64	1.88	0.80
17	Other women aged 82 or older	5.67	0.28	5.55	0.35	22.73	0.02	12.84	0.13	-6.92	0.39	12.44	0.10	-25.25	0.00
18	Other gender and age groups	-1.24	0.44	4.31	0.41	-2.34	0.04	-3.20	0.02	-3.53	0.05	-3.14	0.01	0.75	0.70
	Paid work contrib. of other members														
19	Average provided by the men	0.04	0.54	0.02	0.70	-0.08	0.20	0.03	0.56	0.04	0.47	0.14	0.02	-0.65	0.04
20	Average provided by the men sq.													0.01	0.00
21	Average provided by the women	1.60	0.00	0.09	0.38	0.02	0.88	0.12	0.28	0.14	0.10	0.10	0.67	0.12	0.42
22	Average provided by the women sq.	-0.03	0.00												
	Type of work														
23	Formally in one of the three sectors	22.25	0.00	17.95	0.23	23.53	0.00	30.16	0.00	25.20	0.00	17.93	0.02	13.70	0.13
24	Informally engaging in paid work (ref.)														
25	As manager	4.64	0.71	-5.22	0.25	-4.58	0.54	2.94	0.53	23.86	0.01	19.92	0.02	11.14	0.19
26	In another post (reference)														
	Place of residence *														
27	Attica, UD areas (reference)														
28	Attica, R areas														
29	Aegean islands and Crete, SI areas	-3.77	0.87	27.86	0.00					-8.19	0.22	-14.23	0.01	4.92	0.68
30	Aegean islands and Crete, ST areas			13.77	0.00					3.24	0.59	13.31	0.01		
31	C. Greece, UD areas	-13.83	0.21	-7.92	0.17	0.81	0.85	19.60	0.18	4.85	0.49	14.98	0.17	3.75	0.78
32	C. Greece, Aegean islands, UI areas	-7.75	0.11	-5.37	0.58	-5.70	0.18	-8.95	0.10	-4.34	0.42	6.68	0.29	4.90	0.85
33	N. Greece, SI areas			-21.90	0.00	-8.53	0.12	-0.38	0.93	1.68	0.75	6.92	0.27	13.83	0.17
34	Other areas	-10.51	0.00	-7.62	0.01	-2.33	0.33	-6.73	0.02	-4.69	0.24	-4.24	0.20	-5.80	0.37

Table 3 (continued)

	Explanatory variables	Monday coef.	Monday p-val.	Tuesday coef.	Tuesday p-val.	Wednesday coef.	Wednesday p-val.	Thursday coef.	Thursday p-val.	Friday coef.	Friday p-val.	Saturday coef.	Saturday p-val.	Sunday coef.	Sunday p-val.
	Sample selection bias correction														
36	From Table 1	-36.46	0.06	-40.22	0.04	7.20	0.63	2.43	0.88	11.39	0.49	19.92	0.22	-22.19	0.30
37	From Table 2 (weekday)	7.75	0.55	5.87	0.63	-2.89	0.64	2.64	0.69	-10.56	0.30	-2.20	0.83	-13.34	0.59
38	From Table 2 (weekend)	-12.46	0.58	-9.90	0.48	-8.07	0.31	5.70	0.48	9.52	0.32	17.08	0.29	24.02	0.52
	Statistics														
	Number of observations	151		172		174		138		140		183		105	
	R^2	27.11%		19.46%		26.23%		46.21%		31.24%		23.56%		41.46%	

* U: Urban (containing one or more concentrations of 10,000 people or more). S: Semiurban (consisting of one or more concentrations of 2,000-9,999 people along with smaller or no other concentrations). R: Rural (consisting of concentrations of 1,999 people or less). D: Densely populated (city or large urban area). I: Intermediate density area (town or suburb). T: Thinly populated area. Greek regions are heterogeneous, with U, S and/or R parts, and D, I and/or T areas.

Table 4: The OLS estimates of men's daily paid work in ten-minute time-units (obtained via robust standard errors)

	Explanatory variables	Monday coef.	Monday p-val.	Tuesday coef.	Tuesday p-val.	Wednesday coef.	Wednesday p-val.	Thursday coef.	Thursday p-val.	Friday coef.	Friday p-val.	Saturday coef.	Saturday p-val.	Sunday coef.	Sunday p-val.
1	Constant	18.05	0.30	27.40	0.01	2.52	0.75	16.37	0.02	12.61	0.21	33.03	0.02	42.45	0.11
	Country of origin:														
2	Greece (reference)														
3	Cyprus			-12.01	0.15					19.08	0.00			-37.57	0.00
4	Bulgaria or Romania			-4.23	0.26	-19.68	0.01	4.77	0.17	1.73	0.59	-0.91	0.81		
5	Other	3.07	0.39	1.13	0.63	-0.48	0.86	8.65	0.01	-6.17	0.08	0.25	0.95	-12.65	0.01
	Highest formal educ. attainment														
6	None or unknown (reference)														
7	Primary level (K6)			-12.01	0.15					19.08	0.00			-37.57	0.00
8	Secondary level (K7-12)			-4.23	0.26	-19.68	0.01	4.77	0.17	1.73	0.59	-0.91	0.81		
9	Bachelor	3.07	0.39	1.13	0.63	-0.48	0.86	8.65	0.01	-6.17	0.08	0.25	0.95	-12.65	0.01
10	Master			-12.01	0.15					19.08	0.00			-37.57	0.00
11	Ph.D.			-4.23	0.26	-19.68	0.01	4.77	0.17	1.73	0.59	-0.91	0.81		
	Household composition														
12	Other men aged 42-49 y.o.	-4.63	0.39	-5.86	0.15	14.00	0.17	38.06	0.00	4.02	0.66	12.70	0.13	-6.60	0.46
13	Other men aged 50-57 y.o.	-2.56	0.53	2.16	0.54	12.64	0.05	-0.55	0.89	1.40	0.77	12.29	0.03	11.93	0.20
14	Other men aged 82 or older	14.03	0.00	3.32	0.55	-3.03	0.35	-3.69	0.58	-11.19	0.08	-3.57	0.51	10.60	0.13
15	Women aged 42-49	3.12	0.16	1.31	0.53	0.38	0.88	0.14	0.95	-4.44	0.08	-3.58	0.15	-11.47	0.00
16	Women aged 74-81 y.o.	-0.71	0.88	-3.51	0.37	-6.73	0.04	-5.96	0.20	3.75	0.40	-4.43	0.36	-19.33	0.00
17	Women aged 82 or older	-2.52	0.65	0.37	0.92	3.26	0.47	-4.36	0.24	3.31	0.66	10.22	0.00	-18.40	0.01
18	Other gender and age groups	0.27	0.78	0.80	0.34	0.96	0.26	-0.01	1.00	-0.99	0.40	0.79	0.42	-0.53	0.71

Table 4 (continued)

	Explanatory variables	Monday coef.	Monday p-val.	Tuesday coef.	Tuesday p-val.	Wednesday coef.	Wednesday p-val.	Thursday coef.	Thursday p-val.	Friday coef.	Friday p-val.	Saturday coef.	Saturday p-val.	Sunday coef.	Sunday p-val.
	Paid work contrib. of other members														
19	Average provided by the men	0.02	0.80	-0.03	0.60	0.02	0.84	-0.24	0.01	-0.03	0.72	0.03	0.68	0.06	0.53
20	Average provided by the women	0.17	0.00	0.04	0.28	0.02	0.71	0.52	0.01	0.16	0.02	0.25	0.00	0.39	0.00
21	Average provided by the women sq.							-0.01	0.02						
	Type of work														
22	Formally in one of the three sectors	28.71	0.00	21.84	0.00	29.10	0.00	38.48	0.00	34.42	0.00	22.14	0.00	22.24	0.00
23	Informally engaging in paid work (ref.)														
24	As manager	4.11	0.22	9.52	0.01	3.33	0.50	16.55	0.00	9.57	0.05	13.24	0.00	5.61	0.17
25	In another post (reference)														
	Place of residence *														
26	Attica, UD areas (reference)														
27	Attica, R areas	-11.19	0.00	2.64	0.25			2.04	0.65	12.44	0.00	65.74	0.00	-18.86	0.01
28	Aegean islands and Crete, SI areas	-11.66	0.00	-3.30	0.65					5.76	0.24	13.43	0.15		
29	Aegean islands and Crete, ST areas					-0.47	0.84	15.92	0.02	2.82	0.39	12.93	0.04		
30	C. Greece, UD areas	-5.57	0.25	8.23	0.12	-0.49	0.91	12.04	0.01	-3.09	0.54	-1.69	0.74	-20.76	0.04
31	C. Greece, Aegean islands, UI areas	-2.71	0.43	4.56	0.46	-7.53	0.04	1.72	0.61	-3.90	0.38	-0.07	0.99	-12.74	0.04
32	N. Greece, SI areas	-0.39	0.93	0.55	0.87	-6.36	0.20	13.89	0.01	-0.26	0.96	-1.43	0.91	-2.46	0.78
33	Other areas	-1.42	0.63	-0.95	0.60	-2.15	0.37	0.10	0.97	0.16	0.96	-0.14	0.96	-10.34	0.04
	Sample selection bias correction														
34	From Table 1	-5.49	0.70	8.84	0.42	13.26	0.25	6.44	0.61	16.30	0.21	-3.88	0.74	22.74	0.24
35	From Table 2 (weekday)	-12.32	0.31	-5.33	0.23	-5.77	0.25	9.95	0.05	-5.55	0.26	-0.15	0.99	14.96	0.29
36	From Table 2 (weekend)	14.81	0.45	3.26	0.57	4.24	0.47	-12.08	0.05	4.20	0.55	-2.49	0.88	-15.06	0.50
	Statistics														
	Number of observations	224		256		226		222		248		342		186	
	R^2	32.47%		25.75%		43.66%		50.40%		32.62%		26.90%		37.24%	

* U: Urban (containing one or more concentrations of 10,000 people or more). S: Semiurban (consisting of one or more concentrations of 2,000-9,999 people along with smaller or no other concentrations). R: Rural (consisting of concentrations of 1,999 people or less). D: Densely populated (city or large urban area). I: Intermediate density area (town or suburb). T: Thinly populated area. Greek regions are heterogeneous, with U, S and/or R parts, and D, I and/or T areas.

Next we econometrically analyze the paid work time-allocations of labor market participants from households with complete diary information. (The descriptive statistics are provided in the Appendix, Tables A4-6.)

5. THE DAILY LABOR SUPPLY FUNCTIONS

We start with the daily allocations which we attempt to explain in terms of people's residence, country of origin, educational attainment, type of work performed, household composition, the paid work contributions of other household members,[7] and the SSBC variables obtained from the previous steps, but not the salary dummies.[8] Once again, the regressors employed in this step vary from those employed in the previous steps. See Tables 3-4.

It turns out that at the 1% significance level, the labor supply:

- On Mondays is: (a) Higher among women of Cypriot origin and/or women formally involved in economic activity; lower among women residing in places other than those mentioned in variables 27-33; and increases (decreases) as other household women engage in up to (more than) 4-5 hours of paid work.[9] (b) Higher among men formally involved in economic activity; lower among men living in the rural areas of Attica or the modestly populated semiurban areas of the Aegean islands and Crete; increases among men as the number of other household men aged 82 or older goes up, and/or as household women engage in more paid work.
- On Tuesdays is: (a) Higher among women living in the modestly and thinly populated semiurban areas of the Aegean islands and Crete; and lower among women living in the modestly populated semiurban areas of Northern Greece or places other than those mentioned in variables 27-33; (b) Higher among men formally involved in economic activity, esp. as managers.
- On Wednesdays is: (a) Higher among women formally involved in economic activity; lower among women of Bulgarian or Romanian origin; and increasing among women as the number of other women aged 42-49 living in the household goes up. (b) Higher among men formally involved in economic activity; and/or lower among men of Bulgarian or Romanian origin or whose highest qualification is a high school certificate or a PhD title.
- On Thursdays is: (a) Higher among women of Cypriot origin and/or women formally involved in economic activity. (b) Higher among men of non-Greek, non-Bulgarian or non-Romanian origin, living in the densely populated urban areas of Central Greece or the modestly populated semiurban areas of Northern Greece, formally involved in economic activity, esp. as managers, and/or whose highest qualification is a Bachelor degree; and increasing (decreasing) among men

[7] The unpaid work contributions were also considered in the manner done by Prodromídis (2014), on the basis of naive assumptions similar to those made by Barth (1967), where a household members may take the time allocation choice of other members as given; however the paid work contributions provided a better fit, and are employed as regressors hereinafter.

[8] To the extend, earnings are based on people's wages and usual hours of paid work (i.e., a manifestation/variant of the dependent variable), the dummies associated with earnings will not be used as regressors.

[9] This is the result of the twice differentiable function with respect to the paid work that other women provide.

as the number of other household men aged 42-49 goes up, and/or as women (other men) in the household engage in more paid work.

- On Fridays is: (a) Higher among women formally involved in economic activity, esp. as managers; lower among women of Bulgarian or Romanian origin; and increasing among women as the number of other women aged 74-81 living in the household goes up. (b) Higher among men of Cypriot origin and/or living in the rural areas of Attica, formally involved economic activity, and/or whose highest qualification is a primary school certificate or a Master degree; and lower among men of non-Greek, Bulgarian or Romanian origin.
- On Saturdays is: (a) Higher among women living in the thinly populated semiurban areas of the Aegean islands and Crete; lower among women living in modestly populated semiurban areas of the Aegean islands and Crete; and decreasing as the numbers of people age 41 or younger, of other women aged 42-73, and/or men aged 58-81 living in the household go up. (b) Higher among men formally involved in economic activity, esp. as managers, and/or living in the rural areas of Attica; and increasing among men as the number of household women aged 82 or older living in the household goes up, and/or as women living in the household engage in more paid work.
- On Sundays is: (a) Higher among women whose highest qualifications is a Master degree; and decreasing as the number of other women aged 82 or older living in the household goes up. (b) Higher among men formally involved in economic activity; lower among men of Cypriot or of non-Greek, non-Bulgarian or non-Romanian origin, and/or living in the rural areas of Attica, and/or whose highest qualification is a primary school certificate, Bachelor or Master degree; and decreasing among men as the number of women aged 42-49 or 74 and older who live in the household goes up.

6. THE WEEKDAY AND WEEKEND LABOR SUPPLY FUNCTIONS

When the same data are summed and organized along the weekday/weekends divide, paid work may be explained in terms of the same or slightly modified variables through many more observations (i.e., with extra degrees of freedom). See Table 5. In these cases, the labor supply:

- On weekdays and weekends, is higher among both and women involved in paid work activities in the secondary and tertiary sector.
- On weekdays is: (a) Higher among women of Cypriot or French origin, among men of Polish or Swedish origin, among men and women formally involved in economic activity in the primary sector, and among men employed as managers. (b) Lower among people of German, Austrian or Romanian origin, and/or women living in modestly populated urban areas of Attica or thinly populated suburban areas of Attica or modestly or thinly populated suburban areas of Northern and Central Greece. (c) Increasing among men as the number of other men aged 74-81 living in the household goes up, and/or other men living in the

household engage in more paid work. (d) Decreasing among women as the number of children aged 7-9 years old increases.

- On weekends is: (a) Higher among men of German, Austrian or Romanian origin and/or living in the thinly populated semiurban areas of Attica, among men formally involved in economic activity in the primary sector, and among men and women employed as managers. (b) lower among men of Cypriot or French origin and/or whose highest qualification is a university degree (Bachelor, Master, PhD). (c) Increasing among women as men in the household engage in more than 5 hours of paid work,[10] and increasing among men as the number of other men aged 43-57 living in the household goes up, and/or as other men in household engage in more paid work. (d) Decreasing among women as men in the household engage in up to 4-5 hours of paid work.[11]

[10] This is the result of the twice differentiable function with respect to the average hours of paid work provided my household males.
[11] See previous footbite.

Table 5: The OLS estimates of paid work activities performed on weekdays and weekends (obtained via robust standard errors)

		Weekdays				Weekend			
		Women		Men		Women		Men	
	Explanatory variables	coef.	p-val.	coef.	p-val.	coef.	p-val.	coef.	p-val.
1	Constant	17.71	0.01	20.45	0.00	21.40	0.35	33.06	0.03
	Country of origin *								
2	Greece (reference)								
3	Bulgaria	-3.39	0.50	-13.41	0.14	6.03	0.41	-7.12	0.17
4	Other EU countries at the endpoints of the Danube	-14.27	0.00	-7.00	0.01	-12.78	0.11	9.46	0.00
5	Other EU non-Adriatic countries on the Mediterranean	20.68	0.00	3.15	0.81			-27.14	0.00
6	Other EU countries on the Central Baltic Sea	-17.33	0.02	5.37	0.00			-7.16	0.06
7	Other EU	-4.32	0.04	-0.19	0.91	-1.51	0.68	-0.65	0.86
8	Other non-EU	2.18	0.51	-13.41	0.14	3.36	0.34	-7.02	0.23
	Highest formal educational attainment								
9	None or unknown (reference)								
10	Primary level (K6)	6.14	0.12	-5.85	0.08	-1.24	0.85	-7.81	0.03
11	Secondary level (K7-12)	4.98	0.18	-3.59	0.27	-4.41	0.50	-3.36	0.34
12	Bachelor or Master	4.47	0.24	-5.53	0.10	-9.39	0.15	-13.35	0.00
13	Ph.D.	9.45	0.03	1.50	0.87	-20.05	0.24	-43.82	0.00
	Household composition (other members)								
14	Children aged 0-6 y.o.	-1.67	0.10	-0.16	0.84	-2.98	0.12	0.27	0.87
15	Children aged 7-9 y.o.	-4.26	0.00	0.42	0.70	-2.32	0.42	-0.52	0.78
16	Men aged 10-17 y.o.	-0.83	0.49	-0.01	0.99	3.25	0.23	-3.70	0.02
17	Men aged 18-41 y.o.	0.11	0.92	-1.27	0.20	-1.44	0.47	-1.08	0.55
18	Men aged 42-57 y.o.	0.44	0.77	1.67	0.38	-0.02	1.00	12.12	0.00
19	Men aged 58-73 y.o.	-3.28	0.08	-0.92	0.55	-4.07	0.27	-1.26	0.70
20	Men aged 74-81 y.o.	-5.36	0.21	6.31	0.01	-5.83	0.46	0.31	0.93
21	Men aged 82 or older	7.42	0.09	0.73	0.79	2.19	0.76	0.26	0.96
22	Women aged 10-17 y.o.	-0.27	0.87	1.39	0.20	-3.07	0.34	0.31	0.91
23	Women aged 18-41 y.o.	-1.64	0.20	1.38	0.14	0.21	0.93	2.62	0.16
24	Women aged 42-57 y.o.	-3.64	0.15	0.09	0.93	-2.82	0.47	-3.86	0.05
25	Women aged 58-73 y.o.	2.42	0.32	-2.26	0.17	7.35	0.22	2.16	0.47
26	Women aged 74-81 y.o.	2.04	0.61	-4.23	0.02	11.51	0.15	-6.25	0.06
27	Women aged 82 or older	5.68	0.21	0.10	0.97	-5.34	0.61	-0.16	0.98
	Paid work contrib. of other household members								
28	Average provided by the men	0.00	0.98	0.08	0.00	-0.42	0.01	0.27	0.00
29	Average provided by the men square					0.01	0.00		
30	Average provided by the women	0.10	0.04	0.00	0.92	0.04	0.74	0.05	0.37
	Type of work								
31	Formally in primary sector	14.53	0.00	25.93	0.00	10.66	0.09	19.32	0.00
32	Formally in secondary sector	27.75	0.00	31.08	0.00	16.13	0.01	17.49	0.00
33	Formally in tertiary sector	25.98	0.00	30.66	0.00	22.65	0.00	23.98	0.00
34	Informally engaging in paid work (reference)								
35	As manager	1.56	0.69	7.28	0.00	15.49	0.01	9.32	0.00
36	In another post (reference)								
	Place of residence **								
37	Attica, UD areas (reference)								
38	Attica, UI areas	-3.90	0.01	0.11	0.94	-4.06	0.37	-2.88	0.41
39	Attica, ST areas	-12.43	0.00	0.08	0.98			15.12	0.00
40	Aegean islands and Crete, UD areas	-8.42	0.03	-2.19	0.41	2.15	0.73	-2.53	0.61
41	Aegean islands and Crete,UI areas	-7.69	0.12	-6.30	0.01	6.17	0.46	-13.23	0.01
42	Aegean islands and Crete, ST areas	8.13	0.06	10.15	0.02	6.47	0.23	11.64	0.03
43	Aegean islands and Crete, R areas	-6.22	0.02	0.14	0.95	2.47	0.61	-5.02	0.19
44	North and Central Greece, SI	-8.04	0.00	1.47	0.40	-10.51	0.03	0.01	1.00
45	North and Central Greece, ST	-8.66	0.00	0.15	0.95	-0.42	0.92	-0.90	0.86
46	Other areas	-2.88	0.05	0.23	0.85	-2.19	0.54	-1.60	0.56

Table 5 (continued)

		Weekdays				Weekend			
		Women		Men		Women		Men	
	Explanatory variables	coef.	p-val.	coef.	p-val.	coef.	p-val.	coef.	p-val.
	Diary day								
47	Monday (weekday reference)								
48	Tuesday	1.21	0.55	-2.06	0.12				
49	Wednesday	-1.33	0.43	-0.43	0.75				
50	Thursday	0.75	0.65	-0.34	0.81				
51	Friday	1.32	0.50	-0.48	0.73				
52	Saturday								
53	Sunday (weekend reference)					2.21	0.69	1.12	0.79
	Sample selection bias correction								
54	From Table 1	-5.07	0.55	9.88	0.12	16.16	0.27	-3.30	0.76
55	From Table 2 (weekday)	0.44	0.90	-0.75	0.75	2.54	0.81	1.87	0.82
56	From Table 2 (weekend)	0.03	0.99	0.02	0.99	0.02	1.00	-4.49	0.74
	Statistics								
	Number of observations	776		1,176		288		528	
	R^2	23.27%		31.12%		24.53%		28.51%	

* Endpoints of Danube: Germany, Austria, Romania. Central Baltic Sea: Poland, Sweden. Mediterranean countries excl. Adriatic: France, Cyprus. Other EU: Czech Rep., Denmark, Finland, Hungary, Italy, Slovakia, UK

** U: Urban (containing one or more concentrations of 10,000 people or more). S: Semiurban (consisting of one or more concentrations of 2,000-9,999 people along with smaller or no other concentrations). R: Rural (consisting of concentrations of 1,999 people or less). D: Densely populated (city or large urban area). I: Intermediate density area (town or suburb). T: Thinly populated area. Greek regions are heterogeneous, with U, S and/or R parts, and D, I and/or T areas.

7. CONCLUSIONS, AVENUES FOR FURTHER RESEARCH

Both the weekday/weekend and several daily analyses share statistically significant results with respect to the positive effect that formal involvement in paid work has on the male and female labor supplies.

However, as a number of daily results emerge only on a particular day (conceivably on the basis of few observations and subsample heterogeneity), and it is somewhat odd to for an element to be important on one day (esp. a weekday) but not on another, it is probably simpler to rely on the weekday/weekend analysis.

Needless to say, the appropriateness of basing policy on findings obtained via a two day diary survey (involving one weekday diary and one Saturday or Sunday diary) may have to be settled by means of comparisons with a seven day diary or a seven day log survey, which in our case, apparently, is available through interviews, and Savvopoulos (2017) has gone some way in organizing the data with the intention to estimate the week-long labor supply.

Nevertheless, the findings are of interest to policy-makers, especially since the only other suitable microeconomic dataset regarding workforce participation dates to 2011 (*the Census*). For instance, they reveal the presence of statistically significant regional subregional and gender effects (differences); reduced paid work involvement by male university graduates at the weekend, amd suggest that the paid work involvement of men (by other males in the household) has a positive effect on the female labor supply duting the weekend (on male paid work both on weekdays and weekends).

Last but not least, we wish to report that our technical novelty, namely, the introduction of a *first stage* (preparatory) equation regarding participation in the survey, appears to be useful, in exploring issues regarding households economics and,

especially, since the sample selection correction variable obtained from it turns out to be important in the labor market participation function.

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APPENDIX

Table A1: Descriptive statistics of the regressors used in the analysis of household responsiveness to the survey

	Households with complete diaries (people aged ≥10 y.o)				Households with incomplete or missing diaries (same ages)				All households			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Time of interview (day of the survey)	190.81	111.32	1	352	167.54	116.78	8	352	189.69	111.68	1	352
Place of residence												
N. Greece, Aegean isl. and Crete	0.44	0.50	0	1	0.18	0.38	0	1	0.43	0.49	0	1
Attica, C. Greece	0.56	0.50	0	1	0.82	0.38	0	1	0.57	0.49	0	1
Number of members												
Retired	0.68	0.73	0	3	0.41	0.59	0	2	0.67	0.73	0	3
Others aged ≥ 10 y.o.	1.29	1.06	0	6	2.26	1.01	1	6	1.33	1.08	0	6
Observations	3.209 (6.805 individuals)				162 (332 individuals)				3.371 (7.137 individuals)			

Table A2: Descriptive statistics of the regressors used in the analysis of people's weekday paid work participation

	Participation in paid work				Abstention from paid work				Both (weekdays)			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Personal characteristics												
Females	0.40	0.49	0	1	0.58	0.49	0	1	0.53	0.50	0	1
Age (≥ 10.y.o.)	26.32	23.16	0	85	22.81	31.02	0	85	23.81	29.04	0	85
People aged ≥82 y.o.	0.00	0.02	0	1	0.04	0.20	0	1	0.03	0.17	0	1
Males	0.60	0.49	0	1	0.42	0.49	0	1	0.47	0.50	0	1
Age (≥ 10.y.o.)	16.96	21.98	0	83	31.71	31.58	0	85	27.50	29.91	0	85
People aged ≥82 y.o.	0.00	0.04	0	1	0.04	0.19	0	1	0.03	0.17	0	1
Household composition												
% of other members involved in paid work	0.22	0.23	0	0.75	0.15	0.21	0	0.80	0.17	0.22	0	0.80
Diary day												
Monday	0.19	0.40	0	1	0.19	0.39	0	1	0.19	0.39	0	1
Tuesday	0.22	0.41	0	1	0.22	0.42	0	1	0.22	0.42	0	1
Wednesday	0.21	0.40	0	1	0.20	0.40	0	1	0.20	0.40	0	1
Thursday	0.19	0.39	0	1	0.20	0.40	0	1	0.20	0.40	0	1
Friday	0.20	0.40	0	1	0.19	0.39	0	1	0.19	0.39	0	1
Respondents filled out two weekdays and no weekend (23 cases)	0.01	0.08	0	1	0.00	0.05	0	1	0.00	0.06	0	1
Respondent's day off	0.01	0.12	0	1	0.02	0.15	0	1	0.02	0.14	0	1
Observations	1.942				4861				6805			

Table A3: Descriptive statistics of the regressors used in the analysis of people's weekend paid work participation

	Participation in paid work				Abstention from paid work				Both (weekend)			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Personal characteristics												
Females	0.35	0.48	0	1	0.55	0.50	0	1	0.53	0.50	0	1
Age (≥ 10.y.o.)	29.14	23.77	0	85	23.10	29.63	0	85	23.81	29.04	0	85
People aged ≥82 y.o.	0.00	0.04	0	1	0.04	0.18	0	1	0.03	0.17	0	1
Males	0.65	0.48	0	1	0.45	0.50	0	1	0.47	0.50	0	1
Age (≥ 10.y.o.)	15.33	21.99	0	83	29.18	30.47	0	85	27.50	29.91	0	85
People aged ≥82 y.o.	0.00	0.06	0	1	0.03	0.18	0	1	0.03	0.17	0	1
Household composition												
% of other members involved in paid work	0.23	0.23	0	0.75	0.16	0.22	0	0.80	0.17	0.22	0	0.80
Diary day												
Saturday	0.64	0.48	0	1	0.49	0.50	0	1	0.51	0.50	0	1
Sunday (Two people filled out both)	0.36	0.48	0	1	0.51	0.50	0	1	0.49	0.50	0	1
Respondent's day off	0.01	0.11	0	1	0.02	0.15	0	1	0.02	0.14	0	1
Observations	816				5.966				6.805			

Table A4: Descriptive statistics of the regressand and regressors used in the analysis of women's daily paid work activities

	Monday				Tuesday				Wednesday			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Paid work (in ten-minute time units)	41.00	16.63	1	96	42.61	15.47	1	120	40.39	13.35	2	72
Country of origin												
Greece	0.87	0.33	0	1	0.90	0.30	0	1	0.85	0.36	0	1
Cyprus	0.01	0.08	0	1								
Bulgaria or Romania	0.01	0.11	0	1	0.02	0.13	0	1	0.01	0.11	0	1
Other	0.09	0.29	0	1	0.08	0.27	0	1	0.14	0.35	0	1
Highest formal educational attainment												
None or unknown	0.01	0.11	0	1	0.01	0.11	0	1	0.02	0.13	0	1
Primary level (K6)	0.11	0.31	0	1	0.13	0.34	0	1	0.14	0.35	0	1
Secondary level (K7-12)	0.51	0.50	0	1	0.44	0.50	0	1	0.51	0.50	0	1
Bachelor	0.32	0.47	0	1	0.36	0.48	0	1	0.29	0.45	0	1
Master	0.05	0.21	0	1	0.05	0.21	0	1	0.04	0.20	0	1
Ph.D.					0.01	0.11	0	1	0.01	0.11	0	1
Household composition												
Men aged 42-49 y.o.	0.21	0.41	0	1	0.16	0.37	0	1	0.17	0.38	0	1
Men aged 50-57 y.o.	0.16	0.37	0	1	0.20	0.40	0	1	0.21	0.41	0	1
Men aged 82 or older	0.01	0.11	0	1	0.01	0.08	0	1	0.02	0.13	0	1
Other women aged 42-49	0.04	0.20	0	1	0.05	0.25	0	2	0.03	0.17	0	1
Other women aged 74-81 y.o.	0.03	0.18	0	1	0.03	0.18	0	1	0.03	0.18	0	1
Other women aged 82 or older	0.02	0.14	0	1	0.01	0.11	0	1	0.01	0.11	0	1
Other gender and age groups	1.40	1.13	0	5	1.60	1.47	0	8	1.37	1.12	0	5
Paid work contributions of other household members												
Average provided by the men (in ten-minute time units)	23.29	25.78	0	96	20.18	22.12	0	69	20.59	22.65	0	90
Average provided by the women (in ten-minute time units)	1.38	7.61	0	53	6.20	14.32	0	60	2.72	9.63	0	54
Type of work												
Formally in the primary, secondary or tertiary sector	0.94	0.24	0	1	0.98	0.13	0	1	0.97	0.17	0	1
As manager	0.02	0.14	0	1	0.02	0.15	0	1	0.02	0.15	0	1
Place of residence *												
Attica, UD areas	0.32	0.47	0	1	0.26	0.44	0	1	0.30	0.46	0	1
Attica, R areas												
Aegean islands, SI areas	0.01	0.11	0	1	0.01	0.08	0	1				
Aegean islands, ST areas					0.01	0.08	0	1				
Central Greece, UD areas	0.01	0.11	0	1	0.04	0.20	0	1	0.02	0.13	0	1
Central Greece, Aegean islands and Crete, UI areas	0.07	0.25	0	1	0.03	0.18	0	1	0.05	0.22	0	1
North Greece, SI areas	0.59	0.49	0	1	0.01	0.08	0	1	0.03	0.17	0	1
Other areas	0.01	0.11	0	1	0.65	0.48	0	1	0.60	0.49	0	1
Observations		151				172				174		

* U: Urban (containing one or more concentrations of 10,000 people or more). S: Semiurban (consisting of one or more concentrations of 2,000-9,999 people along with smaller or no other concentrations). R: Rural (consisting of concentrations of 1,999 people or less). D: Densely populated (city or large urban area). I: Intermediate density area (town or suburb). T: Thinly populated area. Greek regions are heterogeneous, with U, S and/or R parts, and D, I and/or T areas.

Table A4 (continued)

	Thursday				Friday				Saturday				Sunday			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Paid work (in ten-minute time units)	42.39	15.27	6	88	42.52	16.18	5	83	39.91	17.76	5	107	38.04	20.40	3	91
Country of origin																
Greece	0.88	0.32	0	1	0.88	0.33	0	1	0.85	0.36	0	1	0.81	0.39	0	1
Cyprus	0.02	0.15	0	1												
Bulgaria or Romania	0.01	0.09	0	1	0.01	0.08	0	1	0.03	0.18	0	1	0.01	0.10	0	1
Other	0.09	0.28	0	1	0.11	0.32	0	1	0.11	0.31	0	1	0.17	0.38	0	1
Highest formal educational attainment																
None or unknown	0.01	0.12	0	1	0.01	0.08	0	1	0.02	0.15	0	1	0.02	0.14	0	1
Primary level (K6)	0.12	0.32	0	1	0.13	0.34	0	1	0.20	0.40	0	1	0.19	0.39	0	1
Secondary level (K7-12)	0.49	0.50	0	1	0.52	0.50	0	1	0.56	0.50	0	1	0.55	0.50	0	1
Bachelor	0.34	0.48	0	1	0.32	0.47	0	1	0.21	0.41	0	1	0.21	0.41	0	1
Master	0.01	0.12	0	1	0.01	0.12	0	1	0.01	0.10	0	1	0.01	0.10	0	1
Ph.D.	0.02	0.15	0	1	0.01	0.08	0	1					0.02	0.14	0	1
Household composition																
Men aged 42-49 y.o.	0.20	0.40	0	1	0.23	0.42	0	1	0.24	0.43	0	1	0.12	0.33	0	1
Men aged 50-57 y.o.	0.12	0.32	0	1	0.11	0.32	0	1	0.13	0.34	0	1	0.23	0.42	0	1
Men aged 82 or older	0.03	0.17	0	1	0.01	0.12	0	1	0.02	0.13	0	1	0.03	0.17	0	1
Other women aged 42-49	0.02	0.15	0	1	0.03	0.17	0	1	0.03	0.18	0	1	0.10	0.33	0	2
Other women aged 74-81 y.o.	0.02	0.15	0	1	0.01	0.12	0	1	0.03	0.18	0	1	0.06	0.23	0	1
Other women aged 82 or older	0.02	0.15	0	1	0.02	0.15	0	1	0.02	0.13	0	1	0.03	0.17	0	1
Other gender and age groups	1.52	1.21	0	6	1.44	1.08	0	4	1.50	1.30	0	6	1.41	1.41	0	8
Paid work contrib. of other household members																
Ave. provided by men (ten-min. units)	24.73	25.48	0	96	25.03	25.58	0	98	20.23	24.70	0	88	12.89	21.52	0	93
Ave. provided by the women (ten-min. units)	6.12	14.15	0	54	4.61	14.12	0	82	0.90	4.95	0	46	5.06	13.61	0	55
Type of work																
Formally in one of the three sectors	23.29	25.78	0	96	20.18	22.12	0	69	20.59	22.65	0	90	23.29	25.78	0	96
As manager	0.03	0.17	0	1	0.02	0.15	0	1	0.03	0.16	0	1	0.02	0.14	0	1
Place of residence *																
Attica, UD areas	0.33	0.47	0	1	0.26	0.44	0	1	0.22	0.42	0	1	0.22	0.42	0	1
Attica, R areas																
Aegean islands and Crete, SI areas					0.01	0.08	0	1	0.02	0.15	0	1	0.02	0.14	0	1
Aegean islands and Crete, ST areas					0.01	0.08	0	1	0.07	0.25	0	1				
Central Greece, UD areas	0.02	0.15	0	1	0.04	0.20	0	1	0.02	0.15	0	1	0.04	0.19	0	1
Central Greece, Aegean isl., Crete, UI areas	0.06	0.23	0	1	0.07	0.26	0	1	0.07	0.25	0	1	0.02	0.14	0	1
North Greece, SI areas	0.01	0.12	0	1	0.01	0.12	0	1	0.01	0.10	0	1	0.01	0.10	0	1
Other areas	0.57	0.50	0	1	0.60	0.49	0	1	0.67	0.47	0	1	0.70	0.46	0	1
Observations	138				140				183				185			

* U: Urban (containing one or more concentrations of 10,000 people or more). S: Semiurban (consisting of one or more concentrations of 2,000-9,999 people along with smaller or no other concentrations). R: Rural (consisting of concentrations of 1,999 people or less). D: Densely populated (city or large urban area). I: Intermediate density area (town or suburb). T: Thinly populated area. Greek regions are heterogeneous, with U, S and/or R parts, and D, I and/or T areas.

Table A5: Descriptive statistics of the regressand and regressors used in the analysis of men's daily paid work activities

	Monday				Tuesday				Wednesday			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Paid work (in ten-minute time units)	47.50	15.55	1	96	45.58	13.55	3	119	46.24	15.58	4	96
Country of origin												
Greece	0.88	0.33	0	1	0.91	0.29	0	1	0.92	0.28	0	1
Cyprus					0.00	0.06	0	1				
Bulgaria or Romania					0.01	0.11	0	1	0.01	0.09	0	1
Other	0.12	0.33	0	1	0.07	0.25	0	1	0.08	0.26	0	1
Highest formal educational attainment												
None or unknown	0.04	0.19	0	1	0.03	0.16	0	1	0.02	0.13	0	1
Primary level (K6)	0.11	0.31	0	1	0.14	0.34	0	1	0.14	0.35	0	1
Secondary level (K7-12)	0.60	0.49	0	1	0.57	0.50	0	1	0.54	0.50	0	1
Bachelor	0.22	0.41	0	1	0.24	0.43	0	1	0.25	0.43	0	1
Master	0.04	0.19	0	1	0.02	0.15	0	1	0.04	0.20	0	1
Ph.D.	0.00	0.07	0	1	0.01	0.09	0	1	0.01	0.09	0	1
Household composition												
Men aged 42-49 y.o.	0.02	0.15	0	1	0.00	0.06	0	1	0.02	0.13	0	1
Men aged 50-57 y.o.	0.04	0.21	0	1	0.07	0.25	0	1	0.04	0.19	0	1
Men aged 82 or older	0.01	0.09	0	1	0.02	0.14	0	1	0.01	0.11	0	1
Other women aged 42-49	0.27	0.44	0	1	0.25	0.44	0	2	0.26	0.44	0	1
Other women aged 74-81 y.o.	0.04	0.21	0	1	0.04	0.18	0	1	0.04	0.19	0	1
Other women aged 82 or older	0.02	0.15	0	1	0.03	0.17	0	1	0.01	0.09	0	1
Other gender and age groups	1.86	1.12	0	6	1.75	1.25	0	7	1.62	1.22	0	5
Paid work contributions of other household members												
Average provided by the men (in ten-minute time units)	4.85	13.92	0	66	6.55	15.82	0	68	4.56	14.11	0	93.5
Average provided by the women (in ten-minute time units)	12.42	19.27	0	96	12.73	19.41	0	79	13.09	18.59	0	67
Type of work												
Formally in the primary, secondary or tertiary sector	0.96	0.19	0	1	0.95	0.21	0	1	0.91	0.28	0	1
As manager	0.02	0.15	0	1	0.03	0.17	0	1	0.06	0.23	0	1
Place of residence *												
Attica, UD areas	0.21	0.41	0	1	0.19	0.39	0	1	0.21	0.41	0	1
Attica, R areas	0.65	0.48	0	1	0.69	0.46	0	1	0.62	0.49	0	1
Aegean islands and Crete, SI areas	0.01	0.09	0	1	0.02	0.15	0	1	0.02	0.15	0	1
Aegean islands and Crete, ST areas												
Central Greece, UD areas	0.01	0.09	0	1	0.01	0.09	0	1				
Central Greece, Aegean islands and Crete, UI areas	0.09	0.29	0	1	0.05	0.22	0	1	0.08	0.28	0	1
North Greece, SI areas	0.03	0.16	0	1	0.03	0.16	0	1	0.06	0.23	0	1
Other areas	0.00	0.07	0	1	0.02	0.12	0	1	0.00	0.07	0	1
Observations		224				256				226		

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Table A5 (continued)

	Thursday				Friday				Saturday				Sunday			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Paid work (in ten-minute time units)	46.14	17.61	3	96	46.74	17.42	3	114	45.80	19.36	4	106	40.62	22.13	5	121
Country of origin																
Greece	0.92	0.27	0	1	0.92	0.28	0	1	0.92	0.27	0	1	0.96	0.19	0	1
Cyprus					0.00	0.06	0	1					0.01	0.07	0	
Bulgaria or Romania	0.00	0.07	0	1	0.00	0.06	0	1	0.00	0.05	0	1				1
Other	0.08	0.27	0	1	0.07	0.26	0	1	0.07	0.26	0	1	0.03	0.18	0	1
Highest formal educational attainment																
None or unknown	0.00	0.07	0	1	0.01	0.09	0	1	0.03	0.18	0	1	0.02	0.15	0	1
Primary level (K6)	0.18	0.38	0	1	0.13	0.33	0	1	0.19	0.40	0	1	0.23	0.42	0	1
Secondary level (K7-12)	0.59	0.49	0	1	0.60	0.49	0	1	0.61	0.49	0	1	0.54	0.50	0	1
Bachelor	0.20	0.40	0	1	0.25	0.43	0	1	0.15	0.36	0	1	0.19	0.39	0	1
Master	0.04	0.19	0	1	0.01	0.09	0	1	0.01	0.12	0	1	0.02	0.13	0	1
Ph.D.					0.01	0.11	0	1					0.01	0.07	0	1
Household composition																
Men aged 42-49 y.o.	0.00	0.07	0	1	0.02	0.14	0	1	0.02	0.14	0	1	0.01	0.10	0	1
Men aged 50-57 y.o.	0.04	0.20	0	1	0.06	0.23	0	1	0.05	0.22	0	1	0.06	0.24	0	1
Men aged 82 or older	0.01	0.12	0	1	0.02	0.13	0	1	0.01	0.12	0	1	0.03	0.16	0	1
Other women aged 42-49	0.23	0.42	0	1	0.23	0.42	0	1	0.25	0.43	0	1	0.26	0.45	0	2
Other women aged 74-81 y.o.	0.03	0.16	0	1	0.04	0.21	0	1	0.05	0.21	0	1	0.04	0.20	0	1
Other women aged 82 or older	0.02	0.15	0	1	0.02	0.14	0	1	0.01	0.12	0	1	0.03	0.18	0	1
Other gender and age groups	1.81	1.24	0	6	1.61	1.16	0	5	1.80	1.25	0	6	1.72	1.27	0	7
Paid work contrib. of other household members																
Ave. provided by men (ten-min. units)	3.87	12.44	0	75	7.19	17.35	0	114	7.09	17.60	0	92	5.84	14.16	0	77
Ave. provided by women (ten-min. units)	12.30	18.66	0	76	12.47	19.12	0	75	8.83	16.84	0	90	4.94	14.66	0	79
Type of work																
Formally in one of the three sectors	0.91	0.29	0	1	0.94	0.24	0	1	0.93	0.26	0	1	0.90	0.30	0	1
As manager	0.05	0.23	0	1	0.06	0.25	0	1	0.08	0.27	0	1	0.08	0.27	0	1
Place of residence *																
Attica, UD areas	0.23	0.42	0	1	0.21	0.41	0	1	0.18	0.38	0	1	0.16	0.37	0	1
Attica, R areas	0.61	0.49	0	1	0.65	0.48	0	1	0.68	0.47	0	1	0.71	0.46	0	1
Aegean islands and Crete, SI areas	0.01	0.12	0	1	0.02	0.14	0	1	0.01	0.11	0	1				
Aegean islands and Crete, ST areas					0.01	0.09	0	1	0.01	0.08	0	1				
Central Greece, UD areas	0.00	0.07	0	1	0.00	0.06	0	1	0.00	0.05	0	1	0.07	0.26	0	1
Central Greece and Aegean islands, UI areas	0.07	0.26	0	1	0.07	0.25	0	1	0.07	0.26	0	1	0.01	0.10	0	1
North Greece, SI areas	0.05	0.22	0	1	0.03	0.17	0	1	0.05	0.21	0	1	0.02	0.15	0	1
Other areas	0.01	0.12	0	1	0.01	0.09	0	1	0.01	0.08	0	1	0.02	0.15	0	1
Observations	222				248				342				186			

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Table A6: Descriptive statistics of the regressands and regressors used in the analysis of paid work performed on weekdays and weekends

	Weekdays								Weekend							
	Women				Men				Women				Men			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Paid work (in ten-minute time units)	41.75	15.34	1	120	46.42	15.96	1	119	39.23	18.75	3	107	43.97	20.51	4	121
Country of origin *																
Greece	0.88	0.33	0	1	0.91	0.29	0	1	0.84	0.37	0	1	0.94	0.25	0	1
Bulgaria	0.01	0.09	0	1	0.00	0.05	0	1	0.02	0.13	0	1	0.01	0.09	0	1
Other EU countries at the endpoints of the Danube	0.01	0.09	0	1	0.01	0.09	0	1	0.01	0.12	0	1	0.01	0.09	0	1
Other EU non-Adriatic, Mediterranean countries	0.00	0.06	0	1	0.00	0.04	0	1					0.00	0.06	0	1
Other EU countries along the Central Baltic Sea	0.00	0.05	0	1	0.00	0.04	0	1					0.00	0.05	0	1
Other EU	0.08	0.27	0	1	0.06	0.24	0	1	0.10	0.30	0	1	0.08	0.27	0	1
Other non-EU	0.02	0.13	0	1	0.02	0.14	0	1	0.03	0.17	0	1	0.02	0.13	0	1
Highest formal educational attainment																
None or unknown	0.13	0.11	0	1	0.02	0.14	0	1	0.02	0.14	0.02	0.14	0.03	0.17	0	1
Primary level (K6)	0.13	0.33	0	1	0.14	0.34	0	1	0.19	0.40	0	1	0.20	0.40	0	1
Secondary level (K7-12)	0.49	0.50	0	1	0.58	0.49	0	1	0.56	0.50	0	1	0.59	0.49	0	1
Bachelor or Master	0.36	0.48	0	1	0.26	0.44	0	1	0.22	0.42	0	1	0.18	0.38	0	1
Master	0.01	0.10	0	1	0.01	0.08	0	1	0.01	0.08	0	1	0.00	0.04	0	1
Ph.D.	0.13	0.11	0	1	0.02	0.14	0	1	0.02	0.14	0.02	0.14	0.03	0.17	0	1
Household composition (other members)																
Children aged 0-6 y.o.	0.22	0.53	0	2	0.31	0.62	0	4	0.17	0.45	0	2	0.30	0.61	0	3
Children aged 7-9 y.o.	0.14	0.41	0	3	0.16	0.42	0	3	0.11	0.37	0	2	0.16	0.44	0	2
Men aged 10-17 y.o.	0.16	0.43	0	3	0.14	0.42	0	3	0.19	0.47	0	3	0.16	0.46	0	3
Men aged 18-41 y.o.	0.39	0.55	0	3	0.20	0.47	0	3	0.42	0.59	0	3	0.23	0.50	0	3
Men aged 42-57 y.o.	0.36	0.48	0	1	0.06	0.24	0	1	0.36	0.48	0	1	0.07	0.26	0	1
Men aged 58-73 y.o.	0.22	0.42	0	1	0.10	0.30	0	2	0.22	0.42	0	1	0.09	0.28	0	1
Men aged 74-81 y.o.	0.03	0.16	0	1	0.03	0.17	0	1	0.05	0.21	0	1	0.04	0.20	0	1
Men aged 82 or older	0.02	0.12	0	1	0.01	0.12	0	1	0.02	0.14	0	1	0.02	0.14	0	1
Women aged 10-17 y.o.	0.14	0.40	0	2	0.14	0.40	0	3	0.16	0.45	0	3	0.13	0.37	0	2
Women aged 18-41 y.o.	0.20	0.45	0	2	0.47	0.54	0	3	0.22	0.49	0	2	0.49	0.54	0	2
Women aged 42-57 y.o.	0.10	0.30	0	2	0.44	0.50	0	2	0.12	0.34	0	2	0.43	0.50	0	2
Women aged 58-73 y.o.	0.06	0.24	0	1	0.14	0.34	0	1	0.05	0.21	0	1	0.17	0.37	0	1
Women aged 74-81 y.o.	0.03	0.17	0	1	0.04	0.19	0	1	0.04	0.20	0	1	0.05	0.21	0	1
Women aged 82 or older	0.02	0.13	0	1	0.02	0.14	0	1	0.02	0.14	0	1	0.02	0.14	0	1
Paid work contrib. of other household members																
Ave. provided by the men (in ten-min. units)	4.19	12.34	0	82	12.60	19.00	0	96	2.41	9.31	0	55	7.78	15.99	0	90
Ave. provided by the women (in ten-min. units)	22.56	24.24	0	98	5.47	14.94	0	114	17.55	23.81	0	93	6.33	16.64	0	92
Type of work																
Formally in primary sector	0.08	0.28	0	1	0.14	0.34	0	1	0.15	0.36	0	1	0.22	0.41	0	1
Formally in secondary sector	0.07	0.25	0	1	0.20	0.40	0	1	0.03	0.18	0	1	0.14	0.35	0	1
Formally in tertiary sector	0.81	0.39	0	1	0.60	0.49	0	1	0.77	0.42	0	1	0.56	0.50	0	1
Informally engaging in paid work	0.04	0.19	0	1	0.07	0.25	0	1	0.05	0.21	0	1	0.08	0.27	0	1

Table A6 (continued)

	Weekdays								Weekend							
	Women				Men				Women				Men			
	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max	mean	st.dev.	min	max
Type of work																
As manager	0.08	0.28	0	1	0.14	0.34	0	1	0.15	0.36	0	1	0.22	0.41	0	1
In another post	0.07	0.25	0	1	0.20	0.40	0	1	0.03	0.18	0	1	0.14	0.35	0	1
Place of residence **																
Attica, UD areas	0.29	0.46	0	1	0.21	0.41	0	1	0.22	0.42	0	1	0.17	0.38	0	1
Attica, UI areas	0.11	0.31	0	1	0.10	0.30	0	1	0.08	0.28	0	1	0.07	0.25	0	1
Attica, ST areas	0.00	0.04	0	1	0.00	0.06	0	1					0.00	0.04	0	1
Aegean islands and Crete, UD areas	0.02	0.15	0	1	0.02	0.15	0	1	0.04	0.19	0	1	0.02	0.16	0	1
Aegean islands and Crete, UI areas	0.02	0.13	0	1	0.02	0.15	0	1	0.02	0.14	0	1	0.02	0.15	0	1
Aegean islands and Crete, ST areas	0.00	0.05	0	1	0.01	0.07	0	1	0.00	0.06	0	1	0.00	0.06	0	1
Aegean islands and Crete, R areas	0.05	0.22	0	1	0.05	0.23	0	1	0.08	0.28	0	1	0.09	0.29	0	1
North and Central Greece, SI areas	0.02	0.15	0	1	0.03	0.17	0	1	0.03	0.16	0	1	0.02	0.16	0	1
North and Central Greece, ST areas	0.08	0.27	0	1	0.09	0.29	0	1	0.08	0.27	0	1	0.09	0.28	0	1
Other areas	0.40	0.49	0	1	0.46	0.50	0	1	0.44	0.50	0	1	0.51	0.50	0	1
Diary day																
Monday	0.19	0.40	0	1	0.19	0.40	0	1								
Tuesday	0.22	0.42	0	1	0.22	0.42	0	1								
Wednesday	0.22	0.42	0	1	0.22	0.42	0	1								
Thursday	0.18	0.38	0	1	0.18	0.38	0	1								
Friday	0.18	0.38	0	1	0.18	0.38	0	1								
Saturday									0.64	0.48	0	1	0.65	0.48	0	1
Sunday									0.36	0.48	0	1	0.35	0.48	0	1
Observations	776				1176				228				528			

* Endpoints of Danube: Germany, Austria, Romania. Mediterranean countries excl. Adriatic: France, Cyprus. Central Baltic Sea: Poland, Sweden. Other EU: Czech Rep., Denmark, Finland, Hungary, Italy, Slovakia, UK.

** U: Urban (containing one or more concentrations of 10,000 people or more). S: Semiurban (consisting of one or more concentrations of 2,000-9,999 people along with smaller or no other concentrations). R: Rural (consisting of concentrations of 1,999 people or less). D: Densely populated (city or large urban area). I: Intermediate density area (town or suburb). T: Thinly populated area. Greek regions are heterogeneous, with U, S and/or R parts, and D, I and/or T areas.