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Introduction

Burkhauser, Duncan, Hauser, and Bernsten (1990, 1991) were the first to use unit record longitudinal data from the U.S. *Panel Study of Income Dynamics* (PSID) and the German *Socio-Economic Panel* (SOEP) to look at social policy outcomes in a cross-national comparative context. These descriptive papers identified the short-term changes in the economic wellbeing of partners (married or cohabiting for at least one year) using harmonized panel data in the year before and the year after dissolution of their relationship.[1]

Duncan and Hoffman (1985) and Burkhauser and Duncan (1989) had earlier used PSID data alone to establish that during the 1980s these union dissolutions led to dramatic declines in the economic wellbeing of U.S. women. Much less was known about the impact of divorce on economic wellbeing in pre-unification Germany. Hauser and Fischer (1986) and Hauser and Semrau (1989) used cross-sectional data to find that one-parent German households were less well off than two-parent households.[2]

It was only in the late 1980s that four waves of SOEP data became available to capture even the short-term consequences of a divorce. Using those data to examine men and women who were observed the year before and the year after a union dissolution, Burkhauser et al. (1990, 1991) found that despite a German social safety net that is more extensive than that of the United States in many respects, German women experienced greater declines in their short-term economic well-being following a divorce than did U.S. women. They ascribed these worse outcomes for German vs. U.S. women primarily to their lower employment rates while married and in the immediate aftermath of a union split.

These initial two papers using the PSID and SOEP to examine the relative impact of the social safety nets of the U.S. and Germany in buffering short-term changes in economic wellbeing following divorce were important in demonstrating the great potential that harmonized cross-national panel data sets could provide for systematically looking at the consequences of the same life course event across countries with different social and economic institutions. They also provided the primary evidence in support of a successful P01 grant proposal to the National Institute on Aging (Burkhauser and Smeeding 1990) to create a public use harmonized PSID-SOEP data set which would allow researchers to study the elderly in such a comparative context.

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[1] While the analysis in this paper will consider both the end of cohabiting and marital relationships, we will refer to both circumstances as divorce or union dissolution to ease exposition.

[2] Becker and Hauser (2003) also using cross-sectional comparisons present a more detailed analysis of income distribution and economic well-being in Germany across different household types from 1969 to 1998. In Table 7.3a they show that the relative position of one-parent households deteriorated greatly over this period. They argued that one important reason for this decline was that in 1969 the majority of one-parent households were headed by widows who are well protected by the German pension system. By 1998 the majority were headed by divorced women who were far less protected by government transfers. An early comparison of various aspects of U.S. and German social policy based on cross-sectional data, primarily focusing on poverty outcomes, can be found in Döring and Hauser (1989). See especially Burkhauser (1989) and Hauser (1989) chapters in that edited volume.

Over the next decade, with the full co-operation of Greg Duncan (who directed the PSID) and Gert Wagner (who directed the SOEP), this grant funded the creation and expansion of the Cross-National Equivalence File (CNEF). While this harmonized cross-national data set began with the PSID and SOEP, it later incorporated the *British Household Panel Survey* (BHPS) and The *Household, Income and Labour Dynamics in Australia* survey (HILDA) soon after their creation. Under the current leadership of Dean Lillard at Ohio State University, CNEF now includes panel data sets from eight countries.[3]

Arguably, these early cross-national comparative papers (Burkhauser et al. 1990, 1991) together with the development of the CNEF data provided a model and the means for the exploration of how other important life cycle outcomes were impacted by national social institutions using panel micro-data. Early examples of this comparative work include Burkhauser and Poupore (1997) that examined the extent of intra-generational (lifetime) economic mobility in Germany and the U.S. and Couch and Dunn (1997) that provided the first cross-national comparison of intergenerational economic mobility focusing on Germany and the U.S. The CNEF effort to harmonize cross-national panel data sets and the related collection efforts of each individual survey continue to support comparative work of this type to this day.[4]

Over the 1990s and 2000s public policy interest continued to grow with respect to the outcomes of men, women and children following a union separation. This concern has traditionally been greatest with respect to the households of women as they are most often the custodians of their children. It has been further elevated by the increased incidence of divorce. Most recently Tach and Eads (2015) provide a review of the literature related to changes in the economic wellbeing of women following a union dissolution in the U.S. They then use nationally representative data drawn from multiple panels of the *Survey of Income and Program Participation* (SIPP) from 1984 to 2007 to show that the short-term negative economic outcomes of divorce have declined for the households of women since the 1980s owing to the growth in married women's earnings over successive generations and their receipt of child support.[5]

[3] Information on the countries included in the CNEF data collection and how to access those data can be found at https://cnef.ehe.osu.edu/data/cnef-data-files/.

[4] For example, Bayaz-Ozturk, Burkhauser and Couch (2013) use the CNEF data for the SOEP and PSID to show that lifetime economic mobility fell in Germany relative to the U.S. following reunification and Bayaz-Ozturk, Chen and Couch (2014) use those same data to explore the properties of different measures of lifetime economic mobility.

[5] This literature also includes topics such as impacts of divorce on economic mobility of children (Couch and Lillard 1998) and subsequent health impacts for divorced women (Tamborini, Reznik and Couch 2016) and men (Couch, Tamborini and Reznik 2015). Tamborini, Couch, and Reznik (2015) examines the impact of divorce on women's labor market activity across successive generations in the U.S.

The SIPP has a major advantage over the PSID in terms of sample size. Each SIPP panel begins with over 100,000 observations. Hence, it is much more likely that a divorce will be observed in any single period. But it has the disadvantage that over the three decades Tach and Eads analyze, each individual SIPP panel varies in length from only three to four years in duration. So while they are able to observe the short-term consequences of far more union dissolutions than can be observed in any three or four years of PSID data, the SIPP data do not contain information that would support an examination of longer-term outcomes of divorce. In practice, their analysis, like that of Burkhauser et al. (1990, 1991), examines the period one-year before and after a divorce.

Panel data sets with longer durations like the PSID and now the SOEP are capable of tracking more periods before and after a divorce. Thus they are able to capture its longer-term consequences and gauge those outcomes relative to a period that is long enough before a divorce that it is less likely to reflect anticipatory behavior. Other recent analyses have shown this longer time frame can be important as women typically increase their labor market activity several years prior to divorce. This implies that examining post-divorce outcomes relative to one-year prior to divorce may result in an understatement of its negative impacts on divorced women and their households (Tamborini, Couch and Reznik 2014).

In this paper, which we write in honor of Gert Wagner's outstanding leadership of the SOEP, we make use of the CNEF version of the PSID and SOEP data sets (supplemented with additional variables from the original surveys) to examine both short- and longer-term consequences of divorces that have occurred in the U.S. and Germany since 1993. The analysis updates the two original studies that made cross-national comparisons of the short-term experiences of divorced households (Burkhauser et al. 1990, 1991). We also extend the contributions of Tach and Eads (2015), who examined only short-term outcomes in the U.S. by providing a comparison to the experiences of divorced German women; examining the experiences of divorced men in both Germany and the U.S.; and considering both the short- and long-term consequences of divorce by looking at longer periods before and after a divorce.

Data and Methods

Our empirical results are based on two longitudinal data sets contained in the CNEF. For the U.S. we use the PSID and for Germany we use the SOEP. The PSID has interviewed a representative sample of some 5,000 families since 1968 and provides data on a representative sample of men and women experiencing a union separation. Because the PSID has only collected data every other year since 1997, for consistency, we use data from every other year in both data sets for calendar years 1990 to 2006.[6] All PSID data are weighted by the most recent individual weight for the particular statistic being estimated.[7]

[6] Consistent with Tach and Eads (2015) we omit data after 2006 to avoid interpretational issues related to the Great Recession.

[7] A more complete discussion of the data is provided on the PSID webpage: http://psidonline.isr.umich.edu/data/Documentation/UserGuide2011.pdf.

The SOEP has interviewed a representative sample of 6,000 pre-unification German families since 1984 and increased its sample size to include all families in unified Germany since 1990. The data are representative of the non-institutionalized German population, including "guest workers" and are adjusted with longitudinal weights for differential initial selection probabilities and nonresponse.[8]

We follow similar procedures in extracting analysis subsamples from both data sets. We define divorce as an observed change for a man or women in a married or cohabiting couple observed in the interview year t to that same man or women no longer in that union in year t + 1 to capture both short- and long-term outcomes. To capture the economic consequences of a union split we use economic characteristics in interview year t - 3 as our comparative pre-union separation year rather than t – 1. We do this to abstract from the increase in employment and earnings that Tach and Eads (2015) and Tamborini et al. (2015) found in the year prior to divorce. This provides a better sense of the change in economic wellbeing of the couple while excluding anticipatory behavior of the split. We focus on t – 3 rather than t - 2 because we are only able to observe people every other year. In both the PSID and SOEP, we follow the income trajectories of partners who separate or divorce in 1993, 1995, 1997, 1999 and 2001. In our short-term results we compare pre-divorce measures of economic wellbeing (t – 3) with observed values in t + 1. For our longer-term results we compare t - 3 with t + 3 and then with t + 5. Sample sizes are smaller in the German than in the U.S. sample because union splits in any single year are rarer in Germany.[9]

For each data set we select men and women whose cohabiting or marital relationships end. We perform separate descriptive calculations on men and women and do not impose a requirement that both partners be successfully followed and interviewed following the split. If the sample had been drawn requiring both members of the original relationship to be followed for them to be included, this would have resulted in a much smaller analytical sample. For the same reason, Tach and Eads (2015) using SIPP data also do not require information on both partners to follow one of them after a union split.

[8] A more complete discussion of the data is provided on the SOEP webpage: https://www.diw.de/en/diw_02.c.221178.en/about_soep.html.

[9] The longer the comparison period, the smaller will be one's sample. The results we present here use a single sample for our short- and long-term comparisons. The PSID sample includes 152 men and 231 women. The SOEP sample includes 78 men and 97 women. When we use a separate short-term sample to look at t – 3 to t + 1 comparisons, sample sizes increased to 213 and 250 in the PSID and 102 and 114 in the SOEP. Our (t – 3 to t + 1) results are similar using this larger sample. Results are available from the authors.

Because households can change over time, while the household is our sharing unit, the individual is our unit of analysis. We thus focus on the *equivalent household income* of persons before and after accounting for major public transfers and taxes as our two economic wellbeing measures. We construct these variables by first summing all sources of cash income for all household members during a calendar year. To gain a more comprehensive measure of resources, we also include the cash value of SNAP (food stamps) in the U.S.[10] Then we adjust income for differences in household size by dividing income by the square root of the number of persons in the household. This square root adjustment is the one the OECD and Tach and Eads (2015) use.[11] It adjusts a person's available resources (*equivalent household income*) by taking account of the number of people in the household, assuming they all equally share household resources and that there are economies of scale in their sharing of these resources. Importantly, we subtract alimony and child support payments from the income of the paying household. These values were not in the CNEF versions of the PSID and SOEP. We constructed them using the more detailed original PSID and SOEP data. We more fully define all the variables we use in constructing our measures in Appendix A.

Our interest in measuring the net impact of government policy led us to use two variants of economic wellbeing. First, equivalent household income excluding government taxes and transfers (pre-government income in our tables) approximates a person's economic wellbeing in the absence of government policy. Second, equivalent household income including government transfers and net of personal income taxes and social security contributions (post-government income in our tables) measures a person's economic wellbeing including the outcomes of government policy.[12]

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[10] We do not include the imputed rental value of owner-occupied housing in either country since Tach and Eads (2015) do not include this value in their analysis. Differences in home ownership between the U.S. and Germany (where it is much lower) would impact the results to an unknown extent.

[11] The larger the scale elasticity assumed in an equivalence scale, the smaller is the loss in economic well-being of persons in a larger household splitting up into smaller size households holding the sum of their own income constant. (Equivalent Income of each person = Household Income/(Household size$^{\alpha}$)), where α is the scale value of 0.5. In our case this means that to maintain their same level of equivalent income, assuming that both members of a married couple without children have the same own income, they would both have to increase their own income by approximately 30 percent if they split into separate one-person households. Theoretically this is caused by the lost "economies of scale" of living together and sharing heat, electricity, rent, etc. that are the same whether one person or two live in the same dwelling. Burkhauser, Smeeding, and Merz (1996) show that the scale value of 0.5 that is used in many cross-national studies is close to the one implicit in official poverty lines in the U.S. In contrast, they found that it is considerable lower than the one found in the German social assistance program (Sozialhilfe). A discussion with respect to the OECD can be found in OECD (2008 and 2011).

[12] Because the presence of government policy affects behavior, this is only an approximation of what household income would be. A fuller model would explicitly account for responses to government taxes and transfers as well as relevant behavioral changes that might occur among household members.

Results

Comparing short- and long-term changes in economic wellbeing following a union dissolution

Table 1 shows changes in the economic wellbeing of U.S. and German men and women across the years proceeding and following divorces occurring from 1993 through 2001. In all cases we compare economic outcomes following union separation with values observed three years before separation. But in the first four columns we focus on the change in economic wellbeing in the short-term (one year after separation) and then do so for longer time frames (three and five years after separation).

In the short-term in the U.S., a divorce produced less than a 1 percent change in the pre-government economic wellbeing of the median man; 51 percent of men experienced increases in economic wellbeing; and economic wellbeing fell by one-half or more for about 21 percent of men. Because tax and transfer policies are progressive they reduced the number of men whose economic wellbeing fell by more than one-half from 21 to 17 percent while slightly reducing the number of men whose economic wellbeing increased. Based on our post-government equivalised income measure, the economic wellbeing of the median man fell by about 3 percent.

In contrast U.S. women are much more disadvantaged than men in the short-term by divorce: the pre-government equivalent income of the median woman fell by 25 percent one year after divorce. 37 percent of women experienced improvements in their economic wellbeing while 28 percent experienced a drop of one-half or more. U.S. tax and transfer policies partially buffered these large drops: the median reduction in post-government equivalent income was 18 percent; 21 percent experienced a drop of one-half or more in economic wellbeing. But despite the redistributive power of government tax and transfer policy, the economic wellbeing of the median U.S. woman remained substantially lower (-18 percent) than that of the median U.S. man (-3 percent) one year after divorce.[13]

In the short-term in Germany, divorce produced a modest (4 percent) increase in the pre-government equivalent income of the median man; 55 percent of German men experienced increases in economic wellbeing; and economic wellbeing fell by one-half or more for 19 percent. Government taxes and transfers are more progressive in Germany than in the U.S., substantially reducing the proportion of men who experienced a reduction in pre-government equivalent income of one-half or more from 19 to 7 percent but reducing the proportion of men who experienced economic gains from 55 to 46 percent. The post-government figures also show that the modest increase of about 4 percent in pre-government income instead becomes a reduction of 4 percent for the median man a year after divorce once the role of government is reflected in the calculations.

[13] Sample sizes in both the U.S. and Germany preclude separate analyses by presence and absence of children. As government policies are most protective of households with children and women with children are less likely to work, the adverse circumstances for women's households following divorce would likely be offset to a greater extent than reported here by government policy in both countries.

As in the U.S., German women do worse than men (26 percent decrease versus 4 percent increase) following divorce in terms of their pre-government equivalent income and the difference between them is larger than in the U.S. However, as reflected in the post-government figures, tax and transfer policy helps buffer German women from dramatic drops in their incomes, reducing a 26 percent drop in pre-government income to 17 percent. Based on post-government equivalent income, the median percentage reductions across German and U.S. women look similar (17 and 18 percent respectively). The importance of government tax and transfer policies is seen even more in comparisons of pre- and post-government income focusing on the proportions of women experiencing a reduction of one-half or more—38 percent of German women experience such a drop in pre-government income compared to 28 percent of U.S. women. But the share of German women experiencing such a drop in post-government income falls to 19 percent vs. 21 percent for U.S. women. However, more American women experience increases in post-government income (38 percent) than German women (32 percent).

The overall gap between the change in pre-government equivalent incomes of men and women following divorce in Germany—30 (4 vs. -26) percentage points—is greater than it is in the U.S—24 (-1 vs. -25) percentage points. But again government taxes and transfers reduce this gap more in Germany than in the U.S resulting in remarkably similar post-government gaps of 13 percentage points in Germany and 14 percentage points in the U.S in the short-term.

The remaining columns of Table 1 report changes in income three years after divorce relative to three years before (columns 5-8) and then five years after divorce relative to three years before (columns 9-12). For men in the U.S. and Germany, their post-government incomes improved modestly from what they were three years before divorce. One year after divorce post-government income for the median U.S. divorced man fell by 3 percent (column 2). Three years after divorce, it rose to 7 percent and five years later it was 6 percent above what it was three years before divorce. In Germany, pre-government income which fell by 4 percent one year following divorce, rose to -3 percent three years following divorce and five years following divorce returned to approximately what it was three years prior to divorce. Similar patterns can be found across the other measures of economic wellbeing for men.

These long-term findings for men are in stark contrast to the substantial improvement in the economic wellbeing of women in both the U.S. and Germany following their much greater drop in economic wellbeing in the first year following divorce. For example, the median women in the U.S. and Germany experienced a drop of roughly 25 and 17 percent respectively in their pre- and post-government income the first year after divorce. Five years later, their pre-government income is still below what it was three years before divorce but the difference is smaller—10 percent for U.S. women and 17 percent for German women. But once government tax and transfer policy are included, five years later U.S. women are now almost 3 percent better off than they were three years before their divorce and German women are less than 5 percent worse off. The smaller reductions (or improvements) in women's median incomes observed after five years are also reflected in the larger proportions experiencing increases in incomes and the smaller share experiencing large drops in both countries.

As a result of their greater improvement relative to where they were one year following divorce, the overall gap between the change in pre-government income of men and women in Germany five years after a divorce is now closed from 30 to 17 percentage points while the gap has closed from 24 to 20 percentage points in the U.S. But once government taxes and transfers are considered once again the gap is much smaller in both countries and remarkably similar—from 13 to 4 percentage points in Germany and from 14 to 3 percentage points in the U.S in the long-term.

Comparing short- and long-term changes in sources of income following a union dissolution

Tach and Eads (2015) show that the short-term economic wellbeing of divorced women in the U.S. improved in the 1990s and 2000s relative to the 1980s. Table 2 provides additional evidence of what has driven that improvement in both the short- and long-term in both the U.S. and Germany. It does so by providing details regarding the importance of major sources of household income for women in the U.S. and German samples at the same time increments considered in Table 1.

The table contains information on: (1) whether the income components listed were present; (2) the mean amount of each component (including zeros); and (3) the share of that component in comprising total household income. In contrast to the values presented in Table 1, the income amounts in Table 2 were not adjusted to account for the number of persons in the household since we are interested here in the share of income from each income source and how it changes over time.

The primary source of income in the households of both U.S. and German women three years before their divorce was the labor earnings of their partner. About 90 percent of their partners worked and their labor earnings represented close to 60 percent of average mean household income in both countries. One year after divorce only 23 percent of U.S. and 26 percent of German women were living with a new partner. The incomes of those partners represented 22 and 23 percent of their households' incomes respectively. However, even shortly following divorce, the labor income of a new partner is the second most important source of household income of women in both countries.

The second most important source of income in the households of both U.S. and German women three years before divorce is their own labor earnings. 80 percent of U.S. women and 66 percent of German women worked three years prior to divorce with their earnings accounting for 28 and 26 percent of mean household income. One year after divorce, employment among U.S. women increased to 91 percent and among German women to 74 percent. The share of average household income coming from women's own earnings in the U.S. and Germany increased to 62 and 52 percent respectively. Women's labor earnings comprise the largest share of average household income in the year following divorce in both the U.S. and Germany.

While other sources of income — private transfers, public transfers, income from capital, and all others — can be found in a substantial share of households, the mean values of these income sources are far less individually and collectively than either own or partner's labor earnings (or especially combined partner's earnings) both before and one year following divorce. In the U.S. private transfers (including alimony and child support) increase from a 2 percent share of household income three years prior to divorce to 7 percent in the year after. This increase in the U.S. is more important than the small increase in public transfers from 2.8 to 3.1 percent and reflects the relatively small size of the U.S. social safety net. In Germany public transfers are more important prior to divorce (9.2 percent) and one year afterwards (13.7 percent) than in the U.S. and private transfers are less important (0.1 percent three years before) and 4.3 percent one year after a relationship ends. Combined public and private transfers in the U.S. one year after divorce make up 10 percent of all household income for women in the U.S. and 18 percent for women in Germany.

When we compare our findings in Table 2 for women in the first year following their divorce to those reported by Burkhauser et al. (1991) for women who experienced a marital dissolution in the 1980s, the single most important change is the increase in the employment of women. Burkhauser et al. (1991) found that the employment of U.S. women in the first year following divorce increased from 75 to 83 percent and the employment of German women increased even less from 64 to 65 percent.[14] The substantial increase in the employment of women both before and after a union dissolution that we report in Table 2 when compared to the Burkhauser et al. (1991) findings for the 1980s is consistent with the much greater integration overall of women into the labor force in both countries over these time periods. The resultant increase in women's own earnings both before and after a divorce in the 1990s and 2000s has made a women's own earning a much more important factor in buffering both U.S. and German women from short-term drops in their economic wellbeing than was the case in the 1980s.

Table 2 also contains information regarding the major sources of household income for women three and five years following divorce. Three years later, own labor earnings continue to be the single most important component of the household income of women in both the U.S. and Germany. The presence of earnings from a new partner is also important in both countries, increasing from 22 to 26 percent of household income in the U.S. and from 23 to 35 percent in Germany. The labor earnings of a new partner grows in importance relative to women's own labor earnings in both countries five years following divorce but only become a larger share of household income in Germany where it represents 42 percent of household income.

[14] Burkhauser et al. (1991) like Tach and Eads (2015) were forced by data constraints to compare employment in the year before divorce with employment in the year following divorce and hence do not provide comparable numbers to our t - 3 pre-union split numbers. Hence it is likely that the employment rate of women in both countries was even lower three years before their union split. Even comparisons in the year following union separation are not precise since only those living in pre-unified Germany were included in the SOEP prior to 1990. So these comparisons are only roughly comparable.

Three years prior to divorce only 13 percent of household income came from sources other than the combined labor earnings of women and their partners in the U.S. In the first year after divorce this rose to 16 percent. It rose to 20 percent three years later. But it then returned to 16 percent five years later. The four equivalent numbers for Germany are higher in each period 15, 25, 25 and 21 and more importantly reflect the greater importance of public transfers initially and thereafter. But the sum of all sources of household income excluding that from the labor earnings of the women or her partner never exceeds 25 percent of total household income and falls in both countries by the fifth year following divorce.

In both the U.S. and Germany, women experience a dramatic short-term drop in their mean household income primarily because they no longer share their partner's labor earnings. They offset this loss via increases in their own earnings, the earnings of a new partner, and to a far smaller degree by increases in private transfers in the U.S. and maintaining the household's public transfers in Germany. But this dramatic short-term loss is almost exclusively overcome in the long-term by further increases in earnings associated with entering a new relationship, especially in Germany.

Discussion

Researchers (e.g. Duncan and Hoffman 1985 and Burkhauser and Duncan 1988) using the PSID established that in the 1980s divorce disproportionately reduced the economic wellbeing of affected U.S. women. Burkhauser et al. (1990, 1991) using panel micro-data from the PSID and SOEP examined this issue in a comparative international context and found that despite a much greater German social safety net, in the 1980s, German women experienced worse short-term declines in their economic wellbeing following a union separation than did U.S. women. They ascribed these worse outcomes for German women versus those of U.S. women primarily to their lower employment rates while married and in the immediate aftermath of a union split.

A recent study by Tach and Eads (2015) using SIPP data shows that the short-term negative economic consequences of divorce for women have declined in the U.S. since the 1980s owing to the growth in married women's earnings and their receipt of child support. However, their analysis relies on panel data that only covers a three to four year period, which limits the window around a divorce that can be examined.[15]

Here we build on the short-term Tach and Eads (2015) study of U.S. women as well as the prior cross-national comparative analyses of short-term outcomes of German and U.S. men and women by Burkhauser et al. (1990, 1991). Using the harmonized PSID and SOEP panel data from the CNEF we track changes in economic wellbeing before and after union separations in the U.S. and Germany since 1993 for both men and women but do so for both the short- and the long-term.

[15] Tamborini et al. (2014) provide a detailed examination of labor market behavior of women preceding and following divorce in the U.S. They find that women who divorce increase labor market activity, their earnings rise prior to divorce and that those increases are sustained until remarriage. Couch et al. (2013) shows that after marriage, the increases in earnings asymptote back to their pre-divorce level.

Our short-term findings are largely consistent with those of Burkhauser et al. (1990, 1991) and of Tach and Eads (2015). We find, based on our measures of pre- and post-government equivalent income, that women in both Germany and the U.S. experience much larger declines in their economic wellbeing than men following divorce. Yet the magnitude of these losses is remarkably similar in the short-term. Government taxes and transfers reduce the size of these losses in both countries as well as the gap between the outcomes of men and women following divorce especially in Germany. Alimony payments also contribute to reducing this gap especially in the U.S.

But taking advantage of the greater length of both the PSID and SOEP data, we are also able to show that in the long-term, the economic wellbeing of these divorced men and women improves in both countries but disproportionately so for women. As a result of their greater improvement relative to where they were in the short-term, the overall gap between the change in pre-government equivalent income of men and women closes from 30 to 17 percentage points in Germany and from 24 to 20 percentage points in the U.S. Once government taxes and transfers are considered the gap is much smaller in both countries and remarkably similar—from 13 to 4 percentage points in Germany and from 14 to 3 percentage points in the U.S.

In both countries, the short-term loss of economies of scale caused by divorced women initially moving into smaller households as well as the loss of their partner's labor earnings is primarily offset by increases in their own earnings and the earnings of their new partner and to a far smaller degree by increases primarily in private transfers in the U.S. and retaining the household's public transfers in Germany. But subsequent improvements in the longer-term primarily come from further earnings associated with women finding a new partner, especially in Germany. Despite these gains, we still find that in both the short- and long-term whether "wife or frau", women who divorced in the 1990s and 2000s still do worse than their partners but less so than in the 1980s.

Concluding Remarks

To honor Gert Wagner's leadership of the SOEP and his major support of CNEF we returned to the original work used to justify the funding of CNEF in 1990 (Burkhauser 1990, 1991). But after doing so we find that CNEF provides far more useful data for the comparative analyses of the consequences of union dissolution than we could exploit in this paper.

An obvious extension of our analysis would be to expand its focus to all CNEF countries. Additionally, it would be of interest to describe in a comparative way the institutional regulations that determine public and private transfers and to show to what extent they contribute to reducing the gap between divorced men and women.

A second extension would be to focus on the economic wellbeing of children and how it changes before and after divorce—what percentage of divorces involve children, who has custody of the children, and how is their economic wellbeing affected? It may be the case that government tax and transfer policies play a much larger role in protecting children from the consequences of union dissolution than it does for divorced women without children. It would also be of value to show the degree that assumptions with respect to scale elasticities affect these outcomes.

A third extension would be to consider drops into poverty and their duration rather that focus on the three measures of economic wellbeing we focused on in this analysis. Once again such an analysis might be quite sensitive to the scale elasticities behind the poverty thresholds used to adjust for household size as well as the choice of resources included in that threshold.

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Table 1: Changes in the Economic Wellbeing of Partners between Three Years Before and One/Three/Five Year(s) After Union Dissolution in the United States and Germany

	One year after				Three years after				Five years after			
	Men		Women		Men		Women		Men		Women	
Median Percentage Change	Pre-govt. Income	Post-govt. Income	Pre-govt. Income	Post-govt. Income	Pre-govt. Income	Post-govt. Income	Pre-govt. Income	Post-govt. Income	Pre-govt. Income	Post-govt. Income	Pre-govt. Income	Post-govt. Income
United States	-0.8	-3.1	-25.1	-17.6	0.8	6.8	-18.7	-13.2	10.7	5.9	-9.5	2.6
Germany	3.8	-4.1	-26.3	-17.1	-3.8	-3.1	-21.2	-13.7	0.1	-0.1	-16.5	-4.5
Percentage with higher living standards												
United States	50.8	49.8	36.7	38.5	52.4	55.4	39.7	40.2	59.1	56.7	45.5	51.0
Germany	55.0	46.0	27.0	31.9	45.0	47.4	32.9	36.9	52.3	48.8	38.5	45.6
Percentage whose economic wellbeing fell by one-half or more												
United States	20.6	16.9	28.3	20.9	21.7	18.0	26.9	15.0	23.1	17.2	29.2	16.2
Germany	19.4	6.6	37.9	19.3	25.9	12.9	24.7	7.1	25.9	10.5	30.1	14.1

Note: In 2010 dollars or Euros. In the US sample, there are 152 men and 231 women. In the German sample, there are 78 men and 97 women.
Source: CNEF data plus additional variables from the PSID and SOEP

Table 2: Changes in Income Components of Women between Three Years Before and One/Three/Five Year(s) After Union Dissolution in the United States and Germany

	Three Years before			One Year After			Three Years after			Five Years After		
	Percent Nonzero	Mean	Share of Total	Percent Nonzero	Mean	Share of Total	Percent Nonzero	Mean	Share of Total	Percent Nonzero	Mean	Share of Total
United States												
Old/New Partner's Earnings	90.5	37,083	58.5	22.6	10,475	22.2	28.9	14,186	26.4	35.5	18,734	33.0
Own earnings	79.6	18,048	28.5	90.7	29,014	61.5	86.1	28,545	53.2	81.0	28,766	50.7
Private transfers	30.7	1,492	2.4	52.0	3,306	7.0	50.3	3,437	6.4	49.7	2,999	5.3
Public transfers	26.8	1,751	2.8	25.5	1,483	3.1	22.2	1,158	2.2	20.5	1,177	2.1
Income from capital	29.9	1,442	2.3	31.0	717	1.5	28.6	1,324	2.5	35.7	1,261	2.2
All other income	23.1	3,604	5.7	19.6	2,205	4.7	25.6	5,001	9.3	30.2	3,790	6.7
Total household income		63,419	100.0		47,200	100.0		53,649	100.0		56,726	100.0
Income and payroll taxes	98.5	12,868		95.2	8,000		95.6	9,051		96.6	9,967	
Germany												
Old/New Partner's Earnings	89.1	29,926	60.0	25.9	7,891	23.1	38.0	14,179	34.8	48.9	18,540	41.9
Own earnings	66.1	13,107	26.3	74.2	17,775	52.0	78.0	16,520	40.6	73.8	16,273	36.7
Private transfers	4.1	70	0.1	26.8	1,454	4.3	32.0	1,306	3.2	23.8	491	1.1
Public transfers	78.8	4,603	9.2	79.2	4,691	13.7	78.3	5,183	12.7	80.3	5,251	11.9
Income from capital	81.8	627	1.3	77.4	520	1.5	77.6	883	2.2	69.3	542	1.2
All other income	59.5	1,567	3.1	61.6	1,837	5.4	57.5	2,658	6.5	53.4	3,189	7.2
Total household income		49,900	100.0		34,169	100.0		40,730	100.0		44,286	100.0
Income and payroll taxes	91.9	13,796		75.4	9,056		85.4	11,208		86.2	12,409	

Note: In 2010 dollars or Euros. In the US sample, there are 152 men and 231 women. In the German sample, there are 78 men and 97 women.
Source: CNEF data plus additional variables from the PSID and SOEP

Appendix A

Construction of Study Variables

Our measures of economic wellbeing are *pre- and post-government* (post-tax, post-transfer) household size adjusted income of individuals. We use I11101XX for pre-government income in both countries. Since I11102XX (i.e., PSID-generated household tax payments) is not available after income year 1990, we use I1113XX (which is based on NBER TAXSIM model to estimate household taxes) for the post-government income in the U.S. and I11102XX in Germany. The tax burdens include federal and state income taxes as well as federal payroll taxes.

Household pre-government income is the sum of total household income from labor earnings, asset flows, private transfers, and private pensions.

Household disposable income is the sum of labor earnings, asset flows, private and public transfers, and other income sources of all individuals in a household minus taxes and social security contributions.

Labor earnings in both countries include: wages and salary from all employment (including self-employment income), as well as irregular payments such as: bonuses, holiday pay, and in Germany 13th and 14th month pay.

Asset flows in both countries include: income from interest, dividends and rent.

Private transfers in both countries include: child support, alimony, and income from non-household members.

Both *pre- and post-government household income* measures are adjusted for any alimony and child support payments. To obtain the annual amount of alimony and child support paid, we draw data from the original surveys. Annual amount of child support payments obtained from PSID for income years 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, and 2006 are as follows: V19153 V21961, ER6717, ER11717, ER14985, ER19181, ER22546, ER26527, and ER37545. Annual amount of alimony payments obtained from PSID for income years 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, and 2006 are as follows: V19154, V21962, ER6719, ER11719, ER14987, ER19183, ER22548, ER26529, and ER37547.

Child support and alimony payments were obtained from SOEPlong V31. We use plj0136 (amount of payments to children) and plj0140 (amount of payments to ex-spouse) for income years 1990 to 2006.

Public transfers in the U.S. include: AFDC payments, supplemental security income, unemployment compensation, worker's compensation and the face value of food stamps.

Public transfers in Germany include: housing allowances, child benefits, subsistence assistance and special circumstances benefits from the Social Welfare Authority, government student assistance, maternity benefits, unemployment benefits and assistance and unemployment subsistence allowance.

Private pensions in the U.S. include: retirement income from private pension plans, Veterans Administration pensions, and annuities.

Private pensions in Germany include: retirement income from private pension and annuities.

Social security pensions in the U.S. include: social security payments received by the head, partner and other family members.

Social security pensions in Germany include: payments from old age, disability and widowhood pension plans.

The data is adjusted for inflation using CPI indices with a base year of 2010 for both countries.