

## **Couples' Strategies after Job Loss in West Germany and the United States – The Added Worker Effect and Linked Life Courses**

By Martin Ehlert\*

### **Abstract**

In couple households, income losses due to men's displacements may be offset by an increase in women's earnings, the so called "Added Worker Effect" (AWE). I argue that previous research largely neglected the variation of the AWE due to intra-household characteristics. Following the idea of "linked life courses", intra-household processes have an influence on the AWE and that this influence is structured by gender norms. I test the implications of this perspective using panel data from West Germany (GSOEP) and the United States (PSID). Results support my expectation that male breadwinner couples have lower AWE than modern and semi-modernized couples.

*JEL Classifications: Z13, D13, J64*

### **1. Introduction**

Research on economic insecurity over the life course showed that involuntary job loss is a mayor cause for downward mobility (DiPrete/McManus, 2000; Gangl, 2003; Kohler et al., 2012)<sup>1</sup>. Besides labor market and welfare state influences, the family proved to be an important factor in ameliorating the negative consequences of displacements (Ehlert, 2012). Yet, the impact of the

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\* This research originated from the DFG Project "The Economic Consequences of Key Life Risks in Germany and the US and Their Evolution since the 1980s" (grant no. KO 2239/2). I thank the Jan Paul Heisig, Ulrich Kohler, Anke Radenacker, and Heike Solga for helpful comments. The data used were kindly provided by the Deutsches Institut für Wirtschaftsforschung, Berlin (GSOEP); the Institute for Social Research, Survey Research Center, University of Michigan, Ann Arbor, Michigan (PSID); and the Department of Human Sciences at the Ohio State University (CNEF).

<sup>1</sup> This article is a shortened version of a chapter from my forthcoming book "The Impact of Losing Your Job. Unemployment and Influences from Market, Family, and State on Economic Well-Being in the US and Germany, Amsterdam, Amsterdam University Press, 2016". For more information about the topic and further analyses, please consult the book.

family seems to vary between households: those with higher initial incomes gain more from the “family income buffer” after job loss (Ehlert, 2013). The family income buffer can be divided into the effect of existing incomes in the household and increases in other household members’ employment participation. The latter is known as the “added worker effect” (AWE) (Lundberg, 1985). Because of the prevailing gender division of work in couples, the AWE almost exclusively buffers men’s incomes; women are often not full-time employees and can therefore increase their work hours if their partners become unemployed. In this paper I take a closer look at the AWE in the United States and Germany. Given the differences in the family buffer between households, I want to inquire, how household structure influences the AWE.

Previous research on the AWE yielded mixed results. Some researchers in the United States found a small effect (Lundberg, 1985; Stephens, 2002), but others concluded that it is nonexistent (Maloney, 1991; Yeung/Hofferth, 1998). These varying results suggest that there are factors not included in the analyses, which drive the results. Cullen/Gruber (2000) as well as McGinnity (2002) for example showed that welfare state institutions shape the AWE.

Interestingly, none of these studies included intra-household factors in their analyses. This is surprising given that this strategy to ameliorate the negative consequences of job loss originates from the household. In this paper I aim to find out whether and to what extent different configurations of paid and unpaid work within the household influence the AWE. To do this, I first develop hypotheses about intra-household influences on the AWE in the following section. Then, I describe data and methods used to test these hypotheses. Finally, I present the results and discuss them in the conclusion.

## **2. The AWE and Household Structure: Theoretical Considerations**

To fully understand the AWE it is important to go beyond the assumption of New Home Economics (Becker, 1981) that the family is a single decision making unit. I argue that a better approach is to conceptualize families as consisting of linked life courses (Moen, 2003). Consequently, decisions about the allocation of work after the man loses his job are negotiated between family members. These negotiations are influenced by gender norms (Krüger/Levy, 2001). Following Rusconi and Solga (2008), I consider three levels that shape these decision making processes: the individual level, the internal structure of the family, and the family as a unit. Therefore, I expect differences in the AWE between individuals, between household types, and between countries with different institutions and normative expectations that affect people because they are in a family. In this article, I focus on differences between household types and the two countries.

First I expect differences between couple households with and without children. If there are children in the household, women's labor force participation is often constrained because they usually provide most of the child care within the household (Shelton, 1990). This however does not automatically influence the AWE: In a gender neutral world, the unemployed men could take up the caring responsibilities while their partners enter the labor market or increase their hours. However, if the role expectations directed at women cause them to keep the responsibility for the children they cannot increase their labor force participation. Thus, the normative acceptance of working mothers should influence the AWE among couples with children. Since this acceptance is higher in the US than in West Germany (Fortin, 2005), I expect a stronger AWE among couples with children in the US (Hypothesis 1). Couple households without children should not be affected by these constraints.

However, the gender norms that couples adopt also vary within countries. Generally, I distinguish two arrangements of household types with children: traditional couples, where men work and women stay at home with children and modern couples where both are employed and there are children in the household. The group of modern couples also comprises 1.5-earners where women work part-time and men work full-time. I expect that the added worker effect is more likely in modern couples (Hypothesis 2). There are two reasons for this: First, they are less affected by the norm that women are responsible for housework and consequently should not work. Second, they have experience in negotiating housework duties under the constraint that both are employed.

Comparing the two countries, institutional differences should also be kept in mind. Both countries have a joint taxation system that should lead to more traditional household arrangements. However, the American tax system counteracts disincentives for female employment (Johnson/Rohaly, 2009). Hence, the American tax system supports the emergence of modern couples whereas the German tax system impedes this. The welfare state also proved to be related to the added worker effect in previous research. High benefit levels lead to a smaller added worker effect because family income support becomes less important to maintain a certain standard of living if the welfare state is generous. Unemployment benefits are generally lower in the United States than in Germany (OECD, 2007). Taken together, the institutional configurations suggest that the added worker effect should occur with greater magnitude among women in the United States than in Germany (Hypothesis 3).

### 3. Data and Methods

The analyses are based on micro-data from two household panels – the “Panel Study of Income Dynamics” (PSID) for the United States and the “German Socio-Economic Panel Study” (GSOEP) for Germany. For both data sets, a set

of comparable variables is available through the “Cross-National Equivalent File” (CNEF) (Frick et al., 2007). I use GSOEP data from 1984 to 2011. I restrict the analysis in Germany to the pre-unification territory (West Germany). From 1997 onward, only two-year changes in income can be measured in the PSID because of a change to biennial interviewing. With a view to roughly covering the same period in the two countries, I use PSID data from 1980 to 2007. For the sake of cross-national comparability, I use two year changes in both data sets throughout the period of observation.

To test the magnitude of the added worker effect, I measure the effect of partner’s job losses and unemployment on women’s earnings. Partner’s job losses are measured as involuntary job losses with at least one month of unemployment. I restricted the age of both partners to 25 to 55 to focus on the prime working age population. Also, I excluded all women who are in education before their partners become unemployed so that their possible work hours are not restricted. The magnitude of the added worker effect is defined as changes in individual labor earnings relative to their partners’ prior labor earnings. Thus, I can find out how much of the relative loss in men’s earnings is offset by increases in women’s earnings. The changes are measured between earnings two years prior to the event and the average of the year of the event and two years after the event.

To estimate the AWE, I use Difference-in-Difference (DiD) estimation with a matched control group. That is to say, I compare changes in income among women whose partners lose their jobs with changes among a control group whose partners remain employed. The estimates are controlled for the incidence of individual job loss and changes in the number of children below age 5 by means of OLS regression. The control group has been made comparable to the treatment group through Coarsened Exact Matching (CEM) (Iacus et al., 2012). The basic idea behind CEM is to find exact matches for treatment units in the control group on coarsened variables. Table 1 lists the variables used and their respective coarsenings. Overall, the coarsenings produced reasonable balance on these variables and even on variables not included in the matching. However, about 20% of the treatment cases had to be pruned because there was no suitable match in the control group. This produced a sample size of 6247 control units and 501 treatment units in the US as well as 7243 control units and 319 treatment units in West Germany. Standard errors are clustered on the individual level because women may enter the sample several times.

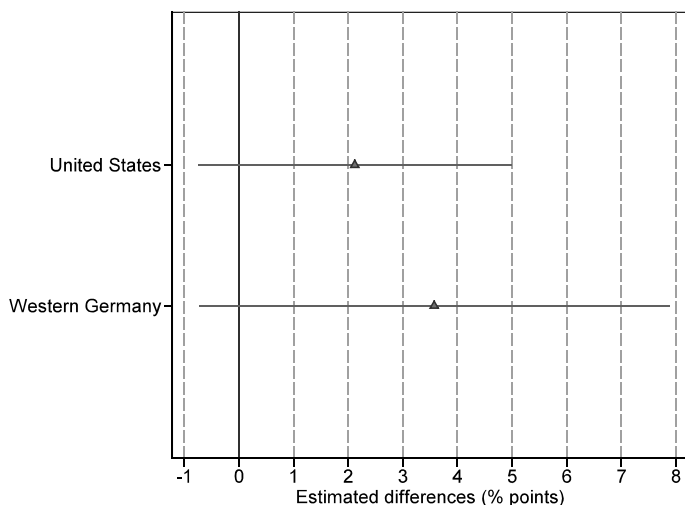
Table 1  
Coarsenings of Variables used for CEM  
Analyzing the Magnitude of the AWE

VARIABLE	COARSENING
<b>Individual characteristics</b>	
Age	25–40 vs. 41–55
Education	US: Less than High School, High School, Greater than High School Ger.: School without voc. training, Vocational training, Higher education
Minority	US: Black, non-black Ger.: Migration background, no migration background
Prev. weekly work hours	0, <30, >30
Work experience	<50% of time since left school, >50%
Income share in HH	<40%, >40%
Sector	Industrial sector and other
<b>Partner’s characteristics</b>	
Partner’s age	25–40, 41–55
Partner’s education	US: <High School, High School, College Ger.: School w/o voc. training, voc. training, tertiary education
Partner’s tenure in prev. job	Below and above 5 years
Year of partner’s job loss	US: 1982–1990, 1991–2006 Ger.: 1986–1996, 1997–2008
<b>Household characteristics</b>	
Children under 16 in HH	yes, no
Children under 5 in HH	yes, no
Post-gov. household income	Above and below median

4. Results

Given the expectation derived from the institutional differences that the magnitude of the AWE should be smaller in West Germany, Figure 1 yields a surprising result: the effect of partner’s unemployment on women’s earnings is slightly greater in West Germany than in the United States. Still, the confidence interval around the effect in West Germany is large, indicating a huge amount of uncertainty. Yet, also in the United States, the effect is not statistically significant. This is evidence against Hypothesis 3 stating that the AWE has a greater magnitude in the United States compared to West Germany. One expla-

nation for this finding is that trends in earnings among women differ between the two countries (data not depicted here). In the United States, earnings grow much stronger on average than in West Germany in the period of observation. Thus, for American women, it is much more difficult to increase their earnings beyond this trend. In West Germany on the other hand, income growth among women without partner's job loss is less pronounced. Consequently, it is easier for women to increase their earnings relative to others.

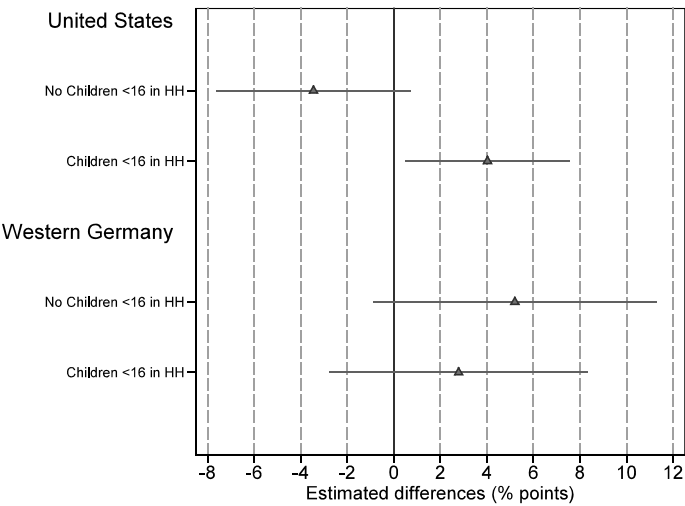


Sources: GSOEP, PSID, and CNEF, author's calculations.

Figure 1: Estimated effect on earnings among women due to partner's unemployment as percentage of partner's prior labor earnings in the United States and West Germany. Error bars show the 90% confidence interval

Still, both estimates in Figure 1 are small and not significantly different from zero. Leaving aside confidence intervals, American women are able to make up for about two percentage points of their partner's former labor earnings. In West Germany women increase their earnings by 3.5 percentage points on average.

To learn more about the magnitude of the AWE in different household types, I graph the results separately by the presence of children under 16 in Figure 2. In the United States, I find that an increase in income on the part of women after men's job losses occurs only in couples with children. Among them, women are able to increase their earnings by more than two percentage points. In couples without children, however, women's incomes even decrease on average after men's job losses.

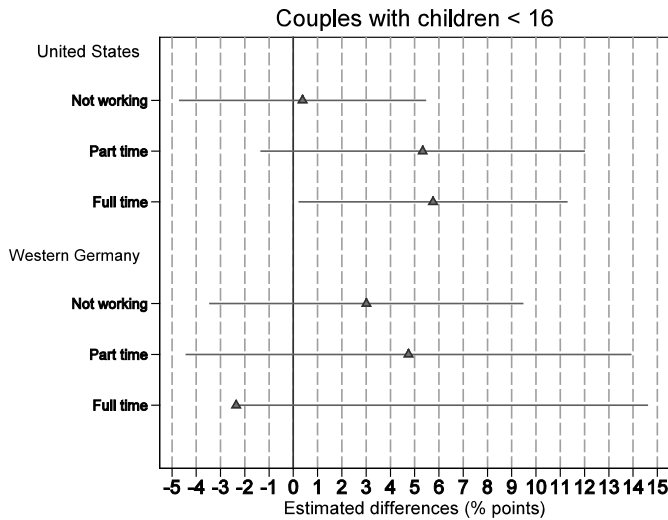


Sources: GSOEP, PSID, and CNEF, author's calculations.

Figure 2: Estimated effect on earnings among women due to partner's unemployment as percentage of partner's prior labor earnings by presence of children <16 in the United States and West Germany. Error bars show the 90% confidence interval

In West Germany, on the other hand, Figure 2 shows the opposite pattern: the magnitude of the AWE is larger among women in couple households without children under 16. Thus, the higher magnitude of the AWE in West Germany compared to the United States depicted in Figure 1 above is driven by couples without children. The lower magnitude of the AWE among West German women with children supports Hypothesis 1. Contrary to the US, the AWE in West Germany seems to be constrained by gender norms. If there are children in the household, West German women are not likely to change from homemaker to breadwinner even if their partners become unemployed. Yet, the positive effect among those without children in the household suggests that a number of these women stayed at home after their children moved out and now have the capacity to increase their income as their partners become unemployed. In this case the prevalent gender role expectations about “good mothers who stay at home” do not restrain these women (anymore) and thus they can increase their earnings. Apparently the AWE is possible in Germany, as the results for couples without children under 16 depict, but it is hampered by prevailing gender role expectations that locate mothers in the domestic sphere and men in the sphere of employment. Even as men are temporarily not able to fulfill the role as the main provider of income after job loss, gender roles remain largely stable in West Germany.

To analyze the magnitude of the AWE among women with children under 16 in the household more closely, I now show the effects separated by previous work hours in Figure 3. The results in the United States show that modern households have the greatest income gain through the AWE. This supports Hypothesis 2 stating that modern norms about gender roles should facilitate the AWE because they allow couples to switch the main earner. In West Germany, on the other hand, dual full-time couples with children do not have high wage gains. However, their number is small in West Germany. The more common dual-earner arrangement, the 1,5-earner family, has a little higher wage gain than male breadwinner households. Still, the difference is not large, suggesting a smaller influence of household structure in West Germany. Still, it may be that women in couples with more modern values still leave their jobs after childbirth in West Germany because the possibilities for them to keep their jobs and care for children are scarce. Maybe some of those take up a job again after their partner’s job losses.



Sources: GSOEP, PSID, and CNEF, author’s calculations.

Figure 3: Estimated effect on earnings among women with children under 16 in the household due to partner’s unemployment as percentage of partner’s prior labor earnings by previous work hours in the United States and West Germany. Error bars show the 90 % confidence interval.



## 5. Conclusion

In this article I argued that the added worker effect (AWE), i.e. the increase in women's incomes after their partners lose their jobs, depends on the distribution of paid and unpaid work within the household. Consequently, gender norms should have an impact on the magnitude of the effect. This aspect has not been covered by previous literature on the AWE. To test this claim, I analyzed income changes among women in couple households after their partners became displaced in the United States and West Germany.

My analyses found evidence in favor of the hypothesis that household structure influences the AWE. In the United States, the influence of the couple context is present: modern dual-earner couples with children have higher income gains through the AWE than traditional male-breadwinner households. This supports my expectation that couples who are experienced in jointly combining work and family have a higher AWE because it is easier for them to switch earner roles. In male-breadwinner households on the other hand, a change in roles between the former breadwinner and the homemaker is presumably inhibited by gender norms these households adhere to.

In West Germany, institutional differences and the higher prevalence of traditional gender role expectations presumably lead to different patterns. The data suggests that the AWE is strongest in couples without children in West Germany. I interpret this as the result of strong gender role expectations if there are children in the household: Mothers who do not stay at home with young children are often regarded as "bad mothers" in West Germany. Couples without children on the other hand are not restricted by this normative pressure. Among mothers, on the other hand, I found a slight positive effect of already working part-time on the AWE compared to non-working mothers. This may also be interpreted as an effect of modern gender roles in the household. Yet, full-time working mothers do not show the same effect. It has to be kept in mind, however, that full-time working mothers are rare in West Germany because of normative pressures, a tax system that favors 1,5-earner families and the lack of child care facilities. Thus, in comparison with the United States, it is less the earner configuration that drives the results but the presence of children: Mothers always have a lower AWE than women without children in West Germany. One possible interpretation of this finding is that a couple's adherence to modern gender roles cannot be interpreted from the earner configuration in West Germany because the institutional circumstances generate high incentives for women to be inactive on the labor market even though the couple has a modern approach to sharing paid and unpaid work.

In sum, the AWE is a much more complex phenomenon than suggested by previous analyses that just assumed a simple connection between men's job losses and women's work hours or earnings. My results showed the importance of household level factors. These findings are not only interesting for analysts

of income mobility but also yield insights into the mutual influence of life courses within couples. There seem to be couples with a higher flexibility of roles in the household than others. Especially if they pursue already dual-earner arrangements, couples seem to be willing to assign the role of the main earner to women. In more traditional households, on the other hand, this does not seem to be possible. Clearly, my analyses presented here only scratch the surface of these issues and further analyses that include values and detailed information about domestic work are needed to prove my point. Therefore, future research should address this topic in greater detail.

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