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**Article**

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## **Working time, satisfaction and work life balance: A European perspective**

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### **Abstract**

This paper analyses gender-specific differences in working time mismatches by using three different measures for representing satisfaction and work life balance. Results show that, while male satisfaction with life or work is in general not affected by working for more or less hours, over-time is found to significantly lower male work life balance. Women are more sensitive to the amount of working hours as they prefer part-time employment and they are dissatisfied with changes towards working more or less hours than agreed.

**JEL classification:** J22, I31, J16

**Keywords:** Working Hours, Gender Differences, Work Life Balance, European Social Survey

### **1. Introduction<sup>1</sup>**

This paper deals with individual well-being and amount of hours worked. Information on life satisfaction (LS), job satisfaction (JS), and work life balance (WLB) are used to identify underlying attributes behind the mechanism that describe these measures. The research question is how an individual is affected by working more or less hours than agreed by working contracts. Such a mismatch may have strong implications on psychological conditions of an individual. Furthermore, while LS measures a holistic perception of life, JS is employment specific. The third characteristic, WLB, is less easy to define. Psychologists describe a potential conflict between paid working hours on the labor market, and paid or non-paid working hours at the household, such as caring time,

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<sup>1</sup> This paper is the private opinion of the author and not of his institutions.

and leisure time. This can influence general, job or even family specific satisfaction (Bulger 2014). Especially women and mothers may face multiple burdens and therefore their WLB becomes additionally complex.<sup>2</sup>

The analysis starts with a cross-country comparison of data taken from the Organisation for Economic Co-operation and Development (OECD 2013), for two particular factors affecting individual WLB. On one hand, a substantial part of a countries' labor force works for more than 50 hours per week, while on the other hand, men and women have available time of 14 to 15 hours per day for their basic needs (eating or sleeping), and leisure activities.(See table 1)

The key finding of the paper is that men and women experience working time mismatches in different ways. The reduction of leisure time in particular is costly in terms of their satisfaction. Males LS and JS is not effected by overtime, while females always react with dissatisfaction. Analyzing WLB directly shows that men and women suffer from a shift from leisure time towards working time. However, females are more sensitive. This can be explained by the multiple burdens of paid work and household production, especially by caring children.

The paper is structured as follows: a brief review of the literature is given in section 2. Data set and method are described in section 3. Finally, sections 4 and 5 present the results and a conclusion.

## **2. Literature Review**

Past research has investigated work time mismatches; most papers reflect on working more hours than those agreed by contract. In general overtime is found to be dissatisfying as it affects leisure time, lowers LS and JS, and is therefore negative to WLB. However, working for fewer hours than agreed may be negative as well. In addition, several papers show that time mismatch impacts between men and women differ, mainly because of differences in time schedules. In this context this paper contributes to the literature as it applies to all three measures to indicate how working time mismatch affects satisfaction and WLB.

In detail, Booth and van Ours (2008) showed that married men and women in the UK behave differently in terms of working hours and JS. In general, women report lower levels of JS. Men's JS or LS are not affected by the size of hours worked, while their LS with working hours is the highest at full time work level respectively 40 hours per week. Women however have their highest level of JS and LS with working hours at the cases of part time work. The results for women lead to the hypotheses that they should prefer part time work, but LS as a whole is not affected. In a similar paper Booth and van Ours (2013) replicate their results with data from the Netherlands. Here, women working part-time report the highest levels of JS. Wunder and Heineck (2013) use data from Germany and report that working time mismatch reduces LS. Women with full-time working husband have the highest LS, while males remain not affected by their wife's working hours. Contrary to other studies the authors' present clear evidence that

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<sup>2</sup> WLB is close to the more psychological concept of work to family conflicts, or family to work conflicts. Surveys such as Guest (2002) and Lewis et al. (2007) provide deeper insights from a psychological perspective.

Table 1: OECD (2013): Better Life Index (Measures for Work Life Balance), \*=2011, \*\*=full time employment, 2012

	BE	CZ	DE	DE	EE	FI	DE	HU	IS	IE	IL	IT	NL	NO	PL	PT	SK	SI	ES	SE	CH	UK	RU	
<b>All</b>																								
Share (%) of employees working > 50 hours a week*	4.43	7.58	1.97	4.10	3.89	5.41	3.10	13.45	3.94	17.58	4.07	0.66	2.83	7.24	8.50	6.38	5.55	6.34	1.23	5.87	12.06	0.16		
Amount of daily hours for leisure and care**	15.10	14.34	16.06	14.2	14.89	15.31	14.90	14.06	15.18	13.81	14.89	15.66	15.56	14.20	14.71	14.78	14.62	15.85	15.11	14.78	14.83	14.84		
<b>Males</b>																								
Share (%) of employees working > 50 hours a week*	6.56	11.19	3.08	5.62	5.96	8.18	4.64	18.94	6.67	26.91	5.70	1.12	4.46	11.32	11.64	9.34	7.93	8.85	1.85	8.68	18.12	0.25		
Amount of daily hours for leisure and care**	15.82	14.51	16.06	14.54	15.03	15.36	15.04	14.24	15.31	14.01	15.19	15.76	15.50	14.37	14.86	14.93	15.08	16.21	15.01	14.93	14.83	14.99		
<b>Females</b>																								
Share (%) of employees working > 50 hours a week*	2.12	3.29	0.83	2.72	1.88	2.39	1.49	7.05	1.47	7.91	2.03	0.15	1.13	2.57	5.33	2.99	2.95	3.53	0.60	2.86	5.83	0.08		
Amount of daily hours for leisure and care**	15.47	14.07	16.06	13.85	14.66	15.31	14.67	13.77	14.97	13.5	14.08	15.49	15.67	13.83	14.47	14.54	14.12	15.28	15.3	14.54	14.83	14.61		

Source: OECD (2013), <http://stats.oecd.org/>.

working for fewer hours has a worse effect compared to working for more hours. Wooden et al. (2009) analyze the effects of working time mismatch on JS in Australia. They present two key findings: first not the number of hours worked, but any mismatch between preferred and actual hours leads to lower JS. Second, they show that both working fewer or more hours than agreed are dissatisfying. However, the effect of working over-time is the larger one. Using US data Tausig and Fenwick (2001) discuss several variables who affect an individual's WLB. While working over-time or working at the weekend reduces the WLB, union membership has a positive impact to WLB. A somehow surprising result is that there exist no gender specific differences, while the presence of young children reduces the WLB in general. Pereira and Coelho (2013) show with cross country information that an interruption in career, such as spells of former unemployment lowers JS. Also, they note that autonomy in the daily working routine, a large firm size and a non-fixed working contract will increase JS. Finally, Hofäcker and König (2013) analyze three psychological measures on WLB. Although, only a few country groups have significant coefficients, the authors show that in Scandinavian<sup>3</sup> and Anglo-Saxon countries people report the lowest conflicts between working and leisure time.

Another topic is a health as a related outcome. Sparks et al. (1997), and Bassanini and Caroli (2014) investigate the relationship between working time and physical or mental diseases and derive a non-linear relation between them. Working for more or less hours than expected has both negative effects, especially from a psychological perspective. Finally, firm level productivity provides mixed evidence. While Konrad and Mangel (2000) show higher productivity of firm, who provide WLB methods to the employees, Bloom et al (2009) show rather no effect.

### **3. Data and Empirical Model**

A recently published data set is used for the purposes of this paper. The 2012 wave of the European Social Survey (ESS 2012) offers the opportunity to investigate cross-country information for a large number of European countries. The data set includes 44,257 individuals from 24 industrialized countries<sup>4</sup>. For my analysis I only exclude the Kosovo<sup>5</sup> which is neither a member state of the EU nor the OECD, and limit the data to 12,759 employed individuals (6,329 men and 6,430 women) on an age range between 18 and 65 years. Self-employed individuals are excluded, because they typically have no work contracts and therefore no information exists on agreed working hours. There are three similar questions on individual LS, JS, and WLB. The questions are the following:

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<sup>3</sup> The information on satisfaction with WLB was used in earlier ESS waves, e.g. by Ylikännö (2010) for four Scandinavian countries.

<sup>4</sup> These countries are Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Iceland, Ireland, Israel, Kosovo, Netherlands, Norway, Poland, Portugal, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

<sup>5</sup> The Russian Federation was invited by the OECD to participate in 2007.

*“All things considered, how satisfied are you with your life as a whole nowadays?”*  
*“All things considered, how satisfied are you with your present job?”<sup>6</sup>*  
*“How satisfied are you with the balance between the time you spend on your paid work and the time you spend on other aspects of your life?”*

These questions are answered on a typical Likert-scale from 0 to 10, where 0 means extremely dissatisfied and 10 extremely satisfied. For the analysis the scales from 0 to 10 were collapsed into binary scales. This information is grouped at their means. Therefore the dummies get a zero value when satisfaction is reported from 0 to 7 (not satisfied), and turn into one (satisfied) for values between 8 to 10. Recoding the longer scale into a binary variable is a usual procedure as it has been applied in similar cases (e.g. Humpert 2013). Hauret and Williams (2013) analyze gender differences in job satisfaction with ESS<sup>7</sup> data. They present rather similar results for binary and ordered probit estimations. Kassenboehmer and Haisken-DeNew (2009) describe that the effect of unemployment on satisfaction can only be identified by individuals who change labor force states and satisfaction status. They conclude that the binary case is technically simple, but usable information.

The main independent variables are work time specific. In the data set, an average men works around 42 hours a week, while an average women works around 38 hours. At first, work hours are grouped into four categories. The analysis follows the approach proposed by Booth and van Ours (2008). They recode work hours, respectively paid and unpaid over-time into four dummy variables (small part-time (1 to 15 hours per week), large part-time (16 to 29 hours), full-time (30 to 40 hours), and over-time (more than 40 hours)). So the assumption of splitting working hours is appropriate. However, it is obvious that especially males are underrepresented in the group of less than 15 work hours per week (see table 2 for the distribution of working hours per country and gender).

In a second step, a new dummy variable is introduced to indicate if someone makes overtime or not. Therefore the information of agreed versus actual work hours can be compared. This allows individual information on more or less worked hours. The reference group is having no calculated differences. In a third step, the same information is used as the numeric difference. This is made for robustness purposes. The rest of control factors considered are related to social-economic and employment specific conditions. Such a social-economic control is age and age squared to catch up non-linear effects of age on satisfaction. Education is used as middle and high skilled education with respect to the lowest level. Having children at home is a proxy for higher household production, such as care work. Those with a partner in the same household can shift house work to the partner. The dummy variable for citizenship of the individual countries should control for additional heterogeneity between natives and foreigners. The employment related controls are the following: key variables are dummies for high control of own work and leadership. This are proxies for any influence on the own labor content. A fixed-term contract, union membership, public sector employment, or past unemployment control for additional work related effects. Finally household income from work and country dummies control for individual and

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<sup>6</sup> If respondents have several jobs, they should answer about the main one.

<sup>7</sup> Here, the ESS wave 2010 was used for 14 countries.

**Table 2: Means actual working hours by country and gender**

Country	All: Mean (Std. Dev.)	Males: Mean (Std. Dev.)	Females: Mean (Std. Dev.)
BE	38.14 (0.421)	41.54 (0.581)	34.50 (0.544)
BG	42.56 (0.402)	43.77 (0.584)	41.32 (0.540)
CH	41.52 (0.463)	42.48 (0.734)	40.48 (0.533)
CY	40.41 (0.284)	42.40 (0.355)	38.44 (0.420)
CZ	42.22 (0.373)	44.15 (0.597)	40.98 (0.467)
DE	38.23 (0.556)	39.01 (0.827)	37.69 (0.746)
DK	43.85 (0.443)	46.67 (0.582)	40.52 (0.613)
EE	39.22 (0.330)	41.48 (0.434)	36.43 (0.470)
ES	35.52 (0.412)	49.23 (0.452)	30.39 (0.587)
FI	42.74 (0.849)	48.10 (1.175)	37.91 (1.059)
GB	41.03 (0.665)	48.09 (0.954)	35.73 (0.764)
HU	37.21 (0.510)	40.42 (0.628)	34.46 (0.736)
IE	41.20 (0.295)	42.14 (0.402)	40.37 (0.420)
IL	37.61 (0.509)	42.61 (0.701)	33.91 (0.653)
IS	38.99 (0.235)	40.53 (0.330)	37.33 (0.317)
NL	40.73 (0.457)	43.40 (0.552)	37.74 (0.697)
NO	42.38 (0.329)	44.32 (0.522)	40.77 (0.403)
PL	37.80 (0.3439)	39.99 (0.503)	35.44 (0.428)
PT	39.61 (0.347)	43.36 (0.396)	35.04 (0.533)
RU	43.89 (0.264)	44.40 (0.359)	43.26 (0.386)
SE	40.35 (0.689)	42.46 (1.047)	38.38 (0.867)
SI	38.96 (0.467)	43.90 (0.473)	32.89 (0.711)
SK	42.06 (0.282)	42.99 (.462)	41.35 (0.347)
Sample Mean	40.07 (0.087)	42.79 (0.1169)	37.39 (0.123)

Source: ESS 2012, own calculation, with design weights.

macroeconomic heterogeneity. However, country effects are not reported in the ongoing analysis. Descriptive statistics for males and females are presented in table 3.

The estimation effort is that of a binary probit technique with marginal effects. These are the percentage changes when a dummy variable turns from zero to one, while all other variables are kept constant. Following the data set description by ESS (2012) the use of design weights is obligatory. The general estimation equation is the following:

$$satisfaction_i = a_0 + a_1 working\ time_i + X_i b + \varepsilon_i \quad (1)$$

For every individual  $i$  the LS or JS, or satisfaction with WLB are regressed on a set of dummy variables on working time regimes, on working more or less hours ( $a_1 working\ time_i$ ), and a vector of individual social-economic and employment specific characteristics  $X_i b$ . Epsilon ( $\varepsilon_i$ ) presents the residuum.

**Table 3: Description Statistics**

Variable	Males					Females				
	Obs.	Mean	Std. Dev.	Min.	Max.	Obs.	Mean	Std. Dev.	Min.	Max.
LS	6,329	0.567	0.495	0	1	6,430	0.560	0.497	0	1
JS	6,329	0.594	0.491	0	1	6,430	0.590	0.492	0	1
WLB	6,329	0.419	0.493	0	1	6,430	0.418	0.493	0	1
15 to 29 Hours	6,329	0.031	0.174	0	1	6,430	0.132	0.338	0	1
30 to 40 Hours	6,329	0.477	0.499	0	1	6,430	0.566	0.496	0	1
Over 40 Hours	6,329	0.479	0.500	0	1	6,430	0.266	0.442	0	1
Under-Time	6,329	0.021	0.145	0	1	6,430	0.021	0.144	0	1
Over-Time	6,329	0.464	0.498	0	1	6,430	0.353	0.478	0	1
Diff. Hours	6,329	3.599	7.039	-45	75	6,430	2.216	5.440	-40	48
Age	6,329	42.107	11.618	18	65	6,430	42.707	11.322	18	65
Age Square	6,329	1,907.959	983.471	324	4,225	6,430	1,952.073	966.527	324	4,225
Citizen	6,329	0.945	0.228	0	1	6,430	0.959	0.196	0	1
Education Medium	6,329	0.521	0.500	0	1	6,430	0.432	0.495	0	1
Education High	6,329	0.389	0.488	0	1	6,430	0.481	0.499	0	1
Partner at HH	6,329	0.716	0.451	0	1	6,430	0.651	0.476	0	1
Children at HH	6,329	0.488	0.500	0	1	6,430	0.542	0.498	0	1
Index HH Income	6,329	6.654	2.418	1	10	6,430	6.269	2.537	1	10
Fixed-term Contract	6,329	0.121	0.327	0	1	6,430	0.136	0.343	0	1
Public Sector	6,329	0.283	0.450	0	1	6,430	0.461	0.498	0	1
Control of Work	6,329	0.523	0.499	0	1	6,430	0.513	0.499	0	1
Leading Position	6,329	0.370	0.483	0	1	6,430	0.260	0.439	0	1
Union Membership	6,329	0.359	0.480	0	1	6,430	0.377	0.485	0	1
Ever Unemployed	6,329	0.299	0.455	0	1	6,430	0.279	0.449	0	1

Source: ESS 2012, own calculation, with design weights.



#### **4. Results**

As expected, men and women differ in terms of their LS, JS, WLB, and working hours. At first, there are no effects for men on any satisfaction. The results are presented in table 4. There is only weak evidence that male LS is affected by work hours. While working for more than 40 hours a week increase LS positive with 10 percent, neither dummies for working more or less hours, nor the number of additional hours have any statistical effect. This is similar to the results for JS. Again, males are not affected by any differences in work hours. However, results change significantly for WLB. Here working more than 40 hours a week lowers WLB by -14%. Results with dummies for more or less hours, presents similar results. Here the dummy variable for extra hours is significantly negative by -12.5%. The reference is a dummy variable for no calculated difference between agreed and actual work hours. At third, a change in the number of work hours lowers WLB by -1%. All these coefficients are significant at the 1% level.

All other control variables show results in line with the literature findings. While LS and JS have a u-shaped age profile, WLB do not differ with age. The size of household income is always positive for any satisfaction or WLB. While dummies for private sector employment and especially control on own work routines increase any satisfaction or WLB, past unemployment decrease it. Having a leading position at the work place affects positively only JS. (See Table 4)

The results for women differ compared to those of males. While the three dummies for work hour groups provide no results, dummies for working more or less both show negative effects on LS. Here, fewer hours on the labor market lowers LS by 10%, while more hours lower it by 4%. Again numeric differences in work hours provide no statistical evidence. The results for JS show much clearer effects. Working 30 to 40 hours or more than 40 hours a week lower female JS by -7% and -10% respectively. Working for more or less hours provide similar results compared to no differences of overtime, lowers JS by -3%. Again, a change in the number of work hours has no statistical effect.

Female WLB is more sensitive to work time differences than male WLB. Here, dummy variables for working from 30 to 40 hours lower WLB by 19%. Working for more than 40 hours a week is even more negative with -30%. Dummies for more or less work hours are both negative, compared to the category no difference. Working for fewer hours lowers WLB by -8%, while working for more hours lowers it by -14%. Similarly to male WLB, a change in work hours lowers WLB by -1%.

Again, the controls show results that are a priori expected. While LS and JS have a u-shaped age profile, WLB do not differ with age. The size of household income is positive for any satisfaction or WLB. Private sector employment affects LS and JS, but no WLB. Having control to own work routines has a highly positive effect, while past unemployment decreases any type of satisfaction or WLB. Women are slightly negative affected by children in the household in terms of LS and WLB, but not of JS. A leading position at the work place has even mixed results for women. It increases JS, but lowers WLB.(See table 5)

Table 4: Results of Satisfaction with Life, Job and WLB for Males (Std. Errors)

Variable	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB
15 to 29 Hours	-0.011 (0.072)	0.006 (0.069)	0.035 (0.071)									
30 to 40 Hours	0.097 (0.611)	0.086 (0.060)	-0.004 (0.060)									
Over 40 Hours	0.101* (0.614)	0.096 (0.060)	-0.142*** (0.06)									
Under-Time				-0.025 (0.051)	0.029 (0.047)	0.070 (0.048)						
Over-Time				-0.006 (0.015)	0.005 (0.015)	-0.125*** (0.014)						
Diff. Hours							-0.001 (0.001)	-0.001 (0.001)		-0.001 (0.001)	-0.001 (0.001)	-0.008*** (0.001)
Age	-0.024*** (0.005)	-0.014*** (0.005)	-0.006 (0.004)	-0.022*** (0.005)	-0.012*** (0.005)	-0.007 (0.005)	-0.022*** (0.005)	-0.012*** (0.005)		-0.022*** (0.005)	-0.012*** (0.005)	-0.008 (0.005)
Age Square	0.001*** (0.001)	0.001*** (0.001)	0.001** (0.001)	0.001*** (0.001)	0.001*** (0.001)	0.001** (0.001)	0.001*** (0.001)	0.001*** (0.001)		0.001*** (0.001)	0.001*** (0.001)	0.001*** (0.001)
Citizen =Yes	0.042 (0.032)	0.036 (0.031)	0.030 (0.029)	0.043 (0.032)	0.036 (0.030)	0.035 (0.030)	0.042 (0.032)	0.037 (0.030)		0.037 (0.030)	0.037 (0.030)	0.035 (0.029)
Education Medium	0.012 (0.026)	-0.007 (0.025)	-0.016 (0.025)	0.011 (0.026)	-0.008 (0.025)	-0.010 (0.025)	0.011 (0.026)	-0.008 (0.025)		0.011 (0.026)	-0.008 (0.025)	-0.016 (0.025)
Education High	0.035 (0.026)	-0.028 (0.027)	-0.023 (0.027)	0.034 (0.027)	-0.029 (0.027)	-0.007 (0.027)	0.033 (0.027)	-0.030 (0.027)		0.033 (0.027)	-0.030 (0.027)	-0.020 (0.026)
Partner at HH =Yes	0.132*** (0.019)	0.001 (0.018)	0.008 (0.018)	0.132*** (0.020)	0.001 (0.018)	0.006 (0.018)	0.131*** (0.020)	0.001 (0.018)		0.131*** (0.020)	0.001 (0.018)	0.003 (0.018)
Children at HH =Yes	-0.016 (0.178)	-0.005 (0.017)	-0.031** (0.017)	-0.017 (0.018)	-0.005 (0.017)	-0.030** (0.017)	-0.017 (0.018)	-0.006 (0.017)		-0.017 (0.018)	-0.006 (0.017)	-0.031** (0.017)
Index HH Income	0.034*** (0.004)	0.023*** (0.003)	0.016*** (0.003)	0.035*** (0.004)	0.024*** (0.003)	0.014*** (0.003)	0.035*** (0.003)	0.024*** (0.003)		0.035*** (0.003)	0.024*** (0.003)	0.014*** (0.003)
Fixed-term Contract =Yes	-0.001 (0.023)	0.001 (0.021)	-0.014 (0.021)	-0.002 (0.023)	0.001 (0.021)	-0.012 (0.021)	-0.002 (0.023)	-0.002 (0.023)		-0.002 (0.023)	-0.002 (0.023)	-0.011 (0.021)
Public Sector=Yes	0.038*** (0.016)	0.069*** (0.015)	0.065*** (0.016)	0.034*** (0.016)	0.065*** (0.015)	0.071*** (0.016)	0.034*** (0.016)	0.065*** (0.015)		0.034*** (0.016)	0.065*** (0.015)	0.071*** (0.016)
Control of Work = Yes	0.123*** (0.015)	0.212*** (0.015)	0.156*** (0.015)	0.123*** (0.015)	0.212*** (0.014)	0.152*** (0.015)	0.123*** (0.015)	0.212*** (0.015)		0.123*** (0.015)	0.212*** (0.015)	0.151*** (0.015)
Leading Position =Yes	0.007 (0.016)	0.037*** (0.015)	-0.020 (0.015)	0.011 (0.016)	0.039*** (0.015)	-0.026* (0.015)	0.010 (0.016)	0.040*** (0.015)		0.010 (0.016)	0.040*** (0.015)	-0.027* (0.015)
Union Membership =Yes	-0.028* (0.017)	-0.007 (0.017)	0.011 (0.017)	-0.027 (0.017)	-0.005 (0.017)	0.013 (0.017)	-0.027 (0.018)	-0.005 (0.017)		-0.027 (0.018)	-0.005 (0.017)	0.013 (0.017)
Ever Unemployed =Yes	-0.077*** (0.016)	-0.061*** (0.015)	-0.041*** (0.015)	-0.079*** (0.016)	-0.062*** (0.015)	-0.037*** (0.015)	-0.079*** (0.016)	-0.062*** (0.015)		-0.079*** (0.016)	-0.062*** (0.015)	-0.039*** (0.015)
County	OK	OK	OK	OK	OK	OK	OK	OK		OK	OK	OK
Pseudo R-Squared	0.182	0.092	0.061	0.181	0.091	0.059	0.181	0.091		0.181	0.091	0.059

Source: ESS 2012, own calculation, probit estimation with marginal effects, with design weights, levels of significance: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001, N=6,329.

Reference categories: less than 15 working hours, no difference between agreed and actual working hours, no citizen of country i, low education, no partner in the same household, no children in the same household, permanent employment contract, private sector, no control of work, no union membership, never been unemployed.

Table 5: Results of Satisfaction with Life, Job and WLB for Females (Std. Errors)

Variable	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB
15 to 29 Hours	0.065 (0.041)	-0.002 (0.039)	-0.003 (0.037)									
30 to 40 Hours	-0.006 (0.039)	-0.069** (0.037)	-0.188*** (0.036)									
Over 40 Hours	-0.015 (0.040)	-0.095*** (0.039)	-0.305*** (0.031)									
Under-Time				-0.096** (0.052)	-0.042 (0.052)	-0.084* (0.044)						
Over-Time				-0.036*** (0.016)	-0.025* (0.015)	-0.143*** (0.015)						
Diff. Hours							-0.001 (0.001)			-0.001 (0.001)		-0.012*** (0.002)
Age	-0.019*** (0.005)	-0.015*** (0.005)	-0.006 (0.005)	-0.019*** (0.005)	-0.016*** (0.005)	-0.010*** (0.005)	-0.019*** (0.005)	-0.016*** (0.005)	-0.011*** (0.005)			
Age Square	0.001*** (0.001)	0.001*** (0.001)	0.001*(0.001)	0.001*** (0.001)	0.001*** (0.001)	0.001*** (0.001)	0.001*** (0.001)	0.001*** (0.001)	0.001*** (0.001)			
Citizen =Yes	0.058 (0.037)	0.073*** (0.036)	0.047 (0.033)	0.060* (0.037)	0.077*** (0.036)	0.059* (0.033)	0.059 (0.037)	0.076*** (0.035)	0.054 (0.033)			
Education Medium	0.023 (0.028)	-0.015 (0.025)	0.030 (0.026)	0.020 (0.028)	-0.019 (0.025)	0.017 (0.026)	0.022 (0.028)	-0.018 (0.026)	0.018 (0.026)			
Education High	0.059*** (0.029)	0.001 (0.027)	0.014 (0.027)	0.059*** (0.029)	-0.004 (0.027)	0.002 (0.027)	0.057** (0.029)	-0.006 (0.027)	-0.001 (0.027)			
Partner at HH =Yes	0.081*** (0.017)	-0.016 (0.016)	-0.026 (0.016)	0.083*** (0.017)	-0.013 (0.016)	-0.015 (0.016)	0.085*** (0.017)	-0.012 (0.016)	-0.010 (0.016)			
Children at HH =Yes	-0.032** (0.017)	0.009 (0.016)	-0.034*** (0.003)	-0.026 (0.017)	0.017 (0.016)	-0.008 (0.016)	-0.025 (0.017)	0.017 (0.016)	-0.008 (0.015)			
Index HH Income	0.027*** (0.004)	0.015*** (0.003)	0.008*** (0.003)	0.027*** (0.004)	0.014*** (0.003)	0.006*** (0.003)	0.026*** (0.003)	0.014*** (0.003)	0.006* (0.003)			
Fixed-term Contract =Yes	-0.032 (0.023)	0.001 (0.020)	0.016 (0.020)	-0.029 (0.022)	0.005 (0.020)	0.027 (0.021)	-0.028 (0.022)	0.005 (0.020)	0.029 (0.020)			
Public Sector=Yes	0.027* (0.016)	0.041*** (0.015)	0.007 (0.014)	0.029* (0.016)	0.042*** (0.015)	0.014 (0.015)	0.029** (0.015)	0.042*** (0.014)	0.014 (0.015)			
Control of Work = Yes	0.115*** (0.015)	0.240*** (0.014)	0.168*** (0.014)	0.114*** (0.015)	0.238*** (0.013)	0.160*** (0.014)	0.113*** (0.015)	0.237*** (0.014)	0.158*** (0.014)			
Leading Position =Yes	0.007 (0.018)	0.032** (0.017)	-0.033*** (0.016)	0.006 (0.017)	0.026 (0.016)	-0.051*** (0.016)	0.001 (0.017)	0.023 (0.016)	-0.059 (0.016)			
Union Membership =Yes	-0.032* (0.018)	0.004 (0.017)	0.003 (0.017)	-0.034* (0.018)	0.001 (0.018)	-0.007 (0.017)	-0.034** (0.018)	0.001 (0.018)	-0.002 (0.017)			
Ever Unemployed =Yes	-0.059*** (0.017)	-0.048*** (0.016)	-0.038*** (0.015)	-0.057*** (0.016)	-0.047*** (0.016)	-0.034*** (0.015)	-0.058*** (0.017)	-0.047*** (0.016)	-0.034*** (0.015)			
County	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Pseudo R-Squared	0.195	0.093	0.078	0.195	0.092	0.063	0.194	0.091	0.061			

Source: ESS 2012, own calculation, probit estimation with marginal effects, with design weights, levels of significance: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001, N=6,430.

Reference categories: less than 15 working hours, no difference between agreed and actual working hours, no citizen of country i, low education, no partner in the same household, no children in the same household, permanent employment contract, private sector, no control of work, no leading position, no union membership, never been unemployed.

In the next step the analysis is repeated with a smaller sub sample. The dummy variable of being partnered or not, is investigated with respect to the number of work hours for an individual's partner. This is closer to the idea described by Booth and van Ours (2008, 2013), and Wunder and Heineck (2013). However, the number of observation is slightly lowered to half, because single households and all non-employed partners are dropped. Then, 6,915 observations remain, with 3,406 men and 3,509 women. While the (female) partners of males provide 35.6 working hours a week to the labor market on average, (male) partners of females work with 42.1 hours much longer.<sup>8</sup> (Table 6 and 7 show estimation results, separately for men and women.)

Results for males are quite similar to those of table 4. None of the three types of work hours are affected by LS. This is similar to the results for JS. Neither the dummies for work hours, nor the dummies for more or less work hours are affected. However, by using calculated differences in the numbers of hours shows a positive and highly significant result. Here, a change in the number of work hours increases JS by 1%. Once again, results for men slightly change for WLB. Although, dummies for work hours are not affected, the dummy for over-time changes by -13%. At third, a change in the number of working hours lowers WLB by -1%. As reported previously, all other controls for males show results in line with literature findings. (See Table 6)

Results for females for the restricted sample in table 6 are similar to the earlier one. While the three dummies for work hour groups provide no results, dummies for under- and over-time both show negative effects on LS. Here, fewer hours on the labor market lower LS with 10%, while more hours lower it by 4%. Again numeric differences in work hours provide no statistical evidence. The results for JS show much clearer effects. Working for 30 to 40 hours or more than 40 hours a week lower female JS by -8% to -12% respectively. Working for fewer hours lowers JS by -15%, while working more remains at a level of -4%. A numeric change in the number of work hours has no effect.

The results for female WLB are even larger, and more sensitive to work time differences than in table 5. Here, dummies for working from 30 to 40 hours lower WLB by -22%. Working for more than 40 hours a week is even more negative with -35%. Dummies for under- and over-time are both negative effected, relative to no difference. Working for fewer hours lowers WLB by -10%, while working for more hours lowers it by -15%. Again a change in the number of work hours lowers WLB by -1%. Again the controls support the findings discussed above. (See Table 7)

## **5. Conclusion and Limitations**

Different measures of satisfaction and WLB are used to analyze if and how an individual's life is affected by working for more or less hours than preferred. The key finding of the paper is that males and females experience differently any work time mismatch. Another result is more intuitive: the more an individual can influence the labor content, the more satisfied he or she is. In terms of LS, and JS males are slightly unaffected by working for less or more than agreed. However, the WLB measure shows that males suffer from over-time, because of the loss in leisure time. Women seem to be

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<sup>8</sup> There is no identification of a partner's gender type. So I assume that the most of the couples in the data should be heterosexual men and women.

**Table 6: Results of Satisfaction with Life, Job and WLB for Males (Std. Errors) : Control for a partner's provided working hours**

Variable	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB
15 to 29 Hours	0.007 (0.105)	0.059 (0.099)	0.170 (0.105)									
30 to 40 Hours	0.128 (0.091)	0.104 (0.092)	0.090 (0.095)									
Over 40 Hours	0.143 (0.093)	0.121 (0.093)	-0.074 (0.095)									
Under-Time				-0.068 (0.066)	0.027 (0.063)	-0.001 (0.061)						
Over-Time				0.011 (0.020)	0.020 (0.019)	-0.130*** (0.020)						
Diff. Hours							0.001 (0.001)	0.003*** (0.001)	-0.009*** (0.002)			
Age	-0.027*** (0.008)	-0.014* (0.008)	0.001 (0.001)	-0.025*** (0.008)	-0.013 (0.008)	0.001 (0.001)	-0.025*** (0.009)	-0.013 (0.008)	0.002 (0.008)			
Age Square	0.001*** (0.001)	0.001** (0.001)	0.001 (0.001)	0.001*** (0.001)	0.001* (0.001)	0.001*** (0.001)	0.001*** (0.001)	0.001* (0.001)	0.001*** (0.001)			
Citizen =Yes	0.032 (0.047)	0.022 (0.045)	0.027 (0.044)	0.028 (0.047)	0.021 (0.045)	0.039 (0.044)	0.029 (0.047)	0.019 (0.045)	0.036 (0.044)			
Education Medium	0.034 (0.037)	-0.003 (0.037)	0.032 (0.038)	0.029 (0.037)	-0.005 (0.038)	0.038 (0.038)	0.031 (0.037)	-0.006 (0.038)	0.034 (0.038)			
Education High	0.050 (0.039)	-0.038 (0.040)	0.031 (0.040)	0.043 (0.039)	-0.042 (0.040)	0.047 (0.040)	0.046 (0.039)	-0.043 (0.040)	0.036 (0.039)			
Working Hours Partner	-0.001 (0.001)	-0.002* (0.001)	0.001 (0.001)	-0.001 (0.001)	-0.002* (0.001)	0.001 (0.001)	-0.001 (0.001)	-0.002* (0.001)	0.001 (0.001)			
Children at HH =Yes	-0.012 (0.022)	-0.013 (0.022)	-0.057*** (0.022)	-0.012 (0.022)	-0.014 (0.022)	-0.054*** (0.022)	-0.012 (0.022)	-0.013 (0.022)	-0.055*** (0.022)			
Index HH Income	0.033** (0.005)	0.022** (0.005)	0.014** (0.005)	0.034** (0.005)	0.022** (0.005)	0.012** (0.005)	0.034** (0.005)	0.022** (0.005)	0.012** (0.005)			
Fixed-term Contract =Yes	-0.059* (0.035)	-0.083*** (0.034)	-0.024 (0.034)	-0.063* (0.035)	-0.085*** (0.034)	-0.020 (0.034)	-0.063* (0.035)	-0.087*** (0.034)	-0.015 (0.034)			
Public Sector=Yes	0.050*** (0.021)	0.075*** (0.020)	0.067*** (0.022)	0.046*** (0.021)	0.073*** (0.020)	0.074*** (0.012)	0.046*** (0.021)	0.074*** (0.020)	0.076*** (0.021)			
Control of Work = Yes	0.106*** (0.021)	0.192*** (0.020)	0.152*** (0.021)	0.106*** (0.020)	0.193*** (0.020)	0.148*** (0.021)	0.107*** (0.020)	0.192*** (0.020)	0.149*** (0.021)			
Leading Position =Yes	0.016 (0.021)	0.043*** (0.020)	-0.023 (0.021)	0.019 (0.020)	0.045*** (0.020)	-0.031 (0.021)	0.020 (0.020)	0.042*** (0.020)	-0.031 (0.021)			
Union Membership =Yes	-0.018 (0.023)	-0.025 (0.022)	-0.002 (0.023)	-0.018 (0.023)	-0.024 (0.022)	-0.001 (0.023)	-0.018 (0.023)	-0.024 (0.022)	-0.001 (0.023)			
Ever Unemployed =Yes	-0.063*** (0.022)	-0.045*** (0.021)	-0.023 (0.021)	-0.065*** (0.022)	-0.046*** (0.020)	-0.017 (0.021)	-0.065*** (0.023)	-0.045*** (0.021)	-0.019 (0.021)			
County	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Pseudo R-Squared	0.185	0.084	0.071	0.183	0.084	0.064	0.183	0.085	0.063			

Source: ESS 2012, own calculation, probit estimation with marginal effects, with design weights, levels of significance: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001, N=3,406.

Reference categories: less than 15 working hours, no difference between agreed and actual working hours, no citizen of country i, low education, no partner in the same household, no children in the same household, permanent employment contract, private sector, no control of work, no leading position, no union membership, never been unemployed.

Table 7: Results of Satisfaction with Life, Job and WLB for Females (Std. Errors) : Control for a partner's provided working hours

Variable	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB	LS	JS	WLB
15 to 29 Hours	0.057 (0.048)	-0.022 (0.052)	-0.049 (0.051)									
30 to 40 Hours	-0.011 (0.048)	-0.080* (0.049)	-0.220*** (0.048)									
Over 40 Hours	-0.015 (0.051)	-0.123** (0.053)	-0.350*** (0.040)									
Under-Time				-0.105* (0.061)	-0.148** (0.061)	-0.103* (0.057)						
Over-Time				-0.039* (0.020)	-0.043** (0.020)	-0.149*** (0.019)						
Diff. Hours							-0.001 (0.001)	-0.001 (0.001)	-0.012*** (0.002)			
Age	-0.037*** (0.008)	-0.011 (0.008)	-0.008 (0.008)	-0.037*** (0.008)	-0.011 (0.008)	-0.011 (0.008)	-0.037*** (0.008)	-0.011 (0.008)	-0.011 (0.008)			
Age Square	0.001*** (0.001)	0.001 (0.001)	0.001 (0.001)	0.001*** (0.001)	0.001 (0.001)	0.001* (0.001)	0.001*** (0.001)	0.001* (0.001)	0.001* (0.001)			
Citizen =Yes	0.092* (0.050)	0.081* (0.047)	0.028 (0.045)	0.094** (0.049)	0.086* (0.047)	0.050 (0.045)	0.093** (0.049)	0.086* (0.047)	0.086* (0.047)			
Education Medium	0.068* (0.036)	-0.011 (0.036)	0.067* (0.037)	0.068* (0.036)	-0.014 (0.036)	0.060 (0.037)	0.069** (0.036)	-0.012 (0.036)	-0.012 (0.036)			
Education High	0.106*** (0.038)	0.012 (0.038)	0.048 (0.038)	0.109*** (0.038)	0.008 (0.037)	0.041 (0.038)	0.107*** (0.038)	0.006 (0.037)	0.006 (0.037)			
Working Hours Partner	0.001 (0.001)	0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)			
Children at HH =Yes	0.019 (0.023)	-0.001 (0.001)	-0.043* (0.022)	0.025 (0.023)	0.010 (0.022)	-0.011 (0.022)	0.025 (0.023)	0.011 (0.022)	0.011 (0.022)			
Index HH Income	0.034** (0.005)	0.019** (0.005)	0.012** (0.005)	0.034** (0.005)	0.018** (0.005)	0.010** (0.005)	0.034** (0.005)	0.018*** (0.005)	0.018*** (0.005)			
Fixed-term Contract =Yes	-0.063*** (0.030)	0.003 (0.027)	0.022 (0.029)	-0.061** (0.030)	0.005 (0.027)	0.027 (0.029)	-0.059** (0.030)	0.058 (0.280)	0.058 (0.280)			
Public Sector=Yes	-0.007 (0.021)	0.030 (0.019)	-0.018 (0.019)	-0.005 (0.020)	0.032* (0.019)	-0.011 (0.020)	-0.006 (0.021)	0.031 (0.019)	0.031 (0.019)			
Control of Work = Yes	0.102*** (0.200)	0.225*** (0.019)	0.167*** (0.020)	0.102*** (0.200)	0.223*** (0.019)	0.158*** (0.020)	0.101*** (0.199)	0.222*** (0.019)	0.222*** (0.019)			
Leading Position =Yes	-0.024 (0.023)	-0.025 (0.021)	-0.054*** (0.021)	-0.024 (0.023)	-0.021 (0.021)	-0.071*** (0.021)	-0.030 (0.023)	0.014 (0.021)	0.014 (0.021)			
Union Membership =Yes	-0.039 (0.024)	0.002 (0.023)	0.010 (0.024)	-0.042** (0.024)	-0.001 (0.023)	0.010 (0.022)	-0.041* (0.024)	0.010 (0.022)	0.010 (0.022)			
Ever Unemployed =Yes	-0.050*** (0.022)	-0.037* (0.021)	-0.025 (0.021)	-0.049* (0.022)	-0.036* (0.021)	-0.020 (0.021)	-0.050** (0.022)	-0.037* (0.021)	-0.037* (0.021)			
County	OK	OK	OK	OK	OK	OK	OK	OK	OK			
Pseudo R-Squared	0.195	0.082	0.082	0.195	0.082	0.066	0.194	0.079	0.079			

Source: ESS 2012, own calculation, probit estimation with marginal effects, with design weights, levels of significance: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001, N=3,509.

Reference categories: less than 15 working hours, no difference between agreed and actual working hours, no citizen of country i, low education, no partner in the same household, no children in the same household, permanent employment contract, private sector, no control of work, no leading position, no union membership, never been unemployed.

more sensitive towards differences in work hours. Here LS is both negatively affected by under- and over-time. However, effects of working for fewer hours are even larger. The results for JS and WLB show that women seem to prefer part-time employment. With respect to working part-time, full-time and over-time both lower JS significantly. The results for WLB regressions are larger each time. By using direct dummies for working extra or less hours, under-time has larger negative effects in JS estimations, but lowers in WLB estimations. Results for females may be explained by a double burden of employment and household tasks, e.g. by parenting. This finding is supported by lowering effects of carrier variables, such as having a leading position.

There are some limitations of the study. At first, there is no information on the size of paid overtime. As a result it cannot be indicated if and how additional payments may affect satisfaction and WLB. Second, only a cross-section with cross-country information is available. Therefore, any answers towards question of causality are difficult to answer. Third, because of limited numbers of observation per country, there is no country specific analysis. Better data may foster the presented result. However, the overall effects are in line with the literature findings on LS, JS, and WLB.

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