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## **Life Course Risks, Mobility Regimes, and Mobility Consequences: A Comparison of Sweden, Germany, and the U.S.**

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# **Life Course Risks, Mobility Regimes, and Mobility Consequences: A Comparison of Sweden, Germany, and the U.S.\***

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## **Abstract**

Intragenerational mobility has been a central concern in sociology, especially in the latter half of the 20<sup>th</sup> century. Most of this analysis has proceeded using measures of social position that are functions of an individual's occupation. This approach has been based on two primary justifications. First, occupational mobility is a key attribute of labor market structure, and the labor market, along with the educational system, is the principal institution responsible for a country's structure of inequality. Second, occupation is an income producing asset that provides an approximate measure of "permanent income" and standard of living. Occupation-based models of social mobility, however, have limitations that arguably have grown during the recent past. Meta-analysis of available evidence for Sweden, western Germany, and the United States concerning occupational mobility, household income mobility, job displacement, union dissolution, and poverty dynamics shows the limitations of the individual-level occupation-based career-trajectory approach to life course mobility. An alternative formulation at the household rather than the individual level is developed that focuses on cross-national variation in the extent to which institutions influence the rate of class-altering events, and the extent to which they mitigate the consequences of these events. The combination of these two institutional processes produces the distinctive characteristics of the mobility regimes of these three countries.

# Life Course Risks, Mobility Consequences, and Mobility Regimes: A Comparison of Sweden, Germany, and the U.S.

## *INTRODUCTION*

Comparative research on social mobility has sought to uncover the extent of variation in social mobility across societies, the reasons for this variation, and the implications of this variation for theories of social inequality. A central goal of this research has been to reduce observed cross-national variation into a parsimonious set of “mobility regimes” that not only makes descriptive sense of the data, but also provides the basis for an explanation of this variation in terms of cross-national and historical differences in the social institutions that govern mobility. While much of the attention in sociology has focused on intergenerational mobility, the emergence and continued development of the “life course approach” in social stratification (e.g., Rosenfeld 1980; DiPrete 1981; Sørensen and Tuma 1981; Carroll and Mayer 1986; Sørensen 1986; Mayer and Schöplin 1989) made the study of mobility regimes of intragenerational mobility an important topic in its own right.

Despite the availability of increasingly sophisticated statistical tools, success in this endeavor has not come easily. In response, some have questioned the dominant methodological strategy of “third generation” mobility research (Ganzeboom, Treiman, and Ultee 1991, Kelley 1990), while others have challenged the utility of studying mobility in terms of aggregated class categories as opposed to the underlying occupations that make up these categories (Grusky and Sørensen 1998). Both types of critiques, however, continue to assume the adequacy of individual-level occupational metrics as a satisfactory basis for the analysis of national-level mobility regimes. The current paper challenges this assumption, and instead argues that an adequate theoretical treatment of national mobility regimes must be understood using multidimensional outcomes that include a consideration of the household and the household’s standard of living. The implications of broadening the unit and metric for mobility studies are demonstrated through a comparative analysis of life course mobility in Sweden, Germany, and the United States.

Two influential comparative studies of social mobility that in important theoretical respects are quite different illustrate the prevailing approach to the study of mobility regimes in contemporary sociology. For Erikson and Goldthorpe (1992), the theoretical starting point for the comparative study of mobility was the liberal theory of industrialism, which predicted different mobility structures for pre-industrial and industrial societies. Distinct mobility regimes for societies at the same level of development was recognized as a possibility in mobility research, they noted, but these differences were accounted for via “*ad hoc* hypotheses” based on cultural or political differences across countries.<sup>1</sup> They noted that far more variation in mobility between first job and current job exists across countries than is found in intergenerational mobility tables, which they attribute to “the effects of differing strategies pursued by individuals and families within cross-nationally varying institutional contexts, which lead them to apply such resources as they are able to devote to enhancing their mobility chances in differing ways and at differing life-course stages.” (p. 307).

An alternative theoretical starting point is found in the investigation by Esping-Andersen and collaborators (Esping-Andersen 1993) on whether social closure over the life course has intensified as a consequence of the transition from industrial to post-industrial society. For the authors in this volume, the significance of post-industrialism is that it potentially breaks the Fordist production system that was based on manufacturing, that created relatively stable careers for working and middle class males, and that identified household life chances with the career chances of the male head of household. Post-industrialism, in contrast, undermines the position of the male, particularly if he is not highly educated, and the rising importance of the service sector “loosen(s) women’s identification with their familial role; they allow women to design career scenarios and life-cycle destinies independently of any male partner” (Esping-Andersen 1993, p. 229). With their focus on the occupational trajectories of men and women, they see “substantial international divergence: a distinct North American, Scandinavian and German model” (Esping-Andersen 1993, p. 236), which correspond to the three welfare regimes of his well-known taxonomy (Esping-Andersen 1990). According to Esping-Andersen, the principal differences in these mobility regimes, which he argues arise from the different ways that the service sector is organized, can be summarized as follows: The Scandinavian regime is highly gendered, but offers good opportunities for upward mobility to women, the American service sector is less gendered and less closed to inter-sectoral mobility, and the German service sector is sharply divided by skill, with poorly educated or trained individuals unable to move to higher skill occupations.

While the approaches of Erickson and Goldthorpe (1992) and Esping-Andersen and colleagues (1993) are quite different in many respects, their empirical approaches are similar in the important respect that they focus mainly on individual-level career processes. This occupation-based “career-trajectory” approach provides an incomplete characterization of life course socioeconomic mobility for several reasons. First, while occupation may be a reasonable measure of “permanent” *individual* income, it does not adequately measure “permanent” *household* income, because it fails to capture the work activity of other adults in the household (Szelényi 1994).<sup>2</sup> Second, occupation-based measures miss fluctuations in “transitory” income owing to variation in hours worked, job change, or unemployment; and recent scholarship suggests that -- at least in the United States -- these fluctuations may be increasing (Moffitt and Gottschalk 1994). Third, changes in household composition have documented impacts on household income that are ignored by the traditional measure of family status. Fourth, individuals in the same occupation have very different earnings levels, and it is possible that a significant fraction of these differences are “permanent.” Finally, occupation-based measures of status are not well suited for studying the welfare state’s effects on stratification, because welfare programs typically influence household income rather than the occupation of the household head.

Occupational mobility, of course, remains important, both because occupation has a strong statistical connection to more direct measures of standard of living, and because occupational mobility is an important venue for studying labor market structure. However, occupational mobility is only one component of life course mobility, and hence the structure of occupational mobility is only one component, albeit a major one, of a nation’s “life-course” mobility regime. If, following Sørensen (2000), one regards class defined in terms of “life conditions” as the fundamental metric within which mobility is

to be understood, then, I argue, a nation's mobility regime includes at least three major components:

(1) the structure of career trajectories, as typically represented in mobility studies as the transition from first occupation to "current" (at the time of the survey) occupation.

(2) the proportion of the population living in a state of social marginality, the mechanisms and rates of escape from the status of marginality, and the permanence of that escape.

(3) the extent of downward life course risk for the stable working class and for the middle class, where by downward life course risk I mean the risk of suffering a significant and durable decline in living standards.

The first of these three components is the typical focus of occupational mobility studies. The second and third components are also essential aspects of a country's mobility regime, because they also characterize the extent of class mobility, or equivalently, the extent of social closure in a society. But these latter components are not adequately addressed through studies of individual-level mobility across occupation-based status or class categories, because they depend upon other aspects of social structure, namely rates and access to employment, household structure and household dynamics, marriage markets, and welfare state tax and transfer policies.<sup>3</sup>

### ***OCCUPATIONAL STATUS, PERMANENT INCOME, AND CLASS AS LIFE CONDITIONS***

In asserting that the occupation-based approach to social mobility fails to adequately measure mobility in life conditions, I also acknowledge that occupation-based measures were in fact intended to accomplish this goal. It was once common to presume that a family's standard of living could be derived from the class position of a single breadwinner, whether the male householder (Goldthorpe 1983) or more generally (in Erikson's "dominance model") the adult with the highest occupational status (Erikson 1984; Sørensen 1994a). In effect, the conventional and dominance models assume that the occupational status of the dominant breadwinner is an adequate measure of the economic position of all family members via its link with long-run (so-called "permanent") income. Hauser and Warren (1997), for example, argued for the importance of occupational status because "occupations can be ascertained reliably, even by proxy" and because occupational status ... appears to indicate a reliable and powerful characteristic of persons or households by dint of its temporal stability and substantial correlation with other social and economic variables....occupational status may be a better indicator of long-term –or, as economists call it, permanent – income than is income at a single point in time." (p. 178, 198).<sup>4</sup>

Many debates in stratification research have focused not so much on the adequacy of occupation as on the best way to incorporate occupational information into a measure of hierarchy, e.g., whether it should be combined with other information about the employment relationship (such as self-employment) (Goldthorpe 1987, Wright 1985), whether it should be scored on a continuous metric based on a weighted combination of average education or income of occupational incumbents,<sup>5</sup> or based solely on average education, or average income (Hauser and Warren 1997), whether detailed occupations themselves should be the indicators of status (Rytina 1992), or whether a compromise between detailed occupations and aggregated social classes is the best approach (Grusky and Sørensen 1998). The importance of households as opposed to individuals is not

denied by researchers advocating individual-level occupation based approaches. Instead, scholars explicitly acknowledge that occupation-based metrics represent a compromise, an attempt to construct “a shorthand expression for variables that characterize the placement of persons, families, households...to create or consume goods that are valued in our society.” (Hauser and Warren 1997, p. 178).

My call for a broader approach to the subject of class mobility treats as problematic not just the strength of the link between occupation and permanent income, but also the adequacy of the concept of permanent income as a behavioral (as opposed to purely statistical) reality. The notion of permanent income assumes that mobility is predictable, and therefore that individuals and households can *a priori* adjust their consumption patterns in order to achieve a particular standard of living. Sørensen (2000), for example, argues that “it is important to consider not the cross-sectional distribution of income, but the long-term wealth profile that determines what economists call *permanent income and consumption patterns*. “A person who obtains a higher education will orient her lifestyle not to the level of income in her youth, but to the long-term expected living conditions corresponding to the wealth associated with her human capital.”

Permanent income (or standard of living) always has meaning when taken in purely arithmetic terms as the long-run average income or standard of living of a particular individual. But as a behavioral concept, it requires that individuals be able to anticipate the future accurately. It is almost a truism to state that anticipation is easy for the high-probability changes in life, (e.g., the career mobility expected for one of higher education). It is also easy to anticipate that small or obviously temporary fluctuations in year-to-year income will average out over time. However, unpredictable (i.e., low, or seemingly low, probability) changes that have large and potentially durable effects offer a challenge to the behavioral theory implicit in the concept of permanent income. Given the possibility of such events, even an individual with a completely accurate probabilistic understanding of the future cannot easily use this information to sustain consumption at one’s presumed permanent income. If one chooses the expected trajectory based on, for example, one’s educational level, one faces a certain probability that this trajectory is unsustainable because of adverse events. If one chooses the lowest standard of living that is sustainable with high probability, then it is necessarily true that one will with high probability under-consume over the life course (the level of under-consumption will be a function of the rate and consequences of adverse actions in the society). If we go back to Sørensen’s example of the person who obtains a higher-level education and who “orients her lifestyle not to the level of income in her youth, but to the long-term expected living conditions corresponding to the wealth associated with her human capital,” we see that the issue of whether this lifestyle is her “permanent income” depends very much on the cost of (self-financed through savings or otherwise) insurance against the life course risks noted above. A high cost of such insurance implies under-consumption. Inadequate savings or insurance implies a certain risk of downward mobility. In short, permanent income, taken as a behavioral theory of consumption patterns, is meaningful in stable societies. The higher the rate of turbulence, the less plausible is the concept of permanent income, when taken as a behavioral theory about sustainable life conditions.

Furthermore, when a portion of society lives in a marginal state that is difficult (but still possible) to escape from, the concept of permanent income is especially problematic. Individuals and households in this status cannot assume they will escape

from marginality, and they certainly cannot “orient their lifestyle to ...long-term expected conditions” if for no other reason than that these individuals cannot get access to the loans that would be needed to anticipate a higher standard of living, if by chance a higher standard of living becomes available to them. It has been argued (most recently by Sørensen 2000) that individuals at low socioeconomic levels have a shorter time horizon than others, but these are the very individuals who experience the largest short-term earnings mobility (Gittleman and Joyce 1995, 1996). If true, this implies that even common “transitory” fluctuations in income may not be adequately anticipated by many people.

While sociologists have often used the concept of permanent income to justify their emphasis on occupation as the metric of class or status, they in fact raise an implicit criticism to this concept when they identify it with occupation, because, as sociologists understand quite well, occupation can change. Many occupation changes, of course, are minor -- the predictable steps in a career sequence that is quite compatible with the notion of permanent income. But some occupational mobility represents unexpected changes that may be sufficiently disruptive to call into question the extent to which these changes were anticipated. And, as argued earlier, occupational mobility is not the only life course risk to one’s standard of living.

Indeed, life course risks to one’s class position in the United States are not uncommon, and oftentimes they are not anticipated. Displaced worker surveys find that 4-5 % of workers are displaced from their jobs in the typical 2 year period during the past two decades that worker displacement statistics have been collected by the Bureau of Labor Statistics (Hipple 1999). It is commonly reported that roughly 50% of all marriages in the U.S. end in divorce. An estimated 12% of Americans aged 25-64 have a severe disability, and their rate of poverty (using the U.S. Dept of Agriculture poverty line) is 28% as compared with 8% for those without a disability (U.S. Bureau of the Census (2001b). Supporting the assertion that these events are not anticipated are the statistics on bankruptcy, which show 812,000 filings in 1991, over 1,000,000 filings in 1996, and 1.4 million filings in 1997 (Sullivan, Warren, and Westbrook 2000). These events are an important aspect of intragenerational mobility, and they need to be included in any satisfactory model of a society’s mobility regime.

### ***LIFE COURSE RISKS AND MOBILITY REGIMES***

The level of social mobility that occurs as a consequence of life course risks depends critically, I argue, on three contingencies which are essential components of a society’s mobility regime. First, life course risks are low to the extent that the societal rate of adverse events is low. With low potential risks, individuals are better able to anticipate their earnings stream, and can live like the highly educated young woman in Sørensen’s (2000) example, which was quoted above. Second, life course risks are low if the level of social insurance against adverse actions is high, where, by social insurance, I mean the level of assistance provided by the welfare state, or provided by other sources (e.g., the employer or former employer) as part of the society’s “welfare regime” (Esping-Andersen 1999). The socialization of risk reduces the impact of adverse life events on standard of living. In effect, the socialization of risk weakens the link between adverse events and class mobility. The third mechanism for reducing life course risks is the opportunity for rapid recovery. If a society’s mobility regime allows for rapid recovery



from adversity, then the individuals who suffer adversity have a better chance of maintaining their class position through borrowing or through withdrawals from savings until they have reestablished their earnings potential. In effect, the possibility of rapid recovery converts the consequence of the adverse event to a “transitory” as opposed to a “permanent” change in standard of living. Because all three mechanisms affect the structure of life course mobility, an adequate characterization of “mobility regimes” must adequately characterize and account for these mechanisms. A “mobility regime,” therefore, must go beyond descriptions and explanations of individual-level mobility in terms of occupational metrics.

### ***THE U.S., GERMANY, AND SWEDEN: A STYLIZED COMPARISON.***

The standard frames for comparing Sweden, Germany and the U.S. are based either on a labor market or a welfare-state perspective (and more rarely, on a combination of the two). These frames, which give rise to well-known if not always precisely stated generalizations, can be readily summarized.

Predictions based on Labor Market Theory: German labor markets are characterized as being more stable than those of Sweden or the U.S. This stability is said to arise from two main sources. First, the German labor market is highly credentialed; these credentials regularize the transition from school to work, and reduce occupational mobility over the life course (Kappelhoff and Teckenberg 1987; Blossfeld 1987; Blossfeld, Giannelli and Mayer 1993). In contrast, Sweden and the U.S. have moderate to low linkages between school and work (Müller and Shavit 1996), which generates a higher rate of job and occupational mobility, especially in the early career. Second, jobs are held to be more stable in Germany than in Sweden or the U.S., where firms in the latter two countries resort more quickly to layoffs -- even of experienced workers -- as a method of adjustment. (Björklund and Holmlund 1987, Standing 1988, de Neubourg 1990, Büchtemann 1993, Grubb and Wells 1993, OECD 1994). Grubb and Wells in particular have ranked Germany higher on their employment protection scale than Sweden, and the literature suggests that the U.S. has the lowest level of employment protection among these three countries.

Predictions based on Welfare State Theory: Theoretical predictions about welfare state impacts derive from well known taxonomies first articulated by Titmuss (1958) and later elaborated by Furniss and Tilton (1977) and Esping-Andersen (1990). Esping-Andersen’s taxonomy classifies the U.S. as a liberal welfare regime, with Germany a “conservative” regime and Sweden a “social-democratic” regime. The German “conservative” system of social welfare benefits is typically described as a status-maintaining system of social “insurance” against “risks incurred in working life” (Alber 1986; Clasen 1994; Esping-Andersen 1994; Markovits and Halfmann 1988: 110). The German insurance system is based on a presumption of stable attachment to the work force by a (typically male) “family breadwinner” and a presumption of low rates of family dissolution. The American welfare state is typically classified as “liberal,” with modest (though geographically variable), means-tested social welfare benefits. The social democratic welfare state system of Sweden is based on the notion of citizenship rights, rather than on rights tied to the employment relationship. Esping-Andersen argues that by the early 1970s, the non-liberal welfare states had “arrived at a fairly similar level of comprehensiveness as far as cash benefit programs are concerned.” (Esping-Andersen

1999, p. 83). For him, the big difference between the social-democratic and the conservative systems come from “social services and generous income support for working women.” (Esping-Andersen 1999, p. 83). The consequence of the social services emphasis is the large amount of public employment that allows Sweden to avoid the insider-outsider labor market via the strategy of public employment, while the effective Swedish family policies produce a high level of female labor force participation as compared with Germany (see also Orloff 1993; Gauthier 1996; Sainsbury 1994, 1996).

These stylized stories are well known, but are too restrictive in scope and in important respects are too vague to offer a clear and empirically accurate characterization of the mobility regimes of these three countries. As already noted, the labor market perspective is inadequate because it misses changes in standard of living produced by changes in household composition, and because it provides an inadequate characterization of poverty dynamics. Welfare state perspectives would appear to be more comprehensive, but Esping-Andersen (1999) recently argued that the effectiveness of welfare mechanisms for collectivizing risk even in social democratic societies has been called into question by what he refers to as the two “Trojan horses” of the modern welfare state, namely (1) the risks arising from “flexibilization” of the labor market (particularly in liberal welfare regimes) and the inability of countries with more regulated labor markets to maintain adequate employment levels and avoid long-term unemployment, and (2) family instability as evidenced by the decline of births that occur within marriages and the rise of union dissolution rates. As he admits (p. 157), the life-course implications of these developments are still unclear.

One reason why the mobility regimes of major industrialized countries have resisted adequate characterization is the difficulty of obtaining adequate data to address the major components of life course mobility. The data sources necessary to directly analyze these events are too numerous, and in some cases too inaccessible to readily allow a direct computation of the relevant parameters. Instead, I drew on a large number of findings from the research literature to produce a holistic, stylized view of each society’s mobility structure including explicit coverage of events related to career trajectories, middle class life course risk, and poverty dynamics. These events are: (1) mobility as defined by occupation-based career trajectories, (2) household-level mobility in income and standard of living, (3) union dissolution as an entry to single-parenthood status, (4) job displacement and its consequences, and (5) poverty dynamics, by which is meant the mobility dynamics into and out of a sensible operationalization of social marginality.

While an increasingly extensive literature exists on each of these issues, it is often not comparative and the comparative findings are not necessarily definitive. For example, much of the comparative research on poverty operationalizes the concept of poverty, which is equated to social marginality, as having a size-adjusted household income below 50% of the national median. Such an operationalization is certainly defensible (its persuasiveness as a reasonable standard is, after all, a major reason why it has become conventional), but it is not beyond challenge.<sup>6</sup> In my view, however, the available evidence produces a comparative picture that (as I claim to show by the end of this paper) meets the test of reasonableness for both parsimony and plausibility. It furthermore makes a very strong case for greater attention to multidimensional measures of mobility that include attention to household measures of standard of living. I would

hope and expect that further research might both refine and challenge the picture that emerges from the available evidence of today.

The comparisons that follow focus on Sweden, the United States, and the western states of Germany. Eastern Germany continues to have distinct mobility patterns from western Germany, which are partly a legacy of the largely dismantled GDR institutions, and partly a consequence of the disruptions created by unification. To avoid the complications raised by these issues (and in any case, many fewer comparative studies have analyzed data for eastern Germany), I limit attention to studies that focus on western Germany.<sup>7</sup>

### **Mobility as Defined by Occupation-based Career Trajectories**

Comparisons of class or job mobility generally support the view of Germany as a low-mobility society, with the U.S. having relatively high mobility, and Sweden occupying a middle position. Kappelhoff and Teckenberg (1987), who performed a direct comparison between (first to current occupation) career mobility of men in the two countries using OCGII data for the U.S. and the Wage-Earning Survey of 1980-81 for West Germany, found much higher rates of both upward and downward mobility in the U.S. than in Germany. While no comparable published study exists for Sweden, I compared Kappelhoff and Teckenberg's results with analyses performed by Michael Tåhlin (personal communication; see also Tåhlin 1993) of mobility from first occupation to current occupation for men employed as of 1991 from the Swedish Level of Living Survey. These results, which are presented in Table 1, show that Sweden is roughly midway between the U.S. and Germany in the overall level of mobility; Sweden's rate of upward mobility is as high or even higher than the American rate, while a much smaller proportion of Swedish men were downwardly mobile than was true in the U.S. Examining short-term mobility with data for men in the 1980s, DiPrete et al. (1997) found that Swedish rates of job and of class mobility were generally intermediate between those of Germany and those of the U.S., and slightly more similar to the German than the American rates.<sup>8</sup> One might also note Allmendinger's (1989) study, which compared career mobility dynamics for men born between 1929 and 1931 in the U.S., West Germany, and Norway, the latter being a country that is often compared to Sweden. She found German careers were more orderly than either those in the U.S. or in Norway, having fewer job shifts, and proportionately more upward shifts.

These results support the argument that life course mobility is relatively high in the U.S. relative to Sweden and Germany. They also support the argument that Germans who start their careers in higher status jobs are protected from falling to lower status jobs, that Americans are at relatively high risk for both types of moves, and that Swedish males (at least before the recession of the early 1990s) experienced high levels of mobility, but were relatively protected against downward moves. However, these results are also limited, in that they speak only indirectly to the earnings consequences of job changes, and say nothing about the two major events associated with threats to living standards, namely unemployment and union dissolution (e.g., DiPrete and McManus 1999), which are the two "Trojan horse" risks to the modern welfare state's safety net (Esping-Andersen 1999).

## Household-Level Mobility in Income and Standard of Living

Next, I turn to the available evidence about household income mobility. Approaches to income mobility in the research literature differ along several dimensions.<sup>9</sup> I focus here on studies that use measures of disposable income, that (where available) are adjusted for household size, and that use the methodology proposed by Shorrocks (1978). The Shorrocks measure compares the level of income inequality at a point in time (computed using the Gini coefficient, the Theil index, or some other measure of inequality) with the level of inequality that would be obtained if one averaged income over a longer period of time. The extent to which inequality in average income over the longer period of time is lower than inequality at a single point in time is a measure of the level of income mobility in that society.<sup>10</sup> It should be noted that this measure of mobility is a relative mobility concept, in that it measures inequality reduction, relative to the level of cross-sectional inequality found in that society. While I focus here on the Shorrocks measure because of the availability of pertinent recent comparative results for all three countries, it should be noted that comparisons of mobility tables using income as categories have arrived at results for western Germany and the U.S. (Fabig 2000), and for Sweden and the U.S. (Fritzell 1990) that are similar to those reported using the Shorrocks formula (Fabig 2000).<sup>11</sup>

Table 2 provides a summary of the pertinent results from Aaberge et al. (1996) and from Burkhauser and Poupore (1997), supplemented by data from Gottschalk and Smeeding (2000) and by my own calculations. This table reveals a much different picture than that provided by the mobility matrices in table 1. The values in rows 1 and 3 of Panels A, B, and C are taken from tables 1(b) and 2(b) of Aaberge et al. (1996).<sup>12</sup> Row 1 gives their estimate of the average inequality over the four year period in the two countries. Row 3 is their estimate of mobility, based on Shorrocks' measure as computed from the Gini coefficient. The cross-sectional measure of inequality (a weighted average of the cross-sectional measures for each year) is obtained by dividing the value in row 3 by the value in row 1. These data show that household income mobility was actually higher in Sweden than in the U.S. during these years. Panels D and E of table 2 present similar information from Burkhauser and Poupore (1997) for western Germany, using the Shorrocks measure as computed from the Theil index.<sup>13</sup> Rows 1 and 3 take information from table 2 of Burkhauser and Poupore for the U.S. and Germany, while row 2 is computed using the Shorrocks formula.<sup>14</sup> Their results also reveal the (for sociologists) unexpected result that the U.S. has lower mobility than Germany.

The apparent inconsistency between the results of Aaberge et al. or Burkhauser and Poupore and the standard result from sociological studies stems partly from the difference between relative and absolute mobility. Aaberge et al. and Burkhauser and Poupore use relative rather than absolute mobility as the measure. The denominator of the Shorrocks formula is the cross-sectional level of income inequality in a country. This number is much larger in the U.S. than in either Sweden or Germany. Consequently, a smaller difference between long-term and cross-sectional inequality in Sweden and Germany is magnified by the relatively (to the U.S.) small income inequality base. One might instead standardize these measures by using the same base, which is equivalent to comparing the absolute difference in long-term and cross-sectional inequality in each country. Row 4 of each panel in table 2 carries out this calculation. It shows considerably greater absolute mobility in earnings or market income in the U.S. than in

Sweden. Mobility in disposable household income in the two countries is, perhaps surprisingly, rather similar. A comparison of absolute mobility in household adjusted (for household size) market income between Germany and the U.S. actually shows slightly higher levels of mobility in Germany than in the U.S., while the U.S. has somewhat higher absolute mobility after government taxes and transfers are taken into account.

The difference between these findings (especially referring to the comparison between Germany and the U.S.) and the results from the mobility matrices of table 1 clearly must be accounted for in terms of household, not individual mobility. The findings from McManus and DiPrete (2000) reconcile the apparent conflict in the German-American results of table 1 and table 2 by showing that the earnings of women who are partnered are more unstable in western Germany than in the U.S. (a fact which raises the pre-government income instability of German households). McManus and DiPrete (2000) also show that German tax and transfer policies provide greater levels of stabilization than do American programs, which explains why absolute mobility is higher in the U.S. than in Germany after these programs are factored into the calculation (table 2, panel E). Studies of income mobility nonetheless demonstrate that the view of these three societies seen through studies of relative household income mobility is much different than the view seen through studies of occupation-based career mobility. This finding underscores the potential danger of focusing excessively on occupation in order to understand intragenerational mobility processes, both because occupational mobility misses significant employment events, and because occupational mobility misses significant household processes that can have a major impact on mobility.

### **Union Dissolution as an Entry to Single-Parenthood Status**

In this section, I produce stylized estimates of major life course risks associated with marital and nonmarital separations for Sweden, western Germany, and the U.S. Published country differences in incidence rates of single parenthood (e.g., Casper, Garfinkel, and McLanahan 1994) are useful but have limited utility for present purposes. Incidence rates tell little about entry and exit rates. Furthermore, incidence rates sometimes ignore the distinction between marriage and cohabitation (thus treating children of cohabiting couples as if they were in a single-parent household).<sup>15</sup> Most importantly, these rates overstate the estimate of downward mobility because many individuals (particularly in the U.S.) who move to single parenthood status from a nonmarital status were already marginalized in a socioeconomic sense. My strategy instead is to define the risk population as couples and then estimate the likelihood of a move into social marginality as a function of changes in household composition.

To obtain stylized country comparisons, I use a simple simulation to compute the impact of union dissolution on standard of living in the three societies. I take the yearly rate of divorce (as a fraction of married women) in the three countries in 1985 (1990 for the U.S.), obtained from Prinz (1995), and from McLanahan and Casper (1995). I then take into account the proportion of all unions that are consensual unions in the three countries, also from Prinz (1995). Most research has found that dissolution rates are higher for cohabitants than for married couples. Prinz found that the rate of “dehabitation” (dissolution for cohabitants) was about four times as high as was the rate of divorce for married couples. (see also Hoem and Hoem 1992; Nilsson 1992). Taking this value as also a reasonable estimate of the relative risk of union dissolution for

cohabitants vs. married couples in Germany and in the U.S. gives an adjusted dissolution rate as reported in row 3 of table 3.<sup>16</sup> The next step was to use this yearly rate to simulate a survival curve in the three societies to approximate the shape found for the relationship between duration of marriage and divorce rates in the U.S. (Clarke 1995). In all three societies, the curves were constructed to give a median time to dissolution of seven years for those couples who dissolved their partnership.<sup>17</sup> These curves imply a probability of dissolution within 15 years as given in row 4 of table 3. The impact of children on divorce rates is not entirely clear (Waite and Lillard 1991). But, assuming that the estimates of divorce rates are affected by the presence of children in roughly the same way, these rates imply a larger probability that a woman becomes a single mother via union dissolution in the U.S. than in Sweden, with Germany's rates being much lower than in the other two societies.<sup>18</sup>

The impact of union dissolution on a women's socioeconomic standing is generally large and negative. DiPrete and McManus (2000) found that the mean loss two years after a union dissolution in adjusted (for household size) household income was 25% for American women, and 32% for western German women. Here I instead use the above simulation to estimate the impact of union dissolution on entry into poverty, defined in the conventional (for international comparisons) way as 50% of the median income of a society. Row 5 of table 3 reports results from Duncan et al. (1993) about the probability of moving below the 50% threshold in equivalent household net income (including taxes and government transfers), given that one was at 60% of the median or higher in the previous year, for the three societies. Duncan et al. (1993) also report the proportion of families with children who move into poverty and who at the same time experience a divorce or separation. These figures are reported in row 6 of table 3. This information can be used to compute an estimate of the probability that a family who experiences a separation or divorce will move into poverty, using the 50%-of-median threshold. According to Bayes' formula,

$$\Pr(\text{poverty entry} | \text{separation or divorce}) = \frac{\Pr(\text{separation or divorce} | \text{poverty entry}) \cdot \Pr(\text{poverty entry})}{\Pr(\text{separation or divorce})} \quad (1)$$

where all factors are also conditioned on the presence of minor children. The first factor on the right of equation (1) is given in row 6. The second factor is given in row 5. Accepting row 1 as a reasonable estimate of the probability of separation or divorce, given the presence of children, I compute the probability of poverty entry, given separation or divorce, as shown in row 7. The impact of separation or divorce on entry into poverty is dramatically different in the three countries, according to these figures. Swedish women are relatively protected from the impact of union dissolution, while German women are clearly very vulnerable to the socioeconomic consequences of union dissolution. American women are intermediate, but more like Swedish women than German women. Multiplying row 4 by row 7 gives an estimate of the probability of entry into poverty within 15 years for a woman who has a child in each of the three societies. This result, which is presented in row 8, implies that German women have the greatest vulnerability: their low rates of union dissolution are apparently offset by the greater socioeconomic consequences of these events.

The greater vulnerability of German women to union dissolution stems largely from their lower rates of working, and particularly of working full time. Data from Ruspini (1998) for Sweden and western Germany, and from the Census Bureau for the

U.S. (Grall 2000) are presented in row 1 of table 4. Clearly, it is the German female lone parents who have the lowest employment rates in the three countries. Data from Smeeding and Ross (1999) further demonstrate the relationship between employment and poverty in the three countries. Germany does the best job of eliminating poverty via the market for all households who have a full-time/full-year worker (table 4: rows 3a and 3b). But Sweden's more protective tax and transfer policies do a better job of preventing poverty for households that contain only a part-time/part-year worker (table 4: rows 4a and 4b). German households with part-time/part-year workers are clearly better protected against poverty by the German welfare state than are American households. The difference in the conditional rates of falling into poverty (assuming the validity of Duncan et al's results), given union dissolution in Germany and the U.S., might be due to the following factors: (1) there is greater income inequality in the U.S. than in Germany, and consequently the typical household in the U.S. that has at least 60% of the median income is further away from the 50% threshold than is the typical German household, (2) full-time employment is more common among lone household heads in the U.S. than in Germany, (3) it might take longer for German women to raise their hours of work following divorce or separation than it does for American women.<sup>19</sup> Thus, despite the greater protection offered by the German welfare state, German women appear to be more vulnerable than their American or Swedish counterparts.

Finally, the last set of rows in table 4 provide evidence about the rate of escape from marginality for women experiencing union dissolution. Results from DiPrete and McManus (2000) show that German women tend to recover faster than American women from union dissolution, though this recovery is from a more negative position, and only allows German women to achieve parity with American women after several years (table 4, rows 5a, 5b, 5c, and 5d). Results from Ruspini (1998) suggest that German women do not repartner as fast as Swedish women (table 4, row 6).

It is important to put these results into the broader context of overall poverty rates in the three societies. Annemette Sørensen (1994b), using data from the 1980s, computed the proportion of German, Swedish, and American single-mother households that were below 50% of median income, and these figures are presented in row 2 of table 5. Ruspini (1998) computed the proportion of German and Swedish lone mothers who were poor using more recent data; these results are presented in row 2 of table 5. By comparison, Duncan et al. (1993) computed the overall poverty rates in the three societies for households with children, which I show in row 3. Duncan et al. also computed the proportion of poor households with children that were headed by single mothers; these figures are in row 4. Finally, McLanahan and Casper (1995) give the proportion of households with children that are headed by a single parent, which are shown in row 5. If one makes the simplifying assumption that 80% of single parent households were lone-mother households, one obtains the results in row 6, which are qualitatively similar to the directly computed results in Ruspini (1998), but which also give an estimate for the U.S., which is absent from Ruspini's analysis. Clearly, the rate of poverty among single mothers is much higher in the U.S. than in Germany, which in turn is much higher than the rate in Sweden.<sup>20</sup> The results imply that most single-parent poverty in the U.S. does not come from downward mobility out of the middle class, but rather arises in families who were already socially marginal (i.e., with incomes below the 60% of the median threshold used in the Duncan et al. analysis).

In summary, these results provide a consistent picture of the qualitative ranking of these three countries. German women are protected from the socioeconomic decline that follows union dissolution primarily by virtue of the low rates of union dissolution in that country. Rates of dissolution are higher in Sweden, and higher still in the U.S. American women are not as adversely affected by union dissolution as German women primarily because they work more. German women in dissolving unions get greater benefits from the welfare state than American women, but these benefits are not large enough to offset the adversity caused by their low participation in the labor market. Swedish women are clearly the best off; their rates of union dissolution are moderate, and the impact of union dissolution is relatively small compared with the other two countries. These advantages stem from their very high rates of participation in the labor market, and from the generosity of Swedish tax and transfer policies. Furthermore, Swedish women repartner quickly in comparison with their German counterparts. The combination of these three processes appears to give German women the greatest life course risk of downward mobility into poverty of the three countries. American women, meanwhile, have the greatest risk of social marginality, though this risk cannot be directly attributed to union dissolution; it may better be characterized as an inability to escape marginality rather than an inability to retain middle-class status.

### **Job Displacement and its Consequences**

Loss of one's job is also a major life course risk in industrialized societies. While job exits in the early career are common in countries like Sweden or the U.S., and while involuntary job exits are generated by the use of fixed term contracts in societies with strong employment protection (DiPrete et al. 2001), the life course impact from mobility generated by industrial restructuring has a potentially greater impact on class mobility than do these other typically early-career events. High tenure workers suffer higher financial losses from displacement, and it is often difficult for workers displaced by contracting industries to secure new employment in the same occupation or industry (DiPrete 1993; Farber 1993; Hipple 1999). To analyze the impact of job displacement on households, I again draw upon multiple sources to create a stylized picture for Sweden, Germany, and the U.S. While national unemployment statistics offer very useful information, their utility for present purposes is limited; they offer only a static snapshot of a very heterogeneous population. Much unemployment is relatively short-term, and much of it involves young workers, some of whom are experiencing unemployment as a "normal" part of the process of searching for a career. A portion of the unemployed, furthermore, are low-skill marginalized workers, for whom unemployment is an endemic aspect of their work experience, and is closely linked with poverty dynamics, which I consider in the next section of the paper. In this section of the paper, I focus primarily on life course risks by those embarking on a "career" with a given employer. The strategy I employ is to compare rates and consequences of worker displacement in Germany and the U.S., and then to benchmark Sweden against these results.

A very large literature now exists on worker displacement in the U.S., which has been made possible by repeated displaced worker surveys conducted as supplements to the Current Population Survey (e.g., Fallick 1996). Here I rely largely on recent results from Hipple (1999), who presents analyses of the 1998 Displaced Worker Survey for workers who were displaced from their old jobs during the calendar years 1995 and 1996. Less research on worker displacement has been done in Germany, and less still is known



about Sweden. For knowledge about the German situation, I rely primarily on analyses by Bender et al. (1999), and secondarily on results from Burda and Mertens (1999). Bender et al. (1999) analyze data from the *Institut für Arbeitsmarkt und Berufsforschung* (IAB) for western German male workers aged 25-50 in 1984 who had at least four years of tenure with their employer. Hipple's results are presented by age, tenure and sex, among other variables, but do not allow separate calculations for men and women. However, Hipple reports that women had displacement rates that were about 15% higher than male rates, that women's median unemployment duration was 20% longer than male durations, and that a woman's probability of earning less on the new job than on the old job was approximately the same as a man's probability. By comparing combined rates in the U.S to male rates in Germany, I will make the U.S. look slightly worse than it would otherwise, but the qualitative comparisons should not be affected.

Hipple presents data on the relationship between displacement rates and job tenure that allow the estimation via synthetic cohort methods of displacement over a 15 year period of time (i.e., I assume that at each level of job seniority, the worker would have a displacement risk equivalent to the risk observed for workers with that seniority level in 1995-1996).<sup>21</sup> Bender et al. provide similar data that also allow a synthetic estimate of the risk of displacement over 15 years.<sup>22</sup> These results are in rows 1 and 2 of table 6, the difference being that for row 2 the 15 year period begins after the individual has already accumulated 3-4 years of tenure on the job. Hipple also reports weeks without work before finding a new job, while Bender et al. present a survival curve for time to reemployment.<sup>23</sup> These data allow the estimation of the probability of quick reemployment, and also the probability of a period of substantial unemployment following displacement. These estimates are shown in rows 3-6 of table 6. Hipple (1999, table 14) reported that 24.3 percent of workers aged 25-54 who were displaced in 1995-1996 and who were reemployed in a full-time wage and salary job in February 1998 were earning 20% or more below their pre-displacement earnings. Bender et al. (1999, p. 50) estimate that displaced workers in Germany who find new jobs relatively quickly experience only a 1-2% wage loss, while those who take more than a year to find a new job suffer a permanent additional wage penalty of 19%.<sup>24</sup> Assuming a symmetric pattern to the wage losses leads to the rough estimate that 50% of the German workers who took more than a year to find a new job were earning 20% or more below their pre-displacement level. These estimates are combined with the probability of displacement to yield the estimates in row 7.

The analyses by Hipple and by Bender et al. suggest perhaps surprisingly similar rates of worker displacement in Germany and the U.S., with the chances being about one in five that a worker will be displaced over a fifteen year period. The German worker experiences longer unemployment spells after displacement on average than does the American worker.<sup>25</sup> However, the American worker has a higher probability of experiencing the combination of displacement plus a 20% or larger decline in earnings.

I have not been able to find any systematic study of worker displacement in Sweden. Clearly, however, Sweden's unemployment picture changed dramatically in the 1990s following the deep recession of 1991-1992.<sup>26</sup> As DiPrete et al. (2001, table 1) show, the big change in Sweden between the 1980s and the 1990s was not in the rate of separation from employers, but rather in the rate of moving quickly to a new job, given a separation from the previous employer. This reduction in reemployment probabilities

moved the Swedish unemployment rates to levels more similar to those of Germany than to the low American rates of unemployment (OECD 1994; Eurostat Yearbook 2000). It also greatly reduced the proportion of Swedish men and women who were employed on a full-year basis, and raised the proportion of Swedes who were unemployed for a full year (Lundborg 2000, figure 5). However, the delay in finding a new job remained much less than in Germany; rates of long-term unemployment in Sweden were comparable to those in the U.S., and much lower than were the rates of long-term unemployment in Germany (OECD 1994; Eurostat 2000). The limited available information suggests that Sweden is probably intermediate between the U.S. and Germany in its levels of displacement and the unemployment consequences of this displacement (see also Ackum-Agell 1991; Wiklund 1999). For illustrative purposes, I have filled in the mean of the German and American experience in the Swedish column, and have placed these numbers in parentheses, to indicate their tentative status.

Next, I explored the poverty implications of the displacement event. For this exploration, I start with the figures from Smeeding and Ross (1999) on poverty rates for households that lack a full-time/full-year worker (table 4, row 4b). Row 8 of table 6 gives the probability of displacement plus poverty under the assumption that the household has only one full-time/full-year worker and under the assumption that households with a recent displaced worker are in the average situation of a household which lacks a full-time/full-year worker.<sup>27</sup> The existence of unemployment benefits linked to prior wages, and severance pay make these assumptions pessimistic for American workers. They are even more likely to overestimate the poverty implications of displacement in Sweden or Germany, where limited severance pay is required by law, and where unemployment benefits cover a larger fraction of the unemployed and replace a larger fraction of lost earnings than is the case in the U.S. (OECD 1994; OECD 1999).<sup>28</sup> I indicate the potential implications of these benefits in row 8 by creating ranges, where the right hand number is the estimate using the Smeeding and Ross (1999) probabilities of poverty, and the left hand number is 0 for Germany and Sweden (under the perhaps extreme assumption that these benefits eliminate the poverty risk) and “?” for the U.S., where the benefits are smaller.<sup>29</sup>

The other limitation of these estimates is that they ignore the possibility that the household has more than one worker who can protect it against poverty. Drawing on other research using the CPS, I will assume that 70% of American households have only one full-time/full-year worker, while 30% have more than one.<sup>30</sup> The ratio of male to female weekly hours in Sweden is similar to that in the U.S., while in Germany, women work significantly fewer hours (United Nations 2000). For illustrative purposes, I will assume that 30% of Swedish households have more than one full-time/full-year worker, but that only 10% of German households have more than one. With this assumption, the probability that a household with at least one full-time/full-year earner experiences a job displacement that involves a spell of poverty approximately equals the probability of a displacement (table 6, row 4), multiplied by the probability of only one worker in the household (table 6, row 9) multiplied by the proportion of households who are poor, given that they have only a part-time or part-year earner (table 4, row 4b).<sup>31</sup> These results are in row 10 of table 6. Again, they are presented as a range, to indicate the unknown implications of severance pay and unemployment benefits.

The results in table 6 suggest different structures of employment-related risk in the three countries. Both Germany and the U.S., and presumably also Sweden, have nontrivial risks of job loss over a 15 year period of time. The German worker appears to have the highest probability of displacement followed by long unemployment. But the risk of poverty as a consequence of this displacement is mitigated by the relatively generous welfare benefits. Furthermore, German workers who are reemployed are less likely than American workers to suffer serious earnings losses. Less information is available for Sweden, but it is reasonable to conjecture that Swedish displaced workers enjoy the greatest protection against poverty, by virtue of that country's tax and welfare policies.

### **Poverty Dynamics**

Poverty dynamics in the U.S., Germany, and Sweden were studied extensively in the paper by Duncan et al. (1993). Their essential findings are contained in table 7. As is well known, the U.S. has considerably higher poverty rates than either western Germany or Sweden, while Sweden's poverty rates are much lower than those of Germany. Row 2 shows that the rate of mobility into poverty is higher in the U.S. than in either Sweden or Germany. The high rate of poverty entry in the U.S. is what one expects of a high mobility society. However, Sweden, which in other respects has intermediate mobility levels between the U.S. and Germany, has much lower entry rates into poverty than does Germany, whose entry levels approach those in the U.S. despite the much lower incidence of poverty in Germany. Germany's relatively high rates come in part from the impact of union dissolution, which was discussed earlier. In addition, however, German workers also become at risk of entering poverty through job loss and reductions of work hours. Duncan et al. (1993) found that 38% of German households who moved into poverty experienced a reduction in annual work hours of at least 250 hours, which is low in comparison with the 60% of American households who experienced such a reduction as they moved into poverty, but is still substantial.

Average rates of mobility out of poverty are actually higher in Germany than they are in the U.S. (cf. rows 3a, 3b, and 3c), which is not what one expects to find, given the conventional wisdom that the U.S. is the high mobility society. Other research (e.g. Gottschalk, McLanahan, and Sandefur 1994) has shown that the poverty population in the U.S. is heterogeneous, and not accurately describable by a single mobility process (the same is true for Germany – see Leisering and Leibfried 1999). Some individuals and families have relatively short spells, while others have much longer spells. Clearly, predictions based on the over-simplified characterization of the U.S. as a high mobility country do a poor job of capturing the structure of its poverty dynamics. The reasons for the large yet heterogeneous risks in the U.S. are complex and (in gross outline, at least) well known. Rates of “working poverty” are high because of the wide earnings distribution that is marked by so many low-wage jobs. Those in low-paying jobs find it difficult to exit from poverty because their earnings in these jobs are inadequate. Social benefits are too low to provide an escape route by themselves, and (with the exception of the Earned Income Tax Credit) American law makes it difficult to escape from poverty through a combination of low wage work and social benefits. Therefore, those with low skills must either find a way to acquire additional skills or to partner with someone whose earnings are high enough to permit an escape.<sup>32</sup> Meanwhile, comparatively high rates of entry into poverty via union dissolution or worker displacement provide a reservoir of

people with relatively high rates of escape. The two groups combine to form a very heterogeneous poverty population.

### ***MOBILITY REGIMES RECONSIDERED***

This paper has not argued that occupational mobility is unimportant or over-studied. It has, however, made the case that mobility regimes of industrialized societies cannot be adequately studied in terms of occupational mobility alone. Instead, occupational mobility must be one leg of a multi-legged stool. Household mobility dynamics around a threshold that is a defensible characterization of social marginality constitutes a second leg, while the structure of life course risks for significant “non-transient” downward mobility in standard of living constitutes a third leg. As noted earlier, the results presented here are a stylized synthesis of a large body of research, and are intended to create a factually-defensible “big picture” of a country’s mobility regime as well as to identify gaps in our knowledge that still need to be filled in.

The results above suggest that the mobility regimes of the U.S., Sweden, and Germany are not adequately characterized via labor market terminology. Nor can they be adequately characterized in terms of taxonomies of welfare state regimes. Instead, one requires a sector-specific characterization of both the risks of potentially class altering events and the consequences of these events. This does not mean, however, that theoretically useful parsimonious characterizations of life course mobility regimes are beyond reach. Indeed, while the sheer volume of facts presented in this paper may appear to suggest a very complex picture, I think the reality is otherwise. The basic differences between the mobility regimes of Sweden, Germany, and the U.S. can be stated simply in terms of rates of events and their consequences. Germany can be characterized as a country whose institutions suppress the rate of class-altering events, but they do not uniformly suppress the consequences of negative events. Sweden is the opposite. Swedish institutions do not suppress the rate of events, but they effectively mitigate the consequences of negative events. The U.S. is in between. American institutions do not suppress the rate of events, and, relative to Sweden or Germany, they also do not suppress the consequences of negative events. This formulation differs from the accepted formulations common either to the labor market or the welfare state literatures discussed earlier.

I have used the risks of union dissolution and worker displacement to estimate a crude but nonetheless informative index of “middle class” risk for the three societies, based on the implications of union dissolution for falling into poverty, and the implications of worker displacement for extensive unemployment and/or significant earnings declines in a subsequent job. The results suggest that a country’s ranking on a “middle-class risk” index depends in important respects upon gender. The probability of a substantial downward move as a result of these two life course risks for a Swedish male may be as low as one chance in 50 over a fifteen year period. For a Swedish middle class woman, the chances of a large downward move appear to be more like one in 20. This risk, however, is low compared to that for an American woman, who has about a one in 15 chance of poverty via union dissolution if she has a child, plus about a one in 15 chance of a serious reduction in living standards either through unemployment following displacement or through a serious reduction in earnings. If we took these two events as statistically independent, we would arrive at a fifteen-year risk of about 1 in 8, which is

higher than Sweden both because rates of union dissolution are higher and because social protection is lower. Germany is the most complex of the three cases because of the different nature of family and employment risks. German women do not face the double risk that American women do because of the greater German protection in the employment sphere, but their high risk from union dissolution offsets their low risk from market adversity. In contrast to the situation for women, the country ranking of life course risks for men is derived mainly from the level of labor market risk and the level of welfare state protection against labor market risk; male life course risks from union dissolution are relatively (compared with women) low, though certainly not zero (DiPrete and McManus 2000; McManus and DiPrete 2001).

If one examines all sources of risk for movement into poverty (at least for families with children), the U.S. clearly has the lead, though Germany is closer in this respect to the U.S. than it is to Sweden. But it is arguably the difficulty in escaping poverty rather than the risk of entering it that most distinguishes the U.S. from either of the other two countries. If one were to add a consideration of incarceration, the overall American disadvantage becomes even greater. It seems likely that most of those who are incarcerated would be classified as poor by the 50%-of-median criterion. As Western and Beckett (1999) note, 36% of the incarcerated were unemployed before their incarceration in 1995, and 65% of all prisoners in 1991 had not completed high school. Incarceration would therefore seem to have its greater impact in retarding life course rates of escape of poverty rather than on life course rates of downward mobility. In any case, the inclusion of incarceration in the picture only enhances the disparity between the U.S. and either Germany or Sweden in the rates of movement out of poverty.

The implications of these findings for the characterization of mobility regimes is rather clear. A country's mobility regime for adult life-course mobility must be defined in broader terms than the structure of occupational career trajectories. It must include labor market mechanisms that enhance or constrain occupational mobility, wage distributions, the factors that determine employment instability, labor market and welfare state mechanisms that influence the length and outcome of unemployment spells, the institutional complex that constrains the rate of union formation and dissolution, and institutions that influence the socioeconomic consequences of union dissolution, including social welfare benefits, enforcement of child support from ex-partners, and the provision of child care so that single parents can more easily work.

Earlier in this section, I characterized the life course mobility regimes of these three countries in terms of the rates and consequences of events. The implications of this contrast can also be stated in institutional terms. It could be argued that the Swedish welfare state actually goes the furthest of the three societies in restricting downward mobility over the life course and thus preserving the conceptual utility of "permanent income" within the relatively narrow (though widening) boundaries of the Swedish income distribution. The German situation is characterized by paradox, in that the perhaps surprisingly high levels of life course mobility in class position may be a side product of institutional arrangements intended to provide stability to the life course. Highly structured linkages between education and occupation provide stability in stable times, but may contribute to longer-duration unemployment in an era of persistent economic turbulence. Similarly, the "pro-family" policies of the German state doubtless reduce the rate of union dissolution. However, these policies do not reduce the impact of

class mobility connected with union dissolution, because the lower rates of dissolution are offset by the greater negative consequences, given a dissolution. The U.S. arrangements can all be subsumed under the usual characterizations of the U.S. as a flexible, relatively unregulated society which lacks a welfare system that fully socializes risk. The usual characterization of the U.S. as a high mobility society is deficient, however, in one major respect. Relative to the situation in Germany or Sweden, life course mobility from the lowest standard of living category is quite difficult for a substantial share of the households who occupy this status at any one point in time.<sup>33</sup>

These characterizations are tentative, however, because, despite the very large literature, our comparative knowledge is still tentative. I have had to make a number of assumptions in order to produce the synthetic characterization of life course mobility that was presented earlier. While these assumptions are certainly defensible, it would be desirable to replace them with facts. At present, we do not have good comparative societal level estimates of downward mobility, or of the structure of counter-mobility. Related to this question is the issue of how the mobility comparison between these countries varies by class. Given limitations in the available research literature, I have had to rely on relatively crude proxies for class (e.g., conditioning poverty entry on being above 60% of the median income, or conditioning the probability of job displacement on having obtained a certain number of years of tenure with the employer). But clearly the mobility events that I have discussed in this paper vary by class, and country comparisons probably also vary by class. Mobility tables by their very nature allow the computation of comparative mobility rates by class of origin. A goal of comparative research should be to obtain class-specific direct estimates of the other important mobility rates discussed in this paper. The fact that data limitations have forced me in some cases to restrict attention to men (e.g., in the three-country comparison of occupational mobility, or the presentation of analyses of job displacement in Germany) calls attention to the continuing need for better comparative data on women's mobility.<sup>34</sup>

While the scope of this paper in terms of mobility events is broad, the scope could in principle be extended even further. While intragenerational occupational mobility tables clearly reveal one aspect of upward mobility, while the results on household income mobility certainly include upward as well as downward mobility, and while transitions out of poverty are an important aspect of upward mobility, there clearly are other aspects of upward mobility (e.g., via self-employment earnings or capital gains) that are not developed in this paper. It is also important to address the extent to which welfare state mechanisms suppress the socioeconomic consequences of positive events through tax mechanisms or through a reduction in social welfare benefits. For the three countries examined in this paper, it is highly probable that effective suppression of the consequences of negative events correlates with the mitigation of the socioeconomic consequences of positive events, though the extent of mitigation would no doubt depend upon the particular event in question (e.g., earnings gains from job change might be treated differently from income gains via marriage).<sup>35</sup> These issues certainly deserve further research and theoretical development in a comparative context.

Finally, the possibility of historical trends must be considered. Some of the data reported in this paper are a decade or more old. Given the substantial changes in labor markets in all three countries, and given the reality of welfare reform in the U.S., it would be highly desirable to have directly comparable recent results for all three

countries. It may be that the recent changes within each the countries are minor compared to the differences between countries. It is certainly the case that our theoretical characterizations of these countries tend to change only slowly. But the presumption of stability in cross-national differences is best treated as a working hypothesis rather than a statement about objective conditions. Sound and comprehensive empirical research is required to put our characterization of mobility regimes, and our assumptions about the stability of these regimes, to an adequate test.

## Notes

<sup>1</sup> there was also the important question of *where* the differences should be found – the “phenotypical” total mobility rates, or in the “genotypical” relative mobility chances.

<sup>2</sup> Individual-level class measures are sometimes also justified as reliable measures of household status by reference to the literature on assortative mating, which shows a strong association between class of origin, education, or occupation for the two partners (Kalmijn 1998). However, the association is not perfect, and it may be stronger on cultural than on economic dimensions of occupation (e.g. Kalmijn 1994).

<sup>3</sup> In calling attention to life course risk in the downward direction, I do not deny the existing of upward life course risk as a significant factor in defining a mobility regime. Instead, I am assuming that upward risk is satisfactorily measured via the standard career trajectory approaches common to class analysis in the literature. This assumption is certainly not beyond challenge (for example, significant increases in wealth can occur through mechanisms such as stock market investing or through economic gains via self-employment earnings that have little to do with occupational mobility). This issue is also tied up with the question of intragenerational wealth mobility. While the subject of wealth mobility has been the source of theoretical work in economics for many years, and while empirical studies on the subject are growing in number, the still-limited comparative empirical studies leave this issue outside the scope of the present paper. See Davies and Shorrocks (2000) for a recent review of the available literature.

<sup>4</sup> Income mobility is clearly more volatile than is occupational mobility. As Gittleman and Joyce (1999) noted, the correlation between log household equivalent income in the U.S. even across adjacent years is only around 0.75, which means that the variance among households who in year  $t-1$  have identical equivalent incomes is actually 50% as high as is the variance across the entire population. The volatility of income can also be seen in mobility tables. Gittleman and Joyce report that  $\frac{1}{2}$  the individuals in the 2nd, 3rd, and 4th quintiles, and  $\frac{1}{4}$  of those in the top and bottom quintiles were in a different quintile in the following year, based on the measure of equivalent household income

<sup>5</sup> The Duncan SEI actually used the proportion of occupational incumbents who had more than a certain level of education and a certain level of income.

<sup>6</sup> It is important to note that much of this literature in fact recognizes that no single threshold is defensible if alternative thresholds (e.g., 40% of the median income) give qualitatively different results, which is why many studies include sensitivity analyses based on different reasonable thresholds.

<sup>7</sup> To avoid excessive repetition, I often refer to western Germany as “Germany” in the text. It should be noted, however, that the statistics in question apply to West Germany before reunification, and to the old states of West Germany after reunification.

<sup>8</sup> DiPrete et al. (1997) used PSID data for the U.S. in the 1980s, SOEP data from Germany for the 1980s, and Level of Living Survey data for Sweden in the 1980s.

<sup>9</sup> The major differences are: (1) whether they have analyzed individual or household income, (2) whether or not they have adjusted income for taxes and transfers, (3) whether they have adjusted for household size, (4) the time frame that they study, and (5) the



Notes, continued

method used to analyze the data, and in particular, whether income changes are measured in some absolute sense, or whether they are relative to the society's income distribution.

<sup>10</sup> More formally, let  $y_{it}$  be the income of person (or household) 'i' at time t. Let

$y_i = \frac{1}{T} \sum_{t=1}^T y_{it}$  be the average income over the T time periods. Let  $m_t$  be the mean income

at time t, and let  $m$  be the mean of the average incomes across the individuals. Let

$I(y_{it})$  be the inequality of income at time t, where I could be the Gini coefficient, the

Theil index, or some other measure of inequality, and let  $I(y)$  be the inequality of the

average incomes over the time period T. Then if we form the ratio

$$M = 1 - \frac{I(y)}{\sum_{t=1}^T \frac{m_t}{m} I(y_t)}$$

mobility perfectly equalized the cross-sectional inequality so that inequality in average income over the period T is zero.

<sup>11</sup> Fabig (2000) computed per person equivalent household income by dividing household income by the sum of the equivalence weights of all household members (using the OECD equivalence scale). He then created seven income brackets: unemployment, adjusted income below 50% of the population mean, 50-75% of the mean, 75-100% of the mean, 100-125% of the mean, 125-150% of the mean, and greater than 150% of the mean, and compared countries using the Bartholomew Index (Bartholomew 1973) of the amount of mobility off the main diagonal for persons age 18-59 in the 1990-1995 period. Fabig, like Burkhauser and Poupore, found that mobility of gross equivalent income is higher in West Germany than in the U.S., while mobility of net equivalent income is lower in West Germany than in the U.S. Fritzell (1990) compared the U.S. using 1971-1978 PSID data with Sweden using data from the 1974/1981 Level of Living Surveys. His measure was household equivalent income using weights from the U.S. Poverty Scale, and mobility was measured using income quintiles. He found that relative income by this measure was similar in the two countries.

<sup>12</sup> Their data for Sweden are from the Level of Living Surveys. All the income information that they use come from tax-based registers. Their data for the United States come from the Panel Study of Income Dynamics. Their sample includes individuals born between 1927 and 1951.

<sup>13</sup> Both the Gini coefficient and the Theil index are most sensitive to the middle part of the income distribution, and thus are relatively comparable (Kuga 1979).

<sup>14</sup> Burkhauser and Poupore's sample consists of all households with positive income in the PSID and in the German Socioeconomic Panel (SOEP) in all years 1983 through 1988. Household size is adjusted using the U.S. Poverty weights. Burkhauser and Poupore report a slightly different version of Shorrocks' index. They report 1-M instead of M. I have adjusted their results to present their value of M in table 2.

<sup>15</sup> The incidence rates reported in Casper, McLanahan and Garfinkel (1994) define single parent status in terms of marriage for the U.S. and Germany, and in terms of marriage or cohabitation for the case of Sweden. They report cross-sectional rates of single parenthood status of .041 in West Germany (1984), .072 in Sweden (1987), and .141 in the U.S. (1985).

Notes, continued

<sup>16</sup> Note that this adjustment in effect gives much greater weight to “durable” cohabitations than to short-lived cohabitations. In societies such as Sweden, where virtually all unions begin as consensual unions, the survival curve for all unions becomes that same as the survival curve for cohabitations (Andersson and Philipov 2001). For example, Andersson and Philipov show that only 54% of all unions (including those begun as cohabitations) are still together 15 years after the start of the union.

<sup>17</sup> The median time to divorce in the U.S. was 7.2 years for married couples, which implies a somewhat longer median time to dissolution if the period of cohabitation was added into the duration calculation.

<sup>18</sup> Another important route to becoming a single mother in the U.S. is through a nonmarital/nonconsensual union birth. Bumpass and Raley (1995) estimated that 39% of all entries to single parent status in the U.S. were via non-union births in the 1980-1984 period. This route is probably less common in Germany or Sweden.

<sup>19</sup> DiPrete and McManus (2000) found evidence of a delayed work response by German women. The Duncan et al. (1993) results concern one year transitions. In contrast, the DiPrete and McManus (2000) results are for two year transitions. They also find greater vulnerability for German women than for American women, but the differences are not as large as the one-year results from Duncan et al. (1993).

<sup>20</sup> Statistics that might appear to conflict with the results in table 5 can be found in Jäntti and Danziger (2000), who report that poverty rates for female-headed households in Sweden were 15.4% vs. 16.9% in Germany and 42.8% in the U.S. (using LIS data for 1992 in Sweden, 1989 in Germany, and along with the 50%-of-median poverty threshold, and OECD household weights). However, these calculations include all female headed households, including those without children. Many such households consist of elderly women. As Jäntti and Danziger also show (table 6), poverty rates for those 65 and older in Sweden (at 8.6%) are much higher than German rates (4.2%); they are even higher than the rates for the U.S. (8.4%).

<sup>21</sup> Hipple (1999, table 3) found a two year displacement rate of 5.5% for those with fewer than 3 years of job tenure. For higher tenured groups, the two-year displacement rate was: 3.7% (for 3-4 years of tenure), 3.3% (for 5-9 years of tenure), 2.4% (for 10-14 years of tenure), and 2.5% (for 15-19 years of tenure).

<sup>22</sup> Bender et al. (1999, table 4) report that, of male workers aged 25-50 in 1984 who had worked for the same establishment for at least 4 years by 1984, and who had fewer than six years of seniority in 1984, 5246 were continuously employed from 1984-1990, 689 were displaced, and 3596 separated for other reasons. For workers with more than 10 years of seniority in 1984, 14304 were continuously employed, 863 were displaced, and 3136 separated for other reasons.

<sup>23</sup> These statistics are right censored, but the right censoring problem is reduced by the fact that the survey date is 14 months after the end of the reference window.

<sup>24</sup> Burda and Mertens (2000), analyzed the earnings consequences of displacement in Germany using data on full-time workers in western Germany who were not civil servants, who were not previously self-employed, who did not work for non-profit organizations, and who had not just completed an apprenticeship. Like Bender et al. (1999), their analysis of data from the SOEP and the IAB social security file also found relatively modest earnings declines because of displacement.

Notes, continued

<sup>25</sup> Especially in the German case, these long unemployment spells following displacement sometimes end in retirement once the unemployed worker qualifies for pension payments.

<sup>26</sup> A comparison of Sweden, Germany, and the U.S. that uses data primarily from the 1980s (DiPrete et al. 1997) for men aged 18-64 shows that Sweden had lower exit rates from employment than the U.S. for all categories except professional and managerial jobs (EGP class I), and that Sweden's rates were lower than Germany's in all categories. Employment exit rates in the U.S. and Germany were very similar, being higher for two class categories in Germany, and being higher for three class categories in the U.S.

<sup>27</sup> This quantity equals table 5, row 4 multiplied by table 4, row 4b

<sup>28</sup> In contrast, only 15% of American employees in small private establishments, and 36% in medium or large establishments receive some form of severance pay (U.S. BLS 2001).

<sup>29</sup> However, there appears to be a rising trend in the proportion of German unemployed workers who receive only the less generous Arbeitslosenhilfe instead of the more generous Arbeitslosengeld, so the risks of poverty for displaced workers in Germany may be higher than is commonly believed (Bleses and Seeleib-Kaiser 1999).

<sup>30</sup> According to tabulations performed by the Economic Policy Institute using 1997 data from the CPS, families (excluding one-person families) in the 4th highest quintile worked an average of 3974 hours per year, which is the equivalent of two full-time, full-year workers (Economic Policy Institute, 2001). In 1996, three-quarters of American households had more than one person (U.S. Census 2001). If, drawing from the Economic Policy Institute analysis, we assume that 40% of families with more than one person have two full-time/full-year workers, we arrive at a figure of 30% of all households having two full-time/full-year workers.

<sup>31</sup> I assume that the probability of two workers in a household being displaced at the same time is close to zero.

<sup>32</sup> Direct evidence on this point comes from Fabig (2000). He compares workers who were at least 18 in 1990 and at most 59 in 1995, who earned more than 100DM/\$33.33 per month, and who were either full or part-time employed or unemployed at the beginning of the observation period. Comparing 1991 and 1992 one-year mobility in gross individual labor income for west Germans and Americans using SOEP and PSID data, he finds much lower mobility out of unemployment for Germans, but clearly lower escape rates from low income by American workers than by west German workers. For example, 79.6% of low income American workers in 1989 are still in the state of low income or unemployment by 1990. In contrast, only 67.6% of German low income workers are still in a low income state the following year. Presumably, some of this difference comes from young German workers who are finishing their apprenticeships and moving into journeymen positions, but this is still genuine income mobility.

<sup>33</sup> Sweden clearly appears to have an advantaged position from the analyses reported in this paper. This conclusion should be balanced against recent critiques, mostly from economics, which argue that generous Swedish welfare policies involve a trade-off against economic growth and job creation (e.g., Lindbeck et al. 1994). Further consideration of this issue, however, is beyond the scope of the present paper.

Notes, continued

<sup>34</sup> Similarly, the comparative analyses of the socioeconomic consequences of union dissolution were limited to women, even though the socioeconomic consequences for men are also of interest.

<sup>35</sup> See DiPrete and McManus (2000) for evidence on these issues in connection with the German and American cases.

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Table 1: Outflow Percentages from First Occupation to Current Occupation for Men in Germany, the U.S., and Sweden.

		Upper Nonmanual	Lower Nonmanual	Upper Manual	Lower Manual
Upper nonmanual	Germany <sup>a</sup>	90.9	7.3	1.0	0.9
	Sweden <sup>b</sup>	86	12	2.0	0.0
	U.S. <sup>c</sup>	79.9	7.6	5.7	6.0
Lower Nonmanual	Germany	21.1	71.8	1.8	5.3
	Sweden	39	44	8	8
	U.S.	36.7	25.9	15.3	21.2
Upper Manual	Germany	11.8	12.8	63.3	12.0
	Sweden	15	23	49	12
	U.S.	13.2	10.5	25.5	48.7
Lower Manual	Germany	7.6	10.6	22.5	56.8
	Sweden	21	20	27	31
	U.S.	13.2	10.5	25.5	48.7

<sup>a</sup> From Kappelhoff and Teckenberg (1987), table 6a. Data are for men, and come from ZUMA-BUS 1982, ALLBUS 1984, and the Wage-Earner Survey 1980-81.

<sup>b</sup> Data are for currently employed men, as computed by Michael Tåhlin (personal communication). The data come from the 1991 Level of Living Survey. Tåhlin's analysis used EGP categories. I converted these to upper and lower nonmanual and manual groupings to achieve comparability with the German and American results.

<sup>c</sup> Data are for men and come from Featherman and Hauser (1978), Appendix E.

Table 2: A Comparison of Earnings and Income Mobility in Sweden, Germany, and the U.S.

Earnings, Unadjusted for Household Size			
	Sweden 1986-1990		U.S. 1986-1990
Gini (long-term)	0.250		0.356
Gini (yearly)	0.262		0.375
Relative Mobility	0.045		0.051
Absolute Difference	0.012		0.019
Market Income, Unadjusted for Household Size			
	Sweden 1986-1990		U.S. 1986-1990
Gini (long-term)	0.211		0.383
Gini (yearly)	0.229		0.408
Relative Mobility	0.078		0.062
Absolute Difference	0.018		0.025
Disposable Income, Unadjusted for Household Size			
	Sweden 1986-1990		U.S. 1986-1990
Gini (long-term)	0.183		0.310
Gini (yearly)	0.202		0.330
Relative Mobility	0.094		0.060
Absolute Difference	0.019		0.020
Market Income, Adjusted for Household Size			
		Germany 1983-1988	U.S. 1983-1988
Theil (long-term)		0.161	0.281
Theil (yearly)		0.210	0.326
Relative Mobility		0.235	0.138
Absolute Difference		0.049	0.045
Disposable Income, Adjusted for Household Size			
		Germany 1983-1988	U.S. 1983-1988
Theil (long-term)		0.094	0.233
Theil (yearly)		0.124	0.271
Relative Mobility		0.241	0.139
Absolute Mobility		0.030	0.038

Table 3: Union Dissolution and the Risks of Entering Poverty in Sweden, Germany, and the U.S.

	Sweden	Germany	U.S.
1. Divorce Rate per 1000 married women <sup>a</sup>	.012	.008	.021
2. Proportion of all unions that are consensual unions <sup>b</sup>	.199	.047	.066
3. Adjusted dissolution rate	.019	.0098	.025
4. Simulated probability of dissolution within 15 years.	.29	.17	.37
5. Yearly rate of movement into poverty <sup>c</sup>	.007	.031	.043
6. Proportion of families that fall into poverty who simultaneously experience a divorce or separation <sup>d</sup>	.15	.16	.08
7. Probability of entry into poverty, given separation/divorce and children in the household.	.088	.62	.17
8. Stylized probability of poverty entry within 15 years of union formation and a birth.	.025	.11	.063

<sup>a</sup> From Prinz (1995) and McLanahan and Casper (1995).

<sup>b</sup> From Prinz (1995).

<sup>c</sup> From Duncan et al. (1993), table 5. Data are from the Swedish Household Income Survey (1980-88), the SOEP for western Germany (1983-86), and the PSID for the U.S. (1980-86). Poverty is defined as 50% of the country's median. Household income is computed after taxes and transfers and is adjusted for household size using weights of 1.0, 0.7, and 0.5. Base is all families at  $\geq 60\%$  of median in the base year.

<sup>d</sup> From Duncan et al. (1993), table 6. Proportion of families with size adjusted family income  $\geq 60\%$  of median in  $t$  and  $< 50\%$  of the median in  $t+1$  who also experienced a separation or divorce.

Table 4. Lone Parenthood, and the Risks of Escaping from Poverty

	Sweden	Germany	U.S.
1. Employment rates for lone mothers who are heads of households <sup>a</sup>	.962	.651	.786
2. Percent of employed lone mothers who are employed full time. <sup>b</sup>	.935	.574	.597
3a. Household poverty rates with a full-time/full-year worker, based on adjusted market income <sup>c</sup>	.044	.014	.065
3b. Household poverty rates with a full-time/full-year worker, based on adjusted net income after taxes and transfers. <sup>c</sup>	.018	.014	.062
4a. Household poverty rates with only part-time/part-year worker – market income. <sup>c</sup>	.342	.428	.437
4b. Household poverty rates with only part-time/part-year worker – net income. <sup>c</sup>	.136	.239	.354
5a. Three year decline in net household income. <sup>d</sup>	N/A	-44%	-32%
5b. Five year decline in net household income. <sup>d</sup>	N/A	-36%	-30%
5c. Increase in own labor earnings. <sup>e</sup>	N/A	69%	10%
5d. Repartnering rate within five years. <sup>f</sup>	N/A	52%	47%
6. Proportion of lone-parent spells lasting less than three years. <sup>g</sup>	.946	.376	N/A

<sup>a</sup> From Ruspini (1998), table 3 for Sweden and Germany. Data for the U.S. are from U.S. Census Bureau (Grall 2000, figure 1).

<sup>b</sup> From Ruspini (1998), table 4, for Sweden and Germany. Data for the U.S. are from the Dept. of Commerce News 10/13/2000.

<sup>c</sup> From Smeeding and Ross (1999), table 1. Data are for households headed by an adult age 25-64. Poverty is measured as less than 50% of median adjusted household disposable income. Incomes are adjusted for household size.

<sup>d</sup> From DiPrete and McManus (2000), table 6. Regression estimates, net of other factors.

<sup>e</sup> From DiPrete and McManus (2000), table 7. Regression estimates, net of other factors.

<sup>f</sup> From DiPrete and McManus (2000), table 5.

<sup>g</sup> From Ruspini (1998), table 12.

Table 5. Selected Poverty rates

	Sweden	Germany	U.S.
1. Overall proportion of the population who are poor <sup>a</sup>	.067	.056	.177
2. Proportion of single mother households who are poor <sup>b</sup>	.049	.289	.56
2. Proportion of lone mothers who are poor <sup>c</sup>	.058	.28	N/A
3. Proportion of households with children who are poor. <sup>d</sup>	.027	.078	.20
4. Proportion of poor households with children that are lone mother households. <sup>e</sup>	.25	.31	.51
5. Proportion of households with single parent status <sup>f</sup>	.13	.14	.23
6. Probability of being poor, given a single parent.	.065	.22	.56

<sup>a</sup> Household equivalent income less than 50% of median, using OECD household weights, for all households (Jäntti and Danziger 2000, table 2) from the LIS for Sweden in 1992, Germany in 1989, and the U.S. in 1991.

<sup>b</sup> From Sørensen (1994b), table 1.

<sup>c</sup> From Ruspini (1998), table 7. Data are from the HUS for Sweden (1984-93) and the SOEP for western Germany (1991-95). Poverty is less than 50% of the median household income after taxes and transfers, and adjusted for household size using OECD weights. Cohabiting children are no older than 16 in Germany and 18 in Sweden.

<sup>d</sup> From Duncan et al. (1993), table 1.

<sup>e</sup> From Duncan et al. (1993), table 2.

<sup>f</sup> From McLanahan and Casper (1995, table 1.3) for 1988 and including only the former West Germany.



Table 6. Stylized Rates and Consequences of Worker Displacement over a 15 Year Period.

	Sweden	Germany	U.S.
1. Probability of displacement in a 15 year period. <sup>a</sup>	(.22)	.22	.23
2. Probability of displacement in 15 years, given at least three (four) years of tenure at the starting point.		.21	.20
3. Proportion of long-tenured displaced workers aged 25-54 who found work within 5 weeks of displacement. <sup>b</sup>		.40	.39
4. Probability of displacement plus some unemployment.	(.14)	.14	.14
5. Probability of one year or more of unemployment, given displacement. <sup>c</sup>	(.11)	.37	.11
6. Probability of displacement, plus at least one year of unemployment.	(.04)	.083	.040
7. Probability of displacement, plus earnings at least 20% lower on the new job than on the old job.		.041	.058
8. Probability of displacement plus entry into poverty. <sup>d</sup>	0-.019	0-.033	?-.050
9. Stylized estimates of the proportion of households with only 1 full-time/full-year earner.	(70%)	(90%)	(70%)
10. Probability of a household experiencing job displacement plus entry into poverty. <sup>d</sup>	0-.013	0-.030	?-.035

<sup>a</sup> U.S. estimates computed from Hipple (1999), table 3. German estimates are from Bender et al. (1999), table 4. The U.S. sample consists of workers who reported displacement in the 1998 Displaced Worker Survey. The German sample, which is taken from the employment sample (Beschäftigungsstichprobe) of the Institut für Arbeitsmarkt und Berufsforschung (IAB), consists of male workers 25-50 years of age in 1984 who had at least 4 years of tenure in 1984. Bender et al. report the total displacements during the next 6 years, the number continuously employed, and the number who separated for other reasons. I treated the other separations as censored observations, and gave this group ½ the weight of the continuously employed. The six year survival rate was then converted to a 15 year survival rate. Displacement rates for seniority years 1-4 was assumed to be 50% higher than in years 4-6.

<sup>b</sup> Bender et al. (1999), p. 35.

<sup>c</sup> U.S. estimate from Hipple (1999), tables 5 and 14.

<sup>d</sup> The poverty probability would be zero if severance pay kept the household above the 50% threshold. It would be at the right boundary of the given range if households with displaced workers had the same probability as a typical family with no full-time/full-year worker (Smeeding and Ross 1999).

Table 7. Poverty Dynamics in Sweden, Germany, and the U.S.  
 Statistics taken from Duncan et al. 1993

	Sweden	Germany	U.S.
3. Percent of non-poor becoming poor between t and t+1 <sup>a</sup>	0.7	3.1	4.3
4. Percent of spells still in progress after: <sup>b</sup>			
5a. 1 year	N/A	67	62 (59) <sup>c</sup>
5b. 2 years	N/A	42	46 (17)
5c. 3 years	N/A	22	37 (7.8)

<sup>a</sup> Percent of those with incomes  $\geq 60\%$  of median in year t becoming poor in year t+1. From Duncan et al. (1993), table 5.

<sup>b</sup> From Duncan et al., table 3, based on poverty defined as 50% of the median income.

<sup>c</sup> Numbers in parentheses are the durations in “absolute” poverty, as defined by the U.S. Dept. of Agriculture poverty line, from Gottschalk, McLanahan and Sandefur (1994), figure 4.1.