

Bredtmann, Julia; Otten, Sebastian; Rulff, Christian

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## Husband's Unemployment and Wife's Labor Supply – The Added Worker Effect across Europe

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Julia Bredtmann  
Sebastian Otten  
Christian Rulff

## Husband's Unemployment and Wife's Labor Supply – The Added Worker Effect across Europe

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Vogelpothsweg 87, 44227 Dortmund, Germany

Universität Duisburg-Essen, Department of Economics  
Universitätsstr. 12, 45117 Essen, Germany

Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI)  
Hohenzollernstr. 1-3, 45128 Essen, Germany

## Editors

Prof. Dr. Thomas K. Bauer  
RUB, Department of Economics, Empirical Economics  
Phone: +49 (0) 234/3 22 83 41, e-mail: thomas.bauer@rub.de

Prof. Dr. Wolfgang Leininger  
Technische Universität Dortmund, Department of Economic and Social Sciences  
Economics – Microeconomics  
Phone: +49 (0) 231/7 55-3297, e-mail: W.Leininger@wiso.uni-dortmund.de

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University of Duisburg-Essen, Department of Economics  
International Economics  
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RWI, Phone: +49 (0) 201/81 49-213, e-mail: presse@rwi-essen.de

## Editorial Office

Sabine Weiler  
RWI, Phone: +49 (0) 201/81 49-213, e-mail: sabine.weiler@rwi-essen.de

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Julia Bredtmann, Sebastian Otten, and Christian Rulff<sup>1</sup>

# Husband's Unemployment and Wife's Labor Supply – The Added Worker Effect across Europe

## Abstract

*This paper investigates the responsiveness of women's labor supply to their husband's loss of employment – the so-called added worker effect. While previous empirical literature on this topic mainly concentrates on a single country, we take an explicit internationally comparative perspective and analyze whether the added worker effect varies across the European countries. In doing so, we use longitudinal data from the European Union Statistics on Income and Living Conditions (EU-SILC) covering the period 2004 to 2011. For our pooled sample of 28 European countries, we find evidence for the existence of an added worker effect, both at the extensive and at the intensive margin of labor supply. Women whose husbands become unemployed have a higher probability of entering the labor market and changing from part-time to full-time employment than women whose husbands remain employed. However, our results further reveal that the added worker effect varies over both the business cycle and the different welfare regimes within Europe.*

*JEL Classification:* J22, J64, J82

*Keywords:* Added worker effect; labor supply; unemployment; cross-country analysis

May 2014

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# 1 Introduction

This paper investigates the responsiveness of women's labor supply to their husband's loss of employment. Economic models of family utility maximization predict that to compensate the income loss associated with their partners' job loss, wives may choose to increase their labor supply, i.e., inactive wives may newly enter the labor market and become so-called 'added workers' and already participating wives may increase the amount of hours worked. Previous empirical literature on this topic mainly concentrates on a single country and provides mixed results. These might be explained by the crowding-out effect of the countries' unemployment insurance (Cullen and Gruber, 2000; Ortigueira and Siassi, 2013) or by individual unobserved heterogeneity obscuring the added worker effect (Maloney, 1991). Cross-country evidence on the added worker effect, however, is scarce (exceptions are McGinnity, 2002; Prieto-Rodriguez and Rodriguez-Gutierrez, 2003).

Yet, it seems obvious to assume that women's response to their husbands' job loss varies across welfare regimes. Even within the European framework, countries differ largely with respect to their institutional settings, their social policies and the structure of their labor markets, and therefore offer different incentives for women to adjust their labor supply. As Bentolila and Ichino (2008) argue, the role of family support and thus wives' reactions to their husbands' job loss should be stronger whenever the welfare state fails to mitigate the consequences of unemployment.<sup>1</sup> In this regard, Reher (1998) shows a 'dividing line' between southern European societies, with their history of depending on strong family networks, and northern European societies, with their weaker family systems and greater reliance on extended welfare states. Following this argumentation, we would expect the behavioral response of wives to their husbands' unemployment to be stronger the lower the generosity of the welfare system.

In order to test this hypothesis, we take an explicit internationally comparative perspective and analyze whether the added worker effect varies across the welfare regimes in Europe. In doing so, we use longitudinal data from the European Union Statistics on Income and Living Conditions (EU-SILC) covering 28 European countries over the period 2004 to 2011. By observing households over the time of the Great Recession, we are further able to contribute to the literature by analyzing the role of the added worker effect in Europe's economic crisis. While previous studies of the added worker effect during recessions focus on single countries<sup>2</sup> and limit their analysis to simple before-after comparisons, we go a step further by explicitly analyzing the variation of the added worker

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<sup>1</sup>The authors also point to the fact that the nexus of causality between the roles of the welfare state and the family is not obvious. One could argue that a greater generosity of the welfare system is a response to the weakness of family networks or, alternatively, that the latter retreated when the welfare state was strengthened (Bentolila and Ichino, 2008, p. 261).

<sup>2</sup>See Parker and Skoufias (2004) for Mexico, Mattingly and Smith (2010) for the US, and Bryan and Longhi (2013) for the UK.

effect with the countries' macroeconomic conditions.

Lastly, we contribute to the literature by considering a variety of behavioral responses of wives to their husbands' job loss, covering reactions at both the extensive and the intensive margin of women's labor supply. Although the importance of distinguishing between the extensive and intensive margin of labor supply has long been recognized (cf. Blundell and MaCurdy, 1999; Blundell *et al.*, 2011), previous literature mainly concentrates on analyzing the labor market entry of non-participating wives, while the labor supply adjustments of already participating wives are mostly ignored (exceptions are Stephens, 2002; Kohara, 2010; Gong, 2011). Given that female labor force participation rates have increased remarkably over the last decades and that the countries within Europe vary largely with respect to the structure of their labor markets, addressing this issue in an internationally comparative perspective is of particular importance.

For our pooled sample covering all European countries, we find evidence for the existence of an added worker effect. Women whose husbands become unemployed show a significantly higher probability of entering the labor market than women whose husbands remain employed. Our results further show that this effect is mainly driven by wives' changes from inactivity to unemployment, whereas wives' probabilities of changing from inactivity to employment seem to be independent of their husbands' job loss. Furthermore, we find that wives are more likely to start searching for a job and to change from part-time to full-time employment when their husband becomes unemployed.

Our results further reveal that the added worker effect varies with the countries' economic conditions. While wives' probability of entering the labor market increases as unemployment rises, it decreases with rising female labor force participation rates. The results of our sub-sample regressions for five different country groups further reveal that the magnitude and the significance of the added worker effect varies over the welfare regimes within Europe. Overall, the added worker effect is strongest among couples living in the Mediterranean countries and weakest among those living in the Anglo-Saxon countries. Furthermore, we find large differences in the type of behavioral response between the country groups. These results suggest that contextual factors, such as the countries' labor market conditions, culture or institutions, ultimately affect household decision-making and thereby the existence and the magnitude of the added worker effect.

The remainder of the paper is as follows. In the following section, we shortly outline the theoretical framework underlying the added worker hypothesis and summarize previous literature. In Section 3, we describe our empirical strategy and present the data used in the empirical analysis. The results of our analysis are discussed in Section 4 and Section 5 concludes.



## 2 Theoretical Framework and Literature

Traditionally, the added worker effect describes a situation in which a non-participating wife responds to a spell of unemployment of her husband by increasing her labor supply. Assuming leisure time to be a normal good, the reduction in family income associated with the husband's unemployment induces the wife to increase her labor supply. If the gained leisure time of the husband serves as a substitute for the wife's leisure time, the wife's reservation wage will decrease and thus her probability of entering the labor market will increase. As a result, the wife will partly increase her labor supply due to the reduction in household income and partly due to the substitution effect of the husband's increased time in household production.<sup>3</sup> A behavioral response of wives to their husbands' job loss, however, may not only occur at the extensive margin, but may also be observed at the intensive margin of women's labor supply. I.e., already participating wives may increase their labor supply in terms of an increase in their working hours or a change from part-time to full-time employment as a response to their husbands' unemployment.

The literature in analyzing the added worker effect can be dated back to the 1940s (cf. Woytinsky, 1940). Despite the theoretical well-known effect, the existing empirical literature misses a clear consensus on its magnitude or even its existence. Most of the more recent empirical literature focuses on the labor supply of non-participating women in the US. For this case, the added worker effect is usually found to be small or non-existing (e.g., Lundberg, 1985; Maloney, 1987, 1991; Spletzer, 1997). Those studies that do uncover an added worker effect usually conclude that the small responses are optimal because the husband's unemployment only leads to a transitory reduction in earnings, which are considered to be small in a life-cycle framework (Heckman and MaCurdy, 1980).

Furthermore, it is argued that the added worker effect is expected to be less present during times of economic prosperity (Spletzer, 1997). This is due to the fact that in economically prosperous phases, the absence of liquidity constraints may enforce other opportunities of smoothing family income, i.e., couples are more able to rely on credits or savings to maintain their consumption (Sullivan, 2008). Moreover, when employment rates are high, job losses are more likely to be transitory and the expected income losses to be small. It is therefore not surprising that previous literature concludes that the added worker effect tends to be more present in periods of economic downturns (Parker and Skoufias, 2004; Mattingly and Smith, 2010; Bryan and Longhi, 2013).

Another factor lowering the magnitude of the added worker effect is the unemployment benefit system. For the US, Cullen and Gruber (2000) find that the added worker effect is partly crowded out by unemployment benefits and that the labor supply response of females

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<sup>3</sup>If, however, the leisure time of the wife and the husband are complements, the labor supply of married women may also decrease. If the substitution effect outweighs the income effect, the total change in labor supply can even be negative.

whose husbands became unemployed would be 30 percent larger in the absence of these benefits. Ortigueira and Siassi (2013) come to a similar conclusion and further show that the crowding-out effect of unemployment insurance is stronger among liquidity-constrained households.

Some more considerable effects are found by Stephens (2002), Kohara (2010), and Gong (2011), who focus on the intensive margin of wife's labor supply using panel data for the US, Japan and Australia, respectively. For the US, Stephens (2002) finds that women whose husbands have been displaced significantly increase their paid working time. For Japan, the same effect is found by Kohara (2010) and for Australia, Gong (2011) finds that women of displaced men are more likely to change from part-time to full-time employment and to increase their hours of work.

Cross-country evidence on the existence of the added worker effect, however, is still scarce. Exceptions are McGinnity (2002) comparing Britain and West Germany and Prieto-Rodriguez and Rodriguez-Gutierrez (2003) analyzing the added worker effect for 11 European countries, both focusing on the extensive margin of women's labor supply responses. While McGinnity (2002) finds evidence for the existence of an added worker effect in West Germany, no effect can be identified for Britain. An explanation for the non-presence of an added worker effect in Britain is given by the country's unemployment benefit system, which is based on means-tested benefits and therefore sets disincentives for women to enter the labor market after their husbands become unemployed. Prieto-Rodriguez and Rodriguez-Gutierrez (2003) reveal that the added worker effect is only present in a few countries in the European Union and conclude that this can be seen as an indicator of the improvement of women's status in the European labor market. They only find an added worker effect for Italy and, to a lesser extent, for Germany, the Netherlands, Portugal, and Spain.<sup>4</sup>

The finding that the added worker effect is more present in countries in which a traditional division of labor within the household is more prevalent is supported by several studies. While the female labor force participation rate is relatively low in most Mediterranean countries, it is usually higher in most Western societies.<sup>5</sup> Therefore, it is not surprising that most of the empirical literature that identifies an added worker effect deals with countries in which the labor force attachment of women is comparatively low (see, e.g., Prieto-Rodriguez and Rodriguez-Gutierrez, 2000; Başlevent and Onaran, 2003; Bentolila and Ichino, 2008). In most Western societies, the ability of married women to newly enter the labor market and become additional workers is limited, because most

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<sup>4</sup>The countries for which no added worker effect is found are Belgium, Denmark, France, Great Britain, Greece, and Ireland.

<sup>5</sup>In 2012, the average female labor force participation rate for the EU-28 was 58.5%. For Italy and Spain this is 47.1% and 50.6%, respectively. Contrary, the female labor force participation rate in the Scandinavian countries is the highest among the European Union. The lowest female labor force participation rate in Scandinavia has Finland with 68.2% (Eurostat, 2014).

women already participate in the labor market. In these countries, wives' reaction to their husbands' job loss is more likely to be observed in terms of an increase in their hours of work. In order to provide a meaningful comparison of wives' responsiveness to their husbands' unemployment across countries, it is therefore important to analyze women's behavioral response at both the extensive and the intensive margin of labor supply.

### 3 Empirical Strategy and Data

#### 3.1 Econometric Model

To test the added worker hypothesis for the European case, we estimate different Probit models of the form

$$\Delta Y_{it}^m = \Phi(X_{it}'\beta^m + \gamma^m \Delta E_{it} + \sum \phi_j^m C_j + \sum \theta_t^m T_t + M_{jt}'\alpha^m + (\Delta E_{it} \times M_{jt})'\delta^m + \varepsilon_{it}^m), \quad (1)$$

which describe women's behavioral response in household  $i$  at time  $t$  in country  $j$ . The above models mainly differ with respect to their dependent variable as denoted by the superscript  $m$ , with  $m = (1, \dots, 5)$ . First, for  $m = 1$ ,  $\Delta Y_{it}$  indicates a binary variable that equals unity if the wife was out of the labor force ( $IA$ ) in  $t - 1$  and is in the labor force ( $A$ ) in  $t$ , i.e.,  $\Delta Y_{it} = (IA_{t-1} \rightarrow A_t | IA_{t-1})$ . In a second step, we distinguish between two types of labor market activity. For  $m = 2$ , the dependent variable equals unity if the wife is unemployed ( $U$ ) in  $t$  and for  $m = 3$ , it equals unity if the wife is employed ( $E$ ) in  $t$ , given that she was out of the labor force in  $t - 1$ .<sup>6</sup> For  $m = 4$ , the dependent variable equals unity if the wife was not searching for a job in  $t - 1$  and is searching for a job in  $t$  ( $\Delta JS$ ). Lastly, for  $m = 5$ ,  $\Delta Y_{it}$  is set to unity if the wife was part-time employed ( $PT$ ) in  $t - 1$  and is full-time employed ( $FT$ ) in  $t$ .

The vector  $X_{it}$  includes a set of individual and household characteristics as described in more detail below. The vector  $C_j$  contains a full set of country dummies and the vector  $T_t$  contains a full set of year dummies.<sup>7</sup>  $M_{jt}$  is a vector of macroeconomic conditions of the country, which vary over time.

The variable  $\Delta E_{it}$  is the variable of main interest, in the following referred to as the 'added worker dummy'. This variable is a binary indicator which equals unity if the wife's spouse became unemployed from  $t - 1$  to  $t$  and zero if he stayed employed. Its coefficient is expected to be positive and significant in each specification if an added worker effect is

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<sup>6</sup>As entering employment or unemployment is a mutually exclusive decision, we also estimated these labor market transitions by applying a multinomial logit model. The results are similar to those of the simple Probit models and are shown in Table B1.

<sup>7</sup>We further checked the robustness of our results by including country-year dummies instead of single country and year dummies in the regressions. The results are similar to those presented in the following and are shown in Table B2.

present in the particular sample. The magnitude of its marginal effect can be interpreted as the increase in wife’s probability of adjusting her labor supply as a response to her husband’s unemployment.

In identifying a causal added worker effect, however, Maloney (1991) points to the importance of discriminating between ‘permanent’ and ‘transitory’ factors leading to the husband’s unemployment. On the one hand, the unemployment of the husband might proxy for predominantly ‘transitory’ factors that are unrelated to the personal characteristics of the household, such as the closure of a plant that directly results in the layoff of the husband. On the other hand, the unemployment of the husband might proxy for predominantly ‘permanent’ characteristics of the household. The husband’s unemployment propensity might be correlated with unobserved characteristics of the household, such as the sorting mechanism that initially formed the household, which matches spouses with similar levels of human capital or similar preferences for leisure. In the latter case, an observed added worker effect might be spurious, as it is measuring the tendency of men who are likely to make labor force transitions to be married to women who are also likely to make labor force transitions. In order to identify a causal effect of husband’s unemployment on wife’s labor supply, it is therefore important to disentangle permanent and transitory unemployment spells and income shocks, respectively. While we try to accomplish this goal by controlling for a variety of individual and household characteristics to be correlated with husbands’ unemployment probability, we cannot rule out that unobserved heterogeneity is still a problem in our analysis. Therefore, the observed effects should be treated as correlations rather than causal effects.

Lastly, we aim at identifying whether the magnitude of the added worker effect varies with the macroeconomic conditions of a country. In doing so, an interaction of the added worker dummy  $\Delta E_{it}$  and variables included in the vector  $M_{jt}$  is further included in the model.

In addition to the pooled regressions for all European countries, we separately estimate Equation (1) for several subsamples of countries to test whether the added worker effect differs across the welfare regimes in Europe. In doing so, we group countries according to a modified Esping-Andersen welfare regime typology (Esping-Andersen, 1990).

In order to ensure representativeness, we use combined individual and population weights in all regressions. While the former correct for different selection probabilities of individuals within each country as well as panel attrition, the latter ensure that each country is represented in proportion to its actual population size.

## 3.2 Data

The data used in this study is taken from the European Union Statistics on Income and Living Conditions (EU-SILC) covering the periods 2004 to 2011. The EU-SILC

data includes all European Union member states as well as Norway and Iceland. Due to insufficient data quality, Iceland and Malta had to be excluded from the analysis, which leaves us with a sample of 28 countries. Since we are interested in wives' labor supply adjustments as a reaction to their husbands' unemployment, we use the longitudinal version of the EU-SILC data. The longitudinal version is a 4-year rotating panel, which allows us to follow households and individuals for a maximum of 4 years.

The data was collected by Eurostat<sup>8</sup> for the first time in 2004. In the first wave, 15 countries were surveyed, while most of the other countries (except for Bulgaria (2006), Romania (2007), and Croatia (2010)) followed in 2005. While the majority of countries is surveyed until 2011, some countries either left the survey (Germany in 2006, Ireland in 2009) or did not provide any data for 2011 yet (France, Greece, Sweden, and Slovakia).

The EU-SILC data originates from various sources. While some of the data is collected through personal interviews, others may be compiled from registers or other administrative sources (mainly social insurance records and population registers). One of the main features of the EU-SILC data is that they do not only contain individual data, but provide information on all household members aged 16 and above.

In our analysis, we restrict the sample to married or cohabiting couples in which both individuals are aged between 16 and 65 and neither partner is retired or unable to work.<sup>9</sup> For the analysis of wives' labor supply responses at the extensive margin, we further restrict our sample to 'traditional couples', i.e., we condition on the husband being employed and the wife being out of the labor force in  $t - 1$ . After excluding observations with missing values on any of the explanatory variables, our sample contains 74,715 person-year observations.<sup>10</sup> In analyzing the labor supply adjustments of wives already participating in the labor market, the sample is restricted to couples in which the woman is working part-time and the husband is employed in  $t - 1$ . For the analysis of these labor market transitions, the final sample contains 55,217 person-year observations in our pooled sample containing all countries.

Information on husband's and wife's labor market status is obtained from a variable that contains information on the self-defined current economic status of an individual, distinguishing between full-time and part-time employment, unemployment, and different types of inactivity (e.g., schooling, retirement, fulfilling domestic tasks). This variable is used to define different labor market transitions of the wife. First, we ignore the type of

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<sup>8</sup>The results and conclusions are ours and not those of Eurostat, the European Commission, or any of the national authorities whose data have been used.

<sup>9</sup>In order to check the robustness of our results, we further conducted our analysis for a restricted sample of individuals aged between 25 and 59 years in order to avoid variation in women's labor supply due to differences in education leaving ages and statutory retirement ages across countries. The results are similar to those for the larger sample and are shown in Table B3.

<sup>10</sup>For the analysis of the wives' changes in job-search behavior, we further condition on the wife not searching for a job in  $t - 1$ . As a result, the sample size is reduced to 64,959 person-year observations.

labor market activity and define a variable that equals one if the wife enters the labor market (i.e., if she either becomes employed or unemployed) and zero otherwise. In a second step, we explicitly distinguish between the two types of labor market activity in order to discriminate between mechanisms occurring on the supply and the demand side of the labor market. In doing so, we create two variables that take value one if the wife enters into employment and unemployment, respectively, and zero otherwise. In a third step, we use information beyond the current labor market status to capture wives' behavioral response to their husband's loss of employment. This is to acknowledge the fact that the individual's self-defined economic status only captures the person's own perception of their main activity at present. It therefore differs from the strict criteria of the ILO concept, as, for instance, some people who consider themselves 'unemployed' may not take active steps to find work and being immediately available. Therefore, we further use information on the individual's job-search behavior by making use of a question that asks respondents whether they have been actively looking for a job within the last 4 weeks. The respective variable takes value one if the wife has not been searching for a job in  $t - 1$  but is doing so in  $t$ , and value zero if she is not searching for a job in both periods. Lastly, we use information on the individual's self-defined current economic status to define a variable equal to unity if the wife has been working part-time in the period  $t - 1$  and is working full-time in the period  $t$ . This variable is equal to zero if the wife continuously remains in part-time employment.<sup>11</sup>

Instead of using information on the current employment status, husband's labor market transitions are identified by using retrospective information on the husband's employment history in the last 12 month. In doing so, a husband is considered to be unemployed if he had at least one unemployment spell within the last 12 months. This means that a husband might be considered as being unemployed even if he is currently employed. The reasoning behind using this criterion to define husband's unemployment is that we assume that even small or transitory reductions in household income might change the optimal behavior of the household and thus result in individual labor supply responses.<sup>12</sup>

In our regressions, we control for a variety of individual and household characteristics. At the household level, we control for whether the couple is married, the number of children, and whether the youngest child is aged 0 to 3 years and 4 to 6 years, respectively. In order to capture the couple's financial background, we include the logarithm of the

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<sup>11</sup>As this variable is based on the wife's own perception of her employment status at present and therefore liable to misperception, we further use information on the actual hours worked to check the robustness of our results. In doing so, we constructed a dependent variable that equals unity if the wife has worked more than zero and less than 30 hours in the period  $t - 1$  and works more than 30 hours in the period  $t$ . The results are similar to those obtained by using information on the self-defined economic status and are shown in Table B4.

<sup>12</sup>We further checked the robustness of our results by considering the husband to be unemployed only if he had at least three months of unemployment within the last 12 months. The results are robust to changing the definition of husband's unemployment and are shown in Table B5.

household’s equivalized disposable income as a regressor.<sup>13</sup> Moreover, we include a binary variable indicating whether the household currently has to repay some non-housing related debts and control for the dwelling type the couple inhabits, i.e., we distinguish between couples living in a detached house, a semi-detached house and an apartment or a flat.

On the individual level, we include both spouses’ age and its square and control for their highest level of education. With respect to the latter, we distinguish between low-skilled (ISCED 0-2), medium-skilled (ISCED 3-4), and high-skilled (ISCED 5) individuals. Furthermore, we control for the previous occupational status of the husband in all models and for the wife’s previous occupational status when considering wives who actively participate in the labor market, i.e., when analyzing women’s transitions from part-time to full-time employment. In doing so, we differentiate between white collar high-skilled (ISCO 1-3), white collar low-skilled (ISCO 4-5), blue collar high-skilled (ISCO 6-7), and blue collar low-skilled (ISCO 8-9) individuals.<sup>14</sup>

As outlined in Section 3.1, it is important to discriminate between ‘permanent’ and ‘transitory’ factors leading to the husband’s unemployment. A standard way to accomplish this goal is to control for the husband’s (and the wife’s) labor market experiences. Although the EU-SILC data contains information on the individual’s years in employment, this information is only available for ‘selected respondents’ in some countries. In these countries, a part of the individual questionnaire is not surveyed for all household members, but only answered by one person, the ‘selected respondent’. This is true in all Scandinavian countries, as well as Ireland, the Netherlands, and Slovenia. As a result, the EU-SILC data does not allow to control for both partners’ labor market history, and even if only the husband’s years of employment is included, the number of observations for the above named countries is significantly reduced.<sup>15</sup> We therefore decided to exclude this variable from our basic regression, but conduct a sensitivity analysis in which the husband’s labor market experience is additionally controlled for. In these regressions, information on husband’s years in employment is incorporated as a relative measure of his labor market attachment, which represents the husband’s share of years in employment in all years since entering the labor market.

In addition to analyzing the existence and the magnitude of the added worker effect

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<sup>13</sup>The equivalized household income is calculated by dividing household income by the equivalized household size, which itself is defined by assigning the first household member a weight of 1, any other adult household member a weight of 0.5, and any child under the age of 16 a value of 0.3. In order to avoid the problem of reverse causality, arising from the fact that current household income strongly depends on the wife’s labor market status, we control for household income in the previous year instead of household income in the current year.

<sup>14</sup>Individuals working for the armed forces (ISCO 10) are excluded from the analysis.

<sup>15</sup>This is true because the husband and the wife have approximately the same probability of being chosen as a selected respondent, so that our sample is reduced by about a half in these countries. Please note, however, that we adjusted the weights delivered with the data to account for this new data structure, so that the remaining observations are still representative for the whole population.

in general, we aim at investigating its variation with the countries' economic conditions. There are many arguments why the added worker effect may depend on the economic context. Previous literature has concentrated on comparing the added worker effect in times of economic up- and downturns, arguing that wives' responsiveness to their husband's job loss should be higher during recessions due to both the reduced ability to borrow against income losses and the more permanent nature of unemployment shocks during recessions. However, opposing these arguments, it is also possible that the added worker effect decreases during times of economic downturn. Whenever unemployment rates are high, the chance of getting a job and thus the expected wage of those without jobs fall. People who would otherwise have been looking for work might therefore become discouraged in a recession and tend to remain out of the labor market.<sup>16</sup> According to this, we would expect the labor supply response of wives to their husband's job loss to be smaller if unemployment is high. Moreover, there is more than the country's economic situation in general that might affect the presence of the added worker effect. If the share of women already participating in the labor market is high, the potential of inactive wives to newly enter the labor market is low, suggesting that the size of the added worker effect in its traditional sense should be small whenever female labor force participation rates are high.

In order to acknowledge the fact that the added worker effect may depend on different country-specific factors, we do not only compare its magnitude in times of economic up- and downswings, but apply a more flexible approach in explicitly analyzing its variation with the country's economic conditions. In particular, we interact the added worker dummy with time-variant macroeconomic indicators, namely the country's GDP growth rate, its unemployment rate, and its female labor force participation rate.

Both GDP growth and unemployment rates capture the country's state of the economy at present and are as such strongly correlated. Nevertheless, it is plausible to consider both factors in a single regression. While the GDP growth rate proxies the country's economic situation in general, the unemployment rate explicitly captures the current situation of the labor market. As the Great Recession has shown, not every downturn of the economy (directly) translates to increasing unemployment rates. If the economy struggles, firms may have other ways to cut costs, such as cutting back on investments or resorting to short-time work.<sup>17</sup> It is therefore important to distinguish between the current situation of the economy in general and the conditions of the labor market in particular, and to separately analyze their impact on the existence and the magnitude of the added worker

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<sup>16</sup>The reduction of the labor force associated with discouraged workers in a recession is called the 'discouraged worker effect', and is as such a force working against the added worker effect (e.g., Bowen and Finegan, 1969).

<sup>17</sup>In fact, it is argued that short-term work has strongly contributed to the surprisingly mild response of the German labor market to the 2007 economic crisis, which has hardly translated in decreasing employment rates (Burda and Hunt, 2011).



effect. While the aforementioned factors are meant to cover fluctuations in the added worker effect over the business cycle, the country’s female labor force participation rate serves as a proxy for the size of the unused labor capacity potentially being available for the labor force. As such, the overall increase in women’s labor force participation as a response to their husband’s job loss should decrease with rising female labor force participation rates, while no such correlation is expected to appear for women’s responsiveness at the intensive margin of labor supply.

As outlined above, we additionally estimate our model separately for specific subsamples of countries to test whether the added worker effect differs across the welfare regimes in Europe. The subsamples are chosen according to a modified Esping-Andersen welfare regime typology (Esping-Andersen, 1990), which was suggested by Bonoli (1997). Bonoli’s typology is based on a two-dimensional approach that classifies countries according to the ‘quantity’ and the ‘quality’ of welfare provision.<sup>18</sup>

According to Bonoli’s classification, we distinguish between four types of welfare states: (i) high quantity/high quality countries, i.e., Denmark, Finland, Norway and Sweden (referred to as Scandinavian countries), (ii) high quantity/low quality countries, i.e., Austria, Belgium, Germany, France, Luxembourg, and the Netherlands (referred to as Continental countries), (iii) low quantity/high quality countries, i.e., Ireland and the United Kingdom (referred to as Anglo-Saxon countries), and (iv) low quantity/low quality countries, i.e., Greece, Italy, Portugal, and Spain (referred to as Mediterranean countries). Since the countries of Central and Eastern Europe are not covered by Bonoli’s typology, we add a fifth category that includes the residual countries, i.e., Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.<sup>19</sup>

### 3.3 Descriptive Statistics

The descriptive statistics of all variables included in our analysis for the three different samples considered are shown in Table 1. While column (I) shows the descriptive statistics of the sample used for the analysis of wives’ transitions from inactivity to activity, i.e., to either unemployment or employment, column (II) displays those for the analysis of wives’ changes in job-search behavior, and column (III) those for the analysis of wives’ transitions from part-time to full-time employment. Overall, it becomes obvious that the three samples differ in their individual and household characteristics, especially with respect to whether the extensive (samples (I) and (II)) or the intensive margin (sample

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<sup>18</sup>‘Quantity’ and ‘quality’ of welfare provisions are measured by social expenditure as a proportion of GDP and by contribution-financing as a proportion of social expenditure, respectively.

<sup>19</sup>In its original version, Austria has also not been covered by Bonoli’s classification. We decided to categorize this country to the Continental countries, according to both its geographical position and its value on the above named indicators.

(III)) of labor supply is considered.

In the sample underlying the analysis of labor supply adjustments at the extensive margin, couples are more likely to be married and to have a child younger than four years. On the other hand, they have a slightly lower probability of their youngest child being of pre-school age. The high percentage of couples with young children in our sample considered in the analysis of wives' labor supply response at the extensive margin is due to restricting the sample to 'traditional households', in which the husband is employed and the wife is out of the labor force. As the birth of a child is the most common reason for women's withdrawal from the labor market, couples with young children are over-represented in our sample.

Unsurprisingly, the equivalized disposable household income is higher for couples in which both spouses participate in the labor market. Moreover, these couples have a higher probability of inhabiting a detached or semi-detached house. However, double-earner households are also more likely to have to repay non-housing related debts. Lastly, we can see that compared to 'traditional couples', the skill level of both the husband and the wife is higher among couples in which both spouses work, and husbands of working wives are more likely to occupy a high-skilled job.

With respect to our variable of main interest, the added worker dummy, it becomes obvious that for the sample of 'traditional couples', about 5 percent of the husbands lost their job at any time during the last year, while for couples in dual-earner households this is only true for about 2.7 percent of the husbands. This result suggests that (un)observed heterogeneity with respect to husbands' risk of unemployment is indeed an issue here.

In order to gain insight into the relationship between the husband's job loss and his wife's labor supply adjustments, Table 2 compares the transition probabilities of those women whose husbands became unemployed within the last year and those women whose husbands stayed employed. Of those women whose husbands stayed employed, 18 percent enter the labor market, while this percentage amounts to 20.8 percent for those whose husbands became unemployed. The difference between the transition probabilities is statistically highly significant, suggesting that there might indeed exist an added worker effect among couples in Europe. However, when distinguishing between transitions into unemployment and transitions into employment, the results show that women whose husband became unemployed are significantly more likely to enter into unemployment, but significantly less likely to enter into employment. Hence, the added worker effect is only driven by wives' changes into unemployment. As Table 2 shows unconditional sample means, this result is likely to be explained by unobserved heterogeneity. Men with a lower labor market attachment who have a higher risk of becoming unemployed might simply be married to women with a low labor market attachment, which have a lower probability of finding a job as compared to women with a husband who stays employed. This sort

of assortative mating might explain the unintuitive result of an opposite added worker effect. Lastly, the results show that wives of an unemployed husband are more likely to start searching for a job and to change from part-time to full-time employment than those with continuously employed husbands.

## 4 Results

### 4.1 Pooled Regressions

The results of the estimation of our basic model (Equation (1)) are shown in Table 3. With respect to our control variables, the results are overall as expected from economic theory. Married women and women with a higher number of children are less likely to increase their labor supply, irrespective of which labor market transition is considered. Women whose youngest child is younger than three years are less likely to start searching for a job and to increase their working hours, while the presence of small children does not affect women's transitions into the labor market. Women whose youngest child enters preschool age (4 to 6 years), on the other hand, are more likely to enter the labor market, while they have a lower probability of changing from part-time to full-time employment.

The household's disposable income has a diverse effect on women's labor supply: While household income is positively correlated with women's employment transitions, it is negatively correlated with their job-search transitions. This result is likely to be driven by unobserved heterogeneity, in a sense that there exist unobserved characteristics, such as the couples' preferences for leisure or their productivity in the labor market and in household production, that are correlated with both household income and wife's attachment to the labor market. A similar diverse effect is also found for the dwelling type the couple inhabits. In households that live in an apartment/flat, wives' are less likely to enter employment and more likely to start looking for a job, while the dwelling type is (mostly) uncorrelated with wives' transitions into unemployment or into full-time employment. In households that have to repay non-housing related debts, women are significantly more likely to enter the labor market or to start searching for a job, while the repayment of debts is uncorrelated with wives' changes from part-time to full-time work. This result is in line with the theoretical argument that labor supply adjustments are more common among households that are financially constrained.

Women's probability of entering the labor market is further decreasing with their age and increasing with their level of education. Moreover, women working in low-skilled blue collar or white collar jobs are less likely, and women working in high-skilled blue collar positions are more likely to change from part-time to full-time employment than high-skilled white collar workers. This result might be explained by the fact that as

compared to high-skilled jobs, low-skilled jobs offer less flexibility in terms of enabling women to increase their working hours in the short term. The age and the education of their husband are only correlated with women's transitions into employment, while they are uncorrelated with their unemployment or job-search transitions. Overall, women are less likely to make labor market transitions the higher their husband's occupational status, suggesting that women are more likely to stay out of the labor market the higher their husband's earnings potential.

The country's GDP growth rate has a diverse effect on women's labor supply transitions. As the economy grows, women are more likely to become employed and change from part-time to full-time employment, but less likely to become unemployed or start searching for a job, with the latter effects not being statistically significant. A similar pattern appears for the country's unemployment rate, which is negatively correlated with women's employment transitions, but positively correlated with their unemployment transitions. The latter result contradicts the hypothesis of the 'discouraged worker effect', which states that individuals who would otherwise have been looking for work tend to remain out of the labor market as the unemployment rate increases and their chances of getting a job fall. Overall, these results suggest that the country's economic conditions, as measured by its GDP growth and its unemployment rate, do not affect the individual decision to participate in the labor market itself, but rather the success in finding a job and entering in employment given that the labor supply decision has already been made. The country's female labor force participation rate, in contrast, is negatively correlated with all transition probabilities considered, i.e., the more women already participate in the labor market the less women enter into it.

Our result of main interest is the estimated marginal effect of the added worker dummy, which indicates whether the husband became unemployed between  $t - 1$  and  $t$ . The results suggest that women whose husbands lost their job at any time during the last 12 months have a 3 percentage point higher probability of entering the labor market than those with a continuously employed husband. Again, however, this effect is only driven by wives' changes into unemployment. Women with an unemployed husband are 3 percentage points more likely to enter into unemployment and 4.4 percentage points more likely to start searching for a job, while women's probability of becoming employed is not significantly affected by the husband's employment status. This result is consistent with the findings of Lundberg (1985), who shows that married women in the US are more likely to enter the labor market when their husband is unemployed, but even less likely to become employed. This suggests that husband's unemployment indeed affects the wife's willingness to work in the labor market. However, as stressed by Maloney (1991), some wives may have the will to enter the labor market, but may not be able to find a job in the short term and this way offset the associated loss in household income.

We further find a strong behavioral response at the intensive margin of women's labor supply. Women whose husband became unemployed have a 7.2 percentage points higher probability of changing from part-time to full-time employment than women with a continuously employed husband. The strong effect at the intensive margin might be due to the fact that part-time work may provide greater scope for labor supply adjustments, as it may be harder for women to increase their labor market activities by entering the labor market than it is by increasing working hours when already working. This result is consistent with the finding of Gong (2011), who finds evidence for the existence of an added worker effect for married women in Australia, but also shows that this effect is mainly driven by part-time to full-time transitions of already participating wives.

Overall, the results for our pooled sample covering all European countries reveal the existence of an added worker effect at both the extensive and the intensive margin of wives' labor supply. As can be seen from Table A1 in the Appendix, these results hold when the husband's labor market experience is controlled for. The results show that the more stable the husband's employment, as measured by his share of years in employment, the less likely his wife enters the labor market. The estimated marginal effects of the added worker dummy, however, are similar in both significance and magnitude.<sup>20</sup>

To see whether the magnitude of the added worker effect varies with the countries' macroeconomic conditions, interactions of the added worker dummy and (i) the GDP growth rate, (ii) the unemployment rate, and (iii) the female labor force participation rate have further been added to the model. In doing so, we did not include a quadruple interaction, but have estimated the model separately for each set of interactions.<sup>21</sup> The marginal effects of the added worker dummy at each point of the countries' GDP growth rate are shown in Figure 1. Overall, we find hardly any variation in the added worker effect over the country's GDP growth rate. If anything, women's probability of changing from part-time to full-time employment slightly increases as the economy grows. Although this result contradicts previous literature, which finds the added worker effect to be more present in times of economic downturns, the finding is quite intuitive. As the economy shrinks, firms might first cut down the working hours of those already employed, before having to rely on personnel layoffs to reduce their overall costs. As the economy recovers and GDP grows, women might therefore find it more easy to increase their working hours and this way expand their labor supply.

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<sup>20</sup>In order to assess whether the added worker effect is robust to the inclusion of the husband's labor market experience, we also estimated the basic specification reported in Table 3 for the reduced sample as considered in Table A1. The results are robust toward the exclusion of these observations. Estimation results are shown in Table B6.

<sup>21</sup>While the results shown in Table 3 include the interactions of the added worker dummy with the countries' unemployment rate, the marginal effects of all other covariates are similar in both their magnitude and their significance when including an interaction of the added worker dummy with the GDP growth rate or with the female labor force participation rate. These results are shown in Tables B7 and B8.

For the interactions of the added worker dummy with the country’s unemployment rate (Figure 2), however, a different pattern emerges: As the unemployment rate rises, women become more likely to increase their labor supply as a reaction to their husband’s unemployment. This finding holds for all labor supply responses considered, but is most pronounced for women’s unemployment and job-search transitions. While these results contradict the ‘discouraged worker hypothesis’, they are consistent with the findings of Parker and Skoufias (2004), Mattingly and Smith (2010), and Bryan and Longhi (2013), who find that the added worker effect is more present in periods of economic downturns. Bryan and Longhi (2013), in particular, show that women in the UK substantially increased their job-search activity following a partner’s job loss during the 2008-2011 recession, while the increase in search during boom was smaller and did not appear to translate into more success in finding work. These findings support the hypothesis that in times of high unemployment, husband’s job losses are less likely to be transitory and therefore more likely to result in a behavioral response of the wife.

The respective interaction effects for the country’s female labor force participation rate are shown in Figure 3. Overall, the added worker effect appears to decrease with the country’s female labor force participation rate, i.e., the more women participate in the labor market, the less likely it is that a wife enters the labor market due to her husband’s unemployment. This relationship is particularly pronounced for women’s employment transitions and their job-search transitions, while women’s unemployment and part-time to full-time transitions vary less over the distribution of the female labor force participation rate. The result that women’s labor supply adjustments at the extensive margin are more strongly related to the country’s female labor force participation rate than their adjustments at the intensive margin is quite intuitive, as the ability of women to newly enter the labor market is the lower the higher the share of women already participating in the labor market, while women’s ability to increase their working hours should hardly be affected by the female labor force participation rate.

## 4.2 Country-Group Regressions

In the second part of our analysis, we separately estimate our basic regression for specific sub-samples of countries to test whether the added worker effect differs across the welfare regimes in Europe. As outlined in Section 3.2, we distinguish between five welfare regimes, namely (i) Scandinavia, (ii) Continental Europe, (iii) the Anglo-Saxon countries, (iv) the Mediterranean countries, and (v) Central and Eastern Europe. The estimated marginal effects of the added worker dummy obtained from these sub-sample regressions are shown in Table 4.<sup>22</sup> The results reveal large differences in both the existence and the magnitude

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<sup>22</sup>For the ease of presentation, the marginal effects of all other covariates have been omitted from Table 4. Full estimation results are shown in Tables B9 to B13.

of the added worker effect across Europe.

In Scandinavia and Continental Europe, we only find small behavioral responses of wives to their husbands' job loss. In Scandinavia, women are more likely to become employed when their husband becomes unemployed, while women's likelihoods of entering unemployment, starting to search for a job, or changing from part-time to full-time employment are not affected by their partners' job loss. This result is consistent with the findings of Hardoy and Schöne (2014), who investigate wives' behavioral responses to their husband's job displacement in Norway. The authors find hardly any added worker effect at the intensive margin, but show that previously non-working wives of displaced husbands increase their labor market earnings by approximately 5 percent as compared to wives of non-displaced husbands.

In Continental Europe, in contrast, women of newly unemployed men are more likely to change from part-time to full-time employment, while we do not find any behavioral response at the extensive margin of women's labor supply in these countries. The difference in the type of behavioral response between the two country groups might be explained by differences in the structure of the workforce. While both the Scandinavian and the Continental European countries are characterized by comparatively high female labor force participation rates, the share of part-time employment in all employment is particularly high in the Continental European countries and as such, part-time work may provide a greater scope for labor supply adjustments in these countries.<sup>23</sup>

In general, the limited responsiveness of women living in the Scandinavian and the Continental European countries might be explained by the fact that these countries are characterized by guaranteeing a high level of social protection, and it might be the generosity of the welfare state that partly crowds out the family as an insurance device. The hypothesis that the state plays an important role in smoothing out income fluctuations caused by external shocks is also supported by Hardoy and Schöne (2014), who show that the initial negative wage effect of husband's displacement is reduced by approximately 65 percent after adjusting for welfare benefits and lower tax payments. This suggests that in a generous welfare state, households are well insured against negative shocks in the labor market.

In the Anglo-Saxon countries, we also find hardly any evidence for the existence of an added worker effect. Indeed, we even find a negative added worker effect. Women in these countries are significantly less likely to become employed when their husband becomes unemployed. While this result might be driven by unobserved heterogeneity, in a sense that spouses with low labor market prospects or similar preferences for leisure select together, it might also reflect the incentives set by the social security system in these

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<sup>23</sup>The share of part-time employed women is particularly high in the Netherlands (76.2%), followed by Germany (45.0%), Austria (44.4%), and Belgium (43.5%) (2012 values, Eurostat, 2014).

countries. The UK and Ireland are the only countries within Europe that are characterized by a means-tested unemployment benefit system.<sup>24</sup> The fact that unemployment benefits are means-tested against family income may discourage women from entering the labor market to offset the loss of household income or even encourage working women to leave the labor market. This is consistent with the findings of Kell and Wright (1990), who find large negative effects of means-testing on the labor force participation of wives married to unemployed husbands in the UK. In their cross-country comparison of the labor force participation of married women in the UK, Ireland, the US, Sweden, and Denmark, Dex *et al.* (1995) come to a similar conclusion. They find that in unemployment benefit regimes that take a wife's earnings into account in allocating benefit, there is a significant negative effect on those wives' labor force participation.

In contrast, we find a strong and significant added worker effect for the Mediterranean countries. In the Mediterranean countries, women whose husbands became unemployed within the last twelve months are significantly more likely to become employed, to enter unemployment, to start searching for a job, and to change from part-time to full-time employment than women with a continuously employed husband. In fact, the Mediterranean countries are the only countries in which an added worker effect at both the extensive and the intensive margin of women's labor supply is observed. The finding of a strong relationship between husband's and wife's labor supply in the Southern European countries supports previous literature on this topic (e.g., Prieto-Rodriguez and Rodriguez-Gutierrez, 2000). The Mediterranean welfare states are characterized by offering a low level of social protection and by a strong reliance on the family. In his analysis of family ties across societies, Reher (1998) shows a 'dividing line' between southern European societies, with their history of depending on strong and extended families to care for the elderly and the poor, versus northern European and North American societies, with their weaker family systems and greater reliance on public and private organizations to provide social assistance. The strong added worker effect in the Mediterranean countries might therefore be explained by low social protection and a strong reliance on the family in these countries.

In the countries belonging to Central and Eastern Europe, we also find some evidence for the existence of an added worker effect. In contrast to the Scandinavian and the Continental European countries, however, women's responsiveness to their husband's job loss is only reflected in their increased likelihood of entering unemployment and starting to search for a job. Women's probabilities of entering employment or changing from part-time to full-time employment, on the other hand, are not affected by husband's unemployment. This suggests that women in Central and Eastern Europe are willing to increase their

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<sup>24</sup>In fact, the unemployment benefit system in Ireland is characterized by a combination of earnings-related unemployment benefits and means-tested unemployment allowances. However, individuals who are only entitled to a reduced rate of unemployment benefits may be better off on unemployment allowance, which means that low-income households are more likely to be subject to means-testing.



labor supply due to their husband's job loss, but may be limited from the demand side of the labor market, in a sense that they are not able to find a job or increase their working hours in the short term in order to offset the associated loss in household income.

## 5 Conclusion

In this paper, we analyze the responsiveness of women's labor supply to their husband's loss of employment – the so-called added worker effect. While previous empirical literature on this topic mainly concentrates on a single country, we take an explicit internationally comparative perspective and analyze whether the added worker effect varies across the countries in Europe. In doing so, we follow the argumentation of Bentolila and Ichino (2008), who point out that the role of family support should be stronger whenever the welfare state fails to mitigate the consequences of unemployment.

In our analysis, we use longitudinal data from the European Union Statistics on Income and Living Conditions (EU-SILC) covering the period 2004 to 2011. As we observe households over the time of the Great Recession, we are further able to investigate the role of the added worker effect in Europe's economic crisis by analyzing its variation with the countries' economic conditions. Lastly, we contribute to the literature by considering a variety of behavioral responses of wives to their husband's unemployment, covering reactions at both the extensive and the intensive margin of labor supply, which is of particular interest and importance in any international comparative framework.

For our pooled sample consisting of 28 European countries, we find evidence for the existence of an added worker effect. Women whose husbands become unemployed show a significantly higher probability of entering the labor market than women whose husbands remain employed. However, this effect is mainly driven by wives' changes from inactivity to unemployment and increases in their job-search efforts, whereas wives' probability of becoming employed seems to be independent of the husbands' job loss. However, we find that wives are more likely to increase their working hours in reaction to their husbands' unemployment. These results suggest that in Europe, marriage (or cohabitation) still functions as an intra-household risk-sharing mechanism to smooth inter-temporal income shocks (Attanasio *et al.*, 2005; Ortigueira and Siassi, 2013).

Our results further reveal that the magnitude of the added worker effect varies with the countries' economic conditions. While previous literature has shown that the added worker effect is more present during times of recessions (Parker and Skoufias, 2004; Mattingly and Smith, 2010; Bryan and Longhi, 2013), we are able to provide some deeper insight into which factors matter. Our results reveal that wives' likelihood of increasing their labor supply as a response to their husband's job loss increases with the country's unemployment rate, while their responsiveness hardly varies with the country's GDP growth rate. This

suggests that it is rather the current conditions of the labor market than the country's economic situation in general that affects couples' labor supply behavior. In addition, we are able to show that women's probability of entering the labor market in response to their husband's unemployment decreases with the country's female labor force participation rate. As female labor force participation rates have increased remarkably over the last decades in most developed countries, this result might provide one explanation why more recent studies find hardly any evidence for the existence of an added worker effect in its traditional sense (see, e.g., Prieto-Rodriguez and Rodriguez-Gutierrez, 2003; Gong, 2011).

Furthermore, we show that the magnitude and the existence of the added worker effect largely varies over the different welfare regimes within Europe. Overall, the added worker effect is strongest among couples living in the Mediterranean countries, while it is less present in the Continental European and the Scandinavian countries. Although we are the first to provide comprehensive evidence on the added worker effect across Europe, our results are in accordance with previous literature, which tends to find no or small added worker effects in high-welfare countries, such as Norway (Hardoy and Schøne, 2014), but stronger effects for low-welfare countries, such as Italy (Prieto-Rodriguez and Rodriguez-Gutierrez, 2003), Spain (Prieto-Rodriguez and Rodriguez-Gutierrez, 2000), and the US (Stephens, 2002). Hence, our results support the view that the role of the family as an insurance device against unemployment might be crowded out by the generosity of the welfare state. In addition, our finding of a 'negative' added worker effect in the Anglo-Saxon countries, which are the only European countries to be characterized by a means-tested unemployment benefit system, lends to the important role of the unemployment insurance system in compensating for income losses caused by involuntary job losses, but at the same time maintaining incentives for intra-household labor supply adjustments.

Lastly, we find large differences in the type of behavioral response to husbands' job loss across countries. While women in the Scandinavian countries are more likely to increase their labor supply at the extensive margin, women in Continental Europe are more likely to do so at the intensive margin. Furthermore, we find that women in the Central and Eastern European countries are highly limited from the demand side of the labor market, in that they respond to their husband's unemployment in terms of increased job-search activity, but that these attempts do not translate into more success in finding work. These results stress the importance of considering different behavioral responses of wives to their husband's job loss, including measures of both the extensive and the intensive margin of labor supply, in providing a meaningful comparison of the added worker effect across countries.

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# Tables

**Table 1: DESCRIPTIVE STATISTICS**

	(I)		(II)		(III)	
	Mean	StdD	Mean	StdD	Mean	StdD
<b>Household characteristics</b>						
Married	0.835	0.372	0.856	0.351	0.770	0.421
No. of children	0.983	1.085	0.941	1.085	0.946	0.981
Child age 0 to 3	0.248	0.432	0.235	0.424	0.175	0.380
Child age 4 to 6	0.110	0.313	0.103	0.304	0.127	0.333
Equiv. disposable income (in thsd.)	14.814	17.354	14.348	17.132	21.493	15.974
Repayment of debts	0.324	0.468	0.313	0.464	0.409	0.492
Detached house	0.370	0.483	0.370	0.483	0.399	0.490
Semi-detached house	0.254	0.435	0.243	0.429	0.371	0.483
Apartment or flat	0.375	0.484	0.387	0.487	0.230	0.421
<b>Wife's characteristics</b>						
Age	43.128	10.654	43.753	10.671	42.952	9.033
Low skilled	0.383	0.486	0.413	0.492	0.190	0.392
Medium skilled	0.460	0.498	0.455	0.498	0.501	0.500
High skilled	0.157	0.364	0.131	0.338	0.309	0.462
White collar high	–	–	–	–	0.374	0.484
White collar low	–	–	–	–	0.414	0.493
Blue collar high	–	–	–	–	0.060	0.237
Blue collar low	–	–	–	–	0.152	0.359
<b>Husband's characteristics</b>						
Age	45.745	10.152	46.380	10.095	44.611	9.026
Low skilled	0.328	0.470	0.351	0.477	0.188	0.390
Medium skilled	0.463	0.499	0.458	0.498	0.486	0.500
High skilled	0.209	0.407	0.190	0.392	0.326	0.469
White collar high	0.346	0.476	0.328	0.470	0.466	0.499
White collar low	0.125	0.331	0.124	0.330	0.148	0.355
Blue collar high	0.299	0.458	0.308	0.462	0.218	0.413
Blue collar low	0.229	0.420	0.239	0.427	0.169	0.374
<b>Country characteristics</b>						
GDP growth rate	1.389	3.180	1.333	3.210	1.224	2.853
Unemployment rate	8.905	3.213	9.103	3.260	7.788	3.098
Female LFP rate	55.636	7.903	54.890	7.591	60.854	7.571
Added worker dummy	0.048	0.213	0.050	0.219	0.027	0.162
Observations	74,715		64,959		55,217	

*Source: EU-SILC, own calculations. Notes: Column (I) shows the descriptive statistics of the sample used for the analysis of wives' transitions from inactivity to activity, column (II) those for the analysis of wives' changes in job-search behavior, and column (III) those for the analysis of wives' transitions from part-time to full-time employment.*

**Table 2: WOMEN'S TRANSITION PROBABILITIES**

Wife's change	Husband's change		
	$E_{t-1} \rightarrow E_t$	$E_{t-1} \rightarrow UE_t$	Difference
IA $_{t-1} \rightarrow A_t$	0.180 (0.384)	0.208 (0.406)	0.028 <sup>†</sup>
IA $_{t-1} \rightarrow UE_t$	0.036 (0.187)	0.086 (0.280)	0.050 <sup>†</sup>
IA $_{t-1} \rightarrow E_t$	0.144 (0.351)	0.122 (0.328)	-0.022 <sup>†</sup>
$\Delta$ Job search	0.058 (0.235)	0.122 (0.328)	0.064 <sup>†</sup>
PT $_{t-1} \rightarrow FT_t$	0.165 (0.371)	0.293 (0.456)	0.128 <sup>†</sup>

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ .

**Table 3: PROBIT ESTIMATIONS: POOLED REGRESSIONS**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0281 <sup>†</sup> (0.0079)	-0.0169 <sup>†</sup> (0.0045)	-0.0139** (0.0069)	-0.0239 <sup>†</sup> (0.0057)	-0.0320 <sup>†</sup> (0.0077)
No. of children	-0.0223 <sup>†</sup> (0.0030)	-0.0057 <sup>†</sup> (0.0014)	-0.0166 <sup>†</sup> (0.0028)	-0.0085 <sup>†</sup> (0.0019)	-0.0178 <sup>†</sup> (0.0037)
Child age 0 to 3	0.0048 (0.0076)	0.0001 (0.0035)	0.0042 (0.0069)	-0.0124*** (0.0044)	-0.0250*** (0.0079)
Child age 4 to 6	0.0322 <sup>†</sup> (0.0087)	0.0077* (0.0039)	0.0243*** (0.0079)	0.0070 (0.0052)	-0.0191** (0.0079)
Log. equiv. disposable income (in thsd.)	0.0142 <sup>†</sup> (0.0041)	-0.0035* (0.0020)	0.0188 <sup>†</sup> (0.0038)	-0.0065*** (0.0024)	-0.0061 (0.0053)
Repayment of debts	0.0287 <sup>†</sup> (0.0048)	0.0087 <sup>†</sup> (0.0024)	0.0192 <sup>†</sup> (0.0043)	0.0188 <sup>†</sup> (0.0033)	0.0038 (0.0054)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0154** (0.0063)	-0.0000 (0.0030)	-0.0140** (0.0057)	0.0047 (0.0042)	0.0083 (0.0065)
Apartment or flat	-0.0102* (0.0052)	0.0035 (0.0024)	-0.0133*** (0.0048)	0.0126 <sup>†</sup> (0.0033)	0.0130* (0.0071)
<b>Wife's characteristics</b>					
Age	-0.0041 <sup>†</sup> (0.0006)	-0.0011 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)	-0.0027 <sup>†</sup> (0.0004)	-0.0002 (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0385 <sup>†</sup> (0.0050)	-0.0050* (0.0027)	-0.0345 <sup>†</sup> (0.0044)	-0.0109 <sup>†</sup> (0.0033)	-0.0074 (0.0066)
High skilled	0.0777 <sup>†</sup> (0.0083)	0.0035 (0.0034)	0.0702 <sup>†</sup> (0.0076)	0.0198* (0.0057)	0.0267 <sup>†</sup> (0.0070)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0441 <sup>†</sup> (0.0066)
Blue collar high	-	-	-	-	0.0498 <sup>†</sup> (0.0131)
Blue collar low	-	-	-	-	-0.0362 <sup>†</sup> (0.0088)
<b>Husband's characteristics</b>					
Age	-0.0028 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0024 <sup>†</sup> (0.0005)	-0.0003 (0.0004)	-0.0049 <sup>†</sup> (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0157*** (0.0056)	-0.0007 (0.0029)	-0.0170 <sup>†</sup> (0.0050)	-0.0032 (0.0035)	-0.0022 (0.0068)
High skilled	-0.0134* (0.0069)	-0.0014 (0.0031)	-0.0126** (0.0061)	-0.0065 (0.0043)	-0.0036 (0.0068)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0125* (0.0076)	0.0051 (0.0034)	0.0090 (0.0069)	0.0080* (0.0046)	0.0215*** (0.0082)
Blue collar high	0.0146** (0.0063)	0.0079*** (0.0030)	0.0078 (0.0058)	0.0087** (0.0040)	-0.0241 <sup>†</sup> (0.0071)
Blue collar low	0.0050 (0.0067)	0.0079*** (0.0030)	-0.0016 (0.0061)	0.0121*** (0.0042)	0.0054 (0.0083)
<b>Country characteristics</b>					
GDP growth rate	0.0027** (0.0011)	-0.0002 (0.0006)	0.0024** (0.0010)	-0.0002 (0.0008)	0.0042*** (0.0014)
Unemployment rate	0.0004 (0.0015)	0.0017** (0.0007)	-0.0043*** (0.0014)	0.0012 (0.0009)	-0.0005 (0.0021)
Female LFP rate	-0.0160 <sup>†</sup> (0.0031)	-0.0043*** (0.0015)	-0.0137 <sup>†</sup> (0.0028)	-0.0059*** (0.0020)	-0.0096*** (0.0036)
Added worker dummy	0.0294*** (0.0103)	0.0304 <sup>†</sup> (0.0058)	-0.0057 (0.0090)	0.0441 <sup>†</sup> (0.0076)	0.0718 <sup>†</sup> (0.0175)
Pseudo-R <sup>2</sup>	0.1029	0.0867	0.1164	0.0875	0.1032
Observations	74,715	74,715	74,715	64,959	55,217

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.



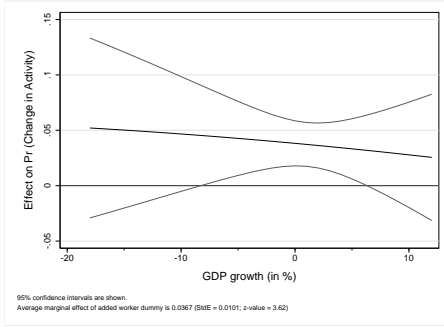
**Table 4: PROBIT ESTIMATIONS: COUNTRY-GROUP REGRESSIONS**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Scandinavia</b>					
Added worker dummy	0.1034** (0.0485)	0.0190 (0.0176)	0.0839* (0.0483)	-0.0106 (0.0248)	0.0148 (0.0455)
Observations	6,038	6,038	6,038	3,711	8,453
<b>Continental Europe</b>					
Added worker dummy	-0.0121 (0.0243)	0.0042 (0.0074)	-0.0203 (0.0237)	0.0104 (0.0141)	0.0674*** (0.0229)
Observations	17,260	17,260	17,260	14,080	26,902
<b>Anglo-Saxon Countries</b>					
Added worker dummy	-0.0876** (0.0419)	0.0320 (0.0226)	-0.1307 <sup>†</sup> (0.0326)	0.0220 (0.0252)	0.0544 (0.0472)
Observations	3,380	3,380	3,380	2,725	4,508
<b>Mediterranean Countries</b>					
Added worker dummy	0.0829 <sup>†</sup> (0.0144)	0.0442 <sup>†</sup> (0.0098)	0.0368*** (0.0119)	0.0613 <sup>†</sup> (0.0120)	0.1481 <sup>†</sup> (0.0376)
Observations	25,397	25,397	25,397	23,517	9,079
<b>Central and Eastern Europe</b>					
Added worker dummy	0.0167 (0.0143)	0.0268*** (0.0088)	-0.0109 (0.0122)	0.0580 <sup>†</sup> (0.0139)	-0.0186 (0.0411)
Observations	22,640	22,640	22,640	20,926	6,275

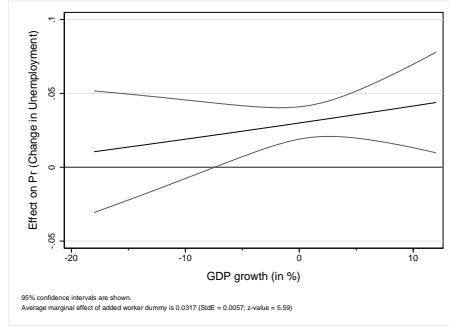
Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Controls are the same as in Table 3. - Full estimation results are shown in Tables B9 to B13.

# Figures

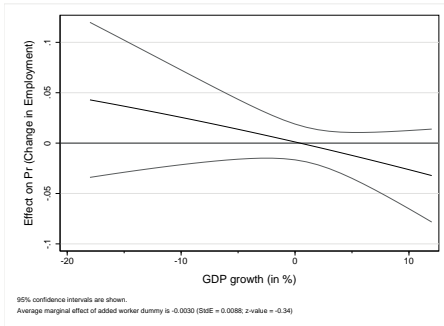
**Figure 1: MARGINAL EFFECTS OF INTERACTIONS BETWEEN THE ADDED WORKER DUMMY AND THE GDP GROWTH RATE**



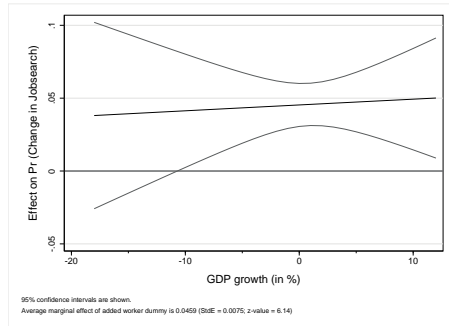
(a) INACTIVITY → ACTIVITY



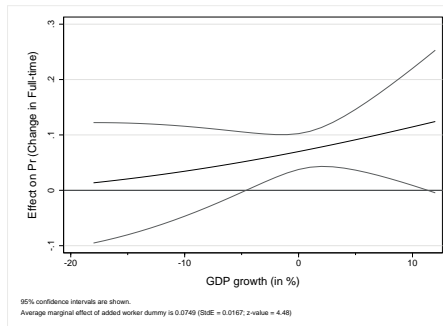
(b) INACTIVITY → UNEMPLOYMENT



(c) INACTIVITY → EMPLOYMENT

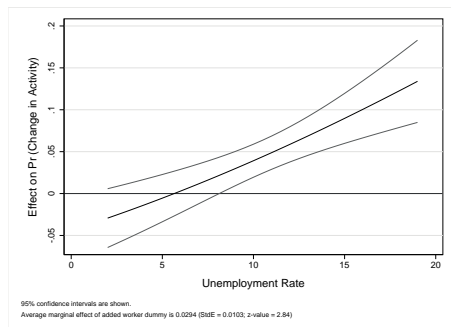


(d) Δ JOBSEARCH

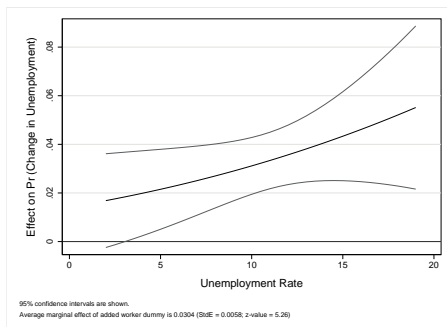


(e) PART-TIME → FULL-TIME

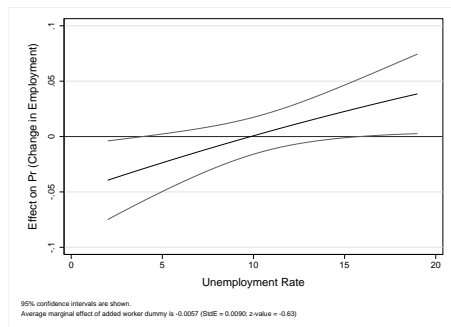
**Figure 2: MARGINAL EFFECTS OF INTERACTIONS BETWEEN THE ADDED WORKER DUMMY AND THE UNEMPLOYMENT RATE**



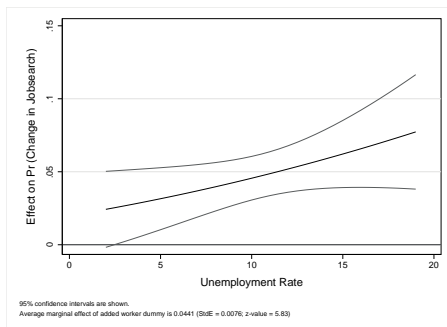
(a) INACTIVITY → ACTIVITY



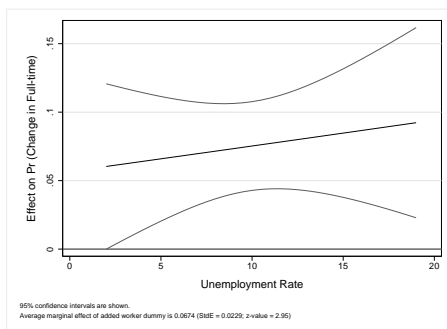
(b) INACTIVITY → UNEMPLOYMENT



(c) INACTIVITY → EMPLOYMENT

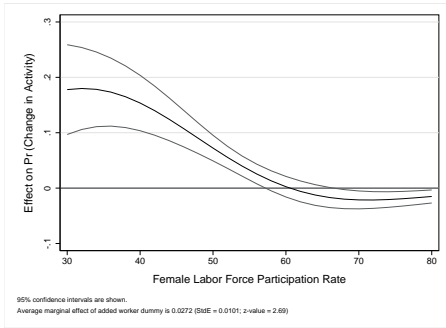


(d)  $\Delta$  JOBSEARCH

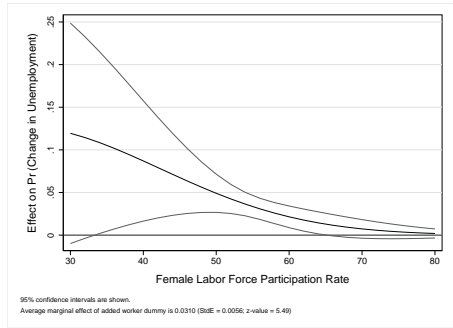


(e) PART-TIME → FULL-TIME

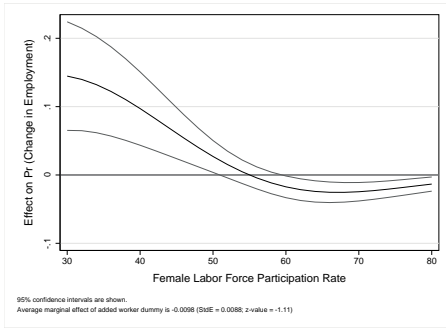
**Figure 3: MARGINAL EFFECTS OF INTERACTIONS BETWEEN THE ADDED WORKER DUMMY AND THE FEMALE LABOR FORCE PARTICIPATION RATE**



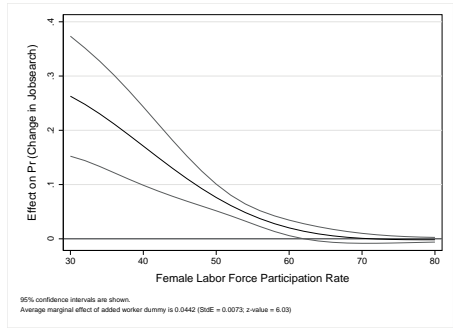
(a) INACTIVITY → ACTIVITY



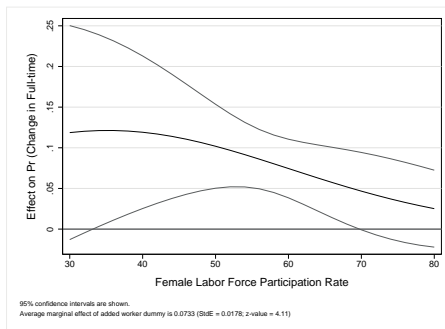
(b) INACTIVITY → UNEMPLOYMENT



(c) INACTIVITY → EMPLOYMENT



(d)  $\Delta$  JOBSEARCH



(e) PART-TIME → FULL-TIME

# Appendix

**Table A1: PROBIT ESTIMATIONS: POOLED REGRESSIONS INCLUDING LABOR MARKET EXPERIENCE**

	$IA_{t-1} \rightarrow A_t$ ME/StdE	$IA_{t-1} \rightarrow UE_t$ ME/StdE	$IA_{t-1} \rightarrow E_t$ ME/StdE	$\Delta JS$ ME/StdE	$PT_{t-1} \rightarrow FT_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0314 <sup>†</sup> (0.0087)	-0.0153*** (0.0050)	-0.0179** (0.0076)	-0.0212 <sup>†</sup> (0.0064)	-0.0361 <sup>†</sup> (0.0090)
No. of children	-0.0204 <sup>†</sup> (0.0032)	-0.0062 <sup>†</sup> (0.0016)	-0.0142 <sup>†</sup> (0.0029)	-0.0089 <sup>†</sup> (0.0021)	-0.0172 <sup>†</sup> (0.0043)
Child age 0 to 3	0.0068 (0.0081)	0.0015 (0.0039)	0.0050 (0.0072)	-0.0097* (0.0049)	-0.0033 (0.0095)
Child age 4 to 6	0.0291*** (0.0091)	0.0087* (0.0044)	0.0203** (0.0083)	0.0033 (0.0053)	-0.0057 (0.0093)
Log. equiv. disposable income (in thsd.)	0.0140 <sup>†</sup> (0.0042)	-0.0028 (0.0022)	0.0182 <sup>†</sup> (0.0038)	-0.0057** (0.0026)	-0.0001 (0.0058)
Repayment of debts	0.0290 <sup>†</sup> (0.0051)	0.0123 <sup>†</sup> (0.0027)	0.0163 <sup>†</sup> (0.0045)	0.0212 <sup>†</sup> (0.0036)	0.0054 (0.0062)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0130* (0.0068)	0.0002 (0.0034)	-0.0125** (0.0061)	0.0081* (0.0045)	0.0113 (0.0077)
Apartment or flat	-0.0104* (0.0054)	0.0028 (0.0026)	-0.0128*** (0.0049)	0.0151 <sup>†</sup> (0.0035)	0.0080 (0.0077)
<b>Wife's characteristics</b>					
Age	-0.0042 <sup>†</sup> (0.0006)	-0.0013 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)	-0.0028 <sup>†</sup> (0.0005)	0.0003 (0.0007)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0405 <sup>†</sup> (0.0053)	-0.0062** (0.0030)	-0.0352 <sup>†</sup> (0.0045)	-0.0121 <sup>†</sup> (0.0036)	-0.0143* (0.0074)
High skilled	0.0840 <sup>†</sup> (0.0093)	0.0033 (0.0040)	0.0762 <sup>†</sup> (0.0086)	0.0208*** (0.0063)	0.0230*** (0.0083)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0423 <sup>†</sup> (0.0078)
Blue collar high	-	-	-	-	0.0404*** (0.0143)
Blue collar low	-	-	-	-	-0.0333 <sup>†</sup> (0.0101)
<b>Husband's characteristics</b>					
Age	-0.0023 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0019 <sup>†</sup> (0.0005)	-0.0002 (0.0005)	-0.0045 <sup>†</sup> (0.0007)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0162*** (0.0058)	-0.0023 (0.0032)	-0.0156*** (0.0051)	-0.0022 (0.0039)	-0.0016 (0.0078)
High skilled	-0.0154** (0.0074)	-0.0027 (0.0035)	-0.0135** (0.0065)	-0.0059 (0.0047)	-0.0080 (0.0081)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0100 (0.0079)	0.0029 (0.0036)	0.0081 (0.0072)	0.0083* (0.0050)	0.0169* (0.0092)
Blue collar high	0.0165** (0.0067)	0.0077** (0.0034)	0.0095 (0.0060)	0.0087** (0.0043)	-0.0255*** (0.0083)
Blue collar low	0.0081 (0.0071)	0.0058* (0.0033)	0.0033 (0.0064)	0.0125*** (0.0046)	0.0011 (0.0094)
Share of years in employment	-0.0508*** (0.0159)	-0.0182** (0.0072)	-0.0315** (0.0144)	-0.0203** (0.0100)	-0.0971 <sup>†</sup> (0.0202)
<b>Country characteristics</b>					
GDP growth rate	0.0032*** (0.0011)	-0.0001 (0.0007)	0.0026*** (0.0010)	0.0001 (0.0008)	0.0054 <sup>†</sup> (0.0016)
Unemployment rate	0.0009 (0.0016)	0.0018** (0.0008)	-0.0032** (0.0014)	0.0012 (0.0010)	-0.0016 (0.0024)
Female LFP rate	-0.0128 <sup>†</sup> (0.0033)	-0.0044** (0.0018)	-0.0096*** (0.0029)	-0.0055** (0.0023)	-0.0127*** (0.0043)
Added worker dummy	0.0303*** (0.0102)	0.0286 <sup>†</sup> (0.0058)	-0.0027 (0.0088)	0.0434 <sup>†</sup> (0.0080)	0.0688 <sup>†</sup> (0.0185)
Pseudo-R <sup>2</sup>	0.1051	0.0861	0.1162	0.0875	0.0969
Observations	62,581	62,581	62,581	55,364	39,981

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

# Supplementary Appendix

Table B1: MULTINOMIAL LOGIT ESTIMATIONS: POOLED REGRESSIONS

	$\text{IA}_{t-1} \rightarrow \text{IA}_t$ ME/StdE	$\text{IA}_{t-1} \rightarrow \text{UE}_t$ ME/StdE	$\text{IA}_{t-1} \rightarrow \text{E}_t$ ME/StdE
<b>Household characteristics</b>			
Married	0.0287 <sup>†</sup> (0.0079)	-0.0173 <sup>†</sup> (0.0046)	-0.0113* (0.0068)
No. of children	0.0230 <sup>†</sup> (0.0031)	-0.0058 <sup>†</sup> (0.0014)	-0.0172 <sup>†</sup> (0.0029)
Child age 0 to 3	-0.0025 (0.0076)	0.0001 (0.0035)	0.0024 (0.0070)
Child age 4 to 6	-0.0307 <sup>†</sup> (0.0087)	0.0069* (0.0038)	0.0239*** (0.0081)
Log. equiv. disposable income (in thsd.)	-0.0150 <sup>†</sup> (0.0042)	-0.0033* (0.0019)	0.0184 <sup>†</sup> (0.0040)
Repayment of debts	-0.0290 <sup>†</sup> (0.0048)	0.0094 <sup>†</sup> (0.0023)	0.0196 <sup>†</sup> (0.0044)
<i>Dwelling type (ref.: detached house)</i>			
Semi-detached house	0.0151** (0.0064)	-0.0003 (0.0029)	-0.0149** (0.0059)
Apartment or flat	0.0099* (0.0054)	0.0031 (0.0024)	-0.0130*** (0.0050)
<b>Wife's characteristics</b>			
Age	0.0041 <sup>†</sup> (0.0006)	-0.0012 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)
<i>Education (ref.: medium skilled)</i>			
Low skilled	0.0431 <sup>†</sup> (0.0050)	-0.0049* (0.0026)	-0.0381 <sup>†</sup> (0.0044)
High skilled	-0.0718 <sup>†</sup> (0.0081)	0.0048 (0.0035)	0.0670 <sup>†</sup> (0.0076)
<b>Husband's characteristics</b>			
Age	0.0028 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0024 <sup>†</sup> (0.0005)
<i>Education (ref.: medium skilled)</i>			
Low skilled	0.0197 <sup>†</sup> (0.0057)	-0.0007 (0.0028)	-0.0190 <sup>†</sup> (0.0051)
High skilled	0.0145** (0.0068)	-0.0018 (0.0031)	-0.0128** (0.0062)
<i>Occupation (ref.: white collar high)</i>			
White collar low	-0.0138* (0.0077)	0.0053 (0.0034)	0.0085 (0.0071)
Blue collar high	-0.0160** (0.0065)	0.0075*** (0.0029)	0.0085 (0.0060)
Blue collar low	-0.0061 (0.0068)	0.0076** (0.0030)	-0.0014 (0.0063)
<b>Country characteristics</b>			
GDP growth rate	-0.0019* (0.0011)	-0.0004 (0.0006)	0.0023** (0.0010)
Unemployment rate	0.0025 (0.0015)	0.0013** (0.0007)	-0.0038*** (0.0014)
Female LFP rate	0.0182 <sup>†</sup> (0.0031)	-0.0048*** (0.0015)	-0.0134 <sup>†</sup> (0.0028)
Added worker dummy	-0.0243** (0.0103)	0.0298 <sup>†</sup> (0.0056)	-0.0055 (0.0093)
Pseudo-R <sup>2</sup>		0.1120	
Observations		74,715	

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . – Robust standard errors in parentheses (clustered at household level). – Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regression.

**Table B2: PROBIT ESTIMATIONS: POOLED REGRESSIONS INCLUDING COUNTRY-YEAR FIXED EFFECTS**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0296 <sup>†</sup> (0.0083)	-0.0174 <sup>†</sup> (0.0046)	-0.0143** (0.0072)	-0.0239 <sup>†</sup> (0.0058)	-0.0302 <sup>†</sup> (0.0079)
No. of children	-0.0216 <sup>†</sup> (0.0030)	-0.0055 <sup>†</sup> (0.0014)	-0.0160 <sup>†</sup> (0.0027)	-0.0082 <sup>†</sup> (0.0019)	-0.0174 <sup>†</sup> (0.0037)
Child age 0 to 3	0.0039 (0.0076)	-0.0003 (0.0035)	0.0035 (0.0069)	-0.0124*** (0.0044)	-0.0258*** (0.0079)
Child age 4 to 6	0.0315 <sup>†</sup> (0.0086)	0.0077** (0.0039)	0.0237*** (0.0079)	0.0067 (0.0051)	-0.0200** (0.0079)
Log. equiv. disposable income (in thsd.)	0.0160 <sup>†</sup> (0.0042)	-0.0023 (0.0021)	0.0195 <sup>†</sup> (0.0039)	-0.0054** (0.0025)	-0.0025 (0.0055)
Repayment of debts	0.0277 <sup>†</sup> (0.0048)	0.0081 <sup>†</sup> (0.0023)	0.0190 <sup>†</sup> (0.0043)	0.0181 <sup>†</sup> (0.0032)	0.0035 (0.0054)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0155** (0.0063)	0.0002 (0.0030)	-0.0141** (0.0057)	0.0044 (0.0041)	0.0087 (0.0065)
Apartment or flat	-0.0109** (0.0052)	0.0033 (0.0024)	-0.0139*** (0.0048)	0.0124 <sup>†</sup> (0.0033)	0.0118* (0.0071)
<b>Wife's characteristics</b>					
Age	-0.0041 <sup>†</sup> (0.0006)	-0.0012 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)	-0.0027 <sup>†</sup> (0.0004)	-0.0003 (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0383 <sup>†</sup> (0.0050)	-0.0048* (0.0027)	-0.0344 <sup>†</sup> (0.0044)	-0.0107*** (0.0033)	-0.0068 (0.0066)
High skilled	0.0762 <sup>†</sup> (0.0082)	0.0034 (0.0034)	0.0685 <sup>†</sup> (0.0076)	0.0192 <sup>†</sup> (0.0056)	0.0264 <sup>†</sup> (0.0070)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0431 <sup>†</sup> (0.0066)
Blue collar high	-	-	-	-	0.0513 <sup>†</sup> (0.0131)
Blue collar low	-	-	-	-	-0.0348 <sup>†</sup> (0.0089)
<b>Husband's characteristics</b>					
Age	-0.0027 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0023 <sup>†</sup> (0.0005)	-0.0003 (0.0004)	-0.0049 <sup>†</sup> (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0155*** (0.0055)	-0.0007 (0.0029)	-0.0168 <sup>†</sup> (0.0049)	-0.0029 (0.0035)	-0.0019 (0.0068)
High skilled	-0.0134** (0.0068)	-0.0013 (0.0031)	-0.0128** (0.0061)	-0.0066 (0.0043)	-0.0039 (0.0068)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0130* (0.0075)	0.0057* (0.0034)	0.0089 (0.0069)	0.0080* (0.0046)	0.0225*** (0.0082)
Blue collar high	0.0146** (0.0063)	0.0080*** (0.0029)	0.0075 (0.0058)	0.0086** (0.0040)	-0.0233*** (0.0071)
Blue collar low	0.0047 (0.0067)	0.0082*** (0.0030)	-0.0024 (0.0061)	0.0127*** (0.0042)	0.0059 (0.0083)
Added worker dummy	0.0272*** (0.0102)	0.0294 <sup>†</sup> (0.0057)	-0.0064 (0.0089)	0.0415 <sup>†</sup> (0.0074)	0.0737 <sup>†</sup> (0.0177)
Pseudo-R <sup>2</sup>	0.1090	0.0965	0.1232	0.0967	0.1073
Observations	74,715	74,715	74,715	64,926	55,217

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Country-year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

**Table B3: PROBIT ESTIMATIONS: POOLED REGRESSIONS BASED ON RESTRICTED AGE SAMPLE (25 TO 59 YEARS)**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0284*** (0.0089)	-0.0183 <sup>†</sup> (0.0051)	-0.0134* (0.0077)	-0.0283 <sup>†</sup> (0.0067)	-0.0297 <sup>†</sup> (0.0079)
No. of children	-0.0249 <sup>†</sup> (0.0033)	-0.0056 <sup>†</sup> (0.0015)	-0.0192 <sup>†</sup> (0.0030)	-0.0085 <sup>†</sup> (0.0022)	-0.0172 <sup>†</sup> (0.0038)
Child age 0 to 3	0.0099 (0.0084)	0.0009 (0.0039)	0.0082 (0.0076)	-0.0145*** (0.0050)	-0.0206** (0.0082)
Child age 4 to 6	0.0355 <sup>†</sup> (0.0093)	0.0087** (0.0043)	0.0265*** (0.0085)	0.0072 (0.0057)	-0.0173** (0.0081)
Log. equiv. disposable income (in thsd.)	0.0170 <sup>†</sup> (0.0045)	-0.0022 (0.0021)	0.0204 <sup>†</sup> (0.0042)	-0.0057** (0.0027)	-0.0056 (0.0056)
Repayment of debts	0.0313 <sup>†</sup> (0.0053)	0.0100 <sup>†</sup> (0.0026)	0.0204 <sup>†</sup> (0.0048)	0.0196 <sup>†</sup> (0.0036)	0.0026 (0.0056)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0170** (0.0070)	0.0025 (0.0031)	-0.0177*** (0.0064)	0.0074 (0.0047)	0.0095 (0.0068)
Apartment or flat	-0.0111* (0.0059)	0.0063** (0.0026)	-0.0170*** (0.0054)	0.0160 <sup>†</sup> (0.0037)	0.0163** (0.0074)
<b>Wife's characteristics</b>					
Age	-0.0038 <sup>†</sup> (0.0007)	-0.0008** (0.0003)	-0.0030 <sup>†</sup> (0.0006)	-0.0024 <sup>†</sup> (0.0004)	0.0001 (0.0007)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0420 <sup>†</sup> (0.0055)	-0.0058** (0.0028)	-0.0375 <sup>†</sup> (0.0048)	-0.0125 <sup>†</sup> (0.0038)	-0.0105 (0.0068)
High skilled	0.0814 <sup>†</sup> (0.0092)	0.0029 (0.0037)	0.0743 <sup>†</sup> (0.0085)	0.0184*** (0.0061)	0.0263 <sup>†</sup> (0.0073)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0439 <sup>†</sup> (0.0069)
Blue collar high	-	-	-	-	0.0509 <sup>†</sup> (0.0139)
Blue collar low	-	-	-	-	-0.0360 <sup>†</sup> (0.0092)
<b>Husband's characteristics</b>					
Age	-0.0031 <sup>†</sup> (0.0006)	-0.0007** (0.0003)	-0.0024 <sup>†</sup> (0.0006)	-0.0007* (0.0004)	-0.0049 <sup>†</sup> (0.0007)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0188*** (0.0061)	-0.0009 (0.0030)	-0.0199 <sup>†</sup> (0.0055)	-0.0052 (0.0040)	-0.0022 (0.0070)
High skilled	-0.0138* (0.0077)	-0.0016 (0.0035)	-0.0128* (0.0068)	-0.0068 (0.0049)	0.0001 (0.0071)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0160* (0.0084)	0.0051 (0.0037)	0.0124 (0.0077)	0.0085 (0.0052)	0.0206** (0.0084)
Blue collar high	0.0177** (0.0070)	0.0077** (0.0033)	0.0106* (0.0064)	0.0110** (0.0046)	-0.0221*** (0.0074)
Blue collar low	0.0075 (0.0074)	0.0072** (0.0034)	0.0016 (0.0068)	0.0134*** (0.0047)	0.0058 (0.0086)
<b>Country characteristics</b>					
GDP growth rate	0.0025* (0.0013)	-0.0002 (0.0007)	0.0020* (0.0012)	-0.0000 (0.0009)	0.0046*** (0.0015)
Unemployment rate	0.0002 (0.0017)	0.0019** (0.0008)	-0.0051 <sup>†</sup> (0.0015)	0.0012 (0.0011)	-0.0013 (0.0022)
Female LFP rate	-0.0176 <sup>†</sup> (0.0034)	-0.0045*** (0.0016)	-0.0153 <sup>†</sup> (0.0031)	-0.0066*** (0.0023)	-0.0119*** (0.0038)
Added worker dummy	0.0371*** (0.0117)	0.0336 <sup>†</sup> (0.0065)	-0.0012 (0.0103)	0.0507 <sup>†</sup> (0.0089)	0.0636 <sup>†</sup> (0.0180)
Pseudo-R <sup>2</sup>	0.0929	0.0855	0.1098	0.0675	0.1030
Observations	63,289	63,289	63,289	54,427	50,971

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.



**Table B4: PROBIT ESTIMATIONS: POOLED REGRESSIONS DEFINING PART-TIME/FULL-TIME STATUS BY ACTUAL WORKING HOURS**

	$PT_{t-1} \rightarrow FT_t$ (WH) ME/StdE	$PT_{t-1} \rightarrow FT_t$ ME/StdE
<b>Household characteristics</b>		
Married	-0.0291 <sup>†</sup> (0.0088)	-0.0285 <sup>†</sup> (0.0085)
No. of children	-0.0170 <sup>†</sup> (0.0041)	-0.0150 <sup>†</sup> (0.0042)
Child age 0 to 3	-0.0278*** (0.0088)	-0.0220** (0.0086)
Child age 4 to 6	-0.0136 (0.0090)	-0.0217*** (0.0084)
Log. equiv. disposable income (in thsd.)	-0.0089 (0.0060)	-0.0143** (0.0061)
Repayment of debts	0.0166*** (0.0061)	0.0088 (0.0058)
<i>Dwelling type (ref.: detached house)</i>		
Semi-detached house	0.0041 (0.0072)	0.0031 (0.0071)
Apartment or flat	0.0146* (0.0081)	0.0118 (0.0077)
<b>Wife's characteristics</b>		
Age	-0.0021*** (0.0007)	-0.0005 (0.0007)
<i>Education (ref.: medium skilled)</i>		
Low skilled	0.0036 (0.0074)	0.0016 (0.0070)
High skilled	0.0490 <sup>†</sup> (0.0084)	0.0409 <sup>†</sup> (0.0081)
<i>Occupation (ref.: white collar high)</i>		
White collar low	-0.0357 <sup>†</sup> (0.0079)	-0.0323 <sup>†</sup> (0.0075)
Blue collar high	0.0297* (0.0160)	0.0317** (0.0150)
Blue collar low	-0.0410 <sup>†</sup> (0.0100)	-0.0293*** (0.0096)
<b>Husband's characteristics</b>		
Age	-0.0023*** (0.0007)	-0.0037 <sup>†</sup> (0.0007)
<i>Education (ref.: medium skilled)</i>		
Low skilled	-0.0106 (0.0074)	-0.0059 (0.0072)
High skilled	-0.0185** (0.0073)	-0.0101 (0.0073)
<i>Occupation (ref.: white collar high)</i>		
White collar low	0.0175* (0.0095)	0.0112 (0.0091)
Blue collar high	-0.0152* (0.0080)	-0.0188** (0.0078)
Blue collar low	0.0065 (0.0092)	0.0023 (0.0090)
<b>Country characteristics</b>		
GDP growth rate	0.0027* (0.0016)	0.0035** (0.0014)
Unemployment rate	-0.0023 (0.0024)	0.0002 (0.0023)
Female LFP rate	-0.0083** (0.0042)	-0.0100** (0.0040)
Added worker dummy	0.0491** (0.0204)	0.0635*** (0.0206)
Pseudo-R <sup>2</sup>	0.0926	0.1131
Observations	36,205	36,205

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . – Robust standard errors in parentheses (clustered at household level). – Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

**Table B5: PROBIT ESTIMATIONS: POOLED REGRESSIONS CONDITIONING ON THREE MONTHS OF HUSBAND'S UNEMPLOYMENT**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0281 <sup>†</sup> (0.0079)	-0.0169 <sup>†</sup> (0.0046)	-0.0139** (0.0069)	-0.0239 <sup>†</sup> (0.0057)	-0.0320 <sup>†</sup> (0.0076)
No. of children	-0.0223 <sup>†</sup> (0.0030)	-0.0057 <sup>†</sup> (0.0014)	-0.0166 <sup>†</sup> (0.0028)	-0.0085 <sup>†</sup> (0.0019)	-0.0179 <sup>†</sup> (0.0037)
Child age 0 to 3	0.0046 (0.0076)	-0.0001 (0.0035)	0.0042 (0.0069)	-0.0126*** (0.0044)	-0.0249*** (0.0079)
Child age 4 to 6	0.0320 <sup>†</sup> (0.0086)	0.0075* (0.0039)	0.0244*** (0.0079)	0.0068 (0.0052)	-0.0191** (0.0079)
Log. equiv. disposable income (in thsd.)	0.0142 <sup>†</sup> (0.0041)	-0.0035* (0.0020)	0.0188 <sup>†</sup> (0.0038)	-0.0064*** (0.0024)	-0.0061 (0.0053)
Repayment of debts	0.0287 <sup>†</sup> (0.0048)	0.0087 <sup>†</sup> (0.0024)	0.0192 <sup>†</sup> (0.0043)	0.0189 <sup>†</sup> (0.0033)	0.0039 (0.0054)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0154** (0.0063)	0.0000 (0.0030)	-0.0141** (0.0057)	0.0048 (0.0042)	0.0083 (0.0065)
Apartment or flat	-0.0103** (0.0052)	0.0035 (0.0024)	-0.0134*** (0.0048)	0.0125 <sup>†</sup> (0.0033)	0.0130* (0.0071)
<b>Wife's characteristics</b>					
Age	-0.0041 <sup>†</sup> (0.0006)	-0.0012 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)	-0.0027 <sup>†</sup> (0.0004)	-0.0002 (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0385 <sup>†</sup> (0.0050)	-0.0050* (0.0027)	-0.0345 <sup>†</sup> (0.0044)	-0.0108*** (0.0033)	-0.0077 (0.0066)
High skilled	0.0778 <sup>†</sup> (0.0083)	0.0036 (0.0034)	0.0701 <sup>†</sup> (0.0076)	0.0198 <sup>†</sup> (0.0057)	0.0266 <sup>†</sup> (0.0070)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0439 <sup>†</sup> (0.0066)
Blue collar high	-	-	-	-	0.0500 <sup>†</sup> (0.0131)
Blue collar low	-	-	-	-	-0.0361 <sup>†</sup> (0.0088)
<b>Husband's characteristics</b>					
Age	-0.0028 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0024 <sup>†</sup> (0.0005)	-0.0003 (0.0004)	-0.0049 <sup>†</sup> (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0156*** (0.0056)	-0.0006 (0.0029)	-0.0169 <sup>†</sup> (0.0050)	-0.0030 (0.0036)	-0.0024 (0.0068)
High skilled	-0.0133* (0.0069)	-0.0013 (0.0032)	-0.0126** (0.0061)	-0.0062 (0.0043)	-0.0034 (0.0068)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0124* (0.0076)	0.0052 (0.0034)	0.0090 (0.0069)	0.0081* (0.0047)	0.0215*** (0.0082)
Blue collar high	0.0147** (0.0063)	0.0080*** (0.0030)	0.0078 (0.0058)	0.0089** (0.0040)	-0.0240 <sup>†</sup> (0.0071)
Blue collar low	0.0049 (0.0067)	0.0079*** (0.0030)	-0.0017 (0.0061)	0.0122*** (0.0042)	0.0058 (0.0083)
<b>Country characteristics</b>					
GDP growth rate	0.0027** (0.0011)	-0.0002 (0.0006)	0.0024** (0.0010)	-0.0002 (0.0008)	0.0042*** (0.0014)
Unemployment rate	0.0004 (0.0015)	0.0017** (0.0007)	-0.0043*** (0.0014)	0.0012 (0.0009)	-0.0007 (0.0021)
Female LFP rate	-0.0160 <sup>†</sup> (0.0031)	-0.0043*** (0.0015)	-0.0137 <sup>†</sup> (0.0028)	-0.0059*** (0.0020)	-0.0097*** (0.0036)
Added worker dummy (3 month)	0.0334*** (0.0115)	0.0329 <sup>†</sup> (0.0062)	-0.0053 (0.0099)	0.0489 <sup>†</sup> (0.0085)	0.0869 <sup>†</sup> (0.0201)
Pseudo-R <sup>2</sup>	0.1028	0.0865	0.1163	0.0875	0.1034
Observations	74,715	74,715	74,715	64,959	55,217

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

**Table B6: PROBIT ESTIMATIONS: POOLED REGRESSIONS BASED ON THE SAMPLE INCLUDING HUSBAND'S LABOR MARKET EXPERIENCE**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0321 <sup>†</sup> (0.0088)	-0.0154*** (0.0050)	-0.0185** (0.0077)	-0.0200*** (0.0062)	-0.0368 <sup>†</sup> (0.0090)
No. of children	-0.0204 <sup>†</sup> (0.0033)	-0.0062 <sup>†</sup> (0.0016)	-0.0142 <sup>†</sup> (0.0029)	-0.0050** (0.0020)	-0.0170 <sup>†</sup> (0.0044)
Child age 0 to 3	0.0069 (0.0081)	0.0015 (0.0039)	0.0050 (0.0072)	-0.0045 (0.0047)	-0.0037 (0.0096)
Child age 4 to 6	0.0293*** (0.0091)	0.0088** (0.0044)	0.0204** (0.0083)	0.0054 (0.0051)	-0.0059 (0.0093)
Log. equiv. disposable income (in thsd.)	0.0129*** (0.0042)	-0.0032 (0.0022)	0.0176 <sup>†</sup> (0.0038)	-0.0070*** (0.0023)	-0.0033 (0.0058)
Repayment of debts	0.0289 <sup>†</sup> (0.0051)	0.0122 <sup>†</sup> (0.0027)	0.0163 <sup>†</sup> (0.0045)	0.0185 <sup>†</sup> (0.0033)	0.0052 (0.0062)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0127* (0.0068)	0.0004 (0.0034)	-0.0123** (0.0061)	0.0049 (0.0042)	0.0113 (0.0077)
Apartment or flat	-0.0102* (0.0054)	0.0029 (0.0026)	-0.0126*** (0.0049)	-0.0193*** (0.0034)	0.0090 (0.0077)
<b>Wife's characteristics</b>					
Age	-0.0043 <sup>†</sup> (0.0006)	-0.0013 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)	-0.0023 <sup>†</sup> (0.0003)	0.0004 (0.0007)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0401 <sup>†</sup> (0.0053)	-0.0060** (0.0030)	-0.0349 <sup>†</sup> (0.0045)	-0.0093*** (0.0033)	-0.0142* (0.0074)
High skilled	0.0844 <sup>†</sup> (0.0094)	0.0035 (0.0040)	0.0764 <sup>†</sup> (0.0086)	0.0144** (0.0056)	0.0233*** (0.0083)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0433 <sup>†</sup> (0.0078)
Blue collar high	-	-	-	-	0.0443*** (0.0145)
Blue collar low	-	-	-	-	-0.0328*** (0.0101)
<b>Husband's characteristics</b>					
Age	-0.0024 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0020 <sup>†</sup> (0.0005)	-0.0003 (0.0003)	-0.0050 <sup>†</sup> (0.0007)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0154*** (0.0058)	-0.0021 (0.0032)	-0.0151*** (0.0051)	-0.0031 (0.0035)	-0.0001 (0.0078)
High skilled	-0.0147** (0.0074)	-0.0025 (0.0035)	-0.0131** (0.0065)	-0.0057 (0.0043)	-0.0065 (0.0081)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0100 (0.0079)	0.0030 (0.0036)	0.0081 (0.0072)	0.0066 (0.0046)	0.0184** (0.0093)
Blue collar high	0.0162** (0.0067)	0.0077** (0.0034)	0.0093 (0.0060)	0.0057 (0.0040)	-0.0260*** (0.0082)
Blue collar low	0.0081 (0.0071)	0.0059* (0.0033)	0.0033 (0.0064)	0.0131*** (0.0044)	0.0014 (0.0095)
<b>Country characteristics</b>					
GDP growth rate	0.0032*** (0.0011)	-0.0001 (0.0007)	0.0026*** (0.0010)	-0.0012 (0.0007)	0.0054 <sup>†</sup> (0.0016)
Unemployment rate	0.0008 (0.0016)	0.0017** (0.0008)	-0.0033** (0.0014)	0.0000 (0.0010)	-0.0016 (0.0024)
Female LFP rate	-0.0133 <sup>†</sup> (0.0033)	-0.0046*** (0.0018)	-0.0098 <sup>†</sup> (0.0029)	-0.0055*** (0.0021)	-0.0128*** (0.0043)
Added worker dummy	0.0341 <sup>†</sup> (0.0103)	0.0304 <sup>†</sup> (0.0059)	-0.0004 (0.0089)	0.0303 <sup>†</sup> (0.0074)	0.0771 <sup>†</sup> (0.0188)
Pseudo-R <sup>2</sup>	0.1046	0.0855	0.1159	0.0911	0.0952
Observations	62,581	62,581	62,581	51,064	39,981

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

**Table B7: PROBIT ESTIMATIONS: POOLED REGRESSIONS INCLUDING INTERACTION WITH THE GDP GROWTH RATE**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0281 <sup>†</sup> (0.0079)	-0.0168 <sup>†</sup> (0.0045)	-0.0140** (0.0069)	-0.0238 <sup>†</sup> (0.0057)	-0.0320 <sup>†</sup> (0.0077)
No. of children	-0.0224 <sup>†</sup> (0.0030)	-0.0057 <sup>†</sup> (0.0014)	-0.0166 <sup>†</sup> (0.0028)	-0.0085 <sup>†</sup> (0.0019)	-0.0179 <sup>†</sup> (0.0037)
Child age 0 to 3	0.0048 (0.0076)	0.0001 (0.0035)	0.0042 (0.0069)	-0.0124*** (0.0044)	-0.0250*** (0.0079)
Child age 4 to 6	0.0322 <sup>†</sup> (0.0087)	0.0077* (0.0039)	0.0243*** (0.0079)	0.0071 (0.0052)	-0.0190** (0.0079)
Log. equiv. disposable income (in thsd.)	0.0144 <sup>†</sup> (0.0041)	-0.0035* (0.0020)	0.0188 <sup>†</sup> (0.0038)	-0.0064*** (0.0024)	-0.0060 (0.0053)
Repayment of debts	0.0286 <sup>†</sup> (0.0048)	0.0087 <sup>†</sup> (0.0024)	0.0192 <sup>†</sup> (0.0043)	0.0188 <sup>†</sup> (0.0033)	0.0039 (0.0054)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0156** (0.0063)	-0.0000 (0.0030)	-0.0141** (0.0057)	0.0048 (0.0042)	0.0083 (0.0065)
Apartment or flat	-0.0106** (0.0052)	0.0035 (0.0024)	-0.0135*** (0.0048)	0.0125 <sup>†</sup> (0.0033)	0.0129* (0.0071)
<b>Wife's characteristics</b>					
Age	-0.0041 <sup>†</sup> (0.0006)	-0.0011 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)	-0.0027 <sup>†</sup> (0.0004)	-0.0002 (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0385 <sup>†</sup> (0.0050)	-0.0050* (0.0027)	-0.0345 <sup>†</sup> (0.0044)	-0.0109 <sup>†</sup> (0.0033)	-0.0074 (0.0066)
High skilled	0.0778 <sup>†</sup> (0.0083)	0.0035 (0.0034)	0.0701 <sup>†</sup> (0.0076)	0.0198 <sup>†</sup> (0.0057)	0.0266 <sup>†</sup> (0.0070)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0441 <sup>†</sup> (0.0066)
Blue collar high	-	-	-	-	0.0498 <sup>†</sup> (0.0131)
Blue collar low	-	-	-	-	-0.0362 <sup>†</sup> (0.0088)
<b>Husband's characteristics</b>					
Age	-0.0028 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0024 <sup>†</sup> (0.0005)	-0.0003 (0.0004)	-0.0049 <sup>†</sup> (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0154*** (0.0056)	-0.0007 (0.0029)	-0.0169 <sup>†</sup> (0.0050)	-0.0031 (0.0035)	-0.0021 (0.0068)
High skilled	-0.0134* (0.0069)	-0.0014 (0.0031)	-0.0126** (0.0061)	-0.0065 (0.0043)	-0.0036 (0.0068)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0121 (0.0076)	0.0051 (0.0034)	0.0089 (0.0069)	0.0078* (0.0046)	0.0214*** (0.0082)
Blue collar high	0.0146** (0.0063)	0.0079*** (0.0030)	0.0078 (0.0058)	0.0087** (0.0040)	-0.0241 <sup>†</sup> (0.0071)
Blue collar low	0.0048 (0.0067)	0.0079*** (0.0030)	-0.0017 (0.0061)	0.0121*** (0.0042)	0.0053 (0.0083)
<b>Country characteristics</b>					
GDP growth rate	0.0028** (0.0011)	-0.0003 (0.0006)	0.0024** (0.0010)	-0.0002 (0.0008)	0.0042*** (0.0014)
Unemployment rate	0.0010 (0.0015)	0.0017** (0.0007)	-0.0040*** (0.0014)	0.0013 (0.0009)	-0.0003 (0.0021)
Female LFP rate	-0.0157 <sup>†</sup> (0.0031)	-0.0043*** (0.0015)	-0.0135 <sup>†</sup> (0.0028)	-0.0058*** (0.0020)	-0.0096*** (0.0036)
Added worker dummy	0.0367 <sup>†</sup> (0.0101)	0.0317 <sup>†</sup> (0.0057)	-0.0030 (0.0088)	0.0459 <sup>†</sup> (0.0075)	0.0749 <sup>†</sup> (0.0167)
Pseudo-R <sup>2</sup>	0.1025	0.0867	0.1163	0.0874	0.1032
Observations	74,715	74,715	74,715	64,959	55,217

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' GDP growth rate are additionally included in the regressions.

**Table B8: PROBIT ESTIMATIONS: POOLED REGRESSIONS INCLUDING INTERACTION WITH THE FEMALE LFP RATE**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0280 <sup>†</sup> (0.0079)	-0.0168 <sup>†</sup> (0.0045)	-0.0139** (0.0069)	-0.0238 <sup>†</sup> (0.0057)	-0.0320 <sup>†</sup> (0.0077)
No. of children	-0.0223 <sup>†</sup> (0.0030)	-0.0057 <sup>†</sup> (0.0014)	-0.0165 <sup>†</sup> (0.0028)	-0.0085 <sup>†</sup> (0.0019)	-0.0179 <sup>†</sup> (0.0037)
Child age 0 to 3	0.0047 (0.0076)	0.0001 (0.0035)	0.0041 (0.0069)	-0.0125*** (0.0044)	-0.0250*** (0.0079)
Child age 4 to 6	0.0321 <sup>†</sup> (0.0086)	0.0077* (0.0039)	0.0242*** (0.0079)	0.0070 (0.0052)	-0.0190** (0.0079)
Log. equiv. disposable income (in thsd.)	0.0148 <sup>†</sup> (0.0041)	-0.0035* (0.0020)	0.0191 <sup>†</sup> (0.0038)	-0.0062** (0.0024)	-0.0060 (0.0053)
Repayment of debts	0.0284 <sup>†</sup> (0.0048)	0.0087 <sup>†</sup> (0.0024)	0.0190 <sup>†</sup> (0.0043)	0.0187 <sup>†</sup> (0.0033)	0.0038 (0.0054)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0148** (0.0063)	-0.0000 (0.0030)	-0.0137** (0.0057)	0.0050 (0.0042)	0.0083 (0.0065)
Apartment or flat	-0.0097* (0.0052)	0.0035 (0.0024)	-0.0129*** (0.0048)	0.0128 <sup>†</sup> (0.0033)	0.0130* (0.0071)
<b>Wife's characteristics</b>					
Age	-0.0041 <sup>†</sup> (0.0006)	-0.0011 <sup>†</sup> (0.0003)	-0.0029 <sup>†</sup> (0.0005)	-0.0027 <sup>†</sup> (0.0004)	-0.0002 (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0390 <sup>†</sup> (0.0050)	-0.0050* (0.0027)	-0.0348 <sup>†</sup> (0.0044)	-0.0111 <sup>†</sup> (0.0033)	-0.0075 (0.0066)
High skilled	0.0774 <sup>†</sup> (0.0083)	0.0035 (0.0034)	0.0700 <sup>†</sup> (0.0076)	0.0196 <sup>†</sup> (0.0057)	0.0266 <sup>†</sup> (0.0070)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0441 <sup>†</sup> (0.0066)
Blue collar high	-	-	-	-	0.0498 <sup>†</sup> (0.0131)
Blue collar low	-	-	-	-	-0.0362 <sup>†</sup> (0.0088)
<b>Husband's characteristics</b>					
Age	-0.0028 <sup>†</sup> (0.0006)	-0.0003 (0.0003)	-0.0024 <sup>†</sup> (0.0005)	-0.0003 (0.0004)	-0.0049 <sup>†</sup> (0.0006)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0161*** (0.0056)	-0.0007 (0.0029)	-0.0174 <sup>†</sup> (0.0050)	-0.0033 (0.0036)	-0.0021 (0.0068)
High skilled	-0.0138** (0.0069)	-0.0014 (0.0031)	-0.0129** (0.0061)	-0.0067 (0.0043)	-0.0036 (0.0068)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0128* (0.0076)	0.0051 (0.0034)	0.0093 (0.0069)	0.0081* (0.0047)	0.0215*** (0.0082)
Blue collar high	0.0148** (0.0063)	0.0079*** (0.0030)	0.0079 (0.0058)	0.0088** (0.0040)	-0.0241 <sup>†</sup> (0.0071)
Blue collar low	0.0053 (0.0067)	0.0079*** (0.0030)	-0.0014 (0.0061)	0.0122*** (0.0042)	0.0053 (0.0083)
<b>Country characteristics</b>					
GDP growth rate	0.0027** (0.0011)	-0.0002 (0.0006)	0.0023** (0.0010)	-0.0002 (0.0008)	0.0042*** (0.0014)
Unemployment rate	0.0010 (0.0015)	0.0017** (0.0007)	-0.0040*** (0.0014)	0.0014 (0.0009)	-0.0004 (0.0021)
Female LFP rate	-0.0158 <sup>†</sup> (0.0031)	-0.0043*** (0.0015)	-0.0136 <sup>†</sup> (0.0028)	-0.0058*** (0.0020)	-0.0096*** (0.0036)
Added worker dummy	0.0272*** (0.0101)	0.0310 <sup>†</sup> (0.0056)	-0.0098 (0.0088)	0.0442 <sup>†</sup> (0.0073)	0.0733 <sup>†</sup> (0.0178)
Pseudo-R <sup>2</sup>	0.1032	0.0866	0.1168	0.0879	0.1032
Observations	74,715	74,715	74,715	64,959	55,217

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' female labor force participation rate are additionally included in the regressions.

**Table B9: PROBIT ESTIMATIONS: SCANDINAVIA**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	0.0075 (0.0170)	0.0005 (0.0070)	0.0060 (0.0162)	-0.0026 (0.0128)	-0.0066 (0.0134)
No. of children	-0.0244*** (0.0082)	-0.0068* (0.0037)	-0.0181** (0.0078)	-0.0085 (0.0060)	-0.0269† (0.0075)
Child age 0 to 3	0.0139 (0.0221)	0.0133 (0.0103)	-0.0007 (0.0211)	-0.0023 (0.0169)	0.0407** (0.0200)
Child age 4 to 6	0.0458 (0.0316)	0.0169 (0.0155)	0.0229 (0.0289)	0.0667** (0.0294)	-0.0247 (0.0189)
Log. equiv. disposable income (in thsd.)	0.0285 (0.0199)	-0.0286† (0.0072)	0.0543*** (0.0196)	-0.0247* (0.0131)	-0.0192 (0.0162)
Repayment of debts	0.0188 (0.0141)	0.0027 (0.0063)	0.0171 (0.0134)	-0.0024 (0.0108)	0.0230** (0.0109)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0364* (0.0192)	-0.0004 (0.0083)	-0.0365** (0.0186)	-0.0018 (0.0153)	-0.0002 (0.0174)
Apartment or flat	-0.0548*** (0.0191)	0.0124 (0.0092)	-0.0705† (0.0177)	-0.0074 (0.0127)	0.0135 (0.0179)
<b>Wife's characteristics</b>					
Age	-0.0042** (0.0018)	0.0002 (0.0008)	-0.0042** (0.0018)	-0.0018 (0.0012)	-0.0024* (0.0014)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0722† (0.0209)	0.0223* (0.0118)	-0.0950† (0.0189)	0.0105 (0.0152)	0.0266 (0.0189)
High skilled	0.0798† (0.0175)	-0.0075 (0.0065)	0.0860† (0.0169)	0.0154 (0.0133)	0.0266* (0.0157)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0724† (0.0152)
Blue collar high	-	-	-	-	0.0279 (0.0330)
Blue collar low	-	-	-	-	-0.0580** (0.0234)
<b>Husband's characteristics</b>					
Age	-0.0006 (0.0018)	0.0003 (0.0007)	-0.0009 (0.0017)	-0.0003 (0.0012)	-0.0046† (0.0014)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0008 (0.0216)	0.0029 (0.0094)	-0.0038 (0.0209)	0.0110 (0.0163)	0.0116 (0.0170)
High skilled	0.0038 (0.0193)	-0.0022 (0.0082)	0.0054 (0.0182)	-0.0024 (0.0140)	0.0100 (0.0149)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0144 (0.0254)	0.0151 (0.0118)	-0.0019 (0.0241)	0.0157 (0.0203)	0.0361* (0.0189)
Blue collar high	0.0134 (0.0208)	-0.0011 (0.0087)	0.0133 (0.0196)	0.0061 (0.0148)	-0.0228 (0.0160)
Blue collar low	0.0018 (0.0229)	0.0045 (0.0095)	-0.0038 (0.0216)	0.0024 (0.0152)	-0.0526*** (0.0178)
<b>Country characteristics</b>					
GDP growth rate	0.0031 (0.0055)	-0.0000 (0.0025)	0.0029 (0.0054)	-0.0090 (0.0056)	0.0067 (0.0044)
Unemployment rate	0.0401 (0.0321)	0.0133 (0.0153)	0.0236 (0.0310)	0.0442* (0.0256)	0.0174 (0.0267)
Female LFP rate	0.0083 (0.0236)	-0.0019 (0.0122)	0.0073 (0.0226)	0.0019 (0.0192)	0.0107 (0.0191)
Added worker dummy	0.1034** (0.0485)	0.0190 (0.0176)	0.0839* (0.0483)	-0.0106 (0.0248)	0.0148 (0.0455)
Pseudo-R <sup>2</sup>	0.1042	0.0717	0.1050	0.0917	0.0613
Observations	6,038	6,038	6,038	3,711	8,453

Source: EU-SILC, own calculations. Notes: †  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

**Table B10: PROBIT ESTIMATIONS: CONTINENTAL EUROPE**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0552 <sup>†</sup> (0.0149)	-0.0104** (0.0048)	-0.0439*** (0.0144)	-0.0235** (0.0094)	-0.0240*** (0.0074)
No. of children	-0.0246 <sup>†</sup> (0.0066)	-0.0035 (0.0022)	-0.0217 <sup>†</sup> (0.0064)	-0.0077** (0.0035)	-0.0101*** (0.0044)
Child age 0 to 3	-0.0159 (0.0169)	0.0056 (0.0058)	-0.0197 (0.0163)	-0.0030 (0.0097)	-0.0107 (0.0090)
Child age 4 to 6	0.0133 (0.0201)	0.0054 (0.0071)	0.0096 (0.0193)	-0.0055 (0.0095)	-0.0138 (0.0087)
Log. equiv. disposable income (in thsd.)	-0.0134 (0.0122)	-0.0053 (0.0052)	-0.0076 (0.0113)	-0.0061 (0.0066)	-0.0016 (0.0074)
Repayment of debts	0.0298** (0.0116)	0.0076* (0.0044)	0.0229** (0.0112)	0.0189*** (0.0070)	0.0005 (0.0066)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0222* (0.0124)	-0.0033 (0.0044)	-0.0190 (0.0119)	0.0011 (0.0078)	0.0017 (0.0068)
Apartment or flat	-0.0054 (0.0149)	-0.0035 (0.0049)	-0.0019 (0.0144)	0.0038 (0.0082)	0.0098 (0.0091)
<b>Wife's characteristics</b>					
Age	-0.0053 <sup>†</sup> (0.0012)	-0.0005 (0.0003)	-0.0049 <sup>†</sup> (0.0012)	-0.0028 <sup>†</sup> (0.0008)	-0.0002 (0.0008)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0575 <sup>†</sup> (0.0107)	-0.0017 (0.0047)	-0.0567 <sup>†</sup> (0.0098)	-0.0064 (0.0066)	-0.0073 (0.0075)
High skilled	0.0851 <sup>†</sup> (0.0163)	0.0033 (0.0043)	0.0813 <sup>†</sup> (0.0159)	0.0223** (0.0093)	0.0253 <sup>†</sup> (0.0077)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0252 <sup>†</sup> (0.0075)
Blue collar high	-	-	-	-	0.0532** (0.0212)
Blue collar low	-	-	-	-	-0.0305*** (0.0100)
<b>Husband's characteristics</b>					
Age	-0.0033*** (0.0012)	-0.0004 (0.0004)	-0.0029** (0.0011)	-0.0002 (0.0008)	-0.0047 <sup>†</sup> (0.0008)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0340*** (0.0123)	0.0016 (0.0056)	-0.0378*** (0.0115)	-0.0067 (0.0075)	0.0028 (0.0087)
High skilled	-0.0071 (0.0138)	0.0005 (0.0041)	-0.0074 (0.0133)	-0.0097 (0.0074)	-0.0131* (0.0070)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-0.0073 (0.0164)	-0.0012 (0.0048)	-0.0058 (0.0159)	-0.0023 (0.0098)	0.0059 (0.0086)
Blue collar high	0.0259* (0.0148)	0.0056 (0.0058)	0.0208 (0.0143)	-0.0038 (0.0090)	-0.0181** (0.0083)
Blue collar low	0.0264* (0.0160)	0.0027 (0.0048)	0.0231 (0.0157)	0.0031 (0.0091)	-0.0046 (0.0098)
<b>Country characteristics</b>					
GDP growth rate	0.0156** (0.0074)	-0.0047* (0.0027)	0.0181** (0.0071)	-0.0016 (0.0045)	0.0064 (0.0044)
Unemployment rate	-0.0314* (0.0169)	0.0054 (0.0055)	-0.0307* (0.0161)	0.0228** (0.0096)	-0.0097 (0.0088)
Female LFP rate	-0.0344 <sup>†</sup> (0.0085)	0.0054* (0.0031)	-0.0387 <sup>†</sup> (0.0082)	0.0076 (0.0057)	-0.0050 (0.0051)
Added worker dummy	-0.0121 (0.0243)	0.0042 (0.0074)	-0.0203 (0.0237)	0.0104 (0.0141)	0.0674*** (0.0229)
Pseudo-R <sup>2</sup>	0.1243	0.0654	0.1276	0.1092	0.0843
Observations	17,260	17,260	17,260	14,080	26,902

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

**Table B11: PROBIT ESTIMATIONS: ANGLO-SAXON COUNTRIES**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	0.0173 (0.0286)	-0.0274** (0.0133)	0.0418 (0.0259)	-0.0331* (0.0177)	-0.0417* (0.0245)
No. of children	-0.0319*** (0.0122)	-0.0004 (0.0032)	-0.0318*** (0.0117)	-0.0020 (0.0062)	-0.0394 <sup>†</sup> (0.0100)
Child age 0 to 3	-0.0018 (0.0333)	-0.0155* (0.0081)	0.0112 (0.0322)	-0.0287** (0.0144)	-0.1053 <sup>†</sup> (0.0177)
Child age 4 to 6	0.0687* (0.0380)	0.0014 (0.0090)	0.0667* (0.0369)	0.0202 (0.0230)	-0.0426** (0.0208)
Log. equiv. disposable income (in thsd.)	0.0287* (0.0169)	0.0077 (0.0054)	0.0219 (0.0161)	-0.0095 (0.0082)	-0.0113 (0.0154)
Repayment of debts	0.0397** (0.0187)	-0.0068 (0.0051)	0.0458** (0.0181)	0.0040 (0.0103)	-0.0032 (0.0139)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0181 (0.0226)	0.0101* (0.0052)	-0.0275 (0.0219)	-0.0183 (0.0136)	0.0245* (0.0147)
Apartment or flat	-0.0303 (0.0423)	0.0183 (0.0122)	-0.0576 (0.0389)	-0.0112 (0.0236)	0.0680* (0.0395)
<b>Wife's characteristics</b>					
Age	-0.0044* (0.0022)	-0.0009* (0.0005)	-0.0039* (0.0022)	-0.0006 (0.0011)	-0.0026 (0.0017)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0217 (0.0262)	0.0159* (0.0089)	-0.0448* (0.0244)	0.0131 (0.0146)	0.0090 (0.0241)
High skilled	0.0746*** (0.0255)	0.0056 (0.0050)	0.0663*** (0.0249)	0.0311** (0.0152)	0.0126 (0.0168)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0624 <sup>†</sup> (0.0175)
Blue collar high	-	-	-	-	0.1486** (0.0612)
Blue collar low	-	-	-	-	-0.0548** (0.0256)
<b>Husband's characteristics</b>					
Age	-0.0042* (0.0023)	0.0010** (0.0005)	-0.0050** (0.0022)	-0.0023** (0.0011)	-0.0041** (0.0017)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0414 (0.0281)	-0.0007 (0.0061)	-0.0465* (0.0265)	-0.0108 (0.0133)	-0.0219 (0.0205)
High skilled	-0.0376 (0.0243)	0.0080 (0.0069)	-0.0430* (0.0232)	-0.0091 (0.0123)	-0.0092 (0.0166)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0383 (0.0354)	0.0074 (0.0104)	0.0305 (0.0338)	0.0009 (0.0154)	0.0299 (0.0232)
Blue collar high	0.0086 (0.0294)	0.0065 (0.0073)	0.0035 (0.0283)	0.0061 (0.0156)	-0.0358* (0.0189)
Blue collar low	-0.0171 (0.0284)	0.0126 (0.0083)	-0.0276 (0.0272)	0.0022 (0.0140)	0.0164 (0.0225)
<b>Country characteristics</b>					
GDP growth rate	-0.0001 (0.0201)	0.0010 (0.0050)	0.0017 (0.0201)	0.0090 (0.0097)	0.0038 (0.0161)
Unemployment rate	-0.0163 (0.0614)	-0.0026 (0.0166)	-0.0085 (0.0606)	-0.0294 (0.0305)	-0.0192 (0.0481)
Female LFP rate	-0.0106 (0.0447)	0.0028 (0.0136)	-0.0081 (0.0440)	-0.0285 (0.0232)	-0.0230 (0.0364)
Added worker dummy	-0.0876** (0.0419)	0.0320 (0.0226)	-0.1307 <sup>†</sup> (0.0326)	0.0220 (0.0252)	0.0544 (0.0472)
Pseudo-R <sup>2</sup>	0.0811	0.1653	0.0948	0.1104	0.0619
Observations	3,380	3,380	3,380	2,725	4,508

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.



**Table B12: PROBIT ESTIMATIONS: MEDITERRANEAN COUNTRIES**

	$IA_{t-1} \rightarrow A_t$ ME/StdE	$IA_{t-1} \rightarrow UE_t$ ME/StdE	$IA_{t-1} \rightarrow E_t$ ME/StdE	$\Delta JS$ ME/StdE	$PT_{t-1} \rightarrow FT_t$ ME/StdE
<b>Household characteristics</b>					
Married	-0.0870 <sup>†</sup> (0.0171)	-0.0413 <sup>†</sup> (0.0117)	-0.0415 <sup>***</sup> (0.0135)	-0.0398 <sup>***</sup> (0.0132)	0.0107 (0.0235)
No. of children	-0.0157 <sup>†</sup> (0.0042)	-0.0084 <sup>***</sup> (0.0027)	-0.0076 <sup>***</sup> (0.0034)	-0.0095 <sup>***</sup> (0.0033)	-0.0044 (0.0096)
Child age 0 to 3	0.0150 (0.0104)	0.0104 (0.0070)	0.0043 (0.0080)	-0.0124 <sup>*</sup> (0.0070)	0.0123 (0.0215)
Child age 4 to 6	0.0059 (0.0103)	0.0020 (0.0068)	0.0042 (0.0083)	-0.0036 (0.0072)	-0.0062 (0.0204)
Log. equiv. disposable income (in thsd.)	0.0315 <sup>†</sup> (0.0054)	-0.0017 (0.0031)	0.0349 <sup>†</sup> (0.0046)	-0.0015 (0.0035)	0.0062 (0.0129)
Repayment of debts	0.0318 <sup>†</sup> (0.0063)	0.0201 <sup>†</sup> (0.0043)	0.0118 <sup>**</sup> (0.0049)	0.0286 <sup>†</sup> (0.0051)	-0.0137 (0.0138)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0010 (0.0082)	0.0047 (0.0052)	-0.0056 (0.0067)	0.0128 <sup>**</sup> (0.0060)	-0.0257 (0.0192)
Apartment or flat	-0.0050 (0.0069)	0.0080 <sup>*</sup> (0.0044)	-0.0127 <sup>**</sup> (0.0056)	0.0195 <sup>†</sup> (0.0052)	-0.0429 <sup>**</sup> (0.0172)
<b>Wife's characteristics</b>					
Age	-0.0036 <sup>†</sup> (0.0008)	-0.0016 <sup>***</sup> (0.0005)	-0.0021 <sup>†</sup> (0.0006)	-0.0039 <sup>†</sup> (0.0006)	0.0040 <sup>**</sup> (0.0016)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0272 <sup>†</sup> (0.0067)	-0.0110 <sup>**</sup> (0.0044)	-0.0161 <sup>***</sup> (0.0051)	-0.0182 <sup>†</sup> (0.0053)	-0.0032 (0.0156)
High skilled	0.0599 <sup>†</sup> (0.0131)	0.0064 (0.0080)	0.0500 <sup>†</sup> (0.0112)	0.0090 (0.0101)	0.0423 <sup>**</sup> (0.0196)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	-0.0638 <sup>†</sup> (0.0167)
Blue collar high	-	-	-	-	0.0519 <sup>*</sup> (0.0284)
Blue collar low	-	-	-	-	-0.0262 (0.0217)
<b>Husband's characteristics</b>					
Age	-0.0028 <sup>†</sup> (0.0008)	-0.0011 <sup>**</sup> (0.0005)	-0.0017 <sup>***</sup> (0.0006)	-0.0005 (0.0006)	-0.0066 <sup>†</sup> (0.0016)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0056 (0.0069)	-0.0003 (0.0045)	-0.0057 (0.0055)	-0.0002 (0.0053)	-0.0048 (0.0156)
High skilled	-0.0106 (0.0093)	-0.0011 (0.0063)	-0.0100 (0.0072)	-0.0051 (0.0073)	0.0244 (0.0198)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0099 (0.0091)	0.0061 (0.0057)	0.0051 (0.0073)	0.0119 <sup>*</sup> (0.0067)	0.0463 <sup>**</sup> (0.0205)
Blue collar high	0.0107 (0.0081)	0.0087 (0.0053)	0.0033 (0.0064)	0.0150 <sup>**</sup> (0.0061)	-0.0195 (0.0178)
Blue collar low	0.0020 (0.0085)	0.0060 (0.0056)	-0.0024 (0.0068)	0.0206 <sup>***</sup> (0.0068)	0.0405 <sup>**</sup> (0.0205)
<b>Country characteristics</b>					
GDP growth rate	0.0072 (0.0054)	-0.0010 (0.0038)	0.0082 <sup>*</sup> (0.0043)	-0.0027 (0.0042)	0.0007 (0.0125)
Unemployment rate	0.0016 (0.0023)	0.0013 (0.0016)	-0.0003 (0.0018)	0.0004 (0.0018)	-0.0066 (0.0057)
Female LFP rate	-0.0045 (0.0070)	0.0037 (0.0049)	-0.0075 (0.0056)	0.0037 (0.0057)	-0.0424 <sup>**</sup> (0.0179)
Added worker dummy	0.0829 <sup>†</sup> (0.0144)	0.0442 <sup>†</sup> (0.0098)	0.0368 <sup>***</sup> (0.0119)	0.0613 <sup>†</sup> (0.0120)	0.1481 <sup>†</sup> (0.0376)
Pseudo-R <sup>2</sup>	0.0809	0.0816	0.0634	0.1002	0.0406
Observations	25,397	25,397	25,397	23,517	9,079

Source: EU-SILC, own calculations. Notes: <sup>†</sup>  $p < 0.001$ ; <sup>\*\*\*</sup>  $p < 0.01$ ; <sup>\*\*</sup>  $p < 0.05$ ; <sup>\*</sup>  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.

**Table B13: PROBIT ESTIMATIONS: CENTRAL AND EASTERN EUROPE**

	$\mathbf{IA}_{t-1} \rightarrow \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \rightarrow \mathbf{E}_t$ ME/StdE	$\Delta \mathbf{JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
<b>Household characteristics</b>					
Married	0.0114 (0.0107)	0.0019 (0.0059)	0.0086 (0.0095)	-0.0017 (0.0065)	-0.0751** (0.0352)
No. of children	-0.0245† (0.0050)	-0.0062*** (0.0023)	-0.0185† (0.0046)	-0.0109*** (0.0036)	-0.0153 (0.0120)
Child age 0 to 3	0.0118 (0.0124)	-0.0171*** (0.0065)	0.0284** (0.0112)	-0.0217*** (0.0079)	0.0205 (0.0331)
Child age 4 to 6	0.0718† (0.0153)	0.0158** (0.0076)	0.0549† (0.0136)	0.0185** (0.0085)	0.0254 (0.0307)
Log. equiv. disposable income (in thsd.)	-0.0050 (0.0073)	-0.0020 (0.0040)	-0.0033 (0.0064)	-0.0097** (0.0043)	0.0153 (0.0152)
Repayment of debts	0.0134* (0.0075)	0.0029 (0.0040)	0.0097 (0.0066)	0.0095* (0.0053)	0.0697† (0.0194)
<i>Dwelling type (ref.: detached house)</i>					
Semi-detached house	-0.0150 (0.0134)	-0.0073 (0.0063)	-0.0084 (0.0119)	0.0170* (0.0097)	0.0272 (0.0367)
Apartment or flat	-0.0025 (0.0076)	-0.0005 (0.0042)	-0.0033 (0.0067)	0.0203† (0.0050)	0.0223 (0.0205)
<b>Wife's characteristics</b>					
Age	-0.0032† (0.0009)	-0.0017† (0.0005)	-0.0014* (0.0008)	-0.0024† (0.0005)	0.0006 (0.0020)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0429† (0.0094)	-0.0041 (0.0052)	-0.0394† (0.0080)	-0.0053 (0.0066)	-0.0495* (0.0255)
High skilled	0.0938† (0.0140)	0.0038 (0.0071)	0.0866† (0.0126)	0.0190** (0.0093)	0.0434 (0.0314)
<i>Occupation (ref.: white collar high)</i>					
White collar low	-	-	-	-	0.0097 (0.0282)
Blue collar high	-	-	-	-	0.0494 (0.0310)
Blue collar low	-	-	-	-	-0.0434 (0.0296)
<b>Husband's characteristics</b>					
Age	-0.0014 (0.0009)	0.0001 (0.0005)	-0.0015* (0.0008)	0.0004 (0.0006)	-0.0043** (0.0020)
<i>Education (ref.: medium skilled)</i>					
Low skilled	-0.0074 (0.0121)	-0.0007 (0.0065)	-0.0074 (0.0106)	-0.0045 (0.0072)	0.0102 (0.0292)
High skilled	-0.0127 (0.0124)	-0.0139** (0.0063)	-0.0004 (0.0109)	-0.0100 (0.0081)	0.0202 (0.0316)
<i>Occupation (ref.: white collar high)</i>					
White collar low	0.0381** (0.0153)	0.0018 (0.0078)	0.0362*** (0.0136)	0.0142 (0.0094)	0.0545* (0.0320)
Blue collar high	0.0100 (0.0108)	0.0049 (0.0056)	0.0056 (0.0097)	0.0085 (0.0067)	-0.0146 (0.0274)
Blue collar low	-0.0014 (0.0116)	0.0076 (0.0062)	-0.0090 (0.0102)	0.0108 (0.0071)	0.0200 (0.0303)
<b>Country characteristics</b>					
GDP growth rate	0.0010 (0.0013)	-0.0005 (0.0008)	0.0016 (0.0012)	-0.0005 (0.0008)	0.0070** (0.0031)
Unemployment rate	0.0075* (0.0041)	0.0062*** (0.0023)	0.0004 (0.0036)	0.0022 (0.0026)	-0.0204** (0.0093)
Female LFP rate	-0.0018 (0.0063)	-0.0004 (0.0033)	0.0003 (0.0058)	-0.0068* (0.0041)	-0.0330*** (0.0152)
Added worker dummy	0.0167 (0.0143)	0.0268*** (0.0088)	-0.0109 (0.0122)	0.0580† (0.0139)	-0.0186 (0.0411)
Pseudo-R <sup>2</sup>	0.1019	0.1123	0.0925	0.0850	0.0512
Observations	22,640	22,640	22,640	20,926	6,275

Source: EU-SILC, own calculations. Notes: †  $p < 0.001$ ; \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . - Robust standard errors in parentheses (clustered at household level). - Both country and year fixed effects as well as an interaction of the added worker dummy with the countries' unemployment rate are additionally included in the regressions.