Family Change, Employment Transitions, and the Welfare State: A Comparison of Household Income Dynamics in the U.S. and Germany*

Thomas A. DiPrete
Duke University

Patricia A. McManus
Indiana University

December, 1998
(previous revisions date from December, 1997)

Running Head: Household Income Dynamics in the U.S. and Germany

Word Count: 15,700

*Communications should be sent to the first author at Department of Sociology, Duke University, Durham, NC 27708-0088. This research has been supported in part by National Science Foundation grant NSF-SBR-96-31944, by the Netherlands Institute for Advanced Study in the Humanities and Social Sciences, by the Max Planck Institute for Human Development in Berlin. We would like to thank Karen Segar for help with data preparation for the analyses conducted for this paper. We wish to thank the Deutsches Institut für Wirtschaftsforschung and the Center for Demography and Economics of Aging at Syracuse University for providing access to data from the German Socio-Economic Panel. We would also like to thank Gunn Birkelund, Dominique Goux, Francis Kramarz, Eric Maurin, S. Philip Morgan, Walter Müller, Heike Trappe, and two anonymous ASR reviewers for helpful suggestions on earlier drafts of this paper..

Abstract

Household income is affected by changes in labor market activity and household composition, but a comparison of the U.S. and Germany demonstrates that these effects are conditioned by the institutional environment. Both the rates of partner loss and employment exit and the short-term financial impact of these events are lower in Germany than in the U.S. In both countries, the effects of income-enhancing events tend to persist over time, while the effects of negative events gradually decline. Women in both countries are more dependent upon partner income than are men; they gain more from union formation and lose more from union dissolution than men do. However, the loss from union dissolution for women is mitigated substantially by tax policies and by private and public transfers in both countries. Furthermore, the negative effects of union dissolution for women tend to diminish over time, especially in Germany where women respond by increasing their work activity as well as by repartnering. Our results suggest that rates of change in family structure and rates of change in labor market activity are interrelated, and depend in large part on the structure of incentives for match-forming and match-breaking that are generated by a country's institutional environment.

Family Stability, Labor Market Activity, and the Dynamics of Household Income: A comparison of the U.S. and Germany

Since the demise of convergence theory, social scientists have sought explanations for persisting differences in the stratification of industrialized societies primarily by studying how educational and labor market institutions shape the life chances of individuals. But this approach, while clearly valuable, provides only an incomplete picture. An individual's position in the socioeconomic hierarchy is also affected by dynamic processes that must be conceptualized at the household rather than the individual level. Changes in the labor market situation situations of household members, and changes in household composition have potentially large impacts on household income. However, these impacts are contingent both on private counteractions, and on public tax and welfare policies that may buffer or even enhance the impact of the original event. In this paper, we analyze the short and medium term consequences of employment transitions and changes in household composition on household income. We show how cross-national differences in the consequences of these events can be explained in terms of social welfare policies as well as nation-specific mobility rates. We support these claims by comparing household income dynamics in the U.S. and Germany, which provide an attractive contrast because of their well-documented differences in labor market structure, rates of union formation and dissolution, and in the coverage and size of social welfare programs.

Introduction

At one time, it was common to presume that a family's standard of living could be derived from the class position of the main breadwinner, whether a male householder or (more recently) the adult with the higher occupational status (Erickson 1984; Sørensen 1994). In effect, the traditional approach assumes that occupational status is an adequate measure of a family's economic position via its link with "permanent" or long-run income. This view is increasingly obsolete. While a reasonable case can be made that occupation is a good measure of "permanent" *individual* income, there is less evidence that occupation is an adequate measure of "permanent" *family* income. Second, an occupation measure misses fluctuations in "transitory" income due to variation in hours worked, job change, and unemployment, and recent scholarship suggests that -- at least in the United States -- these may be increasing (Moffitt and Gottschalk 1994). Third, an occupation measure misses (or distorts) the status of families in which one or both adults are unemployed, and the evidence at least for some industrialized countries suggests that changes in the distribution of employment is responsible for a significant share of the well-documented secular increase in inequality (Atkinson 1995). Fourth, marriage, marital dissolution, and the entrance or exit of adult children have well-documented impacts on household income that are ignored using the traditional measure of family status. Finally, because occupation has been the predominant measure of status and metric for mobility, this approach has not been well-suited for studying the welfare state's effects on stratification, since welfare programs typically influence family income rather than the occupation of household head.

Clearly, the level of financial turbulence over the life course of individuals depends in complex ways on labor market institutions, the stability of families, and the structure of the welfare state. Sociologists have often grounded theories of stratification on some concept of class, but as recent authors have pointed out, a class system must possess a degree of social closure for it to be meaningful (Parkin 1979, Goldthorpe 1987, Esping-Andersen 1993). An adequate understanding of the forces that sustain or undermine social closure must therefore encompass how family and labor market shocks and private or public counteractions interact to produce net mobility in the short and the longer term. To date, however, studies that attempt to model the causes of household income dynamics have been rather rare.

A principal reason is the relative scarcity until recently of comparable longitudinal data on families. A second reason is that family, labor market, and state-based sources of income fluctuations have too-often been studied in partial isolation from each other or brought together only for the evaluation of particular social welfare programs. Thus, a growing literature now exists on the general subject of family income mobility (Duncan and Morgan 1981; Jarvis and Jenkins 1997a; DiPrete and McManus 1997) as well as the more specialized issue of mobility into and out of poverty (Ruggles 1990; Gottschalk, McLanahan, and Sandefur 1994; Goodin et. al. 1997). However, this literature has for the most part not addressed the sources of income fluctuation, with two partial exceptions: the literature on divorce and the literature that evaluates the impact of specific social policies. The divorce literature has generally considered the impact of family formation and of labor market events, but by limiting its focus to the aftermath of marital dissolution, it provides only a partial view of family income dynamics (Duncan

and Hoffman 1985, Hoffman and Duncan 1988, David and Flory 1989, Bianchi, McArthur and Hill 1989, Smock 1993 and Hanson, McLanahan and Thomson 1998 for the U.S.; Finnie 1993 for Canada; Jarvis and Jenkins 1997b for the U.K.; Burkhauser et. al. 1990,1991 for the U.S. and Germany; see Holden and Smock 1991 for a review). The policy literature often uses household-level dependent variables in evaluating the consequences of particular social welfare programs, often in comparative perspective (e.g., Blank 1994, Danziger, Sandefur and Weinberg 1994, Freeman, Topel and Swedenborg 1997). However, the broader question of the welfare state's impact on family income mobility is relatively unexplored. In summary, despite important progress in recent years, our understanding of the determinants of income mobility at the household level is still rather fragmentary.

We address this gap in the literature by presenting a comparative analysis of the effects of labor market events and change in family composition on short and longer term family income mobility, and the extent to which tax policies and social welfare transfers dampen these effects. The question of the "relative importance" of family, labor market, and welfare state in securing the well-being of individuals, while richly suggestive, is unformed. We propose here a framework for formulating this question, and apply this framework to the German-American comparison. We focus our attention on the consequences of what might be termed "trigger" events (Dannefer and Snell 1988) involving either labor market or family transitions, because these events have the potential to "trigger" a change in a household's future income trajectory.[1]

A satisfactory treatment of cross-national differences in family income dynamics must recognize that countries differ in the rate at which household members experience

trigger events as well as in the financial consequences of these events. Cross-national differences in rates can be explained in part by the structure of opportunity and incentives for mobility arising from institutions such as the educational system, employment security laws, unemployment and early retirement programs, divorce law, and laws concerning child subsidies and child support. (e.g., Ruggie 1984; Mayer and Schöplin 1989; Büchtemann 1993; Blank 1994; Shavit and Müller 1997). Cultural differences that are expressed through non-governmental mechanisms also play a role in the rate of trigger events. Societal differences in the rate of trigger events can in principle produce important societal differences in the longer-term consequences of events because the persistence of these effects is affected by the societal rate of offsetting events. Thus, the duration of the impact of a transition to unemployment on family income depends on the rate of reemployment, the duration of divorce effects depends on the rate of remarriage and so forth.

Simple predictions of the persistence of effects based on overall societal rates can be misleading, however. The timing of events is a function not only of socially structured opportunity for (job or partner) matching or match-breaking, but also of individual "incentives" to form and break matches. Job mobility may be relatively low because new job opportunities are few or because the average incentive for mobility is low. The same logic applies to union formation and dissolution. But for individuals recently separated from a job or a partner, the incentive to form a new match may be far above average for that society. While the re-matching rate for such individuals may be suppressed by structural constraints on opportunity, their re-matching rate may nonetheless be higher than the average societal rate would suggest. The salient issue for comparative analysis is

thus not simply the societal rate of events, but the rate of counteractions stimulated by these events, and their combined consequences for mobility.

Finally, the role of the state in mitigating the impact of trigger events must be considered. The tax and welfare state plays a central role in the stratification structure of contemporary industrialized societies via tax policies, public transfers, legally mandated private transfers, public-sector employment, and other state-based job-creation programs. States can create collective mobility through redistributive tax systems, or through the undoing of these systems. Tax and welfare policies can affect the opportunity for mobility, the incentives for mobility, and can mitigate or in some cases even enhance the financial consequences of employment transitions or changes in household composition. The stratification consequences of welfare state policies are of course determined fundamentally not by gross structural properties (such as the size of public expenditures) but rather by the specific features of the applicable welfare and tax programs that determine their scope, scale, and temporal duration (e.g., Esping-Andersen 1994).

These considerations suggest that important progress in the study of cross-national variations in household income dynamics can be made by structuring the inquiry along the following three dimensions, which are illustrated in Figure 1 (for clarity we treat negative and positive trigger events in separate panels):

[1] The rate of job and partner change.

[2] The rate and impact of offsetting (or reinforcing) events.

[3] The timing of offsetting (or reinforcing) events, and hence the rate of decay (or enhancement) of the original effect.

Germany and the U.S. are attractive countries for comparison because they would appear to lie far apart in the conceptual space depicted in figure 1. In both wage determination and job mobility, Germany is quite different from the U.S. Germany has a highly structured system of wage determination in contrast to the more market-driven American situation. Germany also differs from the U.S. in its lower rate of job mobility that derives from a relatively tight coupling between the educational system and the labor market (Carroll and Mayer 1986, König and Müller 1986; Shavit and Müller 1997). The cross-national contrast may have increased in recent years, as the restructuring of corporate America raised the rate of involuntary job mobility even from primary-sector jobs (Farber 1996).

Rates of family formation via cohabitation or marriage, and rates of family dissolution via separation or divorce are much higher in the U.S. than in Germany. The U.S. has a rate of 9 marriages per thousand people per year, compared with only 5.5 in Germany. The U.S. rate of divorce is 4.6 per thousand per year, compared with only 1.7 per thousand per year in Germany (Eurostat Yearbook' 95. 1995). Therefore, we would expect income fluctuations related to family structural change to be smaller in Germany than in the U.S. The composition of the family, including the presence of children has a potentially important impact on family labor supply, and while the percentage of families with children is rather similar in the U.S. (59%) and Germany (62%), the distribution of family types is quite different. Of the families with children, 7% in the U.S. are headed by single males, 28% are headed by single females, and 65% are headed by couples. In Germany, the corresponding figures are 3%, 16%, and 81%. The major difference

between the two countries, clearly, is in the proportion of single-parent households (see also Casper, Garfinkel and McLanahan 1994).

Esping-Andersen's (1990) taxonomy of welfare states suggests a clear contrast between American and German welfare state policies. The German "conservative" welfare state is typically described as a system of social "insurance" against "risks incurred in working life" (Markovits and Halfmann 1988, p. 110), which emphasizes status maintenance (*Statussicherung*) (Alber 1986; Clasen 1994; Esping-Andersen 1994). The German system, like the American system, is characterized by a certain amount of geographic variation in support payments because welfare policies are determined, financed, or administered at the state (*Land*) or local level as well as at the federal level.

The characterization of German welfare policies as an insurance system is, of course, a considerable simplification (e.g., Bundesministerium für Arbeit und Sozialordnung 1995). While insurance is the core principle, the German social security system actually consists of several tiers (see Clasen 1994): (1). Social insurance benefits (*Sozialversicherung*) based on compulsory contributions to insurance funds, of which there are currently five pillars: unemployment, accidents, sickness, old age, and the need for long-term nursing care.(2) The principle of provision (*Versorgungsprinzip*), which gives various groups in society a statutory right to certain benefits (e.g., the civil servants), and (3) the principle of charity (*Fürsorgeprinzip*), under which people in need can apply for "social assistance" (*Sozialhilfe*) from local authorities. In theory, people in this category are those who haven't been working sufficiently long or for sufficiently high rates of pay to quality for benefits under the social insurance system.

The German welfare state also has extensive "pro-family" policies in place, which are responsible at least in part for the greater reliance of German families on the male breadwinner as the primary source of family income (Gustafsson and Bruyn-Hundt 1991; Zimmerman 1993). These policies include state support for the bearing and raising of children through child payments, parental leave, and direct payments for the period following the birth, provided that the person receiving the payment does not work full time. They also include an element of social assistance (*Sozialhilfe)* (e.g., unemployment benefits vary with family size), Perhaps most important is the marriage splitting feature of the income tax code, which allows families to split total income into two equal parts and pay taxes on each part. This feature increases taxes on the lower paid person (typically the woman), but decreases taxes even more for the higher paid partner. Thus, the German tax code produces a tax advantage for German men in contrast to the American tax code, where marriage is an advantage or a disadvantage depending on one's tax bracket.

The combination of the marriage tax splitting, the linking of family payments to part-time work, the virtual absence of child care for children younger than age three, the fact that most kindergartens operate only for a half day (morning or afternoon), and the lack of child care to extend the school day past five hours all work to reduce female labor supply. Gustafsson, who compared the effects of the different taxation systems in Sweden and Germany, estimated that a switch from the German to the Swedish tax system would by itself raise German female labor force participation 10 percentage points, which is a rather large response. Another revealing statistic compares family reliance on the wife's earnings. In 1984, wives contributed 15% of income overall in

Germany (Zimmerman 1993), while American wives in 1992 contributed 30% of family income (Bianchi 1995).

The German system is based on a presumption of stable attachment to the workforce by the (typically male) breadwinner. In the contemporary world, this system becomes inadequate in two respects. First, the system potentially becomes strained with increased levels of turbulence, because unemployment of long duration (or failure to find work in the first place) detaches one from the social insurance system. Second, insurance against divorce (or more generally, against union dissolution) was never part of a system that presumed and promoted marital stability under the leadership of the male breadwinner. However, marital separations have risen in Germany as they have in other industrialized countries (Wagner 1997), and the German welfare system has been modified in response to the this trend.

Current divorce law in Germany is designed to protect the financially weaker party, including division of property to the ex-spouses, alimony, and child care (Voegeli and Willenbacher 1992; Willenbacher and Voegeli 1992). These payments are fixed by courts only after the divorce settlement is finalized, a process that usually takes at least three years. In the interim, transfers from ex-husband to the ex-wife are obligatory under family law, but the amount of the transfer is specified by a court decision only in rare cases, and enforcement often is lacking. The "Maintenance Advance Fund" provides child support for a certain period of time when the custodial parent is unable to collect support payments from the other parent (up to 36 months for children under 6 in the 1980s --Burkhauser et al 1991, and up to 72 months for children under 12 at present – Bundesministerium für Arbeit und Sozialordnung 1998).

In contrast to Germany, the American welfare state is typically classified as a "liberal" welfare state (e.g., Esping-Andersen 1990), with social welfare benefits typically being mean's-tested, and modest in size. This assertion is something of an oversimplification, in that the American welfare state has developed a large public-sector "social insurance" component consisting largely of Medicare, Social Security, unemployment insurance, disability insurance, and worker's compensation (Burtless 1994). Clearly, however, there is a different emphasis in the two systems. In principal, multiple mechanisms are available to stabilize potential turbulence in one's standard of living, including (1) social insurance, (2) private insurance, (3) the "flexible" labor market, that allows individuals to quickly gain employment or increase their working hours in response to threats to their standard of living. (4) the family, where either other adults in the household can increase their labor supply in response to such threats, or where family networks through self or through other members of the family provide access to private transfers, and (5) savings and credit markets (including e.g., credit cards), which allow "borrowing" as a way to maintain consumption at a target level. While the traditional German system emphasizes the first of these options, the American system relies heavily on "private" insurance, both in a formal sense (e.g., health insurance is largely private), and in an informal sense in that individuals are often forced to rely on market activity of others in their personal network (and changes in market activity, e.g., increased labor supply by a spouse) to offset job loss or disability.

In summary, the German welfare system has significant gaps in its "logical" structure with respect to long-term unemployment and union dissolution. Both of these gaps are "patched" through additional policies, and in both cases, individuals have

relatively strong incentives to find "private" solutions (new jobs, new partners) in a society where the overall rates of job finding and union formation are relatively low. The American welfare system exhibits greater geographic variation, generally weaker coverage and lower levels of protection from the start, but the more dynamic American society presumably offers both higher levels of opportunity as well as higher incentives for offsetting negative events in the medium if not the short term.

The existing literature suggests that income turbulence in the U.S. will be higher than in Germany because of its higher overall rate of family and job-related events. Our focus in this paper concerns principally the effects of these events on household income, the extent to which state policies mitigate or enhance these effects, and the duration of these effects in light of countervailing events and the structure of social welfare policies. The above discussion motivates the following four hypotheses:

(1) a greater damping of job-related events from welfare-state policies in Germany than the U.S. but an indeterminate ranking of countries in the case of changes in household composition.

(2) weaker effects of job-related events by the male on family income in two-adult households in the U.S. than Germany because of the greater contribution of the female partner to family income in the U.S.

(3) weaker effects of union formation and dissolution on the incomes of women in the U.S. than in Germany because of the greater number of hours worked by women in the U.S. However, the size of the cross-national gap is narrowed to the extent that the cross-national difference in labor supply stems from differences in incentives rather than opportunities for work.

(4) greater persistence of the effect of job or partner matching or match-breaking in Germany than the U.S, but the cross-national gap is narrowed to the extent that the cross-national difference in rates stems from differences in incentives rather than opportunities for union formation and dissolution.

We test these hypotheses in the following sections.

Methods and Data

Data for our analyses came from the Panel Study of Income Dynamics (PSID), the German Socioeconomic Panel (GSOEP), and the PSID-GSOEP Equivalent Data File (Wagner, Burkhauser, and Behringer 1993). Both surveys collect data from sample members on an annual basis. We used data from the 1981-1993 waves of the PSID and the 1984-1996 waves of the western Germany sample in the GSOEP (available panels for East Germans are still relatively short). Our sample includes observations on men and women who were either sole heads of household or partners in couple-headed households between the ages of 25 and 50 at the time of the initial income observation. For each sample member we used all available waves in constructing our estimates and deleted observations that were missing on any of the analysis variables.

The dependent variables in our analysis are measures of change in annual earnings or income over time. We measure the immediate and longer term impact of trigger events using the convention of comparing annual income for the calendar year preceding the event to annual income two, three, five and seven years later. We used several measures of income in our analysis in order to distinguish the impact of trigger events on household income as opposed to individual earnings. We separately analyzed the impact of trigger events on household private income (before taking taxes and income

from public transfers into account), and total income (after taking taxes and transfers into account) in order to assess how state policies buffered the consequences of trigger events for family income. We then created measures of household income that were adjusted for household size (household equivalent income), so that we could distinguish the consequences of trigger events on income from their effects on household living standards. These measures are described in more detail in Appendix 1, and the details of our statistical model are presented in Appendix 2.

Descriptive Results: Annual Rates of Change

Table 1 shows the distribution of one-year differences in earnings and income in the U.S. and in Germany for respondents at the 10%, 25%, 50%, 75% and 90% point of the earnings or income distribution. The entries in the body of the table show the rate of gain or loss in individual labor earnings, household private income and post-government household income for the subsamples. Although the median year-to-year income fluctuation is similar in each country, there are notable differences in the variance. At the top of the distribution, Americans gain more than do Germans. At the bottom of the distribution, they lose more than do Germans. German earnings and incomes clearly fluctuate less from year to year than do American earnings and incomes. Table 1 also shows that the rate of earnings or income change is greater among women than men.

Table 2 shows the yearly rate of job and partner change for Americans and Germans. The rate of employment exit, of employment entry, of job change with the same employer, of employer change, and of entry into self-employment are all higher in the U.S. than in Germany. The situation is the same when the focus shifts to changes in household composition. Our data show that American men and women add partners and

lose partners at roughly twice the rate of Germans. Thus, with respect to income, to job change, and to union formation and dissolution, Americans have more volatile lives than do Germans.

Two-year Earnings and Income Change

The two-year earnings and income models show the "immediate" impact of trigger events, that is, the difference between annual income in the calendar year prior to the event and annual income in the year following the event. For purposes of clarity, we highlight our results through the use of charts in figures 2-8. These charts are based on the model parameter results reported in the appendix tables. It is important to note the dependent variable in the regression models is the log of the ratio of earnings or income at two points in time. In order to convert these values to percentage change in earnings or income, one must exponentiate the coefficient and subtract one (e.g., a parameter value of -.895 in appendix table A1 corresponds to an earnings reduction of 59% because $e^{-0.895} - 1$ equals -.59). Our discussion below focuses on the highlights of our analytical results. The full set of 2-year results is contained in appendix tables A1 and A2 (see appendix 3 for a discussion of these appendix tables).

MEN

It is hardly surprising that exiting employment has by far the biggest effect on individual labor earnings in both countries. Our results reveal, however, that German social welfare policies do a much better job of buffering the impact of this event than do American policies. First we consider the case of workers who have zero years of tenure with their employer (this case is illustrated in figure 2). In Germany, workers who exited

employment soon after they were hired experienced reductions in labor earnings of 59%, but reductions in private household income of only 42%. In the U.S., exiting employment results in a reduction of 50% in labor earnings as compared to a 37% reduction in private household income. For Germany, the 42% reduction in private household income from employment exit becomes only 17% once government taxes and transfers are factored in. U.S. tax and transfer policies also buffer the negative effects of employment exit, but their impact is smaller. Thus, while somewhat more than one-third of the negative impact of exiting work is eliminated in the U.S. at the level of post-government household income, roughly 60% of the negative impact of exiting work in Germany is eliminated at the level of post-government household income.[2]

Not surprisingly, workers with higher levels of employer tenure lost more from employment exit than did low-tenured workers in both countries (see figure 3). In the U.S., an average worker exiting employment after 10 years of tenure lost 55% of his labor earnings, 41% of private household income, and 25% of post-government household income. The German worker lost 65% of his labor earnings and 47% of private household income, but only 19% of post-government household income. Clearly, the offsetting effect of state policies on income reduction from employment exit is bigger in Germany than in the U.S.

In both the U.S. and Germany, the effect on private household income of adding or losing a partner is substantial – indeed it is larger than any of the labor market events except for employment exit. As figures 4 and 5 show, the income effects of union formation and dissolution are relatively symmetrical for American men, suggesting that women contribute between one-quarter and three-tenths of private household income in

both new and dissolving unions. In Germany, in contrast, the short-term gains in private household income from adding a partner appear bigger in absolute magnitude than are losses from losing a partner: gaining a partner increases household private income by 46%, while losing a partner reduces household private income by only 20%. This asymmetry could arise from a rise in gender inequality in labor earnings over the life course, or from a tendency for women to reduce labor earnings over time after forming a union, or both. We return to this issue in our discussion of the results for women.

Interestingly, tax and welfare policies in the U.S. and Germany magnify both the household income gain from union formation and the household income loss from union dissolution. However, the effects of the welfare state are small in the U.S. and substantial in Germany. In Germany, the gain from union formation increases from 46% to 58%, while the loss following union dissolution increases from 20% to 30% when post-government income is substituted for household private income as the dependent variable.[3] State policy in the U.S. does little to buffer men's household incomes against union dissolution, and the family-friendly policies of the German welfare state magnify both the positive and the negative consequences of family change for men.

The fourth bar of each set shows the impact of subtracting out-transfers from post-government household income. The main consequence of this modification is to magnify the negative impact of partner loss on the household income of men, resulting in a 36% loss for American men and a 41% loss for German men.

WOMEN

The basic pattern of labor market effects is similar for German and American women. Women, like men, experienced earnings and income reductions from

employment exit, which are large in the case of labor earnings, and smaller though still apparent for private household income or post-government household income. Not surprisingly, the average negative effects of women's employment exit on household income in the two countries are much smaller than the corresponding effects for men. In the U.S., women's exit from employment produced an average 15% reduction in private household income at zero years of tenure, while in Germany the effect was 18% (7% in the U.S. and 8% in Germany after state tax and transfer policies are taken into account). At higher levels of tenure, the effects increase in magnitude. For a woman who had ten years of employer tenure before employment exit, the reductions in the U.S. are 67% for labor income, 24% for private household income and 14% for post-government household income. For German women, the comparable figures are 71%, 25% and 12%. The effects of a woman's leaving employment on household income are considerably smaller then the corresponding effects for men.

The effects of partner change, in contrast, are greater for women than for men. American women's private household income rose by 103% when a partner was added, while their net family income rose by 79%. These numbers compare with corresponding effects of 37% and 40% for American men. Gains for German women (103% and 96%, respectively) also greatly exceeded the corresponding gains for German men (46% and 58%, respectively). Similarly (and consonant with other studies, e.g., Hoffman and Duncan 1988; Burkhauser et. al. 1991) we find that the average negative effect of losing a partner on private household income and on post-government income is greater for a woman than for a man (-46% and-35%, respectively, for American women vs. -29%/-29% for American men, and -51%/-37% for German women vs. -20%/-30% for German

men). Before state taxes and transfers are factored in, the gender gap in the impact of partner loss is notably bigger in Germany than in the U.S. This is the expected result of the greater level of labor force participation and relatively higher earnings of married American women relative to German women. In both the U.S. and in Germany, state tax and welfare policies blunt the large negative impact of partner loss for women. The effects of the German tax and welfare policies are comparable to effects in the U.S. (the effect is reduced by 28% in Germany and 24% in the U.S. when post-government household income is substituted for private household income), though in both cases the reduction in income following partner loss is still very large. Moreover, state taxes and transfers in both countries substantially reduce the gender gap in the effect of partner loss by increasing the negative impact on net household income among men.[4]

In the fourth bar of each set we report the effects when total private out-transfers are also taken into account. Taking account of out-transfers essentially eliminates the male advantage in nominal income change following loss of partner in both countries.[5] After transfers are subtracted, American women and men both lost 36% from union dissolution. German women lost 42% of post-government income compared with 41% for German men.

Women also differed from men in experiencing a significant negative impact on their labor earnings from the arrival of new children (see appendix table A2). This negative effect is much larger for German women than for American women. For German women it appears to be the arrival of children that depresses earnings rather than union formation *per se*. This delayed effect of union formation on the labor earnings of German women is a probable cause for the earlier-mentioned asymmetry in the effects of

partner gain and partner loss for German men. In both countries, this negative effect is reduced or eliminated when household income is used as the dependent variable.

The Effects of Other Labor Market Events on Earnings and Income

Other labor market events, both of self and partner also had an impact on labor earnings and household income (see tables A1 and A2). For newly hired German men (i.e., with zero years of tenure) job change with the same employer has a slightly more positive effect on labor earnings than does a change of employer, while the reverse is true in the U.S. However, internal job shifts are clearly more favorable for more senior male employees in both countries. Men with more than ten years of employer tenure who change employers suffered earnings losses on average in both countries. Cross-national differences are rather large for shifts into self-employment, which on average has a negative effect on income in the in the U.S. and a positive effect in Germany. In both countries a move from non-employment to employment event had the expected positive effect on labor earnings and household income. But the effects are bigger in Germany, probably because there is less "in and out" movement in Germany than in the U.S. In both countries, these gains in earnings are diminished when household income is considered.

Women in the U.S. gained from internal job changes and much of these gains are retained at the level of private and post-government household income. Women in both countries tended to gain more than men from changing employers, although for women as well as men the average change depends upon the level of tenure with the previous employer. Not surprisingly, the gain in labor earnings by women following a shift from

non-employment to employment did not have as big an effect on household income as did the corresponding event for men.

Women in both countries experienced a larger negative impact on household income than did men as a consequence of partner's labor market exit. The impact of partner's employment exit on post-government household income is twice the negative impact of own exit (-18% vs. –7% at zero years of tenure). Women in the U.S. also experienced an average loss of 6% in household income when partner changed employers. In Germany, partner's exit from employment reduced women's private household income by more than double the negative impact of her own employment exit (-41% vs. -18% at zero years of tenure). It is evident from these figures that the typical German woman took a much sharper loss at the level of private household income when partner exited employment than did the typical American woman. However, the German welfare state apparently provided greater offsetting benefits; as a result, the impact of partner's employment exit on post-government household income is comparable for women in Germany (-18%) and in the U.S. (-16%). In summary, the big cross-national disparity in the effects of partner exit from employment are almost completely eliminated by Germany's more substantial social welfare policies.

How Changing Household Composition Affects Living Standards

Gaining or losing a partner or a child changes the consumption needs of the household even when nominal income remains constant. In order to investigate the impact of changes in family structure on household standard of living, we adjusted the annual household income measures by using the ELES household equivalence scales developed by Merz et al (1993). We then used these adjusted income measures as

dependent variables in our analyses. The coefficient estimates for the effects of union formation and dissolution on household equivalent income are presented in table A4 and selected results are shown in figures 4 and 5. These analyses highlight two important gender differences in the consequences of union formation and dissolution. First, women in both countries are more affected by union formation and dissolution than are men. Second, the effects of union formation differ by gender not only in the size of the total effect but also in the relative public and private contribution to this effect. Our results also show an important country difference: German state policies produce bigger gains to union formation for men than do American state policies.

In terms of household equivalent income, women lose much more from union dissolution than do men. Men in both countries experienced no significant loss from union dissolution either on private household equivalent income or on post-government household equivalent income. In contrast, women in both countries experienced substantial losses, although the effects of union dissolution on women's living standards are less extreme than are the effects of union dissolution on women's actual dollar income (cf. the effects in tables A2 and A4). Women in the U.S. experience a 39% drop in pre-government household equivalent income, while women in Germany experience a 45% decline. Tax and social welfare policies reduce this effect in both countries, to a 26% decline for U.S. women and a 28% decline for German women. These policies have the effect of reducing the gender gap in both countries.

The gender gap is further reduced when out-transfers are factored in, but (unlike for the case of nominal income) the gender gap is not eliminated by the combination of public and private transfers (see figures 4 and 5). American men lost 15% in equivalence

adjusted post-government income after taking out-transfers into account, but American women lost 26%. The effects of out-transfers on German men appear to be larger than the comparable effects on American men (we cannot be sure because of possible biases in 2-year cross-national comparisons discussed in appendix 2). However, the loss for German men is nonetheless smaller than the loss for German women (23% for German men vs. 33% for German women). The relatively large loss for German men and especially for German women underscores the extent to which employment events and union dissolution are treated differently by the German welfare system, both in the way that public and private resources are mixed to mitigate the negative event and in the extent to which the transfers buffer the negative consequences of the event.

Men in both countries improved their short-term standard of living following union formation (see figure 4). The situation of German men differs from that of their U.S. counterparts in that much of their gain in standard of living appears attributable to German social welfare policies. Women in both countries experienced strong gains in post-government living standards (53% for Americans, 58% for Germans) in the aftermath of a new union. The gains in living standards experienced by women are different in two respects from the gains by men. First, the gains for women are much greater than the gains for men. Second, the gains for women stem from increases in private income, not from increases attributable to welfare state policies. Iindeed, whereas state policies enhance the gain from union formation for men, they reduce the gain for women. For both union formation and union dissolution, the effects of tax and social welfare policies work in opposite directions for men and women, and thus reduce the gender gap in the effects of both events.

At this point it is useful to return to the hypotheses we presented earlier in the paper. Our results are consistent with other work in finding a much higher rate of labor market events and of changes in family composition in the U.S. than in Germany. Moreover, these events have important consequences for income change in both countries. The rate of income change due to trigger events is higher in the U.S. because the rate of trigger events is so much higher. Hypothesis 1 in important respects is supported by our results. Repeatedly, we found substantial reductions in the effect of trigger events on post-government income compared with their effects on private household income in both countries. With respect to employment exit (which obviously has very large negative effects on labor earnings), the effects of state tax and transfer policies were larger in Germany than in the U.S. The German welfare state provides bigger benefits to men following union formation than does the American welfare state. In contrast, the welfare state tends to diminish a woman's gains from union formation. State policies mitigate the negative impact of partner loss for women in both countries, and the effects (holding aside private transfers) actually appear slightly bigger in the U.S. than in Germany. However, when transfers are taken into account, the gender-equalizing effect of the welfare state appears to be larger in Germany than in the U.S.[6]

Hypothesis 2 predicts weaker effects of job-related events by the male on family income in two-adult households in the U.S. than Germany because of the greater contribution of the female partner to family income in the U.S. The two year results show that the impact of labor market events on private household income is considerably lower for males in both countries than is the impact of these events on labor earnings. Hypothesis 2 does not appear to be supported for the one event (employment exit) that

generates substantial income loss. Only for those labor market events that produce a gain in earnings do we find a larger gap between the effect on labor earnings and the effect on private household income in the U.S. than in Germany (see appendix tables A1 and A2). Evaluating hypothesis 2 with the two-year change results is limited, however, because of cross-national differences in interview timing (see appendix 2 for details). To increase confidence, we compare selected coefficients from three-year change models for American and German men in table 3. We report the percent of the change in labor earnings that disappears when private household income is substituted in the rows labeled as "reduction" in table 3. These results (like the 2-year results in the appendix tables) suggest that German women are able to increase their labor supply to offset declines in labor earnings by the male breadwinner. In other words, when the incentive structure is changed from the norm, German women appear able to respond with increased hours of work, despite the fact that, on average, they contribute less to family income than do American women.[7]

Longer-Term Effects of Changes in Labor Market Activity and Family Structure

So far we have focused on the short-term impact of labor market and family change on household income and on household living standards. But, as we argued earlier, the importance of these results depends to a considerable extent on how long-lasting the effects of job and family events are for household income and living standards. Differences in the duration of effects. In terms of our ideal-type characterizations of figure 1 countries are appropriately described as having "buffered", "turbulent", or "mobile" stratification regimes to the extent that responses to trigger

events are immediate, delayed, or absent. Accordingly, we next examined the impact of labor market and family events on longer-term change in income. We report the complete set of coefficients on the 3-year, 5-year, and 7-year post-government household income of men and women in appendix tables A5 and A6, and discuss the highlights of our results below.

MEN

Even by the third year, the negative effects of exiting employment have dissipated for men in both the U.S. and in Germany (cf. figures 2 and 6). The effects of union formation on post-government household income are durable in both the U.S. and Germany, but in both countries the effect of adding a partner on seven-year equivalent-income was reduced compared with the 2-year effects (cf. figures 4 and 7).[8] The seven-year effect of union formation thus appears to be no more consequential for a man's financial well-being than is a job change in both the U.S. and in Germany. The negative impact of losing a partner, in contrast, had a durable negative effect on financial well-being for men in both countries (see figure 8).

In addition, the coefficients in table A5 show that moderate gains due to job change within a firm, change of employer, or (re)entry into the workforce persisted at relatively stable rates through the 7-year period for U.S. men. Stable gains from internal job shifts and possibly also from (re)entry into the workforce persisted for German men.

WOMEN

As for men, there are no serious negative effects of employment exit for American or German women in the longer term. In contrast to men, however, the effects of adding a partner are considerable and long-lasting for both German and for American

women, but (consistent with our expectation in hypothesis 3) the effects are considerably stronger for German women than for American women, due no doubt to the different levels of work activity by women in the two countries.

Figure 8 shows important and in some respects surprising gender differences in the longer term effects of losing a partner in the two countries. In the U.S., the negative effect of union dissolution on post-government household income persisted through the seven-year period, though the magnitude slowly decays. The negative effect also decays in Germany, and does so at a stronger rate than in the U.S. After out-transfers are taken into account and after income is converted to equivalent income, the long-term negative effects of losing a partner in the U.S. are similar for men and women.[9] In Germany, the point estimate of the seven-year effect of partner loss for German women is actually smaller than for German men. Hypothesis 3 predicted that the effects of union dissolution would be weaker for women in the U.S. than in Germany because of the higher rates of labor market activity for American women. Our results provide some support for this hypothesis during the first few years following the dissolution. But the cross-national difference decays fairly quickly and is gone by the seventh year following the initial observation.

How did German women manage to reduce their longer-term costs of partner loss? Any of three possible mechanisms could be at work: (1) German women increased their labor earnings in response to partner loss, (2) German women who lost their partners found new partners at rates higher than typical for the German population, and (3) the effects of the welfare state dissipate the pre-tax and transfer effects of losing a partner. To investigate these possibilities, we present selected coefficients from the five

and seven-year analyses of change in labor earnings and private household income for German and American women in table 4. These results suggest that German women responded to partner loss by increasing their labor earnings more than did American women. A relatively larger increase in labor earnings for German women is easier due to the fact that they typically start from a lower base than American women (their average contribution to family income is much lower than is true for American women). Moreover, like American women, German women have an incentive to maintain or increase work activity following a union dissolution as a principal strategy for avoiding a sharp deterioration in their standard of living.

Table 5 shows rates of new union formation in the two countries. Both German men and German women were able to repartner at rates comparable to American rates, even though overall rates of union formation and dissolution are lower in Germany than in the U.S. The combination of repartnering and increases in work activity allowed German women to reduce their high immediate financial losses from partner loss. This combination equalizes the initially quite unequal effects of partner loss on private household income for German men and German women. These "private" strategies are an important supplement to state-based mechanisms for reducing the gender gap in the effects of union dissolution in Germany as well as the U.S.

In addition, the coefficients of table A6 reveal persistent effects of other labor market events for American women. They derived durable positive income benefits from employment (re)entry and job change, and experienced a persistent negative effect from employment exit by the partner. For German women, the longer term effect of job changes is less clear though the difference in statistical significance in the two countries

may reflect more the cross-national differences in sample size for the longer-term analyses than a real difference in structure.

Discussion

Earlier in the paper, we proposed four hypotheses concerning cross-national differences in family income dynamics: (1) a greater state-produced damping of the effects of trigger events in Germany than in the U.S., (2) weaker effects of changes in the labor market position of males on household income in the U.S. than in Germany, (3) weaker effects of union dissolution on the household incomes of women in the U.S. than in Germany, and (4) a greater persistence of the effects of trigger events in Germany than in the U.S. We also proposed a conceptual framework for comparing countries as a whole in terms of the impact of job change and family change on income dynamics. Now we are in a position to recapitulate our findings with respect to these expectations.

Changes in labor market activity and in family composition produce considerable change in household income in both the U.S. and in Germany. But Germans are relatively sheltered from the negative consequences of these events in two important respects. First, rates of negative events such as union dissolution and employment exit are much lower in Germany than in the U.S. Second, the German welfare state mitigates the effect of these events more so than do American tax and social welfare programs. Our first hypothesis, in other words, received substantial support from our analyses.

Both U.S. and German social welfare policies reduce the negative impact of partner loss on women's household income despite the minimalist character of the American welfare state, and despite the fact that union dissolution falls outside the "five

pillars" of the German social insurance system, which together form the core of the German welfare state. The impact of these policies is limited; in both countries women clearly lose more than men in the short-term. However, private strategies (greater levels of work, repartnering) allow women in both countries to largely close this gender gap.

We also found an important asymmetry between the short and long term effects of union formation and dissolution in the U.S. and Germany. In both countries, the short-term gender gap in the effects of union dissolution dissipates over time, while the gender gap in the effects of union formation persists. The predicted greater impact of union formation on German women's household income and standard of living is clearly visible in our results, but the predicted cross-national difference in the effects of union dissolution on the woman's financial situation goes away during the seven year observation period. Overall, gender differences (regardless of country) in the effects of union formation and dissolution on household income are more important than are cross-national differences.

We found little evidence that the effects of labor market events or changes in family structure persist longer in Germany than in the U.S. This lack of support for hypothesis 4 may derive from the fact that cross-national comparisons of unconditional (i.e., population average) rates of job and family events can be quite different from comparisons of conditional rates (e.g., the rate of reemployment, given employment exit for men, the rate of repartnering, given partner loss for men and women, or increases in labor supply by German women, given employment exit by German men or given union dissolution). The distinction between cross-national differences in unconditional rates and cross-national differences in conditional rates underscores the reality that

employment and marital events are to a considerable (though of course not complete) extent under the control of individuals. Cross-national differences in rates are produced by cross-national differences in the incentive structure that motivates an individual to break and form job and sexual matches as well as in cross-national differences in the extent to which the individual experiences the breaking of employment or sexual matches as exogenous events, outside of his or her control. The average incentive to break and form matches may differ between two societies, but incentives for particular groups to form or break matches (e.g., men who have exited employment, or men and women who have separated from a partner) may be more similar across societies than national averages would suggest.

Earlier in this paper, we proposed a taxonomy for classifying societies with respect to the rate and consequences of trigger events. The results discussed above provide the basis for at least a tentative classification of the U.S. and Germany across the dimensions portrayed in figure 1. With respect to positive trigger events, the U.S. would appear to be a mobile society with respect to labor market events (high rate of events, plus low rates or effects of offsetting change). In comparison to the U.S., Germany is relatively segmented; the rate of events in Germany is relatively low. With respect to negative trigger events, the U.S. could be described as a turbulent society: it has a high rate of events with limited immediate buffering followed by delayed offsetting events that cause initial negative effects to slowly decay. Germany is more of a buffered/protected society. Germany is protected in the sense that negative events are less common than in the U.S. Germany is buffered in the sense that the immediate effects of negative events are offset by state tax and transfer policies to a greater extent than in the U.S, even in the

case of events that fall outside the traditional reach of the German "social insurance" system. Despite the overall low rate of events, there also appears to be delayed offsetting events as well in Germany, which further reduce the impact of negative events.

Clearly, there is no simple statistic that can be used to "rank" the effects of labor market events, union formation and dissolution, or state tax and transfer policies on changes in household income and living standards. Instead, we see that the importance of these events depends upon the gender of the person experiencing the event, and the time frame over which the effect is measured. In the short term, employment exit or entry by males is the most consequential event with respect to private household income. However, because state policies do such an effective job of offsetting the negative consequences of employment transitions, we find that partner gain or loss is the more consequential event when post-government household income is used as the basis for comparison. When household size is taken into account, the picture changes again; the effects of partner loss or gain are muted for men, and thus appear no more consequential than the post-government effects of employment exit and entry. Longer term, we see that both job changes and partner loss have durable effects for men, with the latter effects apparently larger than the former. For women it is very clear that union formation has the biggest short-term and long-term effect on income and living standards. The short and longer-term effects of labor market events are not trivial, however, especially in the U.S. Finally, welfare state effects are extremely important for women, particularly in mitigating the effects of employment exit and the loss of a partner.

The effects we describe in this paper must be seen as "average" or "typical" effects for the two societies. Our report therefore needs to be supplemented in two

respects. First, the effects described in this paper (along with their decay or reinforcement pattern over time) may vary over the life course both within the 25 year "window" examined in our analyses and outside this window as well. Second, the effects we described may vary across the income or educational distribution of the population. While these issues were outside the scope of the present paper, they need to be investigated for a complete picture of how labor market events and changes in family composition affect the dynamics of family income.

Appendix 1
Variable Definitions

Variables for our analyses were in some cases taken from the PSID-GSOEP Equivalence File. When appropriate variables were not available from this source, we constructed measures from the underlying GSOEP and PSID data files. We used the following measures of individual and household earnings and income:

1. Individual Labor Earnings. Labor earnings includes wages and salary from all employment including self-employment (farming, business, market gardening, and roomers and boarders), professional practice or trade, and bonuses, overtime and commissions. In Germany, this variable includes income from training and profit-sharing.
2. Total Private Household Income. This is the combined income received by all household members from labor, assets, and private transfers (including alimony and child support) before taxes and government transfers. It includes the imputed rental value of housing.

3. Post-Government Household Income. This is the sum of household post-income-tax (including state income taxes and the EITC for U.S. sample members), payroll taxes (health, unemployment, and retirement) and public transfers. In the U.S., public transfers include AFDC, SSI, and other "welfare" programs, social security, unemployment compensation, worker's compensation, and the face value of food stamps. In Germany, public transfers include housing allowances, child benefits, subsistence allowance from the Social Welfare Authority, special circumstances benefits from the Social Welfare Authority, Social security pensions for old age, disability or widowhood, government student assistance, maternity benefits, unemployment benefits, unemployment assistance, and long-term unemployment subsistence allowance.
4. Equivalence-Adjusted Post-Government Household Income. If one wants to study income's consequences for family well-being, it is important to adjust income for household size. For this purpose, we used the country-specific consumption-based scales developed by Merz et al (1993). The "Expended Linear Extension System" (ELES) weights reported in the PSID-GSOEP Data File are calculated for the *current* household at the time of the survey, while income measures refer to the *previous* calendar year. To accommodate changes in household composition and the disparate rules for reporting household income in the two instruments, we used the ELES weights for the previous year with the following exceptions: (1) In the PSID, we adjusted income using the current-year ELES weight if the respondent was married after last year's interview and before the current interview. (2) In the GSOEP, we adjusted income using the current-year ELES weight whenever a head or partner

entered or exited the household after last year's interview and before the current interview.

5. Post-Government Household Income after Out-Transfers are Subtracted. In both the U.S. and Germany, an ex-partner is often required to pay alimony and/or child support to the other ex-partner. Because this money is no longer available to the individual who pays these expenses, and because it is generally the male who pays this money to the female, a gender comparison that did not adjust for these transfers would be potentially misleading; the amount of the transfer would be included in the incomes of both the male and the female even though the money was only available to the female. It is difficult to adjust in a perfect fashion for these transfers, but we used the reasonably effective strategy of subtracting total transfers to persons not in the household from post-government household income to obtain a useful measure of income adjusted for out-transfers (see below for further details).
6. Equivalence-Adjusted Post-Government Household Income after Out-Transfers are Subtracted. We used the Merz equivalence adjustment on post-government household income after out-transfers were subtracted.

With respect to the household above measures above, it is important to note that households are not the same thing as families. Households are defined as all individuals who live together in the same dwelling unit, including foster children, relatives outside of the nuclear family, and unrelated individuals who are living indefinitely in the household. In the PSID, the definition of household excludes PSID family units who have moved back in with another PSID family unit – these two family units continue to be treated in the PSID as separate households. Our measures of private household income and post-

government household income are exactly those used in the PSID-GSOEP Equivalence File, and are the most comparable measures available for the two countries.

Our total out-transfer measure is different from the sum of alimony and child support in that it includes (a)voluntary out-transfers as well as mandatory support payments, and (b) support payments to others, including parents, adult children, and non-family members. We used measures of total out-transfers rather than measures of child support and alimony in order to obtain maximum comparability over time and across countries. Measures of child support and spousal support are not directly measured in the PSID until 1985. The relevant GSOEP questions always address "payments to children" (which could be payments to adult children no longer in the household) and "payments to former partner." However, it is possible to measure total transfers to individuals not in the household for both datasets, and we therefore used this measure in our analyses. For two waves of the GSOEP (1992 and 1994) the questions on payments to persons outside the household were not asked. We therefore had to exclude certain years from our full analysis, but we verified that our results are not sensitive to the inclusion or exclusion of these years (results are obtainable from the authors upon request).

The independent variables in our models are defined as follows (to avoid repetition, we use “R” for the individual in question)

Changes in Tenure. Change in employer tenure, measured in years, as reported in the calendar year of the initial observation on income and employer tenure two years later. Employer tenure was smoothed and filled to be consistent with reported employer change. Thus, if no employer change is reported, tenure is redefined as previous tenure plus one year.

Changes in # of Children. Change in the number of children in the household between the calendar year of the initial observation on income and the number of children in the household two years later.

Partnership Changes: (1) Add Partner. R had no partner in the calendar year following the initial income report, but gained a partner through marriage or cohabitation by the time of the following interview. (2) Lose Partner. R had a partner in the calendar year following the initial income report, but had no partner by the time of the following interview. (3) Change Partner. R had a partner in both years, but not the same partner.

Changes in Employment Status (1) Work→ No Work. R was working in the calendar year following the initial income report, not working at the time of the following interview. (2) Employer Change. R changed employer between the survey in the calendar year following the initial income report and the survey one year later. (3) Internal Change. R changed jobs but not employer between the survey in the calendar year following the initial income report and the following interview. (4) Self-employed. R entered self-employment between the survey in the calendar year following the initial income report and the following interview. (5) No Work→ Work. R was not working at the time of the survey in the calendar year following the initial income report, but had a job by the time of the following interview.

Changes in partner's work status (if the same partner as last year) were defined similarly.

Appendix 2
Models and Methods of Estimation

We model earnings or income change as a function of changes in job or family situation. To motivate this model, let y_{it} represent earnings or household income and let X_{it} represent a vector of attributes for individual *i* at time *t*. Then

$$\log(y_{it}) = X_{it}ß + e_{it} \qquad (1)$$

The error will generally consist of unmeasured characteristics of the individual and the match with the job and/or partner, as well as random shocks that change over time. Let us first assume that the error can be expressed as

$$e_{it} = m_i + n_{it} + w_{it},$$

where $E(w_{it} \mid X_{it}) = 0$

In this formulation, m_i is a fixed, unmeasured "person effect" that is perhaps correlated with X_{it}, n_{it} is the unmeasured quality of the match between individual *i* and current job, partner, or partner's job, and w_{it} is a stochastic component that is uncorrelated with X_{it}. To clarify the present discussion, we represent n_{it} as a single component, though the model we estimate contains separate components for job, partner's job, and partner.

Because of the probable correlation between m_i and X_{it}, ordinary least squares estimates of (1) will be inconsistent. However, by differencing equation (1), we obtain the standard fixed effects estimator, which we refer to as the "first-order difference" model in this paper.

$$\Delta y_{it} = \log\left(\frac{y_{it+1}}{y_{it}}\right) = \Delta X_{it}\beta + \Delta v_{it} + \Delta w_{it} \qquad (2)$$

where Δn_{it} is the change in the value of the match and where, by assumption

$$E(\Delta w_{it} \mid \Delta X_{it}) = 0 \qquad (3)$$

For practical reasons we restrict Δy to lie within the range [-2,2], which corresponds to a range of 13.5% of the y value at t1 up to 739% of the y value at t1. This restriction affects about 5% of our measures of change in labor earnings and about 1% of our measures of change in income.

OLS estimates of equation (2) would be consistent if assumption (3) is valid, because the difference estimator removes all within-person correlation that comes from the fixed component. If assumption (3) is invalid, however, OLS estimates of equation (2) would be biased. OLS estimates would suggest that all the correlation between changes in X and in the job or partner matches was a causal effect of changes in X and in the matches on changes in Y. However, individuals who have a propensity to change partners or to change jobs may be more likely to experience an income change for reasons not directly connected to these events. For example, a person whose productivity is rising might have had higher earnings even if he did not change jobs, but his rising productivity might create new job opportunities and thus stimulate a job change. Similarly, a person whose labor earnings are trending upward might be more likely to get married, while an individual whose earnings were trending downward might be more likely to experience a separation. In these cases, the event in question is not the (sole)

cause of the measured change in earnings or income. This situation would produce bias in OLS estimates of equation (3).

One way to deal with this problem is to assume that over the relatively short period of time covered by the panel data, individuals differ in their earnings and income trajectories in ways not measured by the included variables. We can re-express equation (1) in order to take this possibility into account:

$$\log(y_{it}) = X_{it}ß + m_i + t\,d_i + v_{it} + w_{it} \qquad (5)$$

Here $t\,d_i$ produces an individual-specific trend in earnings or income apart from the change due to X or Δn_{it}. The direction (positive or negative) and strength of this trend is determined by d_i. If we difference equation (5), we obtain

$$\Delta\log(y_{it}) = \Delta X_{it}ß + d_i + \Delta v_{it} + \Delta w_{it} \qquad (6)$$

To the extent that d_i is correlated either with the changes in X or with the match changes, than the first-order difference model (2) would not give consistent estimators for the desired parameters. The indicated solution in this situation would be to estimate a fixed effects model for the first-order difference equation (6). We have adopted this approach in the current paper and refer to the resulting model as a "fixed effects change model." Appendix tables A1 and A2 report the coefficient estimates using the fixed-effects change model, while appendix A3 compares the estimated effects of change in job and household composition on earnings and income for the fixed-effects change model and the first-order difference model. The first-order difference estimator generally exaggerates the effect of union formation and dissolution by about 5-20%. This result

suggests that individuals whose incomes are trending up are more likely to add partners, while individuals whose incomes are trending down are more likely to separate from partners. The first-order difference model appears to overstate the structural effect of adding children on income in the U.S. (i.e., couples whose income is trending up are more likely to have children), while it understates the effect of adding children in Germany (perhaps because it underestimates the structural effect deriving from social welfare programs in Germany). With respect to labor market events, estimates from the two methods generally differ by 5-20%, with the signs of the difference being sometimes positive and sometimes negative.

The fixed effects change estimator only can estimate coefficients for variables that change over time. For this reason, we do not report coefficient estimates for factors such as education, race, or ethnicity (In the case of education, the question is not asked on a yearly basis in the PSID, so changes that arise through adult education could not be assessed.). The intercept of the model can be interpreted as the average baseline change over time in a situation of no change in the value of other covariates. Because we include employer tenure in the model, our specification allows the effect of employer change or employment exit to vary with tenure. The regression models are clearly heteroskedastic (e.g., those who change employers or who become self-employed have much higher variance in their earnings change than do workers who change jobs internally). We used a heteroskedasticity-consistent covariance matrix estimator with a finite sample correction in order to obtain consistent standard errors. Finally, we correct the standard errors for the unequal sampling weights found in the data (by taking the sampling weights

into account, we drop the "nonsample respondents" in the PSID – typically people who became the partners of a sample member -- who always have zero probability weights).

In order to properly interpret model coefficients, it is important to understand the implications of change in household composition or labor market position on the measurement of annual income. In the PSID, earnings and income are obtained in each survey for the previous calendar year through interviews with the current head and partner, if any. Thus, earnings for year t_0 are obtained in survey $t_1 = t_0 + 1$. In general, household composition can change over the course of the year. The entire previous year incomes of the head and partner are counted towards household income even if the current household head or partner was not present in the household for the entire previous calendar year, so long as the partner is either a spouse or has been cohabiting with the head for more than one year. In contrast, the incomes of other family members are prorated for the amount of time they were present in the household. In particular, the income of a partner who left the household by the survey date is prorated, and the income of a first-year cohabitor is prorated, but the full income from the previous calendar year is counted for a new spouse regardless of the actual date of marriage.

The GSOEP measures are computed somewhat differently. Each household member age 16 or older is asked to fill out a calendar indicating the months that each type of income was received during the previous calendar year, and the amount of this type of income received in a typical month. These numbers were multiplied together to obtain estimates of yearly earnings and income for GSOEP sample members, and are reported in the Equivalence File (Burkhauser, Butrica, and Daly 1995). Measures of annual earnings and income are not prorated for the time a GSOEP sample member was

present in the household. If an individual is present in the household at the survey date, his/her full yearly income is counted toward household income. However, if the individual is not present in the household (e.g., because of death or exit) at the survey date, that individual's income from the previous calendar year is not counted toward the total family income.

Changes in labor market position and in household composition are measured from the survey date to the survey date in the following year (surveys typically occur in February or March in the GSOEP and in March through September (most commonly in June) in the PSID. If a job related event occurs in calendar year t_1, it will have a partial effect on the income report for calendar year t_1 depending upon the month it occurs. The full effect will not be felt until the following calendar year, though because the effect of an event generally depends upon the duration since the event, this "full effect" is not necessarily equal to the effect of the event on the "purest" (but unavailable) short-term measure, namely the twelve months of earnings or income immediately following the job change.

These measurement problems rule out the possibility of estimating the effects of trigger events on income change between successive calendar years. To estimate the short-term effect of trigger events for the shortest term that was practical, we used the fixed effects change model (model 6) for earnings or income change between calendar year t_0 and t_2 (these models are referred to as the "two-year change" models below). Two year change in earnings and income was specified to be a function of the difference in employer tenure at t_0 and t_2, the difference in number of children between t_0 and t_2,

and family change between surveys t_1 and t_2. The difference in the average timing of the interview in Germany and the U.S. along with survey differences in the method of dealing with the income and earnings of part-year partners may create an upward bias in the effect of trigger events on 2-year change in Germany relative to the U.S. However, these models allow us to accurately compare the reduction or enhancement of effects across the three types of earnings and income (individual labor earnings, private household income and post-government household income) and thus they allow us to compare the short-term buffering impact of state tax and transfer policies in the two countries with reasonable accuracy.

As noted in the text, we estimated models of earnings and income change over both short-term and longer periods of time. For the longer-term analyses, we retained the subset of the two-year sample for which we had measures of income change over three-years (t_0 to t_3), five-years (t_0 to t_5), and seven-years (t_0 to t_7). We retained the same specification for these models that we used for the two-year analyses, in other words, we specified longer-term income change as a function of change in employer tenure and the number of children between t_0 and t_2 and changes in labor market position between t_1 and t_2, changes in labor market position of partner when the partner has not changed between t_1 and t_2, and union formation and dissolution between t_1 and t_2. These models are referred to as the "3-yr," "5-yr," and "7-yr" models in the text below.

Difference models over this longer period of time can be expressed as an extension of model (6). Let $\Delta_k y_{it}$ refer to a change between y_{it} and $y_{i,t+k}$, and for simplicity in notation let

$$\Delta_1 \log(y_{it}) = \Delta \log(y_{it})$$

The relationship between K-year change and one-year change is

$$\begin{aligned}\Delta_K \log(y_{it}) &= \Delta \log(y_{it}) + \Delta \log(y_{i,t+1}) + ... + \Delta \log(y_{i,t+K-1}) \\ &= \Delta X_{it} b + ... + \Delta X_{i,t+K-1} b + \Delta v_{it} + ... + \Delta v_{i,t+K-1} + K d_i + \Delta w_{it} + ... + \Delta w_{it+K-1}\end{aligned} \quad (7)$$

All changes in X and in v at future times can be treated as endogenous to changes in the first period. Thus, we drop these terms from (7) and instead estimate the reduced form equation

$$\Delta_K \log(y_{it}) = \Delta X_{it} b + K d_i + \Delta v_{it} g + \tilde{w}_{it} \quad (8)$$

The coefficients in equation (8) give the "total effects" of the changes in X and changes in the "quality" of job and partner matches between t and t+1 on longer-term changes in earnings and income.

While the logic behind the fixed-effects change model is sound for short-term change, the use of this model (equation 8) to estimate the longer-term effect of events creates new problems that offset its advantages over the first-order difference model. Suppose that a particular individual has experienced a particular event (e.g. the loss of a partner). As before, each individual enters the data set multiple times (this feature is essential in order to estimate the person-specific fixed effect). But in the case of earnings or income differences over multiple years, many of the records for a given individual will bracket this particular event. The fixed effects change model -- like any fixed effects model -- is equivalent to estimating the effect of deviations from the person-specific average in the dependent variable on deviations from the person-specific averages in the independent variables. When the time gap over which income change is measured begins

to approach the length of the person-specific time series, most of the differences for a particular individual will bracket the event in question. Thus, much of the effect of the event will be contained in the person-specific average, which (in this case mistakenly) would be attributed to a person-specific trend that is unrelated to the event in question (the extent of this problem would depend upon the total length of the panel. Since the average panel length differs between the countries, the use of this estimator might also create biases in cross-national comparisons). Because the fixed effects change model is unsuited to the estimation of longer-run effects, we estimated 3-year through 7-year differences using the first-order difference estimator

$$\Delta_K \log(y_{it}) = \Delta X_{it} \beta + \Delta v_{it} \gamma + \Delta w_{it} \qquad (9)$$

which omits the fixed effect term in the model for income differences. It should be kept in mind that to the extent person specific trends in income are correlated with but not caused by trigger events, our estimates of longer-term effects will have some bias. Fortunately, table A3 suggests that the biases in these estimates are probably small.

The sample size used in our analyses depends upon the length of the period measured by the dependent variable. For the two-year analyses reported in tables 3 and 4, we use all available data. Our two-year change sample required four interview-years of data in order to construct the measures used in our analysis. The final sample includes 18,568 observations on 2,791 men in the U.S., 17,218 observations on 2,999 men in Germany, 23,928 observations on 3,529 women in the U.S., and 18,246 observations on 3,127 women in Germany. The sample size for the analysis of two-year change in post-government income after out-transfers are subtracted is smaller - these measures are

sometimes missing in the PSID and they were not collected in Germany in 1993 and 1995. The sample for our three -year analyses reported in table 6 is similarly constructed.

When comparing the persistence of trigger events over time (tables A5, A5 and A7) we restricted our sample to those cases for which 3 year, 5 year and 7 year measures were available, and also where information about out transfers was available. The 7-year sample includes 7860 observations on 1938 men in the U.S., 4262 observations on 1759 men in Germany, 10435 observations on 2547 women in the U.S., and 4529 observations on 1849 women in Germany. For comparison, we re-estimated our models for the larger German sample for which 3 year, 5-year and 7-year measures are available regardless of whether out-transfer information was also available. These results were very similar to those we obtained using the restricted sample.

In all cases, we use the appropriate longitudinal weights to correct for unequal probabilities of selection and retention. Each sample member in the PSID was assigned a longitudinal weight equal to the cross-sectional weight of the most recent observation on that individual in the analysis sample. GSOEP weights were calculated for each sample member using the initial cross-sectional weight for the earliest observation on that sample member in the analysis sample, multiplied by the staying probability for each subsequent year that the sample member remained in the analysis sample. Since sample members contributed different numbers of observations to the different samples, longitudinal weights were calculated separately for the two-year analysis sample, the three-year analysis sample, and the 7-year sample that is used for the 3-year, 5-year, and 7-year analyses reported in tables 7, 8, and 9.

One somewhat unusual feature of our analysis concerns our interest not only in the size of particular coefficients, but also in whether their value changes when we substitute a different income measure as the dependent variable. Furthermore, we are interested in determining whether this change in the coefficient value is bigger in one country, or for one gender, than for another (in other words, we are comparing changes in coefficients across groups). Because estimated coefficients are always subject to statistical fluctuations, we try to avoid interpreting small changes or changes in poorly measured estimates. To increase confidence on our interpretation, we computed additional statistics that allowed us to measure and test the statistical significance of these changes.

We computed a measure (labeled "reduction" in the tables) of the extent to which the change in private household income as a result of a particular event is reduced or enhanced when post-government income is substituted as the dependent variable.. The ratio of income at two points in time is measured in our models as

$$\log\left(y_{it+1} \Big/ y_{it} \right)$$

Thus, if we let "y" be the measure of private household income, and "z" be the measure of post-government household income, the fraction of the reduction in private household income that is eliminated at the level of post-government household income can be expressed as

$$\frac{\frac{y_1 - y_2}{y_1} - \frac{z_1 - z_2}{z_2}}{\frac{y_1 - y_2}{y_1}} = \frac{1 - e^{b_y}}{1 - e^{b_z}},$$

where b_y is the effect of a particular event in the equation for private household income, and b_z is the effect of a particular event in the equation for post-government household income. For example, if the reduction in private household income from employment exit is 40%, while the reduction in post-government household income is 10%, this formula gives a value of 75%, which means that ¾ of the reduction in private household income is eliminated at the level of post-government household income. For the case of union formation and dissolution, we substituted our measure of post-government household income minus total out-transfers for post-government household income in the above equation.

Our tests for the statistical significance of these changes is based on the following logic. We continue to use y_{it} to designate a measure of private household income and z_{it} to designate a measure of post-government household income at time t. The log of the change in income between times t and t' in y and z would then be

$\log\left(\frac{y_{it'}}{y_{it}}\right)$ for y, and $\log\left(\frac{z_{it'}}{z_{it}}\right)$ for z.

We can express the change between y and z in terms of a multiplier, which we label as "c," by means of the following equation:

$$\log\left(\frac{z_{it'}}{z_{it}}\right) = \log\left(c_{it}\frac{y_{it'}}{y_{it}}\right) = \log(c_{it}) + \log\left(\frac{y_{it'}}{y_{it}}\right), \text{ or}$$

$$\log(c_{it}) = \log\left(\frac{z_{it'}}{z_{it}}\right) - \log\left(\frac{y_{it'}}{y_{it}}\right) = \log\left(\frac{z_{it'}/z_{it}}{y_{it'}/y_{it}}\right)$$

In other words, log(c) expresses the extent to which the income change measured with z differs from income change measured with y. We conducted a set of auxiliary regressions using log(c) as the dependent variable. These auxiliary regressions were estimated first with combined data for two countries for a single gender and then with combined data for both genders for a single country (we estimated these regressions using the first-order difference model and we capped the range of log c at –1 to 1, corresponding to a range of .37 to 2.7 for c). In these auxiliary regressions we included a full set of interactions between the change variables described earlier and alternatively gender or country. In tables A1 and A2, we use a system of asterisks (*< .1, ** < .05, *** < .01, based on 2-tail tests) for the post-government household income and the "minus out-transfers" columns). While the t-ratios in these columns report on the statistical significance of the estimates, the asterisks report the statistical significance of the change in the coefficient relative to the "private household income" column as measured by the log(c) regressions. Finally, in the German column for the "reduction" measure in tables A1 and A2 (and also in the fourth column under the rows marked "reduction" in table 3, which concern the reduction of the effect when private household income is substituted for labor earnings as the dependent variable), we include t-statistics for the country interaction effects from the auxiliary regressions (to repeat, these country interaction effects measure the extent to which the change in coefficient values when shifting from the "y" to the "z" measure of income varies by country). Because it is too complicated to include the gender as well as the country interactions in the tables, we comment as appropriate in the main text on the statistical significance of gender interactions for the within-country auxiliary regressions.

Appendix 3
Key to Appendix Tables

The appendix tables contain estimates of model parameters for 2 year, 3 year, 5 year and 7 year change. Table A1 contains estimates of the 2-year change models for men, while table A2 contains estimates of the 2-year change models for women. In each panel the first four columns report estimates using change in individual labor earnings, household private income, post-government household income, and post-government household income minus total out-transfers, respectively, as the dependent variables. T-values for the estimated coefficients are reported in parentheses. The fifth column (labeled "reduction" in the tables) reports the extent to which the change in private household income as a result of a particular event is reduced or enhanced when post-government income is substituted as the dependent variable. T-values are reported in parentheses, and the asterisks indicate the significance of the change in the coefficient value when public taxes and transfers are taken into account (see appendix 2 for details). We report the reduction measure for those effects where the T-value was greater than 2.0.

Table A4 contains selected estimates of 2-year change models when equivalent income is used as the dependent variable. The first three columns report estimates using change in household private income, post-government household income, and post-government household income minus total out-transfers, respectively, as the dependent variables. T-values are reported in parentheses, and the asterisks indicate the significance of the change in the coefficient value when public taxes and transfers are taken into account (see appendix 2 for details).

Tables A5 and A6 report the complete set of coefficients on the 3-year, 5-year, and 7-year post-government household income of men and women. The fourth column of each set reports effects on 7-year post-government income after subtracting total out-transfers. Finally, the fifth column shows the effects on 7-year post-government household income after out-transfers are subtracted and the result is adjusted for household size.

Bibliography

Alber, J. 1986. "Germany." In *Growth to Limits: The West European Welfare States, Vol. II*, edited by Peter Flora. Berlin: de Gruyter.

Atkinson, A. B. 1995. *Incomes and the Welfare State: Essays on Britain and Europe*. Cambridge: Cambridge University Press.

Bianchi, Suzanne. 1995. "Changing Economic Roles of Women and Men." Pp. 107-154 in *State of the Union in the 1990s*, edited by Reynolds Farley. New York: Russell Sage.

Bianchi, Suzanne, E. K. McArthur, and M. S. Hill. 1989. "The Relationship between Family Composition Change and the Economic Status of Children: SIPP and PSID." Pp. 43-67 in *Individuals and Families in Transition: Understanding Change through Longitudinal Data*. Washington, D.C.: U.S. Bureau of the Census.

Blank, Rebecca (editor). 1994. *Social Protection versus Economic Flexibility. Is there a Trade-Off*? Chicago and London: The University of Chicago Press.

Büchtemann, Christoph F. (ed.). 1993. *Employment Security and Labor Market Behavior: Interdisciplinary Approaches and International Evidence*. Ithaca, NY: ILR Press.

Bundesministerium für Arbeit und Sozialordnung. 1995. *Übersicht über das Sozialrecht*. Bonn: Bundesministerium für Arbeit und Sozialordnung

_____. 1998. World Wide Web Page http://www.bma.de.

Burkhauser, Richard V., Greg J. Duncan, R. Hauser and R. Bernsten. 1990. "Economic Burdens of Marital Disruptions: A Comparison of the United States and the Federal Republic of Germany." *Review of Income and Wealth*. 36:319-333.

_____. 1991. "Wife or Frau, Women do Worse: A Comparison of Men and Women in the United States and Germany after Marital Dissolution." *Demography*. 28:353-360.

Burkhauser, Richard V., Barbara A. Butrica, and Mary C. Daly. 1995. *The Syracuse University PSID-GSOEP Equivalent Data File: A Product of Cross-National Research*. Unpublished manuscript, July 1995.

Burtless, Gary. 1994. "Public Spending on the Poor: Historical Trends and Economic Limits." Pp. 51-84 in *Confronting Poverty: Prescriptions for Change*, edited by Sheldon H. Danziger, Gary D. Sandefur, and Daniel H. Weinberg. Cambridge, MA: Harvard University Press.

Carroll, Glenn R. and Karl Ulrich Mayer. 1986. "Job-Shift Patterns in the Federal Republic of Germany: The Effects of Social Class, Industrial Sector, and Organizational Size." *American Sociological Review.* 51:323-341.

Casper, McLanahan, and Garfinkel. 1994. "The Gender-Poverty Gap: What we can Learn from Other Countries." *American Sociological Review.* 59:594-603.

Clasen, Jochen. 1994. "Social Security: the Core of the German Employment-Centered Social State." Pp. 61-82 in *Social Policy in Germany*, edited by Jochen Clasen and Richard Freeman. New York: Harvester Wheatsheaf.

Dannefer, D. and R. Snell. 1988. "Age Structure, the Life Course, and 'Aged Heterogeneity': Prospects for Research and Theory." *Comprehensive Gerontology B*. 2:1-10.

Danziger, Sheldon H., Gary D. Sandefur and Daniel H. Weinberg (eds.) 1994. *Confronting Poverty: Presecriptions for Change*. NY: Russell Sage.

David, Martin H., and T. S. Flory. 1989. "Changes in marital status and short-term income dynamics." in *Individuals and Families in Transition: Understanding Change Through Longitudinal Data*. Washington, D.C.: U.S. Bureau of the Census.

DiPrete, Thomas A. and Patricia A. McManus. 1997. "Income Components and the Stability of Family Income in Western Germany and the U.S." *Vierteljahrhefte zur Wirtschaftsforschung*. 66:102-110.

Duncan, Greg J. and James N. Morgan. 1981. "Persistence and Change in Economic Status and the Role of Changing Family Composition." in *Five Thousand Families -- Patterns of Economic Progress*, edited by Martha S. Hill, Daniel and James N. Morgan. Ann Arbor: ISR.

Duncan, Greg and Saul D. Hoffman. 1985. "A Reconsideration of the Economic Consequences of Marital Dissolution." *Demography*. 22:485-497.

_____. 1985. "Economic Consequences of Marital Instability." in *Horizontal Inequity, Uncertainty and Well-Being*, edited by Martin David and T. M. Smeeding. Chicago: University of Chicago Press.

Erikson, Robert. 1984. "Social Class of Men, Women, and Families." *Sociology*. 18:500-514.

Esping-Andersen, Gøsta. 1990. *The Three Worlds of Welfare Capitalism*. Princeton: Princeton University Press.

_____. 1994. "Welfare States and the Economy." Pp. 711-732 in *Handbook of Economic Sociology*, edited by Neil J. Smelser and Richard Swedberg. Princeton: Princeton University Press.

_____. 1996. "After the Golden Age? Welfare State Dilemmas in a Global Economy." Pp. 1-31 in *Welfare States in Transition: National Adaptations in Global Economies*, edited by Gøsta Esping-Andersen. London: Sage.

Farber, Henry S. 1996. "The Changing Face of Job Loss in the United States, 1981-1993." Princeton, N.J.: Princeton University, Industrial Relations Section, Working Paper: 360.

Finnie, R. 1993. "Women, Men, and the Economic Consequences of Divorce: Evidence from Canadian Longitudinal Data." *Canadian Review of Sociology and Anthropology*. 30:205-241.

Freeman, Richard B., Robert Topel, and Birgitta Swedenborg. 1997. *The Welfare State in Transition: Reforming the Swedish Model*. Chicago: NBER and the University of Chicago Press.

Goldthorpe, John H. 1987. *Social Mobility and Class Structure in Modern Britain, 2nd edition*. Oxford: Clarendon Press.

Goodin, Robert E., Bruce Headey, Ruud Muffels and Henk-Jan Dirven. 1997. "Poverty, Inequality, and Income Redistribution in the "Three worlds of Welfare

Capitalism": United States, Germany, and the Netherlands, 1985 to 1989." *Vierteljahrshefte zur Wirtschaftsforschung*. 66 (1):92-101.

Gottschalk, Peter, Sara McLanahan, and Gary D. Sandefur. 1994. "The Dynamics and Intergenerational Transmission of Poverty and Welfare Participation." Pp. 85-108 in *Confronting Poverty: Prescriptions for Change*, edited by Sheldon H. Danziger, Gary D. Sandefur, and Daniel H. Weinberg. Cambridge, MA: Harvard University Press and the Russell Sage Foundation.

Gustafsson, Siv and M. Bruyn-Hundt. 1991. "Incentives for Women to Work: A Comparison between the Netherlands, Sweden and West Germany." *Journal of Economic Studies* 18:30-65.

Hoffman, Saul D. and Greg J. Duncan. 1988. "What are the Economic Consequences of Divorce?" *Demography*. 25:641-645.

Holden, Karen C. and P. J. Smock. 1991. "The Economic Costs of Marital Dissolution: Why do Women Bear a Disproportionate Cost?" *Annual Review of Sociology*. 17:51-78.

Jarvis, Sarah and Stephen Jenkins. 1997a. "Income Dynamics in Britain: New Evidence from the British Household Panel Survey." Pp. 149-69 in *Jobs, Wages and Poverty: Patterns of Persistence and Mobility in the New Flexible Labour Market*, edited by P. Gregg. London: Center for Economic Performance.

Jarvis, Sarah and Stephen P. Jenkins. 1997b. "Marital Splits and Income Changes: Evidence for Britain." Working Papers of the ESRC Research Centre on Micro-Social Change, Paper 97-4. Colchester: University of Essex.

König, Wolfgang and Walter Müller. 1986. "Educational Systems and Labor Markets as Determinants of Worklife Mobility in France and West Germany: A Comparison of Men's Career Mobility, 1965-1970." *European Sociological Review.* 2 (2):73-96.

Markovits, Andrew and Jost Halfmann. 1988. "The Unraveling of West German Social Democracy?" Pp. 96-118 in *Remaking the Welfare State: Retrenchment and Social Policy in America and Europe*, edited by Michael K. Brown. Philadelphia: Temple University Press.

Mayer, Karl Ulrich and Urs Schöplin. 1989. "The State and the Life Course." *Annual Review of Sociology*. 15:187-209.

Merz, J., T. Garner, T. M. Smeeding, J. Faik, and D. Johnson. 1993. *Two Scales, One Methodology -- Expenditure Based Equivalence Scales for the U.S. and Germany*. Cross-National Studies in Aging Program Project Paper No. 8, All-University Gerontology Center: Syracuse University.

Moffitt, Robert and Peter Gottschalk. 1994. "The Growth of Earnings Instability in the U.S. Labor Market." *Brookings Papers on Economic Activity*. :217-.

OECD (Organization for Economic Cooperation and Development). 1994. *The OECD Jobs Study, Parts I & II.* Paris: OECD.

Parkin, Frank. 1979. *Marxism and Class Theory: A Bourgeois Critique*. New York: Columbia University Press.

Ruggie, Mary. 1984. *The State and Working Women*. Princeton, N.J: Princeton University Press.

Ruggles, Patricia. 1990. Drawing the Line: *Alternative Poverty Measures and Their Implications for Public Policy*. Washington, DC: Urban Institute Press.

Shavit, Yossi and Walter Müller (eds.). 1997. *From School to Work: A Comparative Study of Educational Qualifications and Occupational Destinations*. Oxford: Oxford University Press.

Smock, Pamela J. 1993. "The Economic Costs of Marital Disruption for Young Women over the Past Two Decades." *Demography* 30:353-371.

Sørensen, Aage. 1991. "On the Usefulness of Class Analysis in Research on Social Mobility and Socioeconomic Inequality." *Acta Sociologica*. 34:71-87.

Sørensen, Annemette. 1994. "Women, Family, and Class." *Annual Review of Sociology*. 20:27-47.

Voegeli, Wolfgang and Barbara Willenbacher. 1992. "Property Division and Pension-Splitting in the FRG." Pp. 163-183 in *Economic Consequences of Divorce: The International Perspective*, edited by Lenore J. Weitzman and Mavis Maclean. Oxford: Clarendon Press.

Wagner,-Gert-G., Richard V. Burkhauser, and Friederike Behringer. 1993. "The English Language Public Use File of the German Socio-Economic Panel." *Journal-of-Human-Resources*. 28:429-33.

Wagner, Michael. 1997. *Scheidung in Ost- und Westdeutschland: zum Verhältnis von Ehestabilität und Sozialstruktur seit den 30er Jahren*. Frankfurt: Campus Verlag.

Willenbacher, Barbara and Wolfgang Voegeli. 1992. "Child Maintenance in the FRG." Pp. 233-245 in *Economic Consequences of Divorce: the International Perspective*, edited by Lenore J. Weitzman and Mavis Maclean. Oxford: Clarendon.

Zimmerman, Klaus F 1993. "Labour Responses to Taxes and Benefits in Germany." Pp. 192-240 in *Welfare and Work Incentives: A North European Perspective*, edited by A. B. Atkinson and Gunnar Viby Mogensen. Oxford: Clarendon Press.

Notes

[1]Labor market and family transitions are, of course, not the only source of income fluctuations. For example, income can change for a wage earner who changes his or her hours of work. Earnings change through wage increases in the same job. Unearned income changes as a consequence of increases in rent, dividends or interest, and through increases or decreases in private transfers from other family members, former partners, and so forth. Nonetheless, job and family-related trigger events are significant determinants of change in household income.

[2] The German advantage comes from the higher pre-tax replacement rate from unemployment insurance, magnified by considerable tax benefits (OECD 1994, Chapters 8 and Annex 8b). In addition, some German workers who exit their jobs qualify for other welfare benefits such as sickness or accident payments (Bunderministerium für Arbeit und Sozialordnung 1995). American workers who are unemployed may also be entitled to additional benefits (e.g., food stamps) but the net earnings replacement rate is lower.

[3] The t-value for country differences in the change of coefficients from private household income to post-government household income are 2.7 for partner addition and 1.5 for partner loss. The t-statistics in the "reduction" column of table A1 refer (see note 2 for table 3) to the change in coefficients from private household income to post-government household income, minus out-transfers.

[4] The t-value for the gender interaction pertaining to the change of the add partner coefficient in the private household income and the post-government household income

regressions is 8.0 in the U.S. and 2.6 in Germany. The corresponding t-values for lose partner are 9.6 in the U.S., and 3.0 in Germany.

[5] The divorce literature (cf. David & Flory 1988; Holden and Smock 1991; Burkhauser et al 1991; Smock 1993) for the most part does not address the effect of out-transfers on nominal income. In other analyses with the 1981-1993 PSID data, we obtain similar results when we use either the conditional mean gender gap measure (the measure used in this paper) or the median gender gap measure (a measure often used in the divorce literature). However, if attention is restricted to PSID data for years before 1989, we find that the median gender gap is bigger than when all the data are used.

[6] It is important to realize that the private household income of women already includes these transfers as private nonlabor income. Their magnitude is visible in the reduction in the living standards of men when they are subtracted from male household income.

[7] We performed a direct test of this conjecture using changes in partner's labor supply to measure changes in labor earnings of German and American women. The effect of employment exit by the partner was to raise German women's labor earnings by 9% in the 2-year fixed-effects change model. This effect was significant at the 0.10 level. No similar effect was found for U.S. women.

[8] These reductions are probably greater than the figures suggest. As noted in appendix 2, the first-order difference estimator (which was used to estimate the 3-7 year change results – again, see appendix 2) overstates slightly the effect of union formation and dissolution on household income change. Furthermore, in the U.S. case, the two-year results do not necessarily reflect the full impact of these events because when the event

occurs in the same calendar year as the second survey and is a union dissolution or a new cohabitation, the income effects are prorated. See appendix 2 for further details.

[9]As Holden and Smock note in their review of this literature (1991), most longitudinal studies in the U.S. context have found persistence of the gender gap for at least five years unless remarriage occurs. We also find differences at the five year point, but they are reduced by the seven year point. It should also be noted that – in contrast to much of the literature -- we are not limiting our focus to women who do not remarry. Remarriage and repartnering are significant mechanisms behind the decay in the gender gap shown in figure 8.

Figure 1

Hypothetical Taxonomy of Stratification Regimes Based on Rates and Consequences of Trigger Events

Rate of Negative Trigger Events	Rate and Extent of Offsetting Change		
	High		Low (or Reinforcing Change)
	Immediate	Delayed	
High	Buffered/Flexible	Turbulent	Mobile
Low	Buffered/Protected		Segmented

Rate of Positive Trigger Events	Rate and Extent of Offsetting Change		
	High		Low (or Reinforcing Change)
	Immediate	Delayed	
High	Leveling/Flexible	Turbulent	Mobile
Low	Leveling/Rigid		Segmented

Table 1

Distribution of One-Year Earnings/Income Change for U.S. and Germany

Household Heads and Partners, 25-50 Years Old

		Earnings/Income Percentile				
		10%	25%	50%	75%	90%
Men	U.S. (*N*=18568 Person-Years)					
	Individual Labor Earnings	-32%	-9%	1%	16%	53%
	Household Private Income	-30%	-10%	3%	19%	52%
	Household Post-Government Income	-25%	-8%	3%	17%	43%
	HH Post-Out-Transfer Income (*N*=18443)	-26%	-8%	3%	18%	46%
	Germany (*N*=17218 Person-Years)					
	Individual Labor Earnings	-21%	-5%	2%	12%	36%
	Household Private Income	-24%	-7%	3%	17%	43%
	Household Post-Government Income	-21%	-7%	3%	16%	38%
	HH Post-Out-Transfer Income (*N*=11116)	-20%	-5%	5%	18%	40%
Women						
	U.S. (*N*=23928 Person-Years)					
	Individual Labor Earnings	-52%	-8%	0%	21%	157%
	Household Private Income	-35%	-10%	2%	19%	64%
	Household Post-Government Income	-28%	-9%	3%	17%	46%
	HH Post-Out-Transfer Income (*N*=23831)	-28%	-9%	3%	18%	47%
	Germany (*N*=18246 Person-Years)					
	Individual Labor Earnings	-43%	-3%	0%	10%	112%
	Household Private Income	-27%	-8%	3%	18%	46%
	Household Post-Government Income	-23%	-7%	3%	16%	38%
	HH Post-Out-Transfer Income (*N*=11549)	-21%	-6%	4%	18%	38%

Table 2

One-Year Rates of Job Change and Family Status Change

Household Head & Partners, 26-51 Years Old

	Men		Women	
	U.S.	Germany	U.S.	Germany
N (Person-Years)	18568	17218	23928	18246
1. Own Labor Force Status				
No Change since Last Survey	76.9%	87.0%	73.0%	82.6%
Employment-->Non-Employment	3.4%	2.2%	6.4%	5.6%
Changed Job w/ same Employer	6.9%	2.8%	4.9%	1.2%
Changed Employer	8.7%	4.9%	7.9%	3.3%
Change to Self-Employment	1.5%	1.2%	1.9%	1.5%
Non-Employment->Employment	2.7%	1.9%	5.9%	5.9%
2. Partner Status				
No Change in Partner	93.9%	96.7%	94.4%	97.0%
Added a Partner	3.0%	1.7%	2.6%	1.2%
Lost a Partner	2.5%	1.5%	2.5%	1.7%
Changed Partner	0.6%	0.2%	0.5%	0.1%
3. Partner's Labor Force Status				
No Change/No partner/New partner	79.4%	86.0%	84.8%	91.2%
Employment-->Non-Employment	5.3%	5.0%	3.4%	1.7%
Changed Job w/ same Employer	3.0%	0.8%	3.8%	2.0%
Changed Employer	5.6%	2.3%	5.0%	3.1%
Change to Self-Employment	1.8%	1.1%	1.1%	0.7%
Non-Employment->Employment	4.9%	4.9%	1.8%	1.3%

Table 3. Coefficients from First-Order Difference Models for Three Year Change in Labor and Private Household Income for U.S. and German Men, 25-50 Years Old in the Base Year

	U.S. (*N*=16143)		Germany (*N*=14868)	
	Labor Earnings	Private HH Income	Labor Earnings	Private HH Income
Tenure	.0129	.0068	.0149	.0082
	(6.57)	(4.66)	(3.97)	(2.74)
Reduction		47%		45%
				(0.2)
Work→ No Work	-.404	-.282	-.400	-.222
	(-7.5)	(-6.5)	(-4.6)	(-2.8)
Reduction		26%		40%
				(0.8)
Internal Job Change	.069	.0437	.1059	.0762
	(4.17)	(2.86)	(3.10)	(2.31)
Reduction		37%		29%
				(0.4)
Employer Change	.120	.0695	.0954	.0614
	(4.25)	(2.97)	(1.06)	(0.66)
Reduction		44%		37%
				(0.2)
Change to Self-Employed	.0129	.0141	.2437	.0928
	(0.15)	(0.22)	(1.93)	(1.02)
Reduction				
No Work→ Work	.390	.209	.813	.517
	(6.9)	(4.3)	(5.6)	(3.9)
Reduction		51%		46%
				(1.9)

Table 4. Coefficients from First-Order Difference Models for Three, Five and Seven Year Change in Post-Government Income for German Men and Women, including Surveys without Information on Out-Transfers

	U.S. (*N*=10465)				Germany (*N*=7699)			
	Labor Earnings		Private HH Income		Labor Earnings		Private HH Income	
Model	5-Year	7-Year	5-Year	7-Year	5-Year	7-Year	5-Year	7-Year
				Men				
Add Partner	0.081	0.112	0.294	0.298	0.156	0.003	0.476	0.354
	(1.44)	(1.94)	(5.61)	(5.95)	(2.57)	(0.03)	(7.51)	(3.72)
Lose Partner	0.007	-0.001	-0.259	-0.211	-.122	-0.194	-0.512	-0.540
	(0.13)	(-0.01)	(-4.86)	(-3.52)	(-0.37)	(-0.63)	(-1.76)	(-1.99)
				Women				
Add Partner	-0.239	-0.348	0.649	0.582	-0.190	-0.198	0.996	1.099
	(-3.05)	(-4.39)	(11.51)	(9.27)	(-1.04)	(-1.22)	(7.87)	(8.94)
Lose Partner	0.093	0.058	-0.533	-0.462	0.524	0.518	-0.552	-0.269
	(1.16)	(0.77)	(-8.52)	(-6.60)	(3.44)	(3.15)	(-3.73)	(-2.12)

Table 5. Rates of Separation after Partnering, Repartnering after Separation, and Rates of Reemployment after Employment Exit, for Men and Women Aged 25-50 in the Base Year
Rates of Subsequent Trigger Events by Year t+7, Given a Trigger Event Occurring between t1-t2, Men and Women Aged 25-50 in Base Year

		Separation, given Partnering	Repartnering, given Separation	Employment, given Exit
U.S.				
	Men	41%	57%	92%
	Women	40%	47%	83%
Germany				
	Men	15%	54%	85%
	Women	10%	52%	67%

Table A1. Coefficients from the Fixed-Effects Change Model for
Two Year Change in Earnings and Real Household Income Men Aged 25-50

	U.S. (*N*=18568 Person-Years)					Germany (*N*=17218 Person-Years)				
	Labor Earnings	Private HH Income	Post-Govt HH Income	Minus Out-Transfers[1]	Reduction[2]	Labor Earnings	Private HH Income	Post-Govt HH Income	Minus Out-Transfers[3]	Reduction
Intercept	0.022	0.057	0.069	0.072		0.026	0.053	0.052	0.054	
	(3.14)	(8.85)	(13.07)	(12.86)		(2.48)	(5.01)	(7.43)	(5.36)	
Tenure	0.012	0.006	0.003***	0.002***		0.015	0.009	0.003***	0.007***	
	(6.65)	(4.46)	(2.48)	(1.85)		(4.88)	(3.37)	(1.65)	(2.68)	
# Children	0.000	-0.016	0.005***	0.014***		-0.004	-0.058	-0.024***	-0.035***	58%
	(-0.04)	(-1.81)	(0.63)	(1.76)		(-0.20)	(-2.82)	(-2.31)	(-1.65)	(1.4)
Changes in Own Employment Status										
Work→	-0.691	-0.469	-0.260***	-0.261***	39%	-0.895	-0.550	-0.184***	-0.006***	60%
No Work	(-12.57)	(-9.94)	(-7.25)	(-7.02)	(at 0 yrs.)	(-9.26)	(-6.28)	(-3.40)	(-0.09)	(2.8)
Internal	0.063	0.049	0.034***	0.030***	31%	0.123	0.089	0.068	0.068*	24%
Job Change	(3.84)	(3.62)	(2.94)	(2.36)		(3.54)	(2.79)	(2.59)	(2.14)	(0.4)
Employer	0.117	0.084	0.047***	0.050***	45%	0.119	0.068	0.062	0.061***	
Change	(4.22)	(3.64)	(2.48)	(2.52)	(at 0 yrs.)	(1.58)	(0.92)	(1.80)	(1.49)	(0.1)
Change to	-0.152	-0.137	-0.199**	-0.189	-41%	0.233	0.105	0.067	0.160	
Self-Emp	(-1.89)	(-2.30)	(-4.23)	(-3.85)	(at 0 yrs.)	(1.68)	(0.95)	(0.76)	(1.47)	(0.9)
No Work→	0.359	0.215	0.098***	0.117***	57%	0.80	0.645	0.328***	0.474***	57%
Work	(5.86)	(4.43)	(2.69)	(3.05)		(4.59)	(3.77)	(4.98)	(2.98)	(2.5)
Partnership Changes										
Add	-0.079	0.317	0.335	0.370**	-20%	0.000	0.381	0.459***	0.485**	-35%
Partner	(-2.23)	(9.56)	(11.92)	(11.81)		(0.00)	(6.03)	(9.28)	(7.95)	(1.3)
Lose	-0.035	-0.336	-0.344	-0.446***	-26%	0.085	-0.221	-0.359	-0.522**	-105%
Partner	(-0.81)	(-8.16)	(-10.45)	(-12.02)		(0.58)	(-1.47)	(-6.85)	(-4.09)	(1.6)
Change	-0.055	0.023	-0.008	-0.066*		-0.191	0.063	-0.017*	0.038	
Partner	(-0.72)	(0.32)	(-0.12)	(-1.00)		(-0.91)	(0.89)	(-0.23)	(0.50)	(.3)
Partner's Job Changes, If Partner Present										
Work→		-0.140	-0.101***	-0.104***	26%		-0.201	-0.087***	-0.10***	54%
No Work		(-5.83)	(-5.25)	(-5.29)			(-7.12)	(-3.62)	(-3.45)	(3.9)
Internal		0.027	0.018	0.020*			0.013	0.000	0.009	
Job Change		(1.47)	(1.09)	(1.20)			(0.31)	(0.00)	(0.24)	(1.3)
Employer		0.021	0.007*	0.004***			0.050	0.022**	0.011	
Change		(1.03)	(0.45)	(0.21)			(1.58)	(0.79)	(0.28)	(.2)
Change to		-0.030	-0.043	-0.056**			0.147	0.124*	0.070	17%
Self-Emp.		(-0.72)	(-1.26)	(-1.59)			(2.73)	(2.59)	(132)	(.3)
No Work→		0.046	0.024***	0.012***			0.161	0.102***	0.104***	39%
Work		(1.92)	(1.21)	(0.60)			(5.92)	(5.93)	(4.89)	(1.0)

[1] N =18,509; [2] Reduction compares post-government household income to private household income. For union formation and dissolution the comparison is post-government income minus out-transfers to private household income. Asterisks represent the significance of the coefficient change for post-government income is. See appendices 2&3 for further details. [3] N=12,561

Table A2. Coefficients from the Fixed-Effects Change Model for Two Year Change in Earnings and Real Household Income Women Aged 25-50

	U.S. (*N*=23928 Person-Years)					Germany (*N*=18246 Person-Years)				
	Labor Earnings	Private HH Income	Post-Govt HH Income	Minus Out-Transfers[1]	Reduction	Labor Earnings	Private HH Income	Post-Govt HH Income	Minus Out-Transfers[3]	Reduction
Intercept	0.018	0.045	0.046	0.047		0.010	0.037	0.036	0.048	
	(1.76)	(6.51)	(8.57)	(8.72)		(0.83)	(4.61)	(5.77)	(6.78)	
Tenure	0.033	0.011	0.008***	0.008***		0.033	0.009	0.005***	0.002***	
	(11.52)	(6.61)	(5.70)	(5.61)		(9.43)	(4.51)	(2.66)	(1.11)	
# Children	-0.060	-0.007	0.024***	0.033***	448%	-0.194	-0.059	-0.025***	-0.021***	57%
	(-4.15)	(-0.64)	(2.84)	(3.71)		(-7.58)	(-3.53)	(-1.90)	(-1.32)	(.9)
Changes in Own Employment Status										
Work→	-0.786	-0.167	-0.073***	-0.073***	54%	-0.907	-0.198	-0.081***	-0.056***	57%
No Work	(-16.35)	(-5.29)	(-3.18)	(-3.14)	(at 0 yrs.)	(-14.83)	(-5.23)	(-2.67)	(-1.59)	(2.6)
Internal	0.083	0.070	0.059*	0.059***	16%	0.094	-0.002	-0.020	0.052*	
Job Change	(3.44)	(3.44)	(3.50)	(3.45)		(1.28)	(-0.03)	(-0.37)	(1.38)	(.0)
Employer	0.366	0.140	0.108***	0.110***	24%	0.497	0.234	0.146***	0.139***	40%
Change	(10.32)	(5.60)	(5.41)	(5.40)	(at 0 yrs.)	(7.79)	(6.16)	(4.68)	(3.49)	(3.0)
Change to	0.335	-0.066	-0.056	-0.056		0.781	0.201	0.165	0.132*	19%
Self-Emp.	(3.73)	(-1.22)	(-1.32)	(-1.30)		(7.43)	(3.23)	(3.17)	(2.22)	(.9)
No Work→	0.819	0.155	0.051***	0.053***	69%	1.127	0.288	0.156***	0.136***	49%
Work	(18.29)	(5.15)	(2.30)	(2.36)		(22.68)	(6.71)	(5.52)	(4.50)	(.4)
Partnership Changes										
Add	-0.023	0.708	0.585***	0.561***	27%	0.085	0.707	0.675	0.689***	4%
Partner	(-0.45)	(17.03)	(18.33)	(17.29)		(0.80)	(5.43)	(8.23)	(8.25)	(.8)
Lose	0.154	-0.625	-0.438***	-0.439***	24%	-0.062	-0.722	-0.462***	-0.552***	18%
Partner	(2.92)	(-13.20)	(-11.47)	(-11.43)		(-0.64)	(-7.11)	(-8.05)	(-7.41)	(.4)
Change	-0.187	-0.220	-0.174	-0.208		-0.086	-0.114	-0.063	-0.069	
Partner	(-1.51)	(-1.78)	(-2.00)	(-2.26)		(-0.39)	(-0.81)	(-0.51)	(-0.48)	(.0)
Partner's Job Changes, If Partner Present										
Work→		-0.260	-0.171***	-0.173***	34%		-0.525	-0.199***	-0.155***	56%
No Work		(-7.95)	(-6.87)	(-6.84)			(-5.87)	(-4.48)	(-4.18)	(4.5)
Internal		-0.017	-0.021	-0.019			0.017	0.000	0.040	
Job Change		(-0.95)	(-1.39)	(-1.25)			(0.42)	(0.01)	(1.05)	(1.3)
Employer		-0.070	-0.066*	-0.068	6%		0.036	-0.007***	0.014*	
Change		(-2.97)	(-3.47)	(-3.51)	(at 0 yrs.)		(1.02)	(-0.28)	(0.43)	(3.6)
Change to		-0.054	-0.073	-0.064			0.051	0.052	-0.061	
Self-Emp.		(-0.93)	(-1.49)	(-1.26)			(0.44)	(0.71)	(-0.90)	(.2)
No Work→		-0.064	-0.048	-0.054			0.116	0.026***	0.092***	
Work		(-1.44)	(-1.55)	(-1.68)			(1.20)	(0.45)	(1.73)	(5.5)

[1] N =23,868; [2] Reduction compares post-government household income to private household income. For union formation and dissolution the comparison is post-government income minus out-transfers to private household income. Asterisks represent the significance of the coefficient change for post-government income is. See appendices 2&3 for further details. [3] N=13,610

Table A3. Reduction in the Size of Effects using Fixed-Effects Change Models compared with First-Order Difference Models on 2-year Post-Government Household Income
(Percentage Reduction is Shown when T-statistic from the First-Order Difference Model is at least 1.5 in Magnitude)

	Men.		Women	
	U.S.	Germany	U.S.	Germany
		Changes in Own Employment Status		
# Children	-76%	41%	-31%	525%
Work → No Work	-7%	-14%	-4%	-21%
Internal Job Change	-6%	15%	-5%	
Employer Change	18%	5%	11%	9%
Change to Self-Employed	6%			-4%
No Work→ Work	-2%	4%	-12%	7%
		Partnership Changes		
Add Partner	-6%	-12%	-6%	-3%
Lose Partner	-6%	-13%	-9%	-19%
		Changes in Partner's Employment Status		
Work → No Work	4%	-19%	13%	-18%
Internal Job Change	-25%			
Employer r Change			38%	
Change to Self-Employed		3%	1%	
No Work→ Work	-20%	4%		

Table A4. Selected Coefficients from the Fixed-Effects Change Models for the Effects of Family Change on Two Year Change in Equivalence-Adjusted (ELES) Household Income

	Private HH Income	Post-Govt HH Income	Minus Out-Transfers	Reduction[1]	Private HH Income	Post-Govt HH Income	Minus Out-Transfers	Reduction
	U.S.				Men	Germany		
# Children	-0.109	-0.093***	-0.089***	8%	-0.105	-0.072***	-0.078***	30%
	(-11.86)	(-12.02)	(-10.01)		(-5.09)	(-7.47)	(-4.02)	
Add Partner	0.061	0.077	0.110**	-85%	0.084	0.156*	0.175**	-118%
	(1.78)	(2.66)	(3.08)		(1.39)	(3.45)	(3.13)	(2.2)
Lose Partner	-0.057	-0.051	-0.159***	-165%	0.069	-0.065	-0.258**	-418%
	(-1.36)	(-1.55)	(-4.08)		(0.43)	(-1.45)	(-2.38)	(2.3)
Change Partner	0.031	0.002	-0.096**		0.164	0.084**	0.169	-3%
	(0.39)	(0.03)	(-1.38)		(2.08)	(1.08)	(2.24)	
N (Person-yrs)	18568	18568	18509		17218	17218	12561	
	U.S.				Women	Germany		
# Children	-0.070	-0.044***	-0.031***	36%	-0.101	-0.067***	-0.062***	33%
	(-6.10)	(-5.10)	(-3.36)		(-5.47)	(-4.47)	(-3.20)	
Add Partner	0.555	0.423***	0.381***	37%	0.506	0.456*	0.456***	12%
	(12.76)	(12.57)	(10.94)		(3.84)	(5.71)	(5.45)	(.7)
Lose Partner	-0.494	-0.301***	-0.302***	33%	-0.605	-0.324***	-0.405***	27%
	(-10.19)	(-7.78)	(-7.61)		(-5.83)	(-5.87)	(-5.51)	(.5)
Change Partner	-0.227	-0.169	-0.228		-0.045	0.010	0.003	
	(-1.79)	(-1.87)	(-2.28)		(-0.32)	(0.08)	(0.02)	
N (Person-yrs)	23928	23928	23868		18246	18246	13160	

[1]Reduction compares post-government household income to private household income. For union formation and dissolution the comparison is post-government income minus out-transfers to private household income. See text for further details and for explanation of asterisks.

Table A5. Coefficients from the First-Order Difference Models for Three, Five and Seven Year Change in Post-Government Household Income and Equivalence-Adjusted Income (Eincome) of Men Aged 25-50

	U.S. (*N*=7860)					Germany (*N*=4262)				
	Real Post-Government Income			Minus Out-Transfers	Minus Out-Transfers (Eincome)	Real Post-Government Income			Minus Out-Transfers	Minus Out-Transfers (Eincome)
	3-Year	5-Year	7-Year	7-Year	7-Year	3-Year	5-Year	7-Year	7-Year	7-Year
Intercept	0.107	0.171	0.196	0.197	0.209	0.128	0.162	0.155	0.152	0.152
	(12.38)	(15.06)	(15.07)	(14.24)	(15.96)	(12.52)	(11.93)	(10.06)	(9.30)	(10.28)
Tenure	0.007	0.003	0.002	0.000	-0.001	0.003	0.002	0.000	-0.001	-0.001
	(3.48)	(1.43)	(0.72)	(0.15)	(-0.29)	(0.82)	(0.60)	(-0.08)	(-0.21)	(-0.30)
# Children	-0.001	0.003	0.028	0.027	-0.066	-0.023	0.004	0.050	0.047	-0.024
	(-0.06)	(0.25)	(2.20)	(2.06)	(-4.84)	(-1.33)	(0.20)	(2.41)	(2.13)	(-1.15)
					Changes in Own Employment Status					
Work→ No Work	-0.115	-0.085	-0.010	-0.012	-0.041	0.023	0.044	0.040	0.016	0.044
	(-2.26)	(-1.58)	(-0.19)	(-0.21)	(-0.77)	(0.25)	(0.44)	(0.38)	(0.14)	(0.43)
Internal Job Change	0.040	0.073	0.085	0.081	0.046	0.086	0.077	0.145	0.143	0.120
	(2.17)	(3.39)	(3.06)	(2.75)	(1.65)	(3.00)	(2.31)	(3.64)	(3.50)	(3.17)
Employer Change	0.061	0.047	0.079	0.086	0.063	0.040	0.031	0.001	0.001	-0.038
	(2.55)	(1.63)	(2.50)	(2.62)	(2.10)	(0.90)	(0.66)	(0.02)	(0.01)	(-0.64)
Change to Self-Emp	-0.064	-0.058	0.051	0.060	0.012	0.109	-0.016	0.097	0.084	0.077
	(-1.09)	(-0.97)	(0.91)	(1.02)	(0.20)	(0.72)	(-0.11)	(0.57)	(0.51)	(0.51)
No Work→ Work	0.144	0.231	0.185	0.187	0.168	0.227	0.118	0.152	0.147	0.163
	(2.84)	(3.78)	(2.74)	(2.70)	(2.66)	(2.38)	(0.84)	(1.15)	(1.10)	(1.35)
					Partnership Changes					
Add Partner	0.347	0.282	0.284	0.313	0.063	0.494	0.545	0.393	0.436	0.036
	(8.12)	(6.28)	(6.35)	(6.75)	(1.22)	(9.19)	(9.26)	(4.60)	(5.29)	(0.45)
Lose Partner	-0.288	-0.269	-0.238	-0.294	-0.209	-0.259	-0.408	-0.441	-0.465	-0.267
	(-6.44)	(-5.85)	(-4.73)	(-5.48)	(-3.95)	(-3.51)	(-2.13)	(-1.71)	(-1.83)	(-1.48)
Change Partner	0.001	-0.024	0.051	0.020	0.035	0.020	0.149	0.114	0.086	0.010
	(0.01)	(-0.20)	(0.43)	(0.16)	(0.34)	(0.13)	(1.05)	(1.30)	(1.07)	(0.09)
					Partner's Job Changes, If Partner Present					
Work→ No Work	-0.099	-0.060	-0.097	-0.110	-0.083	-0.099	-0.065	-0.096	-0.106	-0.083
	(-4.19)	(-2.14)	(-2.95)	(-3.30)	(-2.59)	(-3.14)	(-1.82)	(-2.50)	(-2.62)	(-2.56)
Internal Job Change	0.032	-0.035	-0.044	-0.064	-0.032	0.098	0.067	0.047	0.032	0.065
	(1.28)	(-0.97)	(-1.15)	(-1.50)	(-0.77)	(1.68)	(0.92)	(0.62)	(0.35)	(1.17)
Employer Change	-0.014	-0.028	-0.026	-0.037	-0.010	0.102	0.067	0.087	0.098	0.117
	(-0.54)	(-1.09)	(-0.87)	(-1.23)	(-0.34)	(2.16)	(1.25)	(1.66)	(1.87)	(2.34)
Change to Self-Emp	-0.010	0.015	0.028	0.031	0.084	0.069	0.037	0.048	-0.056	-0.010
	(-0.22)	(0.35)	(0.59)	(0.64)	(1.74)	(1.02)	(0.54)	(0.75)	(-0.46)	(-0.08)
No Work→ Work	0.023	0.019	0.018	-0.003	0.028	0.117	0.072	0.057	0.061	0.074
	(0.89)	(0.63)	(0.61)	(-0.10)	(0.91)	(3.26)	(2.39)	(1.57)	(1.59)	(2.17)

Table A6. Coefficients from the First-Order Difference Models for Three, Five and Seven Year Change in Post-Government Household Income and Equivalence-Adjusted Income (Eincome) of Women Aged 25-50

	U.S. (*N*=10435)					Germany (*N*=4529)				
	Real Post-Government Income			Minus Out-Transfers	Minus Out-Transfers (Eincome)	Real Post-Government Income			Minus Out-Transfers	Minus Out-Transfers (Eincome)
	3-Year	5-Year	7-Year	7-Year	7-Year	3-Year	5-Year	7-Year	7-Year	7-Year
Intercept	0.104	0.140	0.130	0.133	0.168	0.096	0.115	0.087	0.087	0.112
	(11.58)	(12.58)	(10.24)	(10.43)	(14.02)	(7.72)	(7.78)	(5.21)	(5.18)	(7.51)
Tenure	0.008	0.007	0.007	0.007	0.007	0.008	0.002	0.004	0.003	0.004
	(3.00)	(2.87)	(2.79)	(2.68)	(2.67)	(3.56)	(0.69)	(1.14)	(1.01)	(1.24)
# Children	0.021	0.040	0.071	0.073	-0.024	-0.014	0.001	0.055	0.057	-0.038
	(1.82)	(3.08)	(4.59)	(4.66)	(-1.61)	(-0.99)	(0.04)	(2.74)	(2.83)	(-1.90)
	Changes in Own Employment Status									
Work→	-0.069	-0.012	-0.037	-0.044	-0.058	-0.061	-0.118	-0.089	-0.093	-0.122
No Work	(-2.56)	(-0.42)	(-1.03)	(-1.20)	(-1.63)	(-1.40)	(-2.09)	(-1.52)	(-1.60)	(-2.24)
Internal	0.043	0.097	0.105	0.104	0.053	0.111	0.083	0.243	0.237	0.119
Job Change	(1.64)	(2.94)	(2.89)	(2.81)	(1.58)	(1.96)	(0.89)	(1.66)	(1.56)	(1.03)
Employer	0.086	0.122	0.165	0.161	0.129	0.123	0.093	0.004	0.010	-0.005
Change	(3.14)	(4.20)	(5.48)	(5.31)	(4.41)	(2.51)	(1.91)	(0.03)	(0.10)	(-0.04)
Change to	0.009	0.012	0.119	0.129	0.118	0.178	0.181	0.269	0.268	0.251
Self-Emp	(0.16)	(0.21)	(2.27)	(2.42)	(2.33)	(2.36)	(2.48)	(1.66)	(1.65)	(1.64)
No Work→	0.102	0.113	0.141	0.138	0.116	0.188	0.185	0.067	0.067	0.052
Work	(3.38)	(3.50)	(4.10)	(4.02)	(3.47)	(3.55)	(3.16)	(0.98)	(0.99)	(0.78)
	Partnership Changes									
Add	0.543	0.524	0.488	0.489	0.321	0.777	0.933	1.052	1.051	0.790
Partner	(12.15)	(11.24)	(9.59)	(9.64)	(6.36)	(6.35)	(6.48)	(7.01)	(7.00)	(5.51)
Lose	-0.402	-0.376	-0.325	-0.324	-0.210	-0.578	-0.439	-0.338	-0.339	-0.120
Partner	(-9.02)	(-7.40)	(-6.47)	(-6.40)	(-4.48)	(-4.32)	(-4.56)	(-3.04)	(-3.04)	(-1.46)
Change	-0.187	-0.043	-0.174	-0.172	-0.182	0.130	0.257	0.212	0.211	0.240
Partner	(-1.46)	(-0.35)	(-1.19)	(-1.17)	(-1.15)	(0.57)	(0.99)	(0.67)	(0.66)	(0.77)
	Partner's Job Changes, If Partner Present									
Work→	-0.269	-0.244	-0.216	-0.225	-0.191	-0.076	-0.040	-0.017	-0.014	-0.013
No Work	(-6.56)	(-5.14)	(-4.43)	(-4.58)	(-4.13)	(-1.22)	(-0.49)	(-0.29)	(-0.24)	(-0.24)
Internal	-0.027	-0.011	-0.010	-0.005	-0.010	0.064	0.070	0.163	0.162	0.143
Job Change	(-1.42)	(-0.50)	(-0.31)	(-0.17)	(-0.31)	(1.11)	(1.42)	(3.03)	(3.02)	(2.86)
Employer	-0.042	-0.033	-0.018	-0.021	-0.022	-0.083	-0.013	0.059	0.060	0.051
Change	(-1.70)	(-1.20)	(-0.56)	(-0.64)	(-0.68)	(-1.17)	(-0.22)	(0.93)	(0.94)	(0.83)
Change to	-0.161	-0.083	0.025	0.012	0.039	-0.134	-0.220	-0.132	-0.132	-0.083
Self-Emp	(-2.30)	(-1.50)	(0.33)	(0.16)	(0.53)	(-1.30)	(-1.59)	(-0.98)	(-0.98)	(-0.63)
No Work→	-0.004	0.072	0.005	-0.003	-0.002	0.158	0.191	0.168	0.168	0.138
Work	(-0.10)	(1.28)	(0.07)	(-0.05)	(-0.03)	(2.18)	(3.53)	(1.58)	(1.58)	(1.38)