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ABSTRACT

Husband's Unemployment and Wife's Labor Supply: The Added Worker Effect across Europe*

This paper investigates the responsiveness of women's labor supply to their husband's job loss – the so-called added worker effect. We contribute to the literature by taking an explicit internationally comparative perspective and analyze the variation of the added worker effect across welfare regimes. Using longitudinal data from the European Union Statistics on Income and Living Conditions (EU-SILC) covering 28 European countries from 2004 to 2013, we find evidence for the existence of an added worker effect. However, our results also reveal that the added worker effect varies over both the business cycle and the different welfare regimes within Europe.

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1 Introduction

Theoretical models of family labor supply predict that the unemployment of one spouse should increase the labor supply of the other spouse (see, e.g., Ashenfelter, 1980). In order to offset the income loss associated with the partner's job loss, inactive spouses newly enter the labor market and become so-called 'added workers' and already participating spouses increase the amount of hours worked. We investigate these theoretical predictions by focusing on the responsiveness of women's labor supply to their husband's job loss. 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.[1]

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.[2] 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 2013. Observing households over the time of the Great Recession, which forced many families to devise strategies to cope with negative income shocks due to job loss, further provides a fresh opportunity to investigate couples' labor supply. While previous studies of the added worker effect during recessions focus on single countries[3] and limit

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[1]Exceptions are McGinnity (2002) and Prieto-Rodriguez and Rodriguez-Gutierrez (2003).

[2]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).

[3]See Parker and Skoufias (2004) investigating the Peso crisis in Mexico, Mattingly and Smith (2010) and Starr (2014) looking at the Great Recession for the US, and Bryan and Longhi (2017) conducting a similar analysis for the UK.

their analysis to before-after comparisons, we are able to investigate the role of the added worker effect in Europe's economic crisis by explicitly 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 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. This effect is mainly driven by wives' transitions into unemployment, while wives' probabilities of becoming employed seem to be independent of their husbands' job loss. Furthermore, we find that wives of newly unemployed husbands are more likely to start searching for a job and to change from part-time to full-time employment.

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 subsample 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 Section 2, 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

The theory underlying the notion of spousal labor supply as insurance against unemployment is developed in Ashenfelter (1980), Heckman and MaCurdy (1980), and Lundberg (1985). 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 associated with the husband's wage decrease.[4] While, in its traditional sense, the added worker effect refers to a situation in which a non-participating wife enters the labor market due to her husband's unemployment, behavioral responses may also occur 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 early 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, 2017).

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 affect is

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[4]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.

partly crowded out by unemployment benefits and that the labor supply response of females 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. For the US, Stephens (2002) finds that women whose husbands have been displaced significantly increase their paid working time. Similar effects are found by Kohara (2010) for Japan and by Gong (2011) for Australia.

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, which include Italy and, to a lesser extent, Germany, the Netherlands, Portugal, and Spain.[5]

While the existing cross-country studies limit their analysis to wives' entries into the labor market due to their husband's unemployment, it seems obvious to assume that the type of the wives' behavioral response varies across countries. While the female labor force participation rate is relatively low in most Mediterranean countries, it is higher in most Western societies.[6] 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; Ayhan, 2017). In most Western societies, the ability of married women to newly enter the labor market and become additional workers is limited, because most 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.

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[5]The countries for which no added worker effect is found are Belgium, Denmark, France, Great Britain, Greece, and Ireland.

[6]In 2014, the average female labor force participation rate for the EU-28 is 66.5%. It is the lowest in Malta (52.1%), Italy (54.4) and Greece (59.0%) and the highest in Sweden (83.4%), Norway (75.9%) and Denmark (75.0%) (Eurostat, 2015).

The main conclusion that can be drawn from previous literature is that the existence and the magnitude of the added worker effect highly depend on the considered circumstances. While every single study provides a valuable hint on which circumstances matter, the literature lacks an all-encompassing empirical investigation of the responsiveness of wives' labor supply to their husbands' unemployment. Our aim is therefore to unify previous literature and reconcile the different results by providing a large-scale investigation of the added worker effect. Analyzing its variation across different welfare regimes and its fluctuation over the business cycle while at the same time considering a variety of behavioral responses of the wife at both the extensive and the intensive margin of labor supply should give us a better understanding of the circumstances that facilitate or hamper spousal labor supply as an insurance device against unemployment shocks.

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 $m = (1, \ldots, 5)$. First, for $m = 1$, ΔY_{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 $t-1$.[7] 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 (ΔJS). Lastly, for $m = 5$, ΔY_{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.[8] M_{jt} is a vector of macroeconomic conditions of

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[7]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.

[8]We further checked the robustness of our results by including country-year dummies instead of single country and year dummies in the regressions in order to control for country-time specific heterogeneity.

the country, which vary over time.

The variable ΔE_{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 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, we are likely to underestimate the true added worker effect, since wives of frequently unemployed husbands are likely to face low market wage rates themselves and thus to show similarly low labor supply patterns as their husbands. 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 aim to accomplish this goal by controlling for a variety of individual and household characteristics to be correlated with husbands' unemployment probability and conduct a series of sensitivity analyses to verify the robustness of our results, we cannot entirely rule out that unobserved heterogeneity still biases our estimation results.[9] We keep that in mind when interpreting our estimation results.

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 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).

The results are similar to those presented in the following and are shown in Table A3.

[9]One way to address the problem of unobserved heterogeneity would be to add individual (or household) fixed effects to the model. Unfortunately, this is not possible in our study, as we observe households only over a short period of time and thus lack sufficient variation in spouses' labor market status over time.

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 2013. 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 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 2013, some countries either left the survey (Germany in 2006) or did not provide any data for 2013 yet (Croatia, Greece, Romania, and Sweden).

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.[10] 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 $t-1$. 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 $t-1$.

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 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

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[10]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 A4.

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 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.

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.[11,12]

In our regressions, we control for a variety of individual and household characteristics.[13] 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 household's equivalized disposable income as a regressor.[14] 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

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[11]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 A6.

[12]For a descriptive comparison of the transition probabilities of those women whose husbands became unemployed within the last year and those women whose husbands stayed employed, see Table A1.

[13]The descriptive statistics of all variables included in our analysis for the three different samples considered are shown in Table A2.

[14]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, we control for household income in the previous year instead of household income in the current year.

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, distinguishing between low-skilled (ISCED 0-2), medium-skilled (ISCED 3-4), and high-skilled (ISCED 5) individuals. Furthermore, we control for the husband's occupational status in $t-1$ in all models and for the wife's occupational status in $t-1$ 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.[15]

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 experience. Although the EU-SILC data contains information on the individual's years in employment, in some countries this information 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. We therefore decided to exclude this variable from our basic regression, but conduct a sensitivity analysis in which the husband's labor market experience, as measured by his share of years in employment in all years since entering the labor market, is additionally controlled for. In these regressions, we further control for the husband's previous job type, i.e., whether the job was permanent or temporary, information on which is also only available for selected respondents.[16]

In addition to analyzing the existence and the magnitude of the added worker effect in general, we aim at investigating its variation with the countries' economic conditions. In contrast to previous literature, we do not only compare its magnitude in times of economic up- and downswings, but apply a more flexible approach in interacting 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

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[15]Individuals working for the armed forces (ISCO 10) are excluded from the analysis.

[16]Please note that we adjusted the weights delivered with the data to account for the new data structure, so that the remaining observations are still representative for the whole population.

(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.[17] 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 effect.

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.[18]

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 these countries, i.e., Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.[19]

4 Results

4.1 Basic Results for the Pooled Sample

The results of the estimation of our basic model (Equation (1)) are shown in Table 1. 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 enter the labor

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[17]In fact, it is argued that short-term work has strongly contributed to the surprisingly mild response of the German labor market to the 2008-09 economic crisis, which has hardly translated in decreasing employment rates (Burda and Hunt, 2011).

[18]'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.

[19]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 values on the above named indicators and its geographical position.

market, to start searching for a job and to increase their working hours. Women whose youngest child enters preschool age (4 to 6 years), on the other hand, are more likely to enter the labor market, while the presence of preschool children does not affect women's job-search and part-time to full-time transitions.

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 unemployment and 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 but more likely to become unemployed and to start looking for a job than couples living in a detached house. 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 tend to make fewer 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, while their unemployment and job-search transitions are uncorrelated with the GDP growth rate. With increasing unemployment rates, women are more likely to enter the labor market and to start searching for a job. 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 except for the part-time to full-time transitions, 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 effect of the added worker dummy, which indicates whether the husband became unemployed between $t-1$ and t. In order to compare the magnitude of women's behavioral response across our different outcomes, we do not only present the estimated marginal effect of the added worker dummy, but further calculate the percentage change in women's probability of adjusting their labor supply due to their husbands' unemployment.[20]

The results suggest that women whose husbands lost their job at any time during the last 12 months have a 2.6 percentage point (14 percent) higher probability of entering the labor market than those with a continuously employed husband. However, this effect is only driven by wives' changes into unemployment. Women with an unemployed husband are 2.9 percentage points more likely to enter unemployment and 4.6 percentage points more likely to start searching for a job, which corresponds to relative changes in transition probabilities of 69 and 68 percent. Women's probability of becoming employed, however, 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 6.3 percentage points (32 percent) higher probability of changing from part-time to full-time employment than women with a continuously employed husband. That we find no evidence for an added worker effect in terms of women's employment transitions, but a strong effect in terms of their part-time to full-time transitions may be explained by the fact that part-time work provides greater scope for labor supply adjustments, as it is harder for women to increase their labor market activities by entering the labor market than it is by increasing

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[20]The respective values are calculated by deriving predictions for Y at both categories of the added worker dummy (i.e., $\hat{Y}_{AWD=0}$ and $\hat{Y}_{AWD=1}$), such that $\Delta\% = (\hat{Y}_{AWD=1} - \hat{Y}_{AWD=0})/\hat{Y}_{AWD=0}$.

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. A remaining concern of our analysis, however, is the problem of unobserved heterogeneity. In particular, there is a doubt whether the husband's job loss is exogenous to wife's labor supply. First, the husband's unemployment might not be transitory, but rather of a more permanent nature and therefore be anticipated by the household. Such anticipated unemployment would not induce an added worker effect, because it would already have translated into household adjustments in either consumption or labor supply. Furthermore, as pointed out by Maloney (1991), the permanent nature of the husband's unemployment might be correlated with the characteristics of the wife. Given assortative matching in the marriage market, wives of frequently unemployed husbands are likely to face low market wage rates themselves and thus to show similarly low labor supply patterns as their husbands.

One way to overcome these problems is to search for exogenous variation in husband's unemployment, e.g., by focusing on unemployment caused by plant closures, which are assumed to be exogenous to the characteristics of the husband and the household, respectively. While this is not possible in our study, we control for the permanent nature of the husband's unemployment by proxying for his unemployment probability. Specifically, we add controls for the husband's labor market experience, as measured by his share of years in employment, and his previous job type, i.e., whether the job was permanent or temporary. The respective estimation results are shown in Table A5. The results reveal 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 and changes from part-time to full-time employment. Moreover, wives of husbands who had a temporary job in the previous year are significantly more likely to enter employment or increase their working hours than those whose husbands had a permanent position. The estimated marginal effects of the added worker dummy, however, remain significant and only slightly decrease in magnitude, suggesting that unobserved factors that are correlated with the husband's unemployment probability do not impose a major problem for our analysis.[21]

Second, the husband's unemployment might not be involuntary, but voluntarily chosen by the husband. In his decision to quit his job, the husband might therefore have already taken his wife's labor supply decision into account. In this case, we would overestimate

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[21]In order to assess whether the added worker effect is robust to the inclusion of the additional control variables, we also estimated the basic specification reported in Table 1 for the reduced sample as considered in Table A5. The results are robust toward the exclusion of these observations and shown in Table B2.

the true added worker effect due to reverse causality and joint decision-making within the household, respectively. On the other hand, one might argue that voluntary job losses are long known by the household, such that the observed added worker effect is an underestimate of the true effect, since some women might already have adjusted their labor supply to the husband's expected job loss. Although the data do not allow us to distinguish between voluntary and involuntary job losses, we try to test whether reverse causality caused by voluntary job losses imposes a problem for our analysis. We do so by assuming that voluntary job losses should, on average, last shorter than involuntary job losses, because those quitting their jobs have more time to search for a job or might already have found a new job before giving notice. If we therefore condition on at least three instead of one month of husband's unemployment in defining our added worker variable, thereby reducing the share of voluntary job losses, we would expect the estimated added worker effect to decrease if reversed causality is indeed a problem in our analysis. In fact, we find the opposite: When defining husband's unemployment as the husband having had at least three months of unemployment within the last year, the estimated added worker effect increases for all outcomes (see Table A6), suggesting that reverse causality is of minor relevance in our analysis.

Lastly, it is important to note that although we cannot rule out that unobserved heterogeneity might lead us to under- or overestimate the true added worker effect in general, there is no reason to believe that this sort of unobserved heterogeneity varies over the business cycle or differently affects the estimation results in the respective country groups. Hence, our analysis of the variation of the added worker effect – both over time and across countries – which is the main focus of this paper, should not be affected by unobserved heterogeneity.

4.2 Variation over the Business Cycle

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, 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.[22] According to this, we would expect the

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[22]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.

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.

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 are further added to the model.[23] 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 starting to search for a job slightly decreases and their probability of changing from part-time to full-time employment slightly increases as the economy grows. Although the latter 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 easier to increase their working hours and this way expand their labor supply.

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. Except for women's part-time to full-time transitions, which do hardly vary over the unemployment rate, 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 (2017), who find that the added worker effect is more present in periods of economic downturns. Bryan and Longhi (2017), 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

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[23]In doing so, we do not include a quadruple interaction, but estimate the model separately for each set of interactions. While the results shown in Table 1 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 (see Tables B3 and B4).

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 part-time to full-time transitions do hardly vary 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.

4.3   Variation across Country Groups

In the last part of our analysis, we separately estimate our basic regression for specific subsamples 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 subsample regressions are shown in Table 2.[24] The results reveal large differences in both the existence and the magnitude of the added worker effect across Europe.

In Scandinavia and Continental Europe, we only find weak evidence for the existence of an added worker effect. In Scandinavia, non-participating women are more likely to enter the labor market when their husband becomes unemployed, while women's likelihoods of entering employment, 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 Schøne (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 three years after the husband's displacement, previously non-working wives of displaced husbands have labor market earnings that exceed those of wives of non-displaced husbands by approximately 5 percent.

In Continental Europe, in contrast, women of newly unemployed men are more likely

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[24]Full estimation results are shown in Tables A7 to A11.

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.[25] Moreover, many of the Continental European countries (i.e., Germany, France, Luxembourg and, partially, Belgium) are characterized by tax systems of income splitting, which might create disincentives for women to enter the labor market.[26] If the difference between the husband's and the wife's (potential) earnings is high and the unemployment duration of the husband expected to be low, then the couple might not be better off if the wife enters the labor market, as her gained earnings might be completely offset by the reduced amount of tax savings.

In general, the limited responsiveness of wives to their husband's job loss 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. Among the European countries, the Scandinavian and the Continental countries rank highest with respect to both the length and the amount of unemployment benefits, and it might be the generosity of the welfare state that partly crowds out the family as an insurance device.[27] The hypothesis that the state plays an important role in smoothing out income fluctuations caused by external shocks is also supported by Hardoy and Schøne (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

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[25]The share of part-time employed women is particularly high in the Netherlands (76.7%), followed by Germany (46.3%), Austria (46.3%), and Belgium (41.2%) (2014 values, Eurostat, 2015).

[26]Income splitting is the legal concept of fusing a married couple into a single economic entity for purposes of tax filing status. In a jurisdiction with progressive taxation and different tax filing statuses for married and for single filers, income splitting penalizes dual earners and benefits single breadwinning couples.

[27]Over the time period considered, the maximum unemployment benefit duration is on average 32.4 months in the Continental countries and 28.5 months in the Scandinavian countries and thus much higher than in the Mediterranean (17.3) or the Central and Eastern European countries (9.0) (OECD, 2016a). Accordingly, the average net replacement rate in the Continental and the Scandinavian countries amounts to 46.7 and 48.8 percent, respectively, as compared to 34.2 percent in the Mediterranean countries, 29.4 percent in the Anglo-Saxon countries and 22.4 percent in Central and Eastern Europe (OECD, 2016b).

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 countries. The UK and Ireland are the only countries within Europe that are characterized by a means-tested unemployment benefit system.[28] 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 12 months are significantly more likely to become employed (10-percent level), 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. Moreover, the effects are quite large, ranging from a 42 percent increase in women's probability of entering full-time employment to an 82 percent increase in their job-search probability.

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

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[28]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.

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 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.

Though we cannot claim that the estimated added worker effects as shown in Table 2 represent causal effects, we argue that the difference in the size and the direction of the added worker effect between the country groups is solely due to differences in the countries' institutional and macroeconomic conditions and can thus be interpreted accordingly. While assortative mating or reverse causality might lead us to over- or underestimate the added worker effect in general, there is no reason to believe that this sort of unobserved heterogeneity affects the country groups differently and is thus able to explain the difference in the added worker effect across welfare regimes.

A last concern, though, is that our results are driven by transitory shocks to the household, which affect the employment probability of husbands and wives alike. As outlined by Maloney (1991), a closure of a local plant, for instance, might directly result in the layoff of the husband, and indirectly lower the market wage rate or employment opportunities of the wife, thereby masking the existence of her behavioral response. In contrast to unobserved heterogeneity in general, such local transitory shocks are likely to vary over the country groups and are thus able to explain the observed difference in the added worker effect across welfare regimes.

In order to rule out that local (unemployment) shocks are the main driver of our results, we conduct two robustness checks. First, we re-estimate our country-group regressions by adding country-time fixed effects instead of single country and time fixed effects to our model in order to allow for country-specific shocks to the labor market. The respective estimation results are shown in Table A12. Overall, the estimated added worker effects remain stable in both significance and magnitude, suggesting that the difference in wives' behavioral responses across countries is not simply a result of country-specific unemployment shocks.

Although country-time fixed effects sop up all of the variance in women's labor market transitions that is due to time-variant differences between the countries, they might not fully capture shocks to the households' local labor market. In a second step, we therefore add region-time instead of country-time fixed effects to our regressions. Information on the households' place of residence within their country is available on the NUTS-2 or NUTS-1

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level, which subdivide countries into smaller administrative units in the size of regions or provinces.[29] As can be seen from Table A13, adding region-time fixed effects does not alter our results substantially. In fact, the estimated added worker effects remain stable in both significance and magnitude.[30] These results make us confident that the cross-country variation in the added worker effect documented in this paper is not only an artifact of region-specific transitory shocks to the households, but indeed reflects differences in the macroeconomic and institutional conditions between the welfare regimes.

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

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[29]While there exist some minimum and maximum population thresholds for the average size of the NUTS regions, the actual size of the regions might vary both across and within countries. Overall, we have 176 regions within Europe.

[30]An exception is the former negative added worker effect for women's transitions from inactivity to employment in the Anglo-Saxon countries, which becomes insignificant in Table A13. However, this is not the result of the inclusion of region-time fixed effects, but of the reduced sample size. By adding region-time fixed effects to the model, we lose some observations due to a lack of variation in women's labor force transitions within specific regions at a given point of time. For the resulting smaller sample we therefore re-estimated our model without region-time fixed effects in order to allow for a straightforward comparison of estimation results (see Table B5).

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 wives' likelihood of increasing their labor supply as a response to their husband's job loss increases with the country's unemployment rate, 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 existence and the magnitude 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

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Table 1: PROBIT ESTIMATIONS: POOLED REGRESSIONS

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	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE	Δ JS ME/StdE	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0313^\dagger$	-0.0125^{***}	-0.0207^{***}	$-0.0202^\dagger$	$-0.0278^\dagger$
	(0.0075)	(0.0043)	(0.0065)	(0.0057)	(0.0066)
No. of children	$-0.0235^\dagger$	$-0.0071^\dagger$	$-0.0164^\dagger$	$-0.0089^\dagger$	$-0.0192^\dagger$
	(0.0027)	(0.0014)	(0.0025)	(0.0018)	(0.0030)
Child age 0 to 3	-0.0146^{**}	-0.0056	-0.0094	$-0.0242^\dagger$	-0.0174^{**}
	(0.0071)	(0.0035)	(0.0065)	(0.0043)	(0.0076)
Child age 4 to 6	$0.0371^\dagger$	0.0102^{***}	$0.0266^\dagger$	0.0044	-0.0100
	(0.0072)	(0.0035)	(0.0064)	(0.0045)	(0.0067)
Log. equiv. disposable income (in thsd.)	0.0111^{***}	-0.0053^{***}	$0.0172^\dagger$	-0.0069^{***}	0.0010
	(0.0038)	(0.0019)	(0.0035)	(0.0024)	(0.0048)
Repayment of debts	$0.0309^\dagger$	$0.0092^\dagger$	$0.0209^\dagger$	$0.0197^\dagger$	0.0066
	(0.0045)	(0.0024)	(0.0040)	(0.0033)	(0.0047)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0103^*	0.0016	-0.0104^*	0.0050	0.0041
	(0.0059)	(0.0029)	(0.0054)	(0.0041)	(0.0057)
Apartment or flat	-0.0092^*	0.0064^{***}	$-0.0155^\dagger$	$0.0127^\dagger$	0.0143^{**}
	(0.0049)	(0.0024)	(0.0045)	(0.0033)	(0.0063)
Wife's characteristics					
Age	$-0.0043^\dagger$	$-0.0012^\dagger$	$-0.0031^\dagger$	$-0.0032^\dagger$	-0.0004
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	$-0.0357^\dagger$	-0.0054^{**}	$-0.0307^\dagger$	-0.0087^{***}	-0.0010
	(0.0048)	(0.0027)	(0.0041)	(0.0033)	(0.0060)
High skilled	$0.0795^\dagger$	0.0026	$0.0732^\dagger$	$0.0263^\dagger$	$0.0258^\dagger$
	(0.0075)	(0.0034)	(0.0068)	(0.0057)	(0.0061)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0411^\dagger$
	–	–	–	–	(0.0058)
Blue collar high	–	–	–	–	$0.0542^\dagger$
	–	–	–	–	(0.0114)
Blue collar low	–	–	–	–	$-0.0357^\dagger$
	–	–	–	–	(0.0076)
Husband's characteristics					
Age	$-0.0029^\dagger$	-0.0005^*	$-0.0023^\dagger$	-0.0003	$-0.0046^\dagger$
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	-0.0167^{***}	-0.0036	-0.0143^{***}	-0.0038	-0.0082
	(0.0053)	(0.0027)	(0.0047)	(0.0036)	(0.0061)
High skilled	-0.0141^{**}	0.0009	-0.0145^{***}	-0.0061	-0.0002
	(0.0063)	(0.0034)	(0.0055)	(0.0045)	(0.0059)
Occupation (ref.: white collar high)					
White collar low	0.0011	0.0037	-0.0013	0.0080^*	$0.0268^\dagger$
	(0.0070)	(0.0035)	(0.0063)	(0.0048)	(0.0071)
Blue collar high	0.0100^*	0.0051^*	0.0063	0.0089^{**}	-0.0203^{***}
	(0.0060)	(0.0031)	(0.0054)	(0.0040)	(0.0063)
Blue collar low	0.0006	0.0048	-0.0029	0.0119^{***}	0.0124^*
	(0.0063)	(0.0031)	(0.0057)	(0.0042)	(0.0074)
Country characteristics					
GDP growth rate	0.0029^{***}	-0.0001	0.0025^{***}	-0.0001	$0.0049^\dagger$
	(0.0011)	(0.0006)	(0.0010)	(0.0008)	(0.0013)
Unemployment rate	0.0030^{**}	0.0004	-0.0012	0.0018^*	-0.0003
	(0.0014)	(0.0007)	(0.0012)	(0.0009)	(0.0016)
Female LFP rate	$-0.0099^\dagger$	$-0.0072^\dagger$	-0.0052^{**}	-0.0057^{***}	-0.0038
	(0.0025)	(0.0013)	(0.0022)	(0.0018)	(0.0027)
Added worker dummy	0.0258^{***}	$0.0286^\dagger$	-0.0064	$0.0459^\dagger$	$0.0627^\dagger$
	(0.0093)	(0.0051)	(0.0082)	(0.0071)	(0.0148)
Δ% due to AWE	13.96%	69.01%	–	67.69%	32.18%
Pseudo-R^2	0.1017	0.0984	0.1118	0.0889	0.0952
Observations	87,416	87,416	87,416	76,133	73,891

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). –* Δ% *refers to the percentage change in women's probability of adjusting their labor supply due to their husbands' unemployment. Percentage changes are only shown for significant added worker effects (5-percent 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. The interaction effects are shown in Figure 2.*

Table 2: PROBIT ESTIMATIONS: ADDED WORKER EFFECT BY COUNTRY GROUP

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$	Δ **JS**	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$
Scandinavia					
ME	0.0944**	0.0297	0.0622	−0.0071	0.0232
StdE	(0.0454)	(0.0182)	(0.0461)	(0.0261)	(0.0386)
$\Delta\%$	27.28%	–	–	–	–
Observations	7,339	7,339	7,339	4,641	11,228
Continental Europe					
ME	−0.0210	0.0031	−0.0265	0.0136	0.0579***
StdE	(0.0215)	(0.0067)	(0.0209)	(0.0133)	(0.0189)
$\Delta\%$	–	–	–	–	62.86%
Observations	21,099	21,099	21,099	17,355	36,482
Anglo-Saxon Countries					
ME	−0.0616	0.0207	−0.0896**	0.0244	0.0694
StdE	(0.0429)	(0.0178)	(0.0384)	(0.0290)	(0.0444)
$\Delta\%$	–	–	-39.37%	–	–
Observations	4,005	4,005	4,005	3,180	5,867
Mediterranean Countries					
ME	0.0602†	0.0419†	0.0170*	0.0616†	0.1078†
StdE	(0.0122)	(0.0087)	(0.0096)	(0.0108)	(0.0295)
$\Delta\%$	43.08%	72.26%	–	81.51%	42.06%
Observations	29,232	29,232	29,232	27,028	11,920
Central and Eastern Europe					
ME	0.0310**	0.0280***	0.0028	0.0567†	−0.0345
StdE	(0.0143)	(0.0085)	(0.0128)	(0.0132)	(0.0357)
$\Delta\%$	16.92%	59.85%	–	91.55%	–
Observations	25,745	25,745	25,745	23,929	8,394

*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). – $\Delta\%$ refers to the percentage change in women's probability of adjusting their labor supply due to their husbands' unemployment. Percentage changes are only shown for significant added worker effects (5-percent level). – Controls are the same as in Table 1. – Full estimation results are shown in Tables A7 to A11.*

Figures

Figure 1: MARGINAL EFFECTS OF INTERACTIONS BETWEEN THE ADDED WORKER
DUMMY AND THE GDP GROWTH RATE
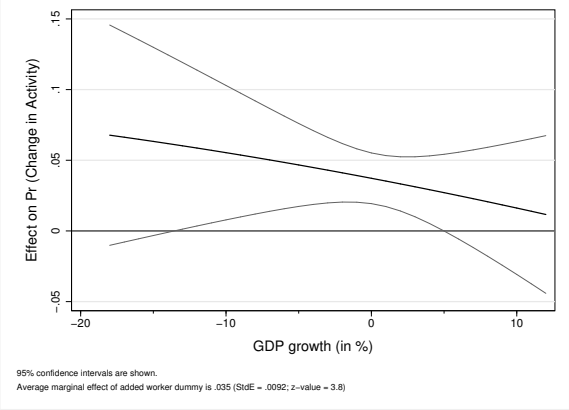
(a) INACTIVITY → ACTIVITY
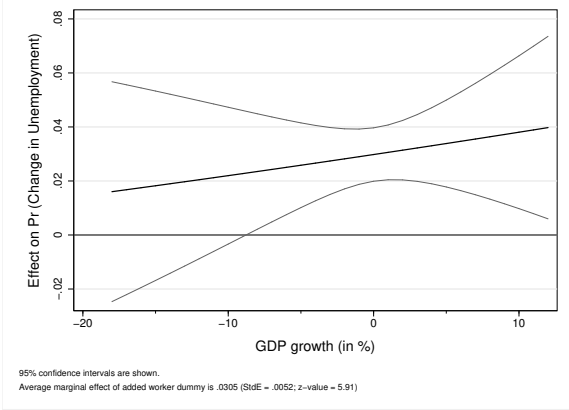
(b) INACTIVITY → UNEMPLOYMENT
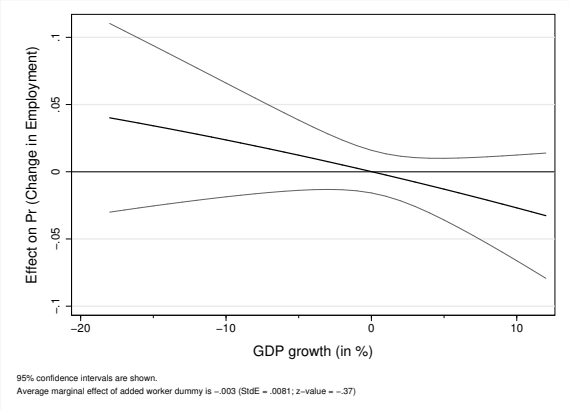
(c) INACTIVITY → EMPLOYMENT
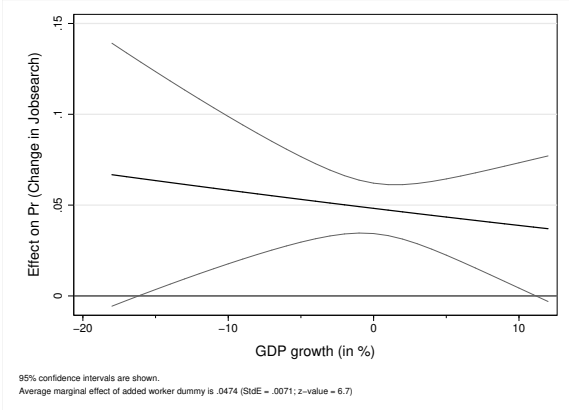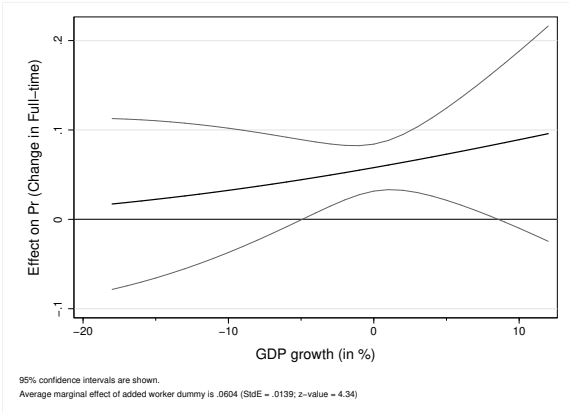
(d) Δ JOBSEARCH

(e) PART-TIME → FULL-TIME

Figure 2: MARGINAL EFFECTS OF INTERACTIONS BETWEEN THE ADDED WORKER
DUMMY AND THE UNEMPLOYMENT RATE
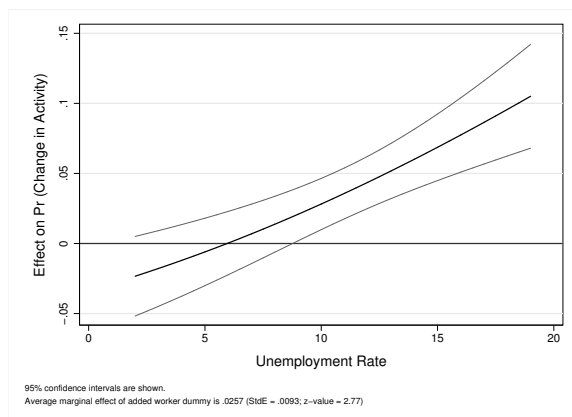
(a) INACTIVITY → ACTIVITY
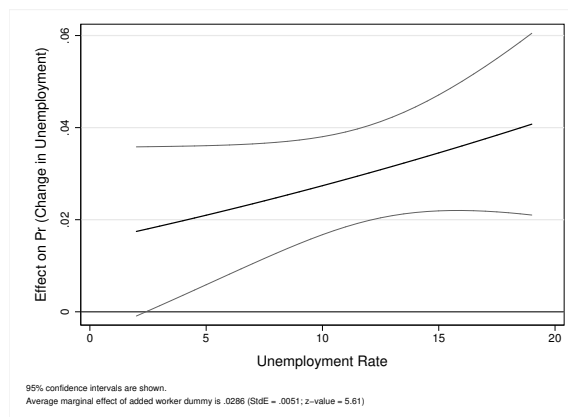
(b) INACTIVITY → UNEMPLOYMENT
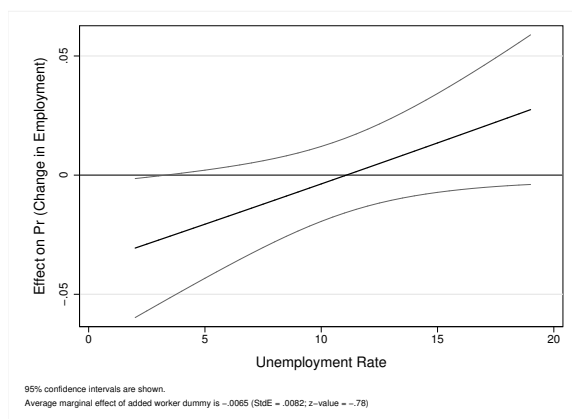
(c) INACTIVITY → EMPLOYMENT
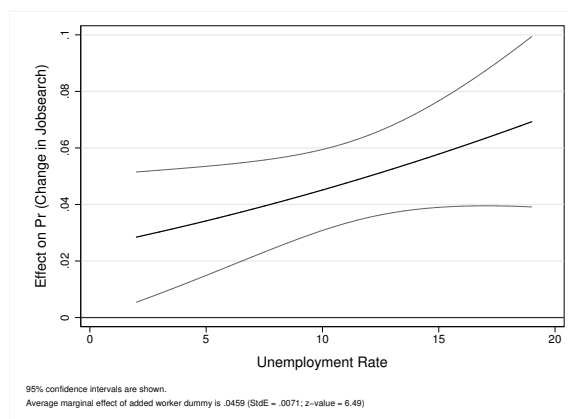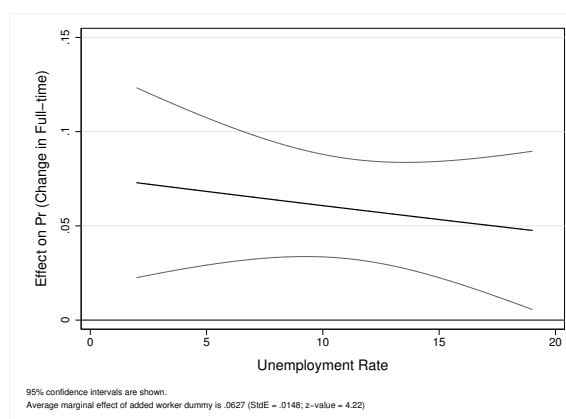
(d) Δ JOBSEARCH

(e) PART-TIME → FULL-TIME

Figure 3: SMALL CAPS MARGINAL EFFECTS OF INTERACTIONS BETWEEN THE ADDED WORKER DUMMY AND THE FEMALE LABOR FORCE PARTICIPATION RATE
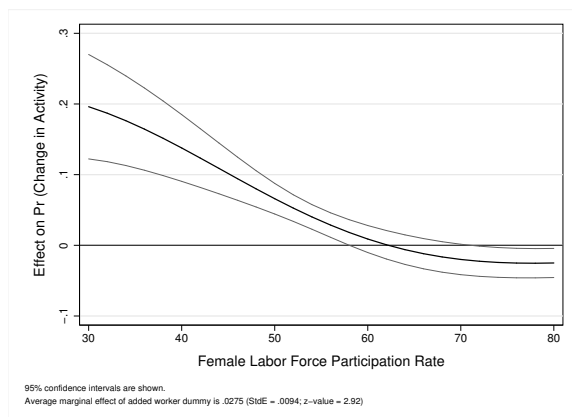
(a) INACTIVITY → ACTIVITY
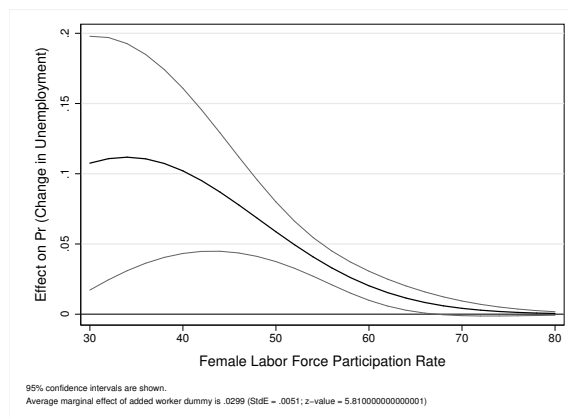
(b) INACTIVITY → UNEMPLOYMENT
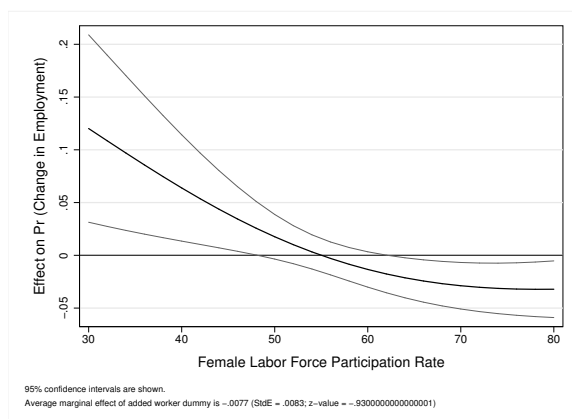
(c) INACTIVITY → EMPLOYMENT
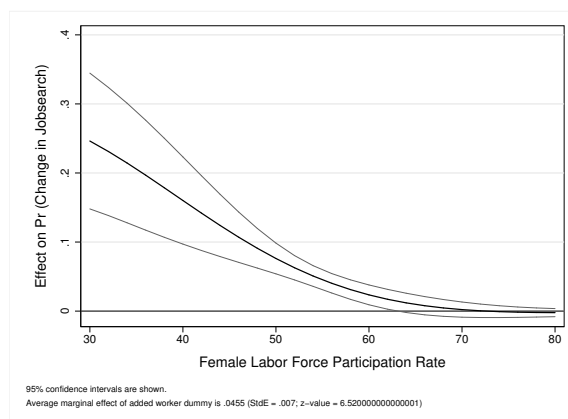
(d) Δ JOBSEARCH
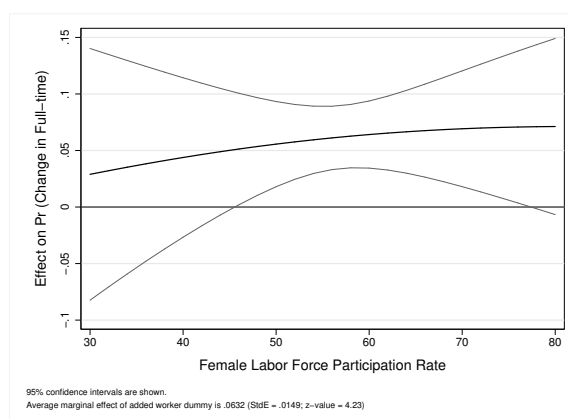
(e) PART-TIME → FULL-TIME

Appendix

Table A1: WOMEN'S TRANSITION PROBABILITIES

Wife's change	Husband's change		
	$E_{t-1} \to E_t$	$E_{t-1} \to UE_t$	Difference
IA$_{t-1}$→A$_t$	0.185	0.216	0.031†
	(0.388)	(0.411)	
IA$_{t-1}$→UE$_t$	0.041	0.094	0.053†
	(0.198)	(0.292)	
IA$_{t-1}$→E$_t$	0.144	0.121	$-0.023^\dagger$
	(0.351)	(0.327)	
Δ Job search	0.067	0.137	0.070†
	(0.250)	(0.344)	
PT$_{t-1}$→FT$_t$	0.167	0.277	0.110†
	(0.373)	(0.447)	

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

Table A2: Descriptive Statistics

	(I)		(II)		(III)	
	Mean	StdD	Mean	StdD	Mean	StdD
Household characteristics						
Married	0.843	0.364	0.862	0.345	0.776	0.417
No. of children	1.005	1.094	0.966	1.097	0.955	0.982
Child age 0 to 3	0.161	0.367	0.158	0.365	0.107	0.310
Child age 4 to 6	0.158	0.365	0.143	0.350	0.141	0.348
Equiv. disposable income (in thsd.)	15.038	17.274	14.620	17.225	21.877	17.126
Repayment of debts	0.328	0.469	0.316	0.465	0.405	0.491
Detached house	0.367	0.482	0.366	0.482	0.399	0.490
Semi-detached house	0.260	0.439	0.248	0.432	0.374	0.484
Apartment or flat	0.373	0.484	0.385	0.487	0.228	0.419
Wife's characteristics						
Age	44.265	10.386	44.847	10.392	44.368	8.952
Low skilled	0.374	0.484	0.402	0.490	0.183	0.386
Medium skilled	0.459	0.498	0.455	0.498	0.496	0.500
High skilled	0.168	0.374	0.142	0.349	0.321	0.467
White collar high	−	−	−	−	0.376	0.484
White collar low	−	−	−	−	0.404	0.491
Blue collar high	−	−	−	−	0.065	0.246
Blue collar low	−	−	−	−	0.155	0.362
Husband's characteristics						
Age	46.904	9.901	47.491	9.845	46.025	8.914
Low skilled	0.322	0.467	0.344	0.475	0.184	0.387
Medium skilled	0.462	0.499	0.457	0.498	0.483	0.500
High skilled	0.216	0.411	0.199	0.399	0.333	0.471
White collar high	0.348	0.476	0.331	0.470	0.471	0.499
White collar low	0.127	0.333	0.128	0.334	0.149	0.356
Blue collar high	0.295	0.456	0.303	0.459	0.216	0.412
Blue collar low	0.230	0.421	0.239	0.426	0.164	0.370
Country characteristics						
GDP growth rate	1.005	3.132	0.938	3.160	0.898	2.638
Unemployment rate	9.543	4.063	9.789	4.173	8.405	3.641
Female LFP rate	55.857	7.848	55.153	7.558	60.740	7.532
Added worker dummy	0.051	0.220	0.054	0.226	0.028	0.165
Observations	87,416		76,133		73,891	

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 A3: Probit Estimations: Pooled Regressions Including Country-Time Fixed Effects

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE	$\mathbf{\Delta\ JS}$ ME/StdE	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0324^{\dagger}$	-0.0130^{***}	-0.0212^{***}	$-0.0204^{\dagger}$	$-0.0276^{\dagger}$
	(0.0078)	(0.0043)	(0.0068)	(0.0058)	(0.0068)
No. of children	$-0.0228^{\dagger}$	$-0.0069^{\dagger}$	$-0.0158^{\dagger}$	$-0.0087^{\dagger}$	$-0.0187^{\dagger}$
	(0.0027)	(0.0014)	(0.0025)	(0.0018)	(0.0029)
Child age 0 to 3	-0.0163^{**}	-0.0059^{*}	-0.0110^{*}	$-0.0243^{\dagger}$	-0.0177^{**}
	(0.0071)	(0.0034)	(0.0064)	(0.0043)	(0.0076)
Child age 4 to 6	$0.0360^{\dagger}$	0.0102^{***}	$0.0255^{\dagger}$	0.0041	-0.0102
	(0.0071)	(0.0035)	(0.0064)	(0.0044)	(0.0067)
Log. equiv. disposable income (in thsd.)	0.0130^{***}	-0.0038^{*}	$0.0181^{\dagger}$	-0.0052^{**}	0.0057
	(0.0040)	(0.0019)	(0.0037)	(0.0025)	(0.0050)
Repayment of debts	$0.0294^{\dagger}$	$0.0085^{\dagger}$	$0.0203^{\dagger}$	$0.0189^{\dagger}$	0.0059
	(0.0045)	(0.0024)	(0.0040)	(0.0033)	(0.0047)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0107^{*}	0.0019	-0.0110^{**}	0.0051	0.0047
	(0.0059)	(0.0029)	(0.0054)	(0.0041)	(0.0057)
Apartment or flat	-0.0100^{**}	0.0061^{***}	$-0.0161^{\dagger}$	$0.0127^{\dagger}$	0.0135^{**}
	(0.0049)	(0.0024)	(0.0045)	(0.0033)	(0.0063)
Wife's characteristics					
Age	$-0.0044^{\dagger}$	$-0.0013^{\dagger}$	$-0.0031^{\dagger}$	$-0.0032^{\dagger}$	-0.0005
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	$-0.0349^{\dagger}$	-0.0052^{*}	$-0.0302^{\dagger}$	-0.0082^{**}	-0.0007
	(0.0048)	(0.0027)	(0.0041)	(0.0033)	(0.0060)
High skilled	$0.0777^{\dagger}$	0.0025	$0.0714^{\dagger}$	$0.0252^{\dagger}$	$0.0252^{\dagger}$
	(0.0074)	(0.0033)	(0.0068)	(0.0056)	(0.0061)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0409^{\dagger}$
	–	–	–	–	(0.0058)
Blue collar high	–	–	–	–	$0.0563^{\dagger}$
	–	–	–	–	(0.0115)
Blue collar low	–	–	–	–	$-0.0351^{\dagger}$
	–	–	–	–	(0.0076)
Husband's characteristics					
Age	$-0.0029^{\dagger}$	-0.0005^{*}	$-0.0023^{\dagger}$	-0.0003	$-0.0046^{\dagger}$
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	-0.0164^{***}	-0.0033	-0.0144^{***}	-0.0033	-0.0084
	(0.0053)	(0.0027)	(0.0047)	(0.0036)	(0.0061)
High skilled	-0.0136^{**}	0.0007	-0.0140^{**}	-0.0064	-0.0006
	(0.0063)	(0.0033)	(0.0055)	(0.0044)	(0.0059)
Occupation (ref.: white collar high)					
White collar low	0.0024	0.0041	-0.0006	0.0083^{*}	$0.0275^{\dagger}$
	(0.0069)	(0.0034)	(0.0062)	(0.0048)	(0.0071)
Blue collar high	0.0103^{*}	0.0054^{*}	0.0062	0.0090^{**}	-0.0186^{***}
	(0.0059)	(0.0030)	(0.0054)	(0.0040)	(0.0063)
Blue collar low	0.0005	0.0053^{*}	-0.0035	0.0122^{***}	0.0128^{*}
	(0.0063)	(0.0030)	(0.0057)	(0.0042)	(0.0074)
Added worker dummy	0.0240^{***}	$0.0279^{\dagger}$	-0.0070	$0.0441^{\dagger}$	$0.0623^{\dagger}$
	(0.0092)	(0.0051)	(0.0082)	(0.0070)	(0.0148)
Pseudo-R^2	0.1109	0.1103	0.1213	0.0996	0.1030
Observations	87,416	87,416	87,416	76,052	73,890

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).

Table A4: Probit Estimations: Pooled Regressions Based on Restricted Age Sample (25 to 59 years)

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE	Δ **JS** ME/StdE	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0317^\dagger$	-0.0146^{***}	-0.0194^{***}	$-0.0243^\dagger$	$-0.0265^\dagger$
	(0.0083)	(0.0049)	(0.0072)	(0.0066)	(0.0069)
No. of children	$-0.0268^\dagger$	$-0.0073^\dagger$	$-0.0194^\dagger$	$-0.0097^\dagger$	$-0.0174^\dagger$
	(0.0031)	(0.0016)	(0.0028)	(0.0021)	(0.0031)
Child age 0 to 3	-0.0134^*	-0.0057	-0.0085	$-0.0289^\dagger$	-0.0183^{**}
	(0.0079)	(0.0039)	(0.0072)	(0.0049)	(0.0079)
Child age 4 to 6	$0.0413^\dagger$	0.0119^{***}	$0.0293^\dagger$	0.0049	-0.0096
	(0.0078)	(0.0039)	(0.0070)	(0.0051)	(0.0069)
Log. equiv. disposable income (in thsd.)	0.0143^{***}	-0.0043^{**}	$0.0193^\dagger$	-0.0049^*	0.0033
	(0.0043)	(0.0021)	(0.0040)	(0.0028)	(0.0052)
Repayment of debts	$0.0342^\dagger$	$0.0101^\dagger$	$0.0231^\dagger$	$0.0223^\dagger$	0.0064
	(0.0051)	(0.0027)	(0.0046)	(0.0037)	(0.0050)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0105	0.0041	-0.0127^{**}	0.0075	0.0057
	(0.0068)	(0.0033)	(0.0062)	(0.0047)	(0.0061)
Apartment or flat	-0.0108^*	0.0085^{***}	$-0.0191^\dagger$	$0.0153^\dagger$	0.0185^{***}
	(0.0056)	(0.0027)	(0.0051)	(0.0038)	(0.0068)
Wife's characteristics					
Age	$-0.0038^\dagger$	-0.0008^{**}	$-0.0029^\dagger$	$-0.0028^\dagger$	0.0000
	(0.0006)	(0.0003)	(0.0006)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	$-0.0418^\dagger$	-0.0057^{**}	$-0.0368^\dagger$	-0.0100^{***}	-0.0031
	(0.0054)	(0.0029)	(0.0047)	(0.0038)	(0.0065)
High skilled	$0.0879^\dagger$	0.0039	$0.0802^\dagger$	$0.0277^\dagger$	$0.0258^\dagger$
	(0.0083)	(0.0038)	(0.0077)	(0.0062)	(0.0065)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0394^\dagger$
	–	–	–	–	(0.0061)
Blue collar high	–	–	–	–	$0.0615^\dagger$
	–	–	–	–	(0.0125)
Blue collar low	–	–	–	–	$-0.0335^\dagger$
	–	–	–	–	(0.0082)
Husband's characteristics					
Age	$-0.0032^\dagger$	-0.0009^{***}	$-0.0023^\dagger$	-0.0009^{**}	$-0.0049^\dagger$
	(0.0006)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	-0.0186^{***}	-0.0046	-0.0148^{***}	-0.0045	-0.0079
	(0.0060)	(0.0030)	(0.0054)	(0.0041)	(0.0065)
High skilled	-0.0119^*	0.0012	-0.0123^*	-0.0078	0.0031
	(0.0072)	(0.0039)	(0.0063)	(0.0050)	(0.0063)
Occupation (ref.: white collar high)					
White collar low	0.0041	0.0039	0.0015	0.0092^*	$0.0306^\dagger$
	(0.0079)	(0.0041)	(0.0071)	(0.0056)	(0.0076)
Blue collar high	0.0145^{**}	0.0053	0.0104^*	0.0114^{**}	-0.0194^{***}
	(0.0068)	(0.0035)	(0.0061)	(0.0047)	(0.0067)
Blue collar low	0.0032	0.0041	0.0004	0.0138^{***}	0.0129
	(0.0071)	(0.0035)	(0.0065)	(0.0049)	(0.0079)
Country characteristics					
GDP growth rate	0.0030^{**}	0.0001	0.0024^{**}	0.0001	$0.0052^\dagger$
	(0.0012)	(0.0007)	(0.0011)	(0.0009)	(0.0014)
Unemployment rate	0.0030^*	0.0003	-0.0015	0.0020^*	-0.0008
	(0.0016)	(0.0008)	(0.0014)	(0.0011)	(0.0017)
Female LFP rate	$-0.0111^\dagger$	$-0.0080^\dagger$	-0.0058^{**}	-0.0067^{***}	-0.0044
	(0.0029)	(0.0015)	(0.0025)	(0.0021)	(0.0029)
Added worker dummy	0.0300^{***}	$0.0300^\dagger$	-0.0039	$0.0538^\dagger$	$0.0665^\dagger$
	(0.0105)	(0.0056)	(0.0095)	(0.0084)	(0.0158)
Pseudo-R^2	0.0872	0.0914	0.1013	0.0716	0.0934
Observations	72,724	72,724	72,724	62,238	66,380

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 A5: Probit Estimations: Pooled Regressions Including Husband's Labor Market Experience and Previous Job Status

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE	$\mathbf{\Delta\ JS}$ ME/StdE	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0390^{\dagger}$	-0.0111^{**}	$-0.0280^{\dagger}$	-0.0209^{***}	$-0.0311^{\dagger}$
	(0.0094)	(0.0055)	(0.0081)	(0.0074)	(0.0084)
No. of children	$-0.0231^{\dagger}$	$-0.0092^{\dagger}$	$-0.0141^{\dagger}$	$-0.0120^{\dagger}$	$-0.0143^{\dagger}$
	(0.0034)	(0.0019)	(0.0030)	(0.0024)	(0.0038)
Child age 0 to 3	-0.0148^{*}	-0.0047	-0.0100	$-0.0201^{\dagger}$	0.0034
	(0.0085)	(0.0047)	(0.0075)	(0.0056)	(0.0101)
Child age 4 to 6	$0.0392^{\dagger}$	0.0097^{**}	$0.0290^{\dagger}$	0.0127^{**}	0.0046
	(0.0087)	(0.0046)	(0.0076)	(0.0059)	(0.0085)
Log. equiv. disposable income (in thsd.)	$0.0203^{\dagger}$	-0.0097^{***}	$0.0314^{\dagger}$	-0.0093^{**}	$0.0243^{\dagger}$
	(0.0056)	(0.0030)	(0.0050)	(0.0037)	(0.0073)
Repayment of debts	$0.0316^{\dagger}$	$0.0132^{\dagger}$	$0.0182^{\dagger}$	$0.0179^{\dagger}$	0.0107^{*}
	(0.0055)	(0.0031)	(0.0048)	(0.0039)	(0.0059)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0106	-0.0003	-0.0092	0.0057	0.0071
	(0.0074)	(0.0039)	(0.0066)	(0.0052)	(0.0074)
Apartment or flat	-0.0061	0.0039	-0.0092^{*}	0.0128^{***}	0.0131^{*}
	(0.0059)	(0.0032)	(0.0053)	(0.0041)	(0.0075)
Wife's characteristics					
Age	$-0.0041^{\dagger}$	-0.0011^{***}	$-0.0029^{\dagger}$	$-0.0032^{\dagger}$	0.0002
	(0.0006)	(0.0003)	(0.0005)	(0.0004)	(0.0007)
Education (ref.: medium skilled)					
Low skilled	$-0.0406^{\dagger}$	-0.0087^{**}	$-0.0323^{\dagger}$	-0.0121^{***}	-0.0121
	(0.0059)	(0.0036)	(0.0049)	(0.0041)	(0.0074)
High skilled	$0.0777^{\dagger}$	0.0042	$0.0687^{\dagger}$	$0.0341^{\dagger}$	0.0230^{***}
	(0.0096)	(0.0048)	(0.0086)	(0.0073)	(0.0079)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0314^{\dagger}$
	–	–	–	–	(0.0074)
Blue collar high	–	–	–	–	$0.0672^{\dagger}$
	–	–	–	–	(0.0151)
Blue collar low	–	–	–	–	$-0.0320^{\dagger}$
	–	–	–	–	(0.0093)
Husband's characteristics					
Age	$-0.0032^{\dagger}$	-0.0008^{**}	$-0.0023^{\dagger}$	-0.0002	$-0.0048^{\dagger}$
	(0.0006)	(0.0004)	(0.0006)	(0.0005)	(0.0008)
Education (ref.: medium skilled)					
Low skilled	-0.0157^{**}	-0.0020	-0.0157^{***}	-0.0014	-0.0105
	(0.0065)	(0.0038)	(0.0056)	(0.0046)	(0.0079)
High skilled	-0.0144^{*}	0.0047	-0.0176^{***}	-0.0100^{*}	-0.0091
	(0.0080)	(0.0048)	(0.0068)	(0.0056)	(0.0074)
Occupation (ref.: white collar high)					
White collar low	0.0024	0.0041	-0.0005	0.0050	0.0219^{***}
	(0.0085)	(0.0047)	(0.0075)	(0.0060)	(0.0083)
Blue collar high	0.0068	0.0069	0.0017	0.0102^{*}	-0.0128
	(0.0078)	(0.0046)	(0.0068)	(0.0055)	(0.0086)
Blue collar low	0.0080	0.0021	0.0082	0.0090	0.0187^{**}
	(0.0079)	(0.0042)	(0.0071)	(0.0055)	(0.0091)
Share of years in employment	-0.0358^{*}	-0.0085	-0.0267	-0.0248^{*}	$-0.1162^{\dagger}$
	(0.0194)	(0.0096)	(0.0174)	(0.0135)	(0.0224)
Temporary job	0.0197^{**}	0.0042	0.0149^{**}	0.0032	0.0270^{***}
	(0.0080)	(0.0038)	(0.0074)	(0.0054)	(0.0102)
Country characteristics					
GDP growth rate	0.0030^{**}	-0.0005	0.0030^{***}	-0.0005	$0.0079^{\dagger}$
	(0.0012)	(0.0007)	(0.0011)	(0.0009)	(0.0017)
Unemployment rate	0.0011	0.0003	-0.0024	0.0024^{**}	-0.0011
	(0.0017)	(0.0009)	(0.0015)	(0.0012)	(0.0020)
Female LFP rate	$-0.0121^{\dagger}$	$-0.0067^{\dagger}$	-0.0071^{***}	-0.0041^{*}	-0.0066^{*}
	(0.0031)	(0.0018)	(0.0027)	(0.0024)	(0.0034)
Added worker dummy	0.0217^{**}	0.0191^{***}	-0.0001	$0.0386^{\dagger}$	0.0398^{**}
	(0.0105)	(0.0059)	(0.0093)	(0.0085)	(0.0159)
Pseudo-R^2	0.1108	0.0939	0.1238	0.0873	0.1013
Observations	56,320	56,320	56,320	50,153	43,296

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 A6: PROBIT ESTIMATIONS: POOLED REGRESSIONS CONDITIONING ON THREE MONTHS OF HUSBAND'S UNEMPLOYMENT

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE	$\mathbf{\Delta\ JS}$ ME/StdE	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0313^{\dagger}$	-0.0126^{***}	-0.0207^{***}	$-0.0202^{\dagger}$	$-0.0277^{\dagger}$
	(0.0075)	(0.0043)	(0.0065)	(0.0057)	(0.0066)
No. of children	$-0.0235^{\dagger}$	$-0.0071^{\dagger}$	$-0.0164^{\dagger}$	$-0.0089^{\dagger}$	$-0.0192^{\dagger}$
	(0.0027)	(0.0014)	(0.0025)	(0.0018)	(0.0030)
Child age 0 to 3	-0.0146^{**}	-0.0056	-0.0094	$-0.0243^{\dagger}$	-0.0171^{**}
	(0.0071)	(0.0035)	(0.0065)	(0.0043)	(0.0076)
Child age 4 to 6	$0.0370^{\dagger}$	0.0101^{***}	$0.0267^{\dagger}$	0.0042	-0.0100
	(0.0072)	(0.0035)	(0.0064)	(0.0045)	(0.0067)
Log. equiv. disposable income (in thsd.)	0.0112^{***}	-0.0053^{***}	$0.0172^{\dagger}$	-0.0068^{***}	0.0010
	(0.0038)	(0.0019)	(0.0035)	(0.0024)	(0.0048)
Repayment of debts	$0.0309^{\dagger}$	$0.0093^{\dagger}$	$0.0209^{\dagger}$	$0.0198^{\dagger}$	0.0068
	(0.0045)	(0.0024)	(0.0040)	(0.0033)	(0.0047)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0103^{*}	0.0016	-0.0104^{*}	0.0050	0.0042
	(0.0059)	(0.0029)	(0.0054)	(0.0041)	(0.0057)
Apartment or flat	-0.0094^{*}	0.0063^{***}	$-0.0156^{\dagger}$	$0.0126^{\dagger}$	0.0142^{**}
	(0.0049)	(0.0024)	(0.0045)	(0.0033)	(0.0063)
Wife's characteristics					
Age	$-0.0043^{\dagger}$	$-0.0012^{\dagger}$	$-0.0031^{\dagger}$	$-0.0032^{\dagger}$	-0.0004
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	$-0.0357^{\dagger}$	-0.0054^{**}	$-0.0308^{\dagger}$	-0.0086^{***}	-0.0011
	(0.0048)	(0.0027)	(0.0041)	(0.0033)	(0.0060)
High skilled	$0.0794^{\dagger}$	0.0026	$0.0732^{\dagger}$	$0.0263^{\dagger}$	$0.0258^{\dagger}$
	(0.0075)	(0.0034)	(0.0068)	(0.0057)	(0.0061)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0410^{\dagger}$
	–	–	–	–	(0.0058)
Blue collar high	–	–	–	–	$0.0541^{\dagger}$
	–	–	–	–	(0.0114)
Blue collar low	–	–	–	–	$-0.0356^{\dagger}$
	–	–	–	–	(0.0076)
Husband's characteristics					
Age	$-0.0029^{\dagger}$	-0.0005^{*}	$-0.0023^{\dagger}$	-0.0003	$-0.0046^{\dagger}$
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	-0.0166^{***}	-0.0035	-0.0143^{***}	-0.0037	-0.0082
	(0.0053)	(0.0027)	(0.0047)	(0.0036)	(0.0061)
High skilled	-0.0141^{**}	0.0010	-0.0145^{***}	-0.0059	-0.0002
	(0.0063)	(0.0034)	(0.0055)	(0.0045)	(0.0059)
Occupation (ref.: white collar high)					
White collar low	0.0010	0.0037	-0.0014	0.0081^{*}	$0.0270^{\dagger}$
	(0.0070)	(0.0035)	(0.0063)	(0.0048)	(0.0071)
Blue collar high	0.0101^{*}	0.0052^{*}	0.0062	0.0092^{**}	-0.0202^{***}
	(0.0060)	(0.0031)	(0.0054)	(0.0040)	(0.0063)
Blue collar low	0.0006	0.0049	-0.0031	0.0119^{***}	0.0127^{*}
	(0.0063)	(0.0031)	(0.0057)	(0.0042)	(0.0074)
Country characteristics					
GDP growth rate	0.0030^{***}	-0.0001	0.0025^{***}	-0.0001	$0.0049^{\dagger}$
	(0.0011)	(0.0006)	(0.0010)	(0.0008)	(0.0013)
Unemployment rate	0.0030^{**}	0.0004	-0.0012	0.0018^{*}	-0.0003
	(0.0014)	(0.0007)	(0.0012)	(0.0009)	(0.0016)
Female LFP rate	$-0.0098^{\dagger}$	$-0.0071^{\dagger}$	-0.0052^{**}	-0.0056^{***}	-0.0038
	(0.0025)	(0.0013)	(0.0022)	(0.0018)	(0.0027)
Added worker dummy (3 month)	0.0308^{***}	$0.0312^{\dagger}$	-0.0046	$0.0505^{\dagger}$	$0.0731^{\dagger}$
	(0.0102)	(0.0055)	(0.0091)	(0.0078)	(0.0165)
Pseudo-R^2	0.1017	0.0983	0.1117	0.0890	0.0953
Observations	87,503	87,503	87,503	76,133	73,891

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 A7: Probit Estimations: Scandinavia

	$IA_{t-1} \rightarrow A_t$ ME/StdE	$IA_{t-1} \rightarrow UE_t$ ME/StdE	$IA_{t-1} \rightarrow E_t$ ME/StdE	Δ JS ME/StdE	$PT_{t-1} \rightarrow FT_t$ ME/StdE
Household characteristics					
Married	−0.0124	−0.0017	−0.0109	−0.0144	0.0139
	(0.0158)	(0.0070)	(0.0150)	(0.0125)	(0.0120)
No. of children	−0.0242***	−0.0045	−0.0200***	−0.0024	−0.0353†
	(0.0074)	(0.0035)	(0.0070)	(0.0058)	(0.0063)
Child age 0 to 3	−0.0099	0.0109	−0.0209	−0.0229	0.0967†
	(0.0204)	(0.0104)	(0.0193)	(0.0160)	(0.0213)
Child age 4 to 6	0.0473**	0.0053	0.0393*	−0.0019	0.0070
	(0.0229)	(0.0106)	(0.0213)	(0.0181)	(0.0159)
Log. equiv. disposable income (in thsd.)	0.0521***	−0.0288†	0.0795†	−0.0238*	−0.0017
	(0.0192)	(0.0071)	(0.0192)	(0.0133)	(0.0142)
Repayment of debts	0.0158	0.0043	0.0123	−0.0069	0.0124
	(0.0133)	(0.0061)	(0.0126)	(0.0106)	(0.0098)
Dwelling type (ref.: detached house)					
Semi-detached house	−0.0237	0.0029	−0.0261	0.0159	−0.0008
	(0.0186)	(0.0082)	(0.0180)	(0.0163)	(0.0156)
Apartment or flat	−0.0608†	0.0154*	−0.0786†	−0.0003	0.0203
	(0.0176)	(0.0090)	(0.0161)	(0.0129)	(0.0159)
Wife's characteristics					
Age	−0.0021	0.0008	−0.0030*	−0.0015	−0.0018
	(0.0017)	(0.0007)	(0.0017)	(0.0012)	(0.0012)
Education (ref.: medium skilled)					
Low skilled	−0.0683†	0.0107	−0.0801†	−0.0006	0.0158
	(0.0200)	(0.0106)	(0.0186)	(0.0147)	(0.0170)
High skilled	0.0904†	0.0003	0.0882†	0.0217*	0.0302**
	(0.0161)	(0.0066)	(0.0154)	(0.0130)	(0.0138)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	−0.0686†
	–	–	–	–	(0.0131)
Blue collar high	–	–	–	–	0.0743**
	–	–	–	–	(0.0293)
Blue collar low	–	–	–	–	−0.0332
	–	–	–	–	(0.0211)
Husband's characteristics					
Age	−0.0018	−0.0003	−0.0014	−0.0004	−0.0058†
	(0.0017)	(0.0007)	(0.0017)	(0.0012)	(0.0012)
Education (ref.: medium skilled)					
Low skilled	−0.0017	0.0012	−0.0035	0.0193	0.0145
	(0.0207)	(0.0097)	(0.0196)	(0.0176)	(0.0156)
High skilled	0.0070	−0.0097	0.0174	−0.0051	0.0235*
	(0.0179)	(0.0075)	(0.0169)	(0.0136)	(0.0129)
Occupation (ref.: white collar high)					
White collar low	0.0068	0.0005	0.0054	−0.0061	0.0393**
	(0.0239)	(0.0112)	(0.0224)	(0.0185)	(0.0163)
Blue collar high	0.0161	−0.0137	0.0304*	−0.0031	−0.0110
	(0.0196)	(0.0086)	(0.0183)	(0.0153)	(0.0141)
Blue collar low	0.0146	−0.0022	0.0161	0.0045	−0.0283*
	(0.0209)	(0.0097)	(0.0195)	(0.0160)	(0.0160)
Country characteristics					
GDP growth rate	0.0051	−0.0001	0.0049	−0.0083*	0.0038
	(0.0049)	(0.0023)	(0.0047)	(0.0043)	(0.0036)
Unemployment rate	−0.0180	0.0036	−0.0223	0.0343**	−0.0028
	(0.0208)	(0.0098)	(0.0199)	(0.0166)	(0.0159)
Female LFP rate	−0.0130	−0.0064	−0.0038	−0.0007	0.0272**
	(0.0195)	(0.0091)	(0.0187)	(0.0152)	(0.0130)
Added worker dummy	0.0944**	0.0297	0.0622	−0.0071	0.0232
	(0.0454)	(0.0182)	(0.0461)	(0.0261)	(0.0386)
Pseudo-R^2	0.0850	0.0493	0.0911	0.0780	0.0641
Observations	7,339	7,339	7,339	4,641	11,228

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 A8: PROBIT ESTIMATIONS: CONTINENTAL EUROPE

	$\text{IA}_{t-1} \rightarrow \text{A}_t$ ME/StdE	$\text{IA}_{t-1} \rightarrow \text{UE}_t$ ME/StdE	$\text{IA}_{t-1} \rightarrow \text{E}_t$ ME/StdE	Δ JS ME/StdE	$\text{PT}_{t-1} \rightarrow \text{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0542^{\dagger}$	-0.0093^{**}	$-0.0439^{\dagger}$	-0.0159^{*}	-0.0194^{***}
	(0.0133)	(0.0046)	(0.0127)	(0.0083)	(0.0064)
No. of children	$-0.0236^{\dagger}$	-0.0028	$-0.0213^{\dagger}$	-0.0089^{***}	$-0.0128^{\dagger}$
	(0.0059)	(0.0019)	(0.0057)	(0.0032)	(0.0035)
Child age 0 to 3	$-0.0560^{\dagger}$	-0.0102^{***}	-0.0442^{***}	-0.0232^{***}	-0.0199^{**}
	(0.0141)	(0.0039)	(0.0137)	(0.0079)	(0.0081)
Child age 4 to 6	0.0454^{***}	0.0181^{***}	0.0276^{*}	0.0232^{**}	0.0103
	(0.0161)	(0.0059)	(0.0152)	(0.0098)	(0.0079)
Log. equiv. disposable income (in thsd.)	-0.0034	-0.0042	0.0008	-0.0021	0.0010
	(0.0111)	(0.0044)	(0.0105)	(0.0061)	(0.0065)
Repayment of debts	0.0307^{***}	0.0063	0.0252^{**}	0.0166^{***}	0.0047
	(0.0105)	(0.0040)	(0.0101)	(0.0064)	(0.0056)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0225^{**}	0.0016	-0.0243^{**}	0.0027	-0.0015
	(0.0112)	(0.0041)	(0.0107)	(0.0072)	(0.0059)
Apartment or flat	-0.0130	-0.0014	-0.0118	0.0027	0.0106
	(0.0135)	(0.0042)	(0.0131)	(0.0075)	(0.0083)
Wife's characteristics					
Age	$-0.0061^{\dagger}$	-0.0008^{**}	$-0.0052^{\dagger}$	$-0.0036^{\dagger}$	-0.0007
	(0.0011)	(0.0004)	(0.0010)	(0.0007)	(0.0007)
Education (ref.: medium skilled)					
Low skilled	$-0.0489^{\dagger}$	-0.0016	$-0.0482^{\dagger}$	-0.0040	-0.0043
	(0.0100)	(0.0043)	(0.0092)	(0.0061)	(0.0070)
High skilled	$0.0782^{\dagger}$	-0.0012	$0.0793^{\dagger}$	0.0224^{***}	0.0185^{***}
	(0.0142)	(0.0039)	(0.0139)	(0.0087)	(0.0065)
Occupation (ref.: white collar high)					
White collar low	$-$	$-$	$-$	$-$	$-0.0270^{\dagger}$
	$-$	$-$	$-$	$-$	(0.0064)
Blue collar high	$-$	$-$	$-$	$-$	0.0481^{***}
	$-$	$-$	$-$	$-$	(0.0173)
Blue collar low	$-$	$-$	$-$	$-$	-0.0282^{***}
	$-$	$-$	$-$	$-$	(0.0086)
Husband's characteristics					
Age	-0.0030^{***}	-0.0003	-0.0028^{***}	0.0000	$-0.0043^{\dagger}$
	(0.0011)	(0.0004)	(0.0010)	(0.0008)	(0.0007)
Education (ref.: medium skilled)					
Low skilled	-0.0223^{*}	0.0002	-0.0233^{**}	-0.0035	-0.0018
	(0.0123)	(0.0050)	(0.0117)	(0.0076)	(0.0076)
High skilled	-0.0067	0.0054	-0.0115	-0.0071	-0.0060
	(0.0121)	(0.0043)	(0.0117)	(0.0070)	(0.0060)
Occupation (ref.: white collar high)					
White collar low	-0.0056	-0.0010	-0.0041	0.0028	0.0175^{**}
	(0.0144)	(0.0046)	(0.0138)	(0.0095)	(0.0077)
Blue collar high	0.0272^{**}	0.0048	0.0234^{*}	-0.0012	-0.0111
	(0.0133)	(0.0054)	(0.0128)	(0.0083)	(0.0072)
Blue collar low	0.0195	0.0018	0.0172	0.0017	0.0039
	(0.0143)	(0.0047)	(0.0140)	(0.0085)	(0.0086)
Country characteristics					
GDP growth rate	$0.0263^{\dagger}$	-0.0055^{**}	$0.0299^{\dagger}$	-0.0049	0.0059
	(0.0067)	(0.0026)	(0.0065)	(0.0043)	(0.0040)
Unemployment rate	0.0031	0.0021	0.0040	0.0081	-0.0078
	(0.0137)	(0.0043)	(0.0135)	(0.0078)	(0.0064)
Female LFP rate	0.0034	0.0039	-0.0003	0.0034	-0.0030
	(0.0070)	(0.0024)	(0.0068)	(0.0045)	(0.0040)
Added worker dummy	-0.0210	0.0031	-0.0265	0.0136	0.0579^{***}
	(0.0215)	(0.0067)	(0.0209)	(0.0133)	(0.0189)
Pseudo-R^2	0.1266	0.0822	0.1252	0.1100	0.0819
Observations	21,099	21,099	21,099	17,355	36,482

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 A9: 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	$\mathbf{\Delta\ JS}$ ME/StdE	$\mathbf{PT}_{t-1} \rightarrow \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	0.0038	-0.0209^*	0.0205	-0.0335^*	-0.0334
	(0.0263)	(0.0118)	(0.0242)	(0.0203)	(0.0208)
No. of children	-0.0314^{***}	-0.0034	-0.0268^{***}	0.0012	$-0.0371^{\dagger}$
	(0.0106)	(0.0033)	(0.0101)	(0.0061)	(0.0083)
Child age 0 to 3	-0.0266	-0.0161^{**}	-0.0090	$-0.0515^{\dagger}$	$-0.0861^{\dagger}$
	(0.0276)	(0.0072)	(0.0271)	(0.0138)	(0.0166)
Child age 4 to 6	-0.0371	-0.0092	-0.0256	$-0.0491^{\dagger}$	-0.0546^{***}
	(0.0272)	(0.0074)	(0.0264)	(0.0122)	(0.0169)
Log. equiv. disposable income (in thsd.)	0.0065	0.0003	0.0078	-0.0100	0.0059
	(0.0156)	(0.0048)	(0.0150)	(0.0087)	(0.0149)
Repayment of debts	0.0491^{***}	-0.0072	$0.0563^{\dagger}$	0.0041	0.0032
	(0.0172)	(0.0061)	(0.0165)	(0.0116)	(0.0121)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0126	0.0087	-0.0204	-0.0213	0.0142
	(0.0208)	(0.0058)	(0.0202)	(0.0152)	(0.0132)
Apartment or flat	-0.0290	0.0265	-0.0663^*	0.0054	0.0491
	(0.0389)	(0.0162)	(0.0344)	(0.0269)	(0.0340)
Wife's characteristics					
Age	-0.0057^{***}	-0.0009^*	-0.0051^{**}	-0.0026^{**}	-0.0027^*
	(0.0021)	(0.0006)	(0.0020)	(0.0012)	(0.0015)
Education (ref.: medium skilled)					
Low skilled	-0.0403	0.0214^{**}	-0.0667^{***}	0.0083	0.0058
	(0.0247)	(0.0099)	(0.0219)	(0.0168)	(0.0217)
High skilled	$0.0920^{\dagger}$	0.0132^{**}	$0.0785^{\dagger}$	0.0360^{**}	0.0231
	(0.0233)	(0.0067)	(0.0226)	(0.0168)	(0.0153)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0513^{\dagger}$
	–	–	–	–	(0.0153)
Blue collar high	–	–	–	–	$0.1862^{\dagger}$
	–	–	–	–	(0.0495)
Blue collar low	–	–	–	–	-0.0563^{***}
	–	–	–	–	(0.0211)
Husband's characteristics					
Age	-0.0038^*	0.0005	-0.0039^*	-0.0011	-0.0042^{***}
	(0.0021)	(0.0005)	(0.0020)	(0.0013)	(0.0015)
Education (ref.: medium skilled)					
Low skilled	-0.0530^{**}	-0.0043	-0.0508^{**}	-0.0134	-0.0095
	(0.0265)	(0.0065)	(0.0253)	(0.0157)	(0.0202)
High skilled	-0.0349	0.0094	-0.0442^{**}	0.0023	-0.0129
	(0.0225)	(0.0082)	(0.0213)	(0.0155)	(0.0148)
Occupation (ref.: white collar high)					
White collar low	-0.0216	-0.0038	-0.0210	-0.0045	0.0360^*
	(0.0308)	(0.0090)	(0.0294)	(0.0192)	(0.0205)
Blue collar high	-0.0166	0.0016	-0.0177	0.0028	-0.0239
	(0.0274)	(0.0090)	(0.0262)	(0.0173)	(0.0177)
Blue collar low	-0.0327	0.0058	-0.0361	-0.0006	0.0176
	(0.0269)	(0.0088)	(0.0257)	(0.0172)	(0.0210)
Country characteristics					
GDP growth rate	0.0027	0.0031	0.0017	0.0068	0.0064
	(0.0207)	(0.0066)	(0.0204)	(0.0130)	(0.0162)
Unemployment rate	-0.0174	0.0020	-0.0194	-0.0468	-0.0124
	(0.0596)	(0.0192)	(0.0584)	(0.0382)	(0.0463)
Female LFP rate	-0.0111	-0.0030	-0.0073	-0.0431	-0.0147
	(0.0457)	(0.0154)	(0.0445)	(0.0295)	(0.0355)
Added worker dummy	-0.0616	0.0207	-0.0896^{**}	0.0244	0.0694
	(0.0429)	(0.0178)	(0.0384)	(0.0290)	(0.0444)
Pseudo-R^2	0.0761	0.1452	0.0846	0.1075	0.0546
Observations	4,005	4,005	4,005	3,180	5,867

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 A10: PROBIT ESTIMATIONS: MEDITERRANEAN COUNTRIES

	$IA_{t-1} \to A_t$ ME/StdE	$IA_{t-1} \to UE_t$ ME/StdE	$IA_{t-1} \to E_t$ ME/StdE	Δ JS ME/StdE	$PT_{t-1} \to FT_t$ ME/StdE
Household characteristics					
Married	$-0.0795^{\dagger}$	-0.0257^{**}	$-0.0493^{\dagger}$	-0.0376^{***}	0.0004
	(0.0167)	(0.0106)	(0.0138)	(0.0129)	(0.0213)
No. of children	$-0.0194^{\dagger}$	$-0.0116^{\dagger}$	-0.0078^{**}	$-0.0109^{\dagger}$	-0.0078
	(0.0039)	(0.0027)	(0.0031)	(0.0032)	(0.0078)
Child age 0 to 3	0.0322^{***}	0.0169^{**}	0.0142^{*}	-0.0062	0.0270
	(0.0112)	(0.0079)	(0.0086)	(0.0077)	(0.0206)
Child age 4 to 6	0.0111	0.0100	0.0012	0.0028	-0.0191
	(0.0095)	(0.0068)	(0.0072)	(0.0073)	(0.0164)
Log. equiv. disposable income (in thsd.)	$0.0233^{\dagger}$	-0.0030	$0.0277^{\dagger}$	-0.0019	0.0142
	(0.0049)	(0.0030)	(0.0041)	(0.0035)	(0.0117)
Repayment of debts	$0.0298^{\dagger}$	$0.0212^{\dagger}$	0.0092^{**}	$0.0319^{\dagger}$	-0.0116
	(0.0060)	(0.0044)	(0.0046)	(0.0052)	(0.0117)
Dwelling type (ref.: detached house)					
Semi-detached house	0.0071	0.0066	0.0012	0.0182^{***}	-0.0217
	(0.0078)	(0.0050)	(0.0065)	(0.0060)	(0.0160)
Apartment or flat	0.0019	0.0130^{***}	-0.0103^{**}	$0.0223^{\dagger}$	-0.0265^{*}
	(0.0065)	(0.0044)	(0.0052)	(0.0051)	(0.0144)
Wife's characteristics					
Age	$-0.0036^{\dagger}$	-0.0016^{***}	$-0.0020^{\dagger}$	$-0.0037^{\dagger}$	0.0042^{***}
	(0.0007)	(0.0005)	(0.0006)	(0.0006)	(0.0014)
Education (ref.: medium skilled)					
Low skilled	$-0.0241^{\dagger}$	-0.0133^{***}	-0.0108^{**}	-0.0123^{**}	0.0112
	(0.0064)	(0.0045)	(0.0048)	(0.0052)	(0.0138)
High skilled	$0.0520^{\dagger}$	0.0015	$0.0472^{\dagger}$	0.0179^{*}	0.0392^{**}
	(0.0117)	(0.0073)	(0.0098)	(0.0098)	(0.0170)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0531^{\dagger}$
	–	–	–	–	(0.0144)
Blue collar high	–	–	–	–	0.0558^{**}
	–	–	–	–	(0.0249)
Blue collar low	–	–	–	–	-0.0302
	–	–	–	–	(0.0190)
Husband's characteristics					
Age	$-0.0033^{\dagger}$	-0.0015^{***}	-0.0017^{***}	-0.0009	$-0.0060^{\dagger}$
	(0.0007)	(0.0005)	(0.0006)	(0.0006)	(0.0014)
Education (ref.: medium skilled)					
Low skilled	-0.0074	-0.0038	-0.0043	-0.0029	-0.0228^{*}
	(0.0067)	(0.0046)	(0.0052)	(0.0053)	(0.0135)
High skilled	-0.0103	-0.0035	-0.0077	-0.0108	0.0168
	(0.0088)	(0.0061)	(0.0068)	(0.0071)	(0.0170)
Occupation (ref.: white collar high)					
White collar low	0.0022	0.0076	-0.0043	0.0137^{**}	0.0253
	(0.0086)	(0.0060)	(0.0066)	(0.0068)	(0.0170)
Blue collar high	0.0080	0.0061	0.0030	0.0165^{***}	-0.0324^{**}
	(0.0078)	(0.0055)	(0.0061)	(0.0061)	(0.0156)
Blue collar low	-0.0018	0.0024	-0.0028	0.0216^{***}	0.0366^{**}
	(0.0082)	(0.0057)	(0.0064)	(0.0066)	(0.0183)
Country characteristics					
GDP growth rate	-0.0001	-0.0017	-0.0005	-0.0019	0.0071
	(0.0024)	(0.0018)	(0.0019)	(0.0019)	(0.0052)
Unemployment rate	-0.0051^{***}	-0.0017	$-0.0055^{\dagger}$	0.0005	-0.0076^{*}
	(0.0019)	(0.0013)	(0.0015)	(0.0015)	(0.0042)
Female LFP rate	$-0.0144^{\dagger}$	$-0.0106^{\dagger}$	-0.0054^{*}	-0.0019	-0.0109
	(0.0042)	(0.0031)	(0.0033)	(0.0035)	(0.0091)
Added worker dummy	$0.0602^{\dagger}$	$0.0419^{\dagger}$	0.0170^{*}	$0.0616^{\dagger}$	$0.1078^{\dagger}$
	(0.0122)	(0.0087)	(0.0096)	(0.0108)	(0.0295)
Pseudo-R^2	0.0874	0.0986	0.0583	0.1030	0.0358
Observations	29,232	29,232	29,232	27,028	11,920

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 A11: PROBIT ESTIMATIONS: CENTRAL AND EASTERN EUROPE

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE	Δ JS ME/StdE	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	0.0147	0.0030	0.0110	-0.0033	-0.0907^{***}
	(0.0098)	(0.0054)	(0.0087)	(0.0065)	(0.0298)
No. of children	$-0.0228^{\dagger}$	-0.0060^{***}	$-0.0169^{\dagger}$	-0.0100^{***}	-0.0137
	(0.0043)	(0.0021)	(0.0040)	(0.0031)	(0.0096)
Child age 0 to 3	$-0.0460^{\dagger}$	$-0.0280^{\dagger}$	-0.0170^{*}	$-0.0434^{\dagger}$	0.0744^{**}
	(0.0110)	(0.0051)	(0.0103)	(0.0058)	(0.0364)
Child age 4 to 6	$0.0865^{\dagger}$	0.0068	$0.0786^{\dagger}$	0.0114	0.0481^{*}
	(0.0116)	(0.0058)	(0.0104)	(0.0071)	(0.0269)
Log. equiv. disposable income (in thsd.)	-0.0037	-0.0026	-0.0014	-0.0114^{***}	0.0243^{*}
	(0.0066)	(0.0039)	(0.0058)	(0.0043)	(0.0130)
Repayment of debts	0.0197^{***}	0.0049	0.0141^{**}	0.0109^{**}	$0.0577^{\dagger}$
	(0.0072)	(0.0039)	(0.0063)	(0.0050)	(0.0170)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0112	-0.0049	-0.0078	0.0172^{*}	0.0255
	(0.0130)	(0.0065)	(0.0114)	(0.0095)	(0.0342)
Apartment or flat	-0.0030	-0.0015	-0.0029	$0.0171^{\dagger}$	0.0116
	(0.0072)	(0.0040)	(0.0063)	(0.0048)	(0.0182)
Wife's characteristics					
Age	$-0.0030^{\dagger}$	$-0.0017^{\dagger}$	-0.0013^{*}	$-0.0023^{\dagger}$	-0.0010
	(0.0008)	(0.0005)	(0.0007)	(0.0005)	(0.0017)
Education (ref.: medium skilled)					
Low skilled	$-0.0382^{\dagger}$	-0.0015	$-0.0374^{\dagger}$	-0.0065	-0.0239
	(0.0089)	(0.0050)	(0.0076)	(0.0062)	(0.0224)
High skilled	$0.1048^{\dagger}$	0.0032	$0.0982^{\dagger}$	0.0291^{***}	0.0438
	(0.0128)	(0.0064)	(0.0118)	(0.0093)	(0.0271)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	-0.0032
	–	–	–	–	(0.0244)
Blue collar high	–	–	–	–	0.0247
	–	–	–	–	(0.0273)
Blue collar low	–	–	–	–	-0.0426
	–	–	–	–	(0.0263)
Husband's characteristics					
Age	-0.0018^{**}	-0.0001	-0.0017^{**}	-0.0000	-0.0025
	(0.0008)	(0.0004)	(0.0007)	(0.0005)	(0.0017)
Education (ref.: medium skilled)					
Low skilled	-0.0137	-0.0058	-0.0080	-0.0072	0.0041
	(0.0111)	(0.0055)	(0.0100)	(0.0066)	(0.0250)
High skilled	-0.0114	-0.0124^{**}	-0.0004	-0.0169^{**}	0.0458
	(0.0116)	(0.0062)	(0.0102)	(0.0074)	(0.0281)
Occupation (ref.: white collar high)					
White collar low	0.0365^{**}	0.0017	0.0345^{***}	0.0098	0.0765^{***}
	(0.0144)	(0.0074)	(0.0128)	(0.0088)	(0.0284)
Blue collar high	0.0117	0.0042	0.0076	0.0074	0.0025
	(0.0099)	(0.0054)	(0.0089)	(0.0065)	(0.0240)
Blue collar low	0.0056	0.0090	-0.0039	0.0083	0.0321
	(0.0108)	(0.0061)	(0.0095)	(0.0069)	(0.0264)
Country characteristics					
GDP growth rate	0.0008	-0.0005	0.0014	-0.0004	0.0063^{**}
	(0.0013)	(0.0007)	(0.0011)	(0.0008)	(0.0029)
Unemployment rate	0.0067^{*}	0.0062^{***}	-0.0002	0.0032	-0.0242^{***}
	(0.0038)	(0.0021)	(0.0034)	(0.0025)	(0.0076)
Female LFP rate	-0.0027	-0.0011	0.0003	-0.0053	-0.0322^{***}
	(0.0056)	(0.0030)	(0.0051)	(0.0037)	(0.0116)
Added worker dummy	0.0310^{**}	0.0280^{***}	0.0028	$0.0567^{\dagger}$	-0.0345
	(0.0143)	(0.0085)	(0.0128)	(0.0132)	(0.0357)
Pseudo-R^2	0.1140	0.1113	0.1051	0.0924	0.0560
Observations	25,745	25,745	25,745	23,929	8,394

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 A12: PROBIT ESTIMATIONS: ADDED WORKER EFFECT BY COUNTRY GROUP –
INCLUDING COUNTRY-TIME FIXED EFFECTS

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$	$\mathbf{\Delta\ JS}$	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$
			Scandinavia		
ME	0.0916**	0.0362*	0.0462	−0.0032	0.0150
StdE	(0.0417)	(0.0196)	(0.0415)	(0.0273)	(0.0380)
Δ%	26.50%	–	–	–	–
Observations	7,335	7,335	7,335	4,560	11,227
			Continental Europe		
ME	−0.0175	0.0053	−0.0252	0.0138	0.0578***
StdE	(0.0199)	(0.0066)	(0.0192)	(0.0129)	(0.0199)
Δ%	–	–	–	–	62.82%
Observations	21,099	21,099	21,099	17,355	36,482
			Anglo-Saxon Countries		
ME	−0.0634	0.0209	−0.0893**	0.0252	0.0692
StdE	(0.0429)	(0.0184)	(0.0387)	(0.0296)	(0.0445)
Δ%	–	–	-39.22%	–	–
Observations	4,005	4,005	4,005	3,180	5,867
			Mediterranean Countries		
ME	0.0628†	0.0428†	0.0160*	0.0614†	0.0998†
StdE	(0.0120)	(0.0088)	(0.0092)	(0.0107)	(0.0269)
Δ%	44.84%	73.54%	–	81.21%	39.00%
Observations	29,232	29,232	29,232	27,028	11,920
			Central and Eastern Europe		
ME	0.0373**	0.0292†	0.0036	0.0504†	−0.0284
StdE	(0.0146)	(0.0087)	(0.0126)	(0.0121)	(0.0353)
Δ%	20.45%	62.49%	–	81.52%	–
Observations	25,745	25,745	25,745	23,929	8,394

*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). – Δ% refers to the percentage change in women's probability of adjusting their labor supply due to their husbands' unemployment. Percentage changes are only shown for significant added worker effects (5-percent level). – Individual and household controls are the same as in Table 1.*

Table A13: PROBIT ESTIMATIONS: ADDED WORKER EFFECT BY COUNTRY GROUP – INCLUDING REGION-TIME FIXED EFFECTS

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$	Δ **JS**	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$
			Scandinavia		
ME	0.0852**	0.0342*	0.0402	−0.0007	0.0150
StdE	(0.0423)	(0.0196)	(0.0419)	(0.0283)	(0.0377)
$\Delta\%$	24.64%	–	–	–	–
Observations	7,249	7,249	7,249	4,529	11,226
			Continental Europe		
ME	−0.0163	0.0099	−0.0325	0.0218	0.0607***
StdE	(0.0239)	(0.0089)	(0.0224)	(0.0137)	(0.0200)
$\Delta\%$	–	–	–	–	65.88%
Observations	17,948	17,948	17,948	16,329	35,289
			Anglo-Saxon Countries		
ME	−0.0143	0.0480	−0.0616	0.0638	0.0706
StdE	(0.0547)	(0.0332)	(0.0487)	(0.0414)	(0.0457)
$\Delta\%$	–	–	–	–	–
Observations	3,129	3,129	3,129	2,760	5,596
			Mediterranean Countries		
ME	0.0671†	0.0418†	0.0208**	0.0620†	0.0982†
StdE	(0.0122)	(0.0087)	(0.0095)	(0.0106)	(0.0267)
$\Delta\%$	47.68%	70.99%	25.43%	81.58%	38.31%
Observations	28,585	28,585	28,585	26,811	11,885
			Central and Eastern Europe		
ME	0.0387**	0.0313†	0.0047	0.0502†	−0.0397
StdE	(0.0152)	(0.0094)	(0.0130)	(0.0119)	(0.0336)
$\Delta\%$	20.01%	57.92%	–	78.08%	–
Observations	23,919	23,919	23,919	23,393	8,336

Supplementary Appendix

Table B1: MULTINOMIAL LOGIT ESTIMATIONS: POOLED REGRESSIONS

	$\mathbf{IA}_{t-1} \to \mathbf{IA}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE
Household characteristics			
Married	$0.0307^{\dagger}$	-0.0130^{***}	-0.0177^{***}
	(0.0074)	(0.0044)	(0.0064)
No. of children	$0.0241^{\dagger}$	$-0.0073^{\dagger}$	$-0.0168^{\dagger}$
	(0.0028)	(0.0014)	(0.0026)
Child age 0 to 3	0.0161^{**}	-0.0050	-0.0111^{*}
	(0.0071)	(0.0035)	(0.0065)
Child age 4 to 6	$-0.0343^{\dagger}$	0.0095^{***}	$0.0248^{\dagger}$
	(0.0071)	(0.0035)	(0.0065)
Log. equiv. disposable income (in thsd.)	-0.0124^{***}	-0.0050^{***}	$0.0173^{\dagger}$
	(0.0040)	(0.0017)	(0.0038)
Repayment of debts	$-0.0309^{\dagger}$	$0.0098^{\dagger}$	$0.0211^{\dagger}$
	(0.0046)	(0.0024)	(0.0041)
Dwelling type (ref.: detached house)			
Semi-detached house	0.0096	0.0019	-0.0114^{**}
	(0.0060)	(0.0030)	(0.0055)
Apartment or flat	0.0091^{*}	0.0064^{***}	$-0.0155^{\dagger}$
	(0.0050)	(0.0024)	(0.0046)
Wife's characteristics			
Age	$0.0043^{\dagger}$	$-0.0012^{\dagger}$	$-0.0031^{\dagger}$
	(0.0005)	(0.0003)	(0.0005)
Education (ref.: medium skilled)			
Low skilled	$0.0393^{\dagger}$	-0.0051^{*}	$-0.0342^{\dagger}$
	(0.0048)	(0.0027)	(0.0042)
High skilled	$-0.0741^{\dagger}$	0.0041	$0.0700^{\dagger}$
	(0.0074)	(0.0035)	(0.0068)
Husband's characteristics			
Age	$0.0029^{\dagger}$	-0.0006^{**}	$-0.0023^{\dagger}$
	(0.0005)	(0.0003)	(0.0005)
Education (ref.: medium skilled)			
Low skilled	$0.0194^{\dagger}$	-0.0031	$-0.0164^{\dagger}$
	(0.0054)	(0.0027)	(0.0049)
High skilled	0.0143^{**}	0.0004	-0.0148^{***}
	(0.0063)	(0.0034)	(0.0056)
Occupation (ref.: white collar high)			
White collar low	-0.0019	0.0036	-0.0016
	(0.0071)	(0.0035)	(0.0064)
Blue collar high	-0.0115^{*}	0.0048	0.0067
	(0.0061)	(0.0031)	(0.0056)
Blue collar low	-0.0021	0.0044	-0.0023
	(0.0065)	(0.0031)	(0.0059)
Country characteristics			
GDP growth rate	-0.0023^{**}	-0.0004	0.0026^{***}
	(0.0011)	(0.0006)	(0.0010)
Unemployment rate	0.0003	-0.0001	-0.0002
	(0.0014)	(0.0007)	(0.0013)
Female LFP rate	$0.0121^{\dagger}$	$-0.0077^{\dagger}$	-0.0045^{**}
	(0.0025)	(0.0014)	(0.0022)
Added worker dummy	-0.0221^{**}	$0.0278^{\dagger}$	-0.0057
	(0.0094)	(0.0050)	(0.0086)
Pseudo-R^2		0.1120	
Observations		87,503	

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 regression.

Table B2: Probit Estimations: Pooled Regressions Based on Sample Including Husband's Labor Market Experience and Previous Job Status

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$ ME/StdE	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$ ME/StdE	Δ **JS** ME/StdE	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0403^\dagger$	-0.0113^{**}	$-0.0290^\dagger$	-0.0210^{***}	$-0.0321^\dagger$
	(0.0095)	(0.0055)	(0.0082)	(0.0074)	(0.0085)
No. of children	$-0.0231^\dagger$	$-0.0092^\dagger$	$-0.0141^\dagger$	$-0.0119^\dagger$	$-0.0148^\dagger$
	(0.0034)	(0.0019)	(0.0030)	(0.0024)	(0.0039)
Child age 0 to 3	-0.0147^*	-0.0046	-0.0101	$-0.0200^\dagger$	0.0023
	(0.0085)	(0.0047)	(0.0075)	(0.0056)	(0.0101)
Child age 4 to 6	$0.0390^\dagger$	0.0097^{**}	$0.0288^\dagger$	0.0127^{**}	0.0026
	(0.0087)	(0.0046)	(0.0077)	(0.0059)	(0.0085)
Log. equiv. disposable income (in thsd.)	0.0178^{***}	$-0.0103^\dagger$	$0.0297^\dagger$	-0.0104^{***}	0.0172^{**}
	(0.0055)	(0.0030)	(0.0050)	(0.0037)	(0.0073)
Repayment of debts	$0.0313^\dagger$	$0.0131^\dagger$	$0.0180^\dagger$	$0.0177^\dagger$	0.0101^*
	(0.0055)	(0.0031)	(0.0048)	(0.0039)	(0.0059)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0102	-0.0002	-0.0089	0.0060	0.0075
	(0.0074)	(0.0039)	(0.0066)	(0.0052)	(0.0074)
Apartment or flat	-0.0054	0.0040	-0.0087	0.0131^{***}	0.0155^{**}
	(0.0060)	(0.0032)	(0.0053)	(0.0041)	(0.0075)
Wife's characteristics					
Age	$-0.0042^\dagger$	$-0.0012^\dagger$	$-0.0030^\dagger$	$-0.0033^\dagger$	0.0003
	(0.0006)	(0.0003)	(0.0005)	(0.0004)	(0.0007)
Education (ref.: medium skilled)					
Low skilled	$-0.0399^\dagger$	-0.0086^{**}	$-0.0319^\dagger$	-0.0118^{***}	-0.0117
	(0.0059)	(0.0035)	(0.0049)	(0.0041)	(0.0073)
High skilled	$0.0789^\dagger$	0.0044	$0.0696^\dagger$	$0.0345^\dagger$	0.0235^{***}
	(0.0096)	(0.0048)	(0.0086)	(0.0073)	(0.0080)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0328^\dagger$
	–	–	–	–	(0.0075)
Blue collar high	–	–	–	–	$0.0700^\dagger$
	–	–	–	–	(0.0152)
Blue collar low	–	–	–	–	$-0.0315^\dagger$
	–	–	–	–	(0.0093)
Husband's characteristics					
Age	$-0.0034^\dagger$	-0.0009^{**}	$-0.0025^\dagger$	-0.0003	$-0.0057^\dagger$
	(0.0006)	(0.0004)	(0.0005)	(0.0004)	(0.0007)
Education (ref.: medium skilled)					
Low skilled	-0.0147^{**}	-0.0018	-0.0149^{***}	-0.0011	-0.0093
	(0.0065)	(0.0038)	(0.0056)	(0.0046)	(0.0079)
High skilled	-0.0133^*	0.0050	-0.0168^{**}	-0.0095^*	-0.0052
	(0.0080)	(0.0048)	(0.0068)	(0.0056)	(0.0075)
Occupation (ref.: white collar high)					
White collar low	0.0022	0.0040	-0.0005	0.0051	0.0233^{***}
	(0.0085)	(0.0047)	(0.0075)	(0.0060)	(0.0084)
Blue collar high	0.0073	0.0070	0.0021	0.0102^*	-0.0142^*
	(0.0078)	(0.0045)	(0.0068)	(0.0055)	(0.0086)
Blue collar low	0.0088	0.0023	0.0087	0.0094^*	0.0210^{**}
	(0.0079)	(0.0042)	(0.0071)	(0.0055)	(0.0091)
Share of years in employment	–	–	–	–	–
	–	–	–	–	–
Country characteristics					
GDP growth rate	0.0030^{**}	-0.0005	0.0030^{***}	-0.0005	$0.0076^\dagger$
	(0.0012)	(0.0007)	(0.0011)	(0.0009)	(0.0017)
Unemployment rate	0.0011	0.0003	-0.0024	0.0024^{**}	-0.0011
	(0.0017)	(0.0009)	(0.0015)	(0.0012)	(0.0020)
Female LFP rate	$-0.0122^\dagger$	$-0.0067^\dagger$	-0.0071^{***}	-0.0042^*	-0.0062^*
	(0.0031)	(0.0018)	(0.0027)	(0.0024)	(0.0034)
Added worker dummy	0.0287^{***}	$0.0210^\dagger$	0.0049	$0.0414^\dagger$	$0.0589^\dagger$
	(0.0104)	(0.0059)	(0.0093)	(0.0086)	(0.0164)
Pseudo-R^2	0.1103	0.0937	0.1234	0.0869	0.0985
Observations	56,320	56,320	56,320	50,153	43,296

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 B3: PROBIT ESTIMATIONS: POOLED REGRESSIONS INCLUDING INTERACTION WITH THE GDP GROWTH RATE

	$\textbf{IA}_{t-1} \to \textbf{A}_t$ ME/StdE	$\textbf{IA}_{t-1} \to \textbf{UE}_t$ ME/StdE	$\textbf{IA}_{t-1} \to \textbf{E}_t$ ME/StdE	Δ **JS** ME/StdE	$\textbf{PT}_{t-1} \to \textbf{FT}_t$ ME/StdE
Household characteristics					
Married	$-0.0311^{\dagger}$	-0.0124^{***}	-0.0207^{***}	$-0.0201^{\dagger}$	$-0.0278^{\dagger}$
	(0.0075)	(0.0043)	(0.0065)	(0.0056)	(0.0066)
No. of children	$-0.0236^{\dagger}$	$-0.0071^{\dagger}$	$-0.0164^{\dagger}$	$-0.0089^{\dagger}$	$-0.0192^{\dagger}$
	(0.0027)	(0.0014)	(0.0025)	(0.0018)	(0.0030)
Child age 0 to 3	-0.0142^{**}	-0.0054	-0.0093	$-0.0241^{\dagger}$	-0.0174^{**}
	(0.0072)	(0.0035)	(0.0065)	(0.0043)	(0.0076)
Child age 4 to 6	$0.0373^{\dagger}$	0.0102^{***}	$0.0267^{\dagger}$	0.0044	-0.0100
	(0.0072)	(0.0035)	(0.0064)	(0.0045)	(0.0067)
Log. equiv. disposable income (in thsd.)	0.0113^{***}	-0.0053^{***}	$0.0173^{\dagger}$	-0.0068^{***}	0.0010
	(0.0038)	(0.0019)	(0.0035)	(0.0024)	(0.0048)
Repayment of debts	$0.0308^{\dagger}$	$0.0092^{\dagger}$	$0.0209^{\dagger}$	$0.0197^{\dagger}$	0.0066
	(0.0045)	(0.0024)	(0.0040)	(0.0033)	(0.0047)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0103^{*}	0.0016	-0.0104^{*}	0.0051	0.0041
	(0.0059)	(0.0029)	(0.0054)	(0.0041)	(0.0057)
Apartment or flat	-0.0096^{*}	0.0063^{***}	$-0.0156^{\dagger}$	$0.0126^{\dagger}$	0.0143^{**}
	(0.0049)	(0.0024)	(0.0045)	(0.0033)	(0.0063)
Wife's characteristics					
Age	$-0.0043^{\dagger}$	$-0.0012^{\dagger}$	$-0.0031^{\dagger}$	$-0.0032^{\dagger}$	-0.0004
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	$-0.0358^{\dagger}$	-0.0055^{**}	$-0.0307^{\dagger}$	-0.0087^{***}	-0.0009
	(0.0048)	(0.0027)	(0.0041)	(0.0033)	(0.0060)
High skilled	$0.0793^{\dagger}$	0.0025	$0.0730^{\dagger}$	$0.0262^{\dagger}$	$0.0258^{\dagger}$
	(0.0075)	(0.0034)	(0.0068)	(0.0057)	(0.0061)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0411^{\dagger}$
	–	–	–	–	(0.0058)
Blue collar high	–	–	–	–	$0.0541^{\dagger}$
	–	–	–	–	(0.0114)
Blue collar low	–	–	–	–	$-0.0357^{\dagger}$
	–	–	–	–	(0.0076)
Husband's characteristics					
Age	$-0.0029^{\dagger}$	-0.0005^{*}	$-0.0023^{\dagger}$	-0.0003	$-0.0046^{\dagger}$
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	-0.0164^{***}	-0.0035	-0.0142^{***}	-0.0038	-0.0082
	(0.0053)	(0.0027)	(0.0047)	(0.0036)	(0.0061)
High skilled	-0.0141^{**}	0.0009	-0.0145^{***}	-0.0061	-0.0002
	(0.0063)	(0.0034)	(0.0055)	(0.0045)	(0.0059)
Occupation (ref.: white collar high)					
White collar low	0.0006	0.0036	-0.0015	0.0078	$0.0269^{\dagger}$
	(0.0070)	(0.0035)	(0.0063)	(0.0048)	(0.0071)
Blue collar high	0.0101^{*}	0.0051^{*}	0.0063	0.0089^{**}	-0.0204^{***}
	(0.0060)	(0.0031)	(0.0054)	(0.0040)	(0.0063)
Blue collar low	0.0005	0.0048	-0.0030	0.0118^{***}	0.0124^{*}
	(0.0063)	(0.0031)	(0.0057)	(0.0042)	(0.0074)
Country characteristics					
GDP growth rate	0.0030^{***}	-0.0001	0.0026^{***}	-0.0001	$0.0049^{\dagger}$
	(0.0011)	(0.0006)	(0.0010)	(0.0008)	(0.0013)
Unemployment rate	0.0036^{***}	0.0004	-0.0009	0.0019^{**}	-0.0003
	(0.0014)	(0.0007)	(0.0012)	(0.0009)	(0.0016)
Female LFP rate	$-0.0095^{\dagger}$	$-0.0071^{\dagger}$	-0.0050^{**}	-0.0056^{***}	-0.0039
	(0.0025)	(0.0013)	(0.0022)	(0.0018)	(0.0027)
Added worker dummy	$0.0350^{\dagger}$	$0.0305^{\dagger}$	-0.0030	$0.0474^{\dagger}$	$0.0604^{\dagger}$
	(0.0092)	(0.0052)	(0.0081)	(0.0071)	(0.0139)
Pseudo-R^2	0.1013	0.0982	0.1116	0.0888	0.0952
Observations	87,503	87,503	87,503	76,133	73,891

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' GDP growth rate are additionally included in the regressions. The interaction effects are shown in Figure 1.

Table B4: PROBIT ESTIMATIONS: POOLED REGRESSIONS INCLUDING INTERACTION WITH THE FEMALE LFP RATE

	$IA_{t-1} \to A_t$ ME/StdE	$IA_{t-1} \to UE_t$ ME/StdE	$IA_{t-1} \to E_t$ ME/StdE	Δ JS ME/StdE	$PT_{t-1} \to FT_t$ ME/StdE
Household characteristics					
Married	$-0.0312^{\dagger}$	-0.0125^{***}	-0.0207^{***}	$-0.0201^{\dagger}$	$-0.0277^{\dagger}$
	(0.0075)	(0.0043)	(0.0065)	(0.0056)	(0.0066)
No. of children	$-0.0235^{\dagger}$	$-0.0071^{\dagger}$	$-0.0164^{\dagger}$	$-0.0089^{\dagger}$	$-0.0192^{\dagger}$
	(0.0027)	(0.0014)	(0.0025)	(0.0018)	(0.0030)
Child age 0 to 3	-0.0144^{**}	-0.0054	-0.0094	$-0.0242^{\dagger}$	-0.0174^{**}
	(0.0071)	(0.0035)	(0.0065)	(0.0043)	(0.0076)
Child age 4 to 6	$0.0372^{\dagger}$	0.0102^{***}	$0.0267^{\dagger}$	0.0043	-0.0101
	(0.0072)	(0.0035)	(0.0064)	(0.0045)	(0.0067)
Log. equiv. disposable income (in thsd.)	0.0116^{***}	-0.0052^{***}	$0.0174^{\dagger}$	-0.0066^{***}	0.0009
	(0.0038)	(0.0019)	(0.0035)	(0.0024)	(0.0048)
Repayment of debts	$0.0306^{\dagger}$	$0.0092^{\dagger}$	$0.0207^{\dagger}$	$0.0196^{\dagger}$	0.0066
	(0.0045)	(0.0024)	(0.0040)	(0.0033)	(0.0047)
Dwelling type (ref.: detached house)					
Semi-detached house	-0.0098^{*}	0.0016	-0.0101^{*}	0.0054	0.0041
	(0.0059)	(0.0029)	(0.0054)	(0.0041)	(0.0057)
Apartment or flat	-0.0089^{*}	0.0064^{***}	$-0.0152^{\dagger}$	$0.0130^{\dagger}$	0.0142^{**}
	(0.0049)	(0.0024)	(0.0045)	(0.0033)	(0.0063)
Wife's characteristics					
Age	$-0.0043^{\dagger}$	$-0.0012^{\dagger}$	$-0.0031^{\dagger}$	$-0.0032^{\dagger}$	-0.0004
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	$-0.0361^{\dagger}$	-0.0055^{**}	$-0.0309^{\dagger}$	-0.0088^{***}	-0.0010
	(0.0048)	(0.0027)	(0.0041)	(0.0033)	(0.0060)
High skilled	$0.0790^{\dagger}$	0.0025	$0.0730^{\dagger}$	$0.0260^{\dagger}$	$0.0258^{\dagger}$
	(0.0075)	(0.0034)	(0.0068)	(0.0057)	(0.0061)
Occupation (ref.: white collar high)					
White collar low	–	–	–	–	$-0.0411^{\dagger}$
	–	–	–	–	(0.0058)
Blue collar high	–	–	–	–	$0.0541^{\dagger}$
	–	–	–	–	(0.0114)
Blue collar low	–	–	–	–	$-0.0356^{\dagger}$
	–	–	–	–	(0.0076)
Husband's characteristics					
Age	$-0.0029^{\dagger}$	-0.0005^{*}	$-0.0023^{\dagger}$	-0.0003	$-0.0046^{\dagger}$
	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0006)
Education (ref.: medium skilled)					
Low skilled	-0.0168^{***}	-0.0035	-0.0144^{***}	-0.0040	-0.0081
	(0.0053)	(0.0027)	(0.0047)	(0.0036)	(0.0061)
High skilled	-0.0145^{**}	0.0009	-0.0147^{***}	-0.0063	-0.0002
	(0.0063)	(0.0034)	(0.0055)	(0.0045)	(0.0059)
Occupation (ref.: white collar high)					
White collar low	0.0011	0.0036	-0.0012	0.0082^{*}	$0.0268^{\dagger}$
	(0.0070)	(0.0035)	(0.0063)	(0.0048)	(0.0071)
Blue collar high	0.0102^{*}	0.0051^{*}	0.0063	0.0090^{**}	-0.0204^{***}
	(0.0060)	(0.0031)	(0.0054)	(0.0040)	(0.0063)
Blue collar low	0.0008	0.0048	-0.0029	0.0120^{***}	0.0124^{*}
	(0.0063)	(0.0031)	(0.0057)	(0.0042)	(0.0074)
Country characteristics					
GDP growth rate	0.0030^{***}	-0.0001	0.0025^{***}	-0.0001	$0.0049^{\dagger}$
	(0.0011)	(0.0006)	(0.0010)	(0.0008)	(0.0013)
Unemployment rate	0.0035^{***}	0.0004	-0.0010	0.0019^{**}	-0.0003
	(0.0014)	(0.0007)	(0.0012)	(0.0009)	(0.0016)
Female LFP rate	$-0.0096^{\dagger}$	$-0.0071^{\dagger}$	-0.0051^{**}	-0.0056^{***}	-0.0038
	(0.0025)	(0.0013)	(0.0022)	(0.0018)	(0.0027)
Added worker dummy	0.0275^{***}	$0.0299^{\dagger}$	-0.0077	$0.0455^{\dagger}$	$0.0632^{\dagger}$
	(0.0094)	(0.0051)	(0.0083)	(0.0070)	(0.0149)
Pseudo-R^2	0.1017	0.0982	0.1118	0.0893	0.0952
Observations	87,503	87,503	87,503	76,133	73,891

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' female labor force participation rate are additionally included in the regressions. The interaction effects are shown in Figure 3.

Table B5: PROBIT ESTIMATIONS: ADDED WORKER EFFECT BY COUNTRY GROUP BASED ON SAMPLE INCLUDING REGION-TIME FIXED EFFECTS

	$\mathbf{IA}_{t-1} \to \mathbf{A}_t$	$\mathbf{IA}_{t-1} \to \mathbf{UE}_t$	$\mathbf{IA}_{t-1} \to \mathbf{E}_t$	Δ **JS**	$\mathbf{PT}_{t-1} \to \mathbf{FT}_t$
			Scandinavia		
ME	0.0895*	0.0304*	0.0562	−0.0057	0.0232
StdE	(0.0457)	(0.0185)	(0.0465)	(0.0275)	(0.0386)
Δ%	–	–	–	–	–
Observations	7,249	7,249	7,249	4,529	11,226
			Continental Europe		
ME	−0.0308	0.0046	−0.0422	0.0148	0.0626***
StdE	(0.0272)	(0.0093)	(0.0260)	(0.0146)	(0.0194)
Δ%	–	–	–	–	68.03%
Observations	17,948	17,948	17,948	16,329	35,289
			Anglo-Saxon Countries		
ME	−0.0154	0.0427	−0.0640	0.0498	0.0729
StdE	(0.0558)	(0.0280)	(0.0483)	(0.0409)	(0.0462)
Δ%	–	–	–	–	–
Observations	3,129	3,129	3,129	2,760	5,596
			Mediterranean Countries		
ME	0.0605†	0.0424†	0.0168*	0.0617†	0.1076†
StdE	(0.0123)	(0.0088)	(0.0097)	(0.0109)	(0.0295)
Δ%	43.02%	72.16%	–	81.25%	41.94%
Observations	28,585	28,585	28,585	26,811	11,885
			Central and Eastern Europe		
ME	0.0384**	0.0313***	0.0071	0.0585†	−0.0347
StdE	(0.0153)	(0.0097)	(0.0134)	(0.0136)	(0.0360)
Δ%	19.88%	58.11%	–	90.95%	–
Observations	23,919	23,919	23,919	23,393	8,336

*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). – Δ% refers to the percentage change in women's probability of adjusting their labor supply due to their husbands' unemployment. Percentage changes are only shown for significant added worker effects (5-percent level). – Individual and household controls are the same as in Table 1.*