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Work Disability among Women: The Role of Divorce in a Retrospective Cohort Study

Christopher R. Tamborini[1], Gayle L. Reznik[1], and Kenneth A. Couch[2]

Abstract

We assess how divorce through midlife affects the subsequent probability of work-limiting health among U.S. women. Using retrospective marital and work disability histories from the Survey of Income and Program Participation matched to Social Security earnings records, we identify women whose first marriage dissolved between 1975 and 1984 (n = 1,214) and women who remain continuously married (n = 3,394). Probit and propensity score matching models examine the cumulative probability of a work disability over a 20-year follow-up period. We find that divorce is associated with a significantly higher cumulative probability of a work disability, controlling for a range of factors. This association is strongest among divorced women who do not remarry. No consistent relationships are observed among divorced women who remarry and remained married. We find that economic hardship, work history, and selection into divorce influence, but do not substantially alter, the lasting impact of divorce on work-limiting health.

Keywords

divorce, life course, United States, women, work disability

Health conditions that limit or prevent individuals from working constitute an important policy and research concern. Such conditions affect between 8% and 12% of the working-age population in the United States (Burkhauser, Houtenville, and Tennant 2013). The adverse consequences of a work disability include reductions in individual well-being, employment, productivity, earnings, wealth, and retirement savings (Brucker et al. 2015; Livermore, Stapleton, and O'Toole 2011; Parish, Rose, and Andrews 2009). Health limitations are also recognized as contributing to participation in national disability and public assistance programs, and adding to aggregate health costs (Houtenville, Brucker, and Lauer 2014; Rupp and Davies 2004).

Multiple individual and environmental factors are associated with work-limiting disability (World Health Organization 2001). Contemporary theories in the marriage health literature implicate divorce as a potential driver of poor health and thus disability. A large literature has found worse health among divorced relative to married women across outcomes, including self-rated health, mental health, mobility limitations, morbidity, and mortality (Hughes and Waite 2009; Liu and Umberson 2008; Rendall et al. 2011; Simon 2002). Explanations for these disparities include protective effects of marriage, stress related to

[1]Social Security Administration, Washington, DC, USA
[2]University of Connecticut, Storrs, CT, USA

Corresponding Author:
Christopher R. Tamborini, Office of Retirement Policy, Social Security Administration, 500 E. St. SW, Washington, DC 20254, USA.
E-mail: chris.tamborini@ssa.gov

divorce, social selection, or a combination of these factors (Wood, Goesling, and Avellar 2007).

Despite clear associations between divorce and health, very little is known about how divorce may affect work disability among women. Several informative studies have documented higher levels of mobility limitations among older divorced women (Hughes and Waite 2009; Liu and Zhang 2013; Pienta, Hayward, and Jenkins 2000), but these studies do not focus on work disability or the sequencing of marital transitions and disability onset. Existing longitudinal studies on divorce and later work disability are from Norwegian data (Blekesaune and Barrett 2005; Eriksen, Natvig, and Bruusgaard 1999) with time frames perhaps too short for health limits on work to present.

Drawing from social causation and selection models in the marriage health literature, the main question we consider in this study is how divorce affects the probability of a work disability later in life among U.S. women. Using data from the nationally representative Survey of Income and Program Participation (SIPP) matched to longitudinal earnings records from the Social Security Administration (SSA), we examine the cumulative prevalence of work disability over a 20-year follow-up period in a retrospective cohort of women who experienced a marital dissolution between 1975 and 1984, relative to the continuously married. The analysis also investigates whether the relationship is moderated by subsequent marital transitions (i.e., remarriage) and mediated by socioeconomic factors. Further, to consider social selection, we examine the influence of women who report that their work disability began prior to the marital dissolution on our estimates and conduct propensity score matching (PSM) models to control for selection on observable characteristics.

We only focus on women due to potentially differential experiences between women and men in terms of selection into divorce, the impact of divorce on health, and mediating mechanisms (Hughes and Waite 2009; Lillard and Waite 1995; Teachman 2010; Umberson 1992; Zhang and Hayward 2006). For example, women often experience greater declines in financial well-being following divorce than men and may be more susceptible to the strains of single parenthood (Wickrama et al. 2006). Work-limiting health, moreover, has increasing consequence for women, given their rapid gains in the workplace, increasing contributions to family income, and the growing heterogeneity in family patterns (Amato 2010).

This study extends the literature on the long-term effects of marital status change on later-life health (Hughes and Waite 2009; Kuh and Ben-Shlomo 2004), providing a uniquely long follow-up period relative to dated events. The focus on work-limitation measures of disability broadens our understanding of ways in which divorce may influence women's health beyond more commonly examined domains. In addition, this study points toward one way that retrospective reports can be utilized to examine the sequencing of changes in marital status and health along the life course (Haas 2007). Assessing how several variables, including remarriage, influence the link between divorce and work disability, while also considering selection into divorce, furthers understanding of some of the mechanisms associated with the outcomes.

BACKGROUND

Conceptualizing Work Disability and Divorce

Work-limitation measures of disability (referred to as work disability hereafter) describe a physical, mental, or other health condition that limits or prevents an individual's work. Conceptually, persons with a work disability represent a subset of the larger population with health problems. Work-limiting conditions often develop slowly over the life course, increase with age, and likely capture more severe pathologies than self-reports of health (Burkhauser et al. 2013).

A complication of work disability as an indicator of poor health is that it reflects the interaction of a health condition with the social and physical environment. Social factors, such as the presence of a spouse, education, and financial resources, may influence a person's ability to work. The physical environment, including workplace accommodation, also plays a role.

Some have been concerned that self-reported work disability suffers from justification bias as nonworking individuals may be more likely to view a health condition or injury as limiting work (Bound 1991; Kapteyn, Smith, and van Soest 2011; Webber and Bjelland 2015). Considerable research has examined the relationships between self-reported work disabilities and outcomes such as medical claims, self-assessed health, and receipt and application for Social Security Disability Insurance benefits (Benítez-Silva et al. 1999, 2004; Dwyer and Mitchell 1999; Kapteyn, Smith, and van Soest 2008; Wittenburg and Nelson 2006). Much of this research has shown that self-reported work disabilities reasonably measure underlying health problems and correspond to medical examinations via disability benefits.

Work disability is an important outcome in studying the divorce–health relationship among women for several reasons. First, work-limiting health may generate a double disadvantage for divorced women. Just as divorce often results in substantial income losses for women (Smock, Manning, and Gupta 1999), having a work disability can create material deprivation (Meyer and Mok 2014; She and Livermore 2007) and reduce retirement income (Zajacova, Montez, and Herd 2014).

The importance of work disability is also highlighted by the existence of major social insurance programs, such as the Social Security Disability Insurance and Supplemental Security Income disability programs (Burkhauser and Daly 2012; Reno and Eckman 2012). Given the increase in divorce rates beginning in the 1970s, if there are associated increases in health conditions that limit work, this might imply that altered family structures could drive greater use of these programs.

Numerous studies show that divorced women suffer from poorer health than married women in terms of self-rated health (Liu 2012; Liu and Umberson 2008), mental stress (Simon 2002; Wade and Pevalin 2004); specific conditions, such as heart disease (Molloy et al. 2009; Zhang and Hayward 2006); and morbidity and mortality (Dupre, Beck, and Meadows 2009; Lillard and Waite 1995). However, little research focuses on work disability. What little evidence exists has centered on different cross-sectional measures of disability among older populations. Liu and Zhang (2013) document higher levels of activity limitations among divorced U.S. women ages 60 and older (see also Pienta et al. 2000). Hughes and Waite (2009) assess multiple health outcomes by marital biography, finding a positive association between time divorced and mobility limitations among older women. A few longitudinal studies, limited to short time frames and Norwegian samples, have addressed whether divorce affects work disability risks. Eriksen et al. (1999) found a positive relationship between marital disruption and work disability over a four-year period, adjusting for initial health and various confounders. Blekesaune and Barrett (2005) found a rise in sick leave among older women around the time of separation but mixed results for measures of persistent health problems that limit work.

Theoretical Perspectives on the Divorce–Work Disability Relationship

The Health Benefits of Marriage. Divorce may affect a woman's probability of experiencing a work disability later in life through several pathways. In resource models, marriage is viewed as providing various health-enhancing resources. Financial resources associated with marriage are particularly beneficial (Halpern-Manners et al. 2015; Lillard and Waite 1995), and conversely, financial hardship typically follows a divorce (Burstein 2007; Smock et al. 1999; Wickrama et al. 2006). Financial resources, in turn, are associated with health (Kahn and Pearlin 2006; Subramanyam et al. 2009), including the odds of reporting a work disability (Rank and Hirschl 2014) and women's longevity (Lillard and Waite 1995). In addition, divorce can lead to the loss of health insurance (Lavelle and Smock 2012), particularly among lower-educated mothers (Peters, Simon, and Taber 2014). Over time, the loss of financial resources following divorce may lead to an increased risk of work disability among women.

Marital partnerships may also improve health by conferring social-psychological resources. A spouse may provide emotional support and caregiving during sickness, buffer stress, and strengthen social integration (Idler, Boulifard, and Contrada 2012). Married persons may benefit from spousal monitoring of health behaviors (Umberson 1992). The loss of these resources following divorce is assumed to be detrimental to women's health, thereby increasing work disability risks.

The Stress of Divorce. Strain-stress models suggest a second link between divorce and work disability. Divorce can be a stressful event that generates social-psychological strains that harm health (Waite, Luo, and Lewin 2009; Williams and Umberson 2004). An unresolved issue is whether the stress associated with divorce has short-term health consequences that dissipate (Blekesaune 2008) or whether it leads to strains that cumulate into severe health problems over the long run (Waite et al. 2009). Consistent with the latter view, Lorenz et al. (2006) find that psychological distress shortly after marital disruption was followed by significant increases in depressive symptoms and illness a decade later (see also Johnson and Wu 2002).

Social Selection Effects. A social selection model suggests that health differentials by marital status are driven, at least partially, by the selection of healthier individuals into marriage and away from divorce (Goldman 1993; Wade and Pevalin 2004). A key question for this study is whether less healthy women have elevated divorce risks, which in turn results in an association between divorce and work disability. Two recent studies link disability with elevated divorce risks, but this relationship appears much

stronger for men with work-limiting health than for women (Singleton 2012; Teachman 2010). Karraker and Latham (2015), however, show elevated divorce risks among older couples following serious illness onset among wives (but not husbands). Other work indicates no relationship between spousal disability and divorce (Charles and Stephens 2004). We take several steps in this study to begin disentangling potential selection processes into divorce.

No Effect of Divorce. It is possible that divorce has no effect on women's work disability risks. Low-quality marriages can be a source of distress for women (Amato and Hohmann-Marriott 2007; Blekesaune 2008) and even increased cardiovascular risk (Liu and Waite 2014). Marriage is also associated with increased risk of weight gain (Umberson, Liu, and Powers 2009), and conversely, divorce is associated with lower weight (Teachman 2016). Research also has linked divorce transitions with improved subjective well-being and self-assessed health (Gardner and Oswald 2006; Williams and Umberson 2004).

Possible Moderating and Mediating Factors. Theory and empirical research motivate our expectation that divorce leads to an increased prevalence of work disability among women later in life. The main mechanisms underlying this relationship reflect the loss of marital resources combined with the strain of divorce. Selection may also play a role.

We expect, however, that the divorce–work disability relationship is influenced by several factors. Remarriage might moderate the negative health effects of divorce by reestablishing the protective effects of marriage, such as improved economic resources (Jansen, Mortelmans, and Snoeckx 2009), access to health insurance, and reduced stress. Likewise, the dissolution of a remarriage may reverse any health-enhancing effects of that remarriage. Available evidence regarding the health impact of remarriage is mixed (Carr and Springer 2010). A number of studies show positive associations between remarriage and health, as indicated by physical (Hughes and Waite 2009), mental (Barrett 2000), and general health (Williams and Umberson 2004). However, Blekesaune and Barrett (2005) find no substantial differences in the effects of divorce on work disability by remarriage.

The divorce–work disability relationship also may be mediated by numerous factors, including women's socioeconomic status. Education and income may be predictive of divorce (Martin 2006), but also a consequence of it (Smock et al. 1999). Higher education and income, in turn, are positively linked to health through various pathways, including the ability to cope with stressful life-altering events (Adler and Rehkopf 2008) and to adapt to the resource disadvantages following a divorce, thereby reducing its possible impact on disability risks.

Employment may be another mediator. Women's employment both influences the risk of marital dissolution and is a consequence of it (Couch et al. 2013; Özcan and Breen 2012; Tamborini, Couch, and Reznik 2015). Employment also can be beneficial for health, offering valuable personal and community ties (Pavalko, Gong, and Long 2007; Ross and Mirowsky 1995; Waldron, Hughes, and Brooks 1996). Employment also might influence measurement of work disability through justification bias. Thus, controlling for women's work histories is conceptually important.

DATA AND METHODS

Data

The data were drawn from a nationally representative household survey (the Census Bureau's 2004 panel of the SIPP) matched to longitudinal earnings records from SSA. Our sample was derived from Wave 2 of the SIPP, which contains retrospective marital, educational, and work disability histories in one-time modules.

The retrospective reports provide information on the beginning and ending dates (i.e., year) of marital transitions (up to three marriages) and of the onset of work-limiting health. A concern is that retrospective reports of health (Haas 2007) and marital history (Bumpass and Raley 2007) contain recall error. This concern is limited by the fact that we analyzed only the timing of onset among respondents concurrently reporting a work disability in the survey. In addition, retrospective reports appear to measure some past health events relatively well, such as childhood illnesses (Haas 2007; Krall et al. 1988), although differences in recall accuracy are exhibited across outcomes, such as heart disease and diabetes (Haapanen et al. 1997), stroke, and hypertension (Beckett et al. 2000). As noted, self-reported work disability captures health problems relatively well and is related to receipt of disability benefits (Benítez-Silva et al. 1999, 2004). In terms of union history, memory errors are of greater concern for cohabitation (Teitler, Reichman, and Koball 2006) rather than transitions involving legal contracts, such as divorce (Lillard and Waite 1989).

The matched earnings were taken from SSA's Summary Earnings Record (SER) and provided respondents' Social Security–covered earnings from 1974 through 2004. This information allowed us to control for women's work histories over the observation period. The success rate in matching SIPP respondents with their administrative earnings is high, at around 80% (McNabb et al. 2009). Although selection biases in matching these data are rather small (Davis and Mazumder 2011), we adjusted the survey weights for nonmatches by using the results of a logistic regression estimating a match as a function of characteristics (Groves and Couper 1998).

Retrospective Sample

The main sample contains married women ages 17 to 37 in 1974 (who are 47–67 in 2004) and in their first marriage. These women were at risk of divorce over a 10-year window spanning the years 1975 through 1984. Women who reported a separation (ending in divorce) during this 10-year window were classified as divorced.[1] We follow these women over 20 years from the year of separation, examining the evolution of initial onsets of health conditions responsible for a work disability reported in the SIPP. In addition, divorced women could remarry during their 20-year follow-up period. On this basis, we created three divorced groups: (1) continuously divorced, (2) remarried and experienced an additional marital dissolution, and (3) continuously remarried. Women who never experienced divorce, that is, those who were continuously married over the 10-year at-risk window and the entire 20-year follow-up period, become the comparison group.

Our target population excludes several types of women. To ensure a long-term perspective, women whose first marriage dissolved outside the at-risk window (1975–1984) were omitted. Women who became widows over their follow-up period were excluded given small sample sizes. We omitted never-married women to mitigate concerns about selection into marriage (Goldman 1993). In addition, our analysis excludes women with more than three marriages and women older than age 67 because retrospective information was not collected for them. Finally, we excluded women who reported having been work limited since childhood (prior to age 17).

The final sample consisted of 4,608 women (3,394 continuously married and 1,214 divorced). Among the divorced sample, there were 344 continuously divorced, 292 remarried with an additional marital dissolution, and 578 continuously remarried.

Measures

Dependent Variable. The main outcome examined was based on concurrent and retrospective work disability questions in the SIPP. The questionnaire asked respondents both whether some "health or condition limits the type or amount of work… [you] can do" and whether some "health or condition prevent[s]… [you] from working at a job or business." Respondents answering affirmatively to either question were asked to provide the year the health condition began. We used this information to assess the timing of the health condition responsible for the work disability.

Four dichotomous outcomes measure the cumulative prevalence of a work disability over a 20-year follow-up period relative to the timing of divorce. In particular, we assigned a value of 1 if the health condition responsible for the work disability began by the 5th, 10th, 15th, or 20th year after the marital dissolution. For example, for marital dissolutions occurring in 1975, measurement of a work disability by the 20th postdissolution year indicated whether the limitation began by 1995 (1 = yes, 0 = no). For dissolution events in the last year of the at-risk window (1984), it measured whether the disability began by 2004. To facilitate comparison, we randomly assigned the continuously married a starting point within the 10-year at-risk window. The assignment corresponds to the timing of observed divorces.[2] For example, the 13% of continuously married randomly assigned 1975 as the starting point for their follow-up corresponds to the proportion of our divorced sample separating in 1975.

Women who did not report a work disability in the survey received a 0 for the four dependent variables. Work-disabled women with onsets after a specified year also would receive a 0 for the outcome. Our method, thus, focused on the onset of persistent work disability relative to the time of the dissolution and assumes no recovery from such conditions.

Independent Variables. The main independent variable is *divorce*. As noted, we also stratified divorced women into three groups based on subsequent marital experiences during the 20-year follow-up period: continuously divorced, remarried–subsequent dissolution, and continuously remarried.

We focused on two measures of women's socioeconomic status as mediators. We first looked at women's baseline education, 1974, using SIPP's retrospective educational histories (no high school degree, high school graduate, and bachelor's degree). Second, we used retrospective reports of welfare

benefit receipt (food stamps or public assistance) contained in SIPP's Wave 1 topical module to construct a partial proxy for economic hardship over the retrospective period.[3] A dichotomous measure indicated first receipt of a welfare benefit prior to the dissolution (or start year for married). An additional indicator was coded as 1 if first receipt occurred during the 20-year follow-up (but before work disability). Thus, for work-disabled women, welfare benefit receipt was coded as 1 only if it preceded the onset of work-limiting health. Together, these variables accounted, albeit partially, for the possibility that economic hardship mediates the relationship between divorce and work disability.

We also considered women's work histories. Using the matched longitudinal earnings, we constructed a continuous variable that measured the proportion of years with positive earnings over the 20-year follow-up period. For work-disabled women, the proportion reflects up to the year of disability onset to limit possible endogeneity of the measure with work limitation.

Finally, to account for selection into divorce, we checked whether women's work disability began prior to and including the year of the marital dissolution (or start year for married). This allowed us to assess whether the main effect of divorce is altered when we remove women from the sample whose work disability preceded the observational period.

Control Variables. Control variables included *age* (based on administrative records), *race-ethnicity* (white non-Hispanic, black non-Hispanic, and Hispanic–other), and *year of separation* (1975–1984). We also included *nativity* (1 = immigrant; 0 = born in the United States) to control for differences in divorce rates and health among U.S. immigrants (Iams and Tamborini 2012; Viruell-Fuentes and Schulz 2009).

Table 1 presents descriptive statistics for the retrospective cohort. Baseline characteristics reflect 1 year prior to the 10-year at-risk of divorce window (1974), a time when all women in our sample were married. Relative to women who divorced, the continuously married were modestly older and more likely to be college graduates, Hispanic, and foreign-born. Women who divorced had higher labor force participation in 1974 and over the 20-year follow-up period, but they also had greater frequency of welfare benefit receipt at both intervals. These differences underscore the importance of including such characteristics in our models.

Analysis

Probit regression was the primary method used to assess the cumulative prevalence of a work disability by the 5th, 10th, 15th, and 20th years after marital dissolution. We present the results as average marginal effects (AMEs) for the divorce groups stratified by remarriage.

We also estimated PSM models to account for selection into divorce based on observable baseline characteristics (Guo and Fraser 2010).[4] A PSM approach equalizes the distribution of covariates prior to the divorce when estimating the effect of divorce on the cumulative prevalence of work disability status 20 years later. This is important because our probit-based results might be biased if the distribution of baseline covariates differs between the divorced and married samples and if these covariates are correlated with work disability. In these models, we also removed women who report the initiation of work disability prior to the follow-up period to further control for the influence of the selection of less healthy women into divorce.

We used standard PSM routines based on Becker and Ichino (2002). The first stage used logistic regression to estimate the treatment status (i.e., marital dissolution between 1975 and 1984) conditional on observed baseline characteristics. The covariates precede the at-risk window and were similar to those in the probit models: *age, race-ethnicity, nativity, educational attainment* (in 1974), *positive earnings* (in 1974), and first receipt of *welfare benefits* prior to 1975. We imposed the common support condition on matches and conducted standard balancing tests for each model. To satisfy the balancing property, we excluded several covariates in some models.

The second step estimated the effect of divorce on work disability using observations from the continuously married group matched to similar women who divorced. We used two techniques. The nearest-neighbor method matches divorced and continuously married women who share the closest value of the propensity score. The effect was estimated as the difference in mean outcome across the matched pairs. We also used kernel-based matching, which uses a probability density function to construct average outcomes for continuously married women.

All analyses were conducted in Stata 12.1. Standard errors for the PSM models were bootstrapped based on 300 replications. All estimates were weighted using SIPP weights adjusted for nonmatched respondents. Using the nonadjusted weights yielded similar results.

Table 1. Characteristics of Women in Retrospective Cohort, by Marital Group (Percentage or Mean).

		Divorced			
	Continuously Married	All	Continuously Divorced	Remarried–Subsequent Dissolution	Continuously Remarried
Baseline, One Year Prior to the Divorce Window (1975–1984)					
Age (mean)	29.5	26.4	28.3	24.5	26.2
High school graduate (1974)	65.4	72.1	72.4	73.0	71.5
Bachelor's degree (1974)	17.4	10.8	10.4	8.2	12.2
White, non-Hispanic	80.7	81.0	76.3	77.8	85.3
Black, non-Hispanic	5.9	10.3	14.6	9.9	7.9
Hispanic/other	13.4	8.7	9.1	12.3	6.8
Immigrant (not born in United States)	13.7	6.2	7.8	5.7	5.5
Positive Earnings (1974)	50.2	64.2	59.2	69.7	64.4
Welfare benefit receipt prior to 1975	2.1	4.7	5.6	5.1	3.9
At Survey, 2004					
Number of children (mean)	2.6	2.2	2.2	2.3	2.1
Bachelor's degree or higher	22.8	20.3	19.8	17.5	22.0
Proportion of years with positive earnings during follow-up	67.9	82.7	85.0	83.1	81.2
1st welfare benefit receipt during follow-up period	3.2	13.0	14.4	18.4	9.8
n	3,394	1,214	344	292	578

RESULTS

Bivariate Relationship of Divorce and Work Disability by Time Elapsed and Remarriage

Table 2 presents the unadjusted cumulative prevalence of work disability across the marital groups over the 20-year follow-up period at 5-year intervals. At the 5-year mark, low prevalence can be discerned across all groups, largely due to the low mean age of the sample at this point of the follow-up period. Over time, the cumulative prevalence of work disability increases for all groups. This is naturally associated with the aging of the cohort.

Comparisons across marital groups show divergent patterns. In the last follow-up year, the cumulative prevalence of work disability was significantly higher for women who divorced (12.5%) than for the continuously married (9.4%). By remarriage, the highest cumulative prevalence was recorded among continuously divorced (17.2%, $p < .05$, relative to continuously married), followed by those in the remarried–subsequent dissolution group (12.4%). By contrast, a similar prevalence is exhibited between continuously remarried (9.9%) and continuously married (9.4%) women.

Probit Regression Results by Time Elapsed and Remarriage

Table 3 presents probit regression models examining the cumulative probability of work disability by the 5th, 10th, 15th, and 20th follow-up years. Separate models were estimated for four divorced groups (all divorced, continuously divorced, remarried–subsequent dissolution, and continuously remarried). These models adjust for *age, race-ethnicity, nativity*, and the *separation/start year*. The marginal effects are calculated at the sample means and indicate the difference (in percentage points) in the cumulative prevalence of work disability between the divorced and continuously married relative to time since marital dissolution, net of the control variables.

In the whole sample (Panel 1), the divorced have a higher cumulative probability of a work disability than the continuously married. However, this relationship varies over time. Five years after the dissolution, the

Table 2. Cumulative Prevalence (Percentage) of Work Disability by Timing of Marital Dissolution among Women in Retrospective Cohort, 20 Years of Follow-up, by Marital Group.

		Divorced			
Years after Dissolution	Continuously Married (n = 3,394)	All (n = 1,214)	Continuously Divorced (n = 344)	Remarried–Subsequent Dissolution (n = 292)	Continuously Remarried (n = 578)
5	1.8 (.3)	2.4 (.5)	4.3 (1.5)	1.2 (.7)	1.9 (.7)
10	3.3 (.4)	4.4 (.7)	7.1* (1.8)	3.2 (1.0)	3.5 (1.0)
15	5.7 (.4)	7.3† (.8)	11.7* (2.2)	5.6 (1.4)	5.5 (1.1)
20	9.4 (.6)	12.5* (1.2)	17.2* (2.8)	12.4 (2.3)	9.9 (1.6)

Note: Estimates are weighted and adjust for nonmatches. Standard errors in parentheses adjust for the Survey of Income and Program Participation's complex sample design. Estimates with superscripts differ significantly from continuously married using a two-tailed t test.
†$p < .10$, *$p < .05$.

association is small and statistically insignificant. By the 10th, 15th, and 20th years, divorced women had elevated probabilities. The magnitude of this differential association was 4% at the 20th follow-up year ($p < .01$), which represents a 44% relative increase in work disability (compared to the 9.4% base among continuously married; see Table 2).

The results also reveal variation by subsequent marital transitions. The divorce–work disability relationship is strongest among the continuously divorced (Panel 2). At the 20th follow-up year, the magnitude of the divorce effect is 7% ($p < .01$), which represents a relative increase of 78% compared to the continuously married. Divorce is also associated with a higher cumulative probability of work disability (5%, $p < .05$) among women who experienced multiple marital dissolutions (Panel 3). In contrast, the differential effect is near zero for continuously remarried women (Panel 4). Supplemental estimations that included the three divorce groups in one model (see Appendix Table A1) reveal statistically significant differences in the cumulative probability of work disability between the continuously divorced and continuously remarried groups.

Mediating Regression Models and Selection

Table 4 contains probit regression models that consider possible mediators as well as selection into divorce based on work-limiting health. For ease of presentation, we focus on the 20th postdissolution year. Model 1 is the original specification as reported in Table 3. Model 2 adds women's baseline education (1974) to Model 1. As expected, women with a college or high school degree, relative to those with no high school degree, have a lower cumulative probability of work disability. Importantly, the divorce effects persist.

Model 3 adds women's first welfare benefit receipt as a partial proxy for economic hardship over the retrospective period. Across all samples, welfare benefit receipt, whether it occurred before or after the marital dissolution (but before the work disability), is significantly associated with elevated work disability risks ($p < .05$). Importantly, the effect of divorce is reduced to .03 for Panel 1 (all divorced) and to .05 for Panel 2 (the continuously divorced), but remains statistically significant. For Panel 3 (remarried–subsequent dissolution), the effect of divorce declined to .03 and became insignificant at conventional levels. Together, these results suggest that economic hardship, which is likely to influence divorce risks and be influenced by it, helps explain some of the association between divorce and work disability.

Model 4 adjusts for women's employment history over the follow-up period. Greater work attachment is negatively associated with work disability across all panels ($p < .05$). Importantly, the effect of divorce increased in magnitude. In Panel 1 (all divorced), the effect doubled (.06) relative to Model 3 (.03). In Panel 2 (continuously divorced), divorce is associated with a 9% higher cumulative probability, compared to 5% in Model 3 and 7% in Model 1. These increases in the effect attributable to divorce indicate that women's employment history is an important suppressor variable. While speculative, this finding is consistent with what is known about the lives of women and the households in which they

Table 3. Marginal Effects (Probit) on Cumulative Prevalence of Work Disability for Women Experiencing Marital Dissolution, 1975 to 1984, Relative to Continuously Married Women, by Timing of Dissolution, Stratified by Remarriage Experience.

Variable	Dependent Variable: Work Disability			
	5 Years after Dissolution	10 Years after Dissolution	15 Years after Dissolution	20 Years after Dissolution
Panel 1. All Divorced Relative to Continuously Married (*N* = 4,608)				
Divorced (ref. = continuously married)	.01	.02*	.03**	.04**
Age	.001*	.002**	.03**	.003**
Black, non-Hispanic (ref. = white, non-Hispanic)	.01	.01	.01	.01
Hispanic/other	.01	.02	.03†	.05*
Immigrant	.00	.02†	.02	–.01
Year of separation or starting point dummies	Yes	Yes	Yes	Yes
Panel 2. Continuously Divorced Relative to Continuously Married (*N* = 3,738)				
Divorced (ref. = continuously married)	.02†	.04*	.06**	.07**
Age	.00	.001*	.003**	.003**
Black, non-Hispanic (ref. = white, non-Hispanic)	.01	.02	.01	.01
Hispanic/other	.01	.02	.03†	.04†
Immigrant	.01	.03†	.02	–.01
Year of separation or starting point dummies	Yes	Yes	Yes	Yes
Panel 3. Divorced, Remarried–Subsequent Dissolution Relative to Continuously Married (*N* = 3,686)				
Divorced (ref. = continuously married)	–.00	.01	.02	.05*
Age	.000	.001*	.003**	.002*
Black, non-Hispanic (ref. = white, non-Hispanic)	.004	.01	.003	.01
Hispanic/other	.01	.02	.03†	.05*
Immigrant	–.00	.02	.01	–.01
Year of separation or starting point dummies	Yes	Yes	Yes	Yes
Panel 4. Divorced, Continuously Remarried Relative to Continuously Married (*N* = 3,972)				
Divorced (ref. = continuously married)	.00	.01	.01	.01
Age	.001*	.002**	.003**	.003**
Black, non-Hispanic (ref. = white, non-Hispanic)	.01	.01	.01	.02
Hispanic/other	.01	.01	.03†	.04†
Immigrant	–.00	.02	.01	–.02
Year of separation or starting point dummies	Yes	Yes	Yes	Yes

Note: Data use sample weights adjusted for nonmatched. Ref. = reference.
†$p < .10$, *$p < .05$, **$p < .01$ (two tailed).

tend to live following divorce. Despite increased personal work effort, women experience declines in per capita economic resources (Smock et al. 1999) and other resources, such as health insurance (Lavelle and Smock 2012), following divorce. The pressure for divorced women to increase work effort while facing financial challenges may raise stress in addition to that experienced from divorce. These factors are likely to contribute to the finding that conditioning on time spent working results in a stronger relationship between divorce and work-limiting health.

Model 5 combines specifications 1 through 4. Overall, the association between divorce and work

Table 4. Six Specifications of Marginal Effects (Probit) on Cumulative Prevalence of Work Disability (by the 20th Postdissolution Year) for Women Experiencing Marital Dissolution, 1975 to 1984, Relative to Continuously Married Women, Stratified by Remarriage Experience.

Variable	Basic Model[a] (1)	(1) + Education (2)	(1) + Welfare Receipt (3)	(1)+ Employment History (4)	Models 1–4 (5)	(5) + Removal of Those With Preexisting Work Disability[b] (6)
Panel 1. All divorced relative to continuously married						
Divorce (ref. = continuously married)	.04**	.04**	.03*	.06**	.04**	.03**
High school degree at baseline, 1974 (ref. = no high school)		–.06**			–.04**	–.04**
Bachelor's degree at baseline, 1974		–.08**			–.07**	–.07**
Proportional years worked over 20-year follow-up				–.11**	–.09**	–.05**
1st welfare benefit receipt prior to dissolution			.09**		.07**	.07**
1st welfare benefit receipt after dissolution			.08**		.06*	.07*
N	4,608	4,608	4,608	4,608	4,608	4,567
Panel 2. Continuously divorced relative to continuously married						
Divorce (ref. = continuously married)	.07**	.07**	.05*	.09**	.07**	.05*
High school degree at baseline, 1974 (ref. = no high school)		–.06**			–.04**	–.04**
Bachelor's degree at baseline, 1974		–.08**			–.07**	–.06**
Proportional years worked over 20-year follow-up				–.10**	–.09**	–.04**
1st welfare benefit receipt prior to dissolution			.09*		.08*	.08*
1st welfare benefit receipt after dissolution			.10*		.07*	.09*
N	3,738	3,738	3,738	3,738	3,738	3,703

(continued)

Table 4. (continued)

Variable	Basic Model[a] (1)	(1) + Education (2)	(1) + Welfare Receipt (3)	(1)+ Employment History (4)	Models 1–4 (5)	(5) + Removal of Those With Preexisting Work Disability[b] (6)
Panel 3. Divorced, remarried–subsequent dissolution relative to continuously married						
Divorce (ref. = continuously married)	.05*	.04†	.03	.06*	.05†	.04†
High school degree at baseline, 1974 (ref. = no high school)		–.06**			–.04**	–.04**
Bachelor's degree at baseline, 1974		–.08**			–.07**	–.07**
Proportional years worked over 20-year follow-up				–.09**	–.08**	–.04**
1st welfare benefit receipt prior to dissolution			.09*		.07*	.06†
1st welfare benefit receipt after dissolution			.09*		.06†	.07*
N	3,686	3,686	3,686	3,686	3,686	3,660
Panel 4. Divorced, continuously remarried relative to continuously married						
Divorce (ref. = continuously married)	.01	.01	.01	.03†	.01	.01
High school degree at baseline, 1974 (ref. = no high school)		-.06**			-.04**	-.04**
Bachelor's degree at baseline, 1974		-.08**			-.06**	-.06**
Proportional years worked over 20-year follow-up				-.09**	-.08**	-.04**
1st welfare benefit receipt prior to dissolution			.07*		.08*	.07*
1st welfare benefit receipt after dissolution			.12**		.12**	.13**
N	3,972	3,972	3,972	3,972	3,972	3,942

Note: Data use sample weights adjusted for nonmatched. Ref. = reference.

[a]All models adjust for age, race-ethnicity, nativity, and year of separation/start year.

[b]Model removes women who reported that the condition responsible for their work limitation began prior to the marital dissolution (or start year for the married).

†$p < .10$, *$p < .05$, **$p < .01$ (two tailed).

disability persists even after making adjustments for these mediators. The marginal effects are similar to Model 1. Thus, it appears that while some of the influences of the mediators move in opposite directions, such as employment (Model 4) and welfare benefit receipt (Model 3), their influences offset each other when combined in one model.

Model 6 applies a sample screen to the full specification (Model 5). The screen removes women who reported that the health condition responsible for their work disability began prior to the marital dissolution (or start year for the continuously married). We observe a modest, but important, attenuation in the divorce effect in some instances. The largest reduction occurred among the continuously divorced (.05 in Model 6 versus .07 in Model 5). This is a sizeable relative reduction (29%), which suggests that health selection plays a meaningful role in driving the association between divorce and work disability. Nonetheless, the association remains intact and statistically significant.

Auxiliary Analyses

Auxiliary estimations combining the three divorce groups into one model allow examination of whether differences across these groups presented in Table 4 are statistically significant (Appendix Table A2). These analyses indicate significant differences between the continuously divorced and continuously remarried for Models 1 through 5. The continuously divorced also had higher work disability risks in Models 1 through 5 than the remarried–subsequent dissolution group, but these differences were not statistically significant. In Model 6, the differential impacts between these groups were of similar magnitude. This implies that multiple divorces along the life course are about as damaging to women's later-life health as being continuously divorced when adjustments are made for selection into the initial divorce.

In other analyses (available upon request), we replicated the probit regressions on more restrictive samples or added controls. In one model, we excluded women with weak labor force attachment by restricting the sample to those with positive earnings in at least half of their 20 follow-up years (about three quarters of the sample). In another model, we added a contemporaneous indicator of employment for the survey year. These models yield consistent results. Additionally, introducing controls for children (in 2004 and baseline) had little influence on the divorce–work disability association. Excluding women who reported being retired in the survey (about 18%) also did not change the substantive results. Finally, when we restricted the dependent variable to measure only individuals who reported that a health condition prevented them from working, we find qualitatively similar patterns.

As a robustness check for selection, we employed PSM procedures. The model examines the effect of divorce on the cumulative probability of a work disability by the 20th postdissolution year adjusting for selection into divorce using baseline characteristics. The covariates used to predict divorce incorporate the characteristics in Table 3 plus the baseline values of the mediators in Table 4. This analysis also excludes women whose work disability began prior to the follow-up period, and as in prior models, we subset the estimations by remarriage. As noted, the equal-support condition was imposed and standard balancing tests were performed. The results of the logistic regressions are consistent with expectations (see Appendix Table A3).

Table 5 presents the PSM estimates using the nearest-neighbor and kernel methods. The results are consistent with the probit estimates presented in Model 6 (Table 4). Using either matching model, divorce on average is associated with a significant increase in the cumulative probability of work disability by the 20th follow-up year of four percentage points ($p < .01$). For continuously divorced women, divorce raises the probability by five percentage points ($p < .05$). For the remarried–subsequent dissolution group, the effect is also four to five percentage points but significant ($p < .05$) only using the kernel-based procedure. As in prior models, the effect of divorce is smaller and statistically insignificant among the continuously remarried. These results provide further evidence that remaining single after divorce or experiencing multiple marital dissolutions have long-run health-damaging effects for women that limit or prevent their work while taking measures to reduce bias associated with selection. In contrast, divorce has no effect on work disability risks among remarried women who stayed married.

DISCUSSION

This study examines whether divorce alters women's likelihood of developing health problems that limit or prevent work later in life and the sequencing of those changes. Our analysis was based on representative retrospective SIPP data matched to SSA's longitudinal earnings records and accounted for demographic characteristics as well as selection into divorce. Our findings reveal new evidence that for divorced women, the cumulative prevalence of work disability is significantly higher later in life.

Table 5. Propensity Score Estimates of Effect of Divorce on Cumulative Prevalence of Work Disability (by the 20th Postdissolution Year), among Women Experiencing Marital Dissolution, 1975 to 1984 (Reference Group = Continuously Married Women).

	All Divorced		Continuously Divorced		Divorced, Remarried–Subsequent Dissolution		Divorced, Continuously Remarried	
Matching Models	Coeff.	*SE*[a]	Coeff.	*SE*[a]	Coeff.	*SE*[a]	Coeff.	*SE*[a]
ATTND (nearest neighbor)	.04**	.01	.05*	.02	.04	.03	.01	.02
ATTK (kernel)	.04**	.01	.05*	.02	.05*	.02	.02	.01

Note: Model removes women who reported that the condition responsible for their work limitation began prior to the marital dissolution (or initial year for the married). Covariates used to calculate propensity scores in logistic regression estimating divorce include age, race-ethnicity, nativity, educational attainment (as of 1974), positive earnings (as of 1974), and welfare receipt prior to 1975. Coeff. = coefficient.
[a]Bootstrapped standard errors are based on 300 replications.
$^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$ (two tailed).

The findings add to the growing body of research that examines the long-term effects of changes in family status on women's health. In our retrospective cohort, divorce was associated with a significantly higher cumulative probability of work disability 20 years later. We highlight the temporal sequencing of this relationship, finding that the gap between the divorced and continuously married widens over 20 years after the divorce. These patterns support conceptualizations of divorce as setting into motion a series of conditions that have lasting negative effects on women's physical health (Lorenz et al. 2006). The results are also consistent with cross-sectional evidence showing higher levels of mobility limitations among older divorced women (Hughes and Waite 2009; Liu and Zhang 2013; Pienta et al. 2000). Further, the results expand what has been learned in the few longitudinal studies on divorce and work disability (Blekesaune and Barrett 2005; Eriksen et al. 1999) by suggesting amplified effects on women's work disability risks over a longer time frame.

Another central finding is that the relationship between divorce and work disability depends on subsequent marital transitions. In our results, divorce had the strongest positive association with later-life work disability among continuously divorced women. Elevated levels were also found among divorced women who remarried and experienced an additional dissolution. When we included controls for selectivity (Model 6, Table 4), the continuously divorced and remarried–subsequent dissolution group had similarly elevated probabilities of a work disability. This evidence is consistent with the idea that multiple divorces along the life course may be as damaging to women's health as being continuously divorced. Reinforcing this view, for the continuously remarried, divorce had no effect on work disability prevalence relative to married women without any exposure to divorce. These results provide suggestive evidence that remarriage, if it remains intact, reintroduces the health benefits associated with marriage (Grundy and Holt 2000; Hughes and Waite 2009).

We found strong independent associations between economic hardship (i.e., welfare receipt as a proxy) and subsequent work-limiting health among women. Importantly, adjusting for economic hardship attenuated the main effects of divorce (particularly among the continuously divorced), but did not take away its statistical significance. This suggests that economic hardship correlated with divorce, both before and after, plays an important, albeit partial, role in explaining the divorce–work disability association among women.

In contrast, adjusting for women's work history strengthened the divorce effects. Women in our divorced sample had stronger labor force attachment than those continuously married. Thus, conditional on work history, divorced women have an even greater prevalence of work disability relative to continuously married women. While speculative, part of the explanation for this pattern could be that despite the increased earnings and other benefits that come with having a role in the workplace (Pavalko et al. 2007), the average household of divorced women experiences a net loss of economic (Smock et al. 1999; Wickrama et al. 2006) and other resources, such as health insurance (Lavelle and Smock 2012), and the women themselves experience considerable

strain, relative to continuously married women. These factors, in turn, would be expected to increase later-life work disability risks for working divorced women.

We also presented evidence that selection influences the divorce–work disability connection (Model 6). When we exclude women who reported that their limitation began prior to the follow-up period, we find reductions in the size of the divorce–work disability association. This reinforces the idea that cross-sectional estimates of associations between divorce and work disability among women, particularly among the never remarried, may be upwardly biased. Nonetheless, selection does not explain the majority of the association. This observation is further supported by our PSM estimates, which show elevated probability of work disability among the divorced when controlling for selection into divorce based on observable factors while also removing those who reported a prior work limitation. Together, these findings suggest the importance of both causal and selection mechanisms.

While we cannot resolve directly the causal mechanisms driving our findings, the results are consistent with the view that divorce results in health disadvantages for women related to the loss of marital resources. Some have suggested that marital protective effects on women's health, as compared to men's, flow from the economic resources gained through marriage (Lillard and Waite 1995; Waite and Gallagher 2000). In this vein, it is interesting to highlight that adding welfare benefit receipt reduced the size of the divorce–work disability relationship found in this study. At the same time, our findings are consistent with the view that life-changing events, such as divorce, may create chronic strain (Johnson and Wu 2002), particularly among women of lower socioeconomic status. Further, we demonstrate that selectivity plays an important, although not dominant, role in the association between divorce and work-limiting health among women.

In terms of subsequent marital transitions, the lower cumulative prevalence of work disability exhibited by continuously remarried women could be driven by protective health effects of remarriage, selection into remarriage, or both. The reinstitution of economic resources after remarriage seems likely to be part of the explanation. It is also plausible that divorced women in better health are more likely to remarry and remain married.

Several limitations of our study should not be overlooked. First, the criteria used to select the retrospective cohort helped us to identify the long-term relationship between divorce and work disability but limits the representativeness of our results to those who fit the criteria. For example, the average age of marital dissolution in our sample was 29 years old. Evidence points toward differences in the health consequences of marital transitions by age (Williams and Umberson 2004). Thus, later-life divorce may have different effects on work-limiting health than those examined here.

Second, we do not account for selection into remarriage or possible recall bias related to the dating of events. Third, we were unable to evaluate spells of work-limiting health overcome by 2004. Consequently, our estimates should be seen as showing the sequencing of work disability onset among those reporting a work disability in the SIPP. It is noteworthy that when we ran our models on concurrent measures of work disability (rather than by the 20th follow-up year), the effect of divorce is often stronger (not shown). Fourth, data limitations preclude us from directly examining many possible mechanisms linking divorce and work disability, such as changes in income or stress. Fifth, work disability may be conditioned by factors beyond this study's scope, including changes in legislation or norms related to work accommodation and disability discrimination.

Despite these limitations, this study makes an important contribution to our understanding of the effect of early- and midlife divorce, and subsequent marital transitions, on women's work disability risks later in life. The results have several noteworthy policy implications. The onset of work-limiting health is likely to generate a double disadvantage for divorced women because of the negative relationships between divorce, financial well-being, and health. Work-limiting health is likely to reduce women's long-term earnings and, ultimately, their retirement income security. Finally, self-assessed measures of work disability have been shown in other studies to be predictive of enrollment in disability programs along with receipt of other social supports. Each of these additional dimensions is deserving of future study.

Additionally, research that more fully considers mechanisms in the divorce–work disability relationship would be fruitful. Another research undertaking is to establish whether the patterns found in this study appear in more recent cohorts, as divorce has become less stigmatized and women more integrated in the labor market. Finally, in light of the graying of divorce (Brown and Lin 2012), examining the health effects of later-life divorce and its relationship with employment and retirement would be worthwhile.

APPENDIX

Table A1. Marginal Effects (Probit) on Cumulative Prevalence of Work Disability for Women Experiencing Marital Dissolution, 1975 to 1984, Relative to Continuously Married Women, by Timing of Dissolution, Divorced Groups in One Model.

	Dependent Variable: Work Disability			
Variable	5 Years after Dissolution	10 Years after Dissolution	15 Years after Dissolution	20 Years after Dissolution
Divorced by subsequent marital experience (ref. = continuously married)				
Continuously divorced	.02†^#	.04*	.06**^	.07**^
Remarried–subsequent dissolution	–.00	.01	.02	.05*
Continuously remarried	.00	.01	.01	.02
Basic control variables[a]	Yes	Yes	Yes	Yes
N	4,608	4,608	4,608	4,608

Note: Data use sample weights adjusted for nonmatched. Ref. = reference.
[a]All models adjust for age, race-ethnicity, nativity, and year of separation/start year.
†$p < .10$, *$p < .05$, **$p < .01$ (two tailed).
^Indicates a statistically significant difference between continuously divorced and continuously remarried at alpha = .10.
#Indicates a statistically significant difference between continuously divorced and divorced, remarried–subsequent dissolution at alpha = .10.

Table A2. Six Specifications of Marginal Effects (Probit) on Cumulative Prevalence of Work Disability (by the 20th Postdissolution Year) for Women Experiencing Marital Dissolution, 1975 to 1984, Relative to Continuously Married Women, Divorced Groups in One Model.

Variable	Basic Model[a] (1)	(1) + Education (2)	(1) + Welfare Receipt (3)	(1)+ Employment History (4)	Models 1–4 (5)	(5) + Removal of Those with Preexisting Work Disability (6)
Divorced by subsequent marital experience (ref. = continuously married)						
Continuously divorced	.07*^	.07**^	.06*^	.10**^	.07*^	.05*
Remarried–subsequent dissolution	.05*	.05*	.04	.07**	.06*	.05*
Continuously remarried	.02	.01	.01	.03†	.02	.02
Basic controls[a] + specified mediator(s)	Yes	Yes	Yes	Yes	Yes	Yes
N	4,608	4,608	4,608	4,608	4,608	4,567

Note: Ref. = reference.
[a]All models adjust for age, race-ethnicity, nativity, and year of separation/start year.
†$p < .10$, *$p < .05$, **$p < .01$ (two tailed).
^Indicates a statistically significant difference between continuously divorced and continuously remarried at alpha = .10.
#Indicates a statistically significant difference between continuously divorced and divorced, remarried–subsequent dissolution at alpha = .10.

Table A3. Logistic Regression Predicting Divorce During At-risk Window, 1975 to 1984, by Divorced Group (Baseline Characteristics = One Year Prior to Window).

	All Divorced		Continuously Divorced		Divorced, Remarried–Subsequent Dissolution		Divorced, Continuously Remarried	
Variable	Coeff.	*SE*	Coeff.	*SE*	Coeff.	*SE*	Coeff.	*SE*
Age	–.11**	.01	–.04**	.01	–.19**	.02	–.12**	.01
Black, non-Hispanic (ref. = white, non-Hispanic)	.48**	.13	.92**	.19	.53*	.23	.27	.19
Hispanic/other	a.		–.23	.28	–.03	.24	a.	
Immigrant	–.77**	.16	–.47†	.28	a.		–.92**	.23
High school graduate, 1974 (ref. = no high school)	a.		.07	.19	a.		a.	
Bachelor's degree at baseline, 1974	–.34**	.12	–.45†	.25	–.46†	.25	–.21	.15
Positive earnings, 1974	.30**	.08	.19	.13	.52**	.16	.29†	.11
1st welfare benefit receipt by 1974	.67**	.20	a.		.85**	.33	.48**	.26
Constant	1.85**	.23	–1.36**	.44	2.41**	.41	1.48**	.30
N	4,567		3,703		3,660		3,942	

Note: Baseline is free from work-limiting disability. Data use Survey of Income and Program Participation weights adjusted for nonmatched. Coeff. = coefficient; ref. = reference.
[a]Removed to satisfy balancing requirement.
†$p < .10$, *$p < .05$, **$p < .01$ (two tailed).

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NOTES

1. The average age of dissolution was 29 years old.
2. We estimated models using other methods for initiating the passage of time for the married sample and obtained similar results. One alternative was to randomly assign the base year to the continuously married. Another was to assign the continuously married the midpoint of the distribution of years in the divorced group as the initial starting point for the follow-up period.
3. The Wave 1 topical module asks respondents who ever received food stamps, "When did [you] first start receiving food stamps?" Respondents who ever received public assistance were asked, "When did [you] first start receiving public assistance benefits such as AFDC [Aid to Families With Dependent Children], TANF [Temporary Assistance for Needy Families], or [state-named] program?"
4. Given our research design and available data, we opted to examine cumulative probability models using probit and propensity score approaches rather than event history analysis. Our central interest was to measure the cumulative prevalence of a work disability over time rather than the probability of changing status each period conditional on survival to that point. Further, the timing of work disability onset was not repeatedly measured. Our approach is consistent with other research examining marital transitions and subsequent changes in health (e.g., Meadows, 2009; Williams and Umberson 2004).

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AUTHOR BIOGRAPHIES

Christopher R. Tamborini is a senior researcher in the Office of Retirement Policy at the U.S. Social Security Administration and part-time faculty member for the Catholic University of America and NYU-Washington, DC. He also has a research affiliation with the Institute for Policy and Social Research at the University of Kansas. His research examines stratification and the life course, particularly as it relates to family, health, retirement, and education. His research has appeared in *Demography, Journal of Marriage and Family, Social Forces*, and *Journals of Gerontology*.

Gayle L. Reznik is an economist in the Office of Retirement Policy at the U.S. Social Security Administration. Her research interests include work incentives, retirement, and Social Security. Her publications have appeared in *Demography, Journal of Family and Economic Issues*, and the *Gerontologist*.

Kenneth A. Couch is a professor of economics at the University of Connecticut and current editor in chief for the *Journal of Policy Analysis and Management*. His research interests include economic mobility, job displacement, inequality, employment training, program evaluation, and life course. His recent publications have appeared in *American Economic Review, Demography, Research on Aging*, and *Journal of Policy Analysis and Management*.