

**Changes in Marriage and Divorce as Drivers of Employment and Retirement
of Older Women**

Claudia Olivetti

Dana Rotz

Boston College and NBER

Mathematica Policy Research

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I. Introduction

Employment and marital history are both important determinants of labor force participation and financial security at later ages. But these outcomes and their relationships vary significantly by gender, education, and cohort. Understanding how one's employment and marital history impact later life outcomes is particularly relevant for today's older women, who have substantially higher labor force participation rates than past cohorts (cf. Goldin and Katz and the other chapters in this volume for evidence and discussion of determinants).

Current marital status and marital history both shape employment behavior at later ages. Current marital status influences employment in the established way. But marital history is also important, as past marriages and divorces shape previous economic decisions and the processes of human and financial capital accumulation, and thus can have large impacts on a woman's budget set and choices at later ages. In a life-cycle perspective, the age at which a woman experiences a divorce might matter because it might affect the probability of re-marriage and her ability to invest in human and financial capital. Increased divorce risk might also impact the work decisions of married women through changes in household bargaining power and economic incentives throughout married life. In the face of higher divorce risk, which increases the probability of being in a low future consumption state, married women have increased incentives to invest in careers and increase their own earning potential (through labor market experience, education, and/or occupational choice), as a kind of self insurance (Greene and Quester, 1982; Johnson and Skinner, 1986). Moreover, if divorce is more likely, women expect to spend less of their adult life in marriage, reducing the returns from specializing in the home and increasing the incentives to invest in labor marketable skills (Stevenson, 2007). Increases in divorce risk might also affect married women's propensity to save and accumulate financial capital (Voena, 2015).

The literature that investigates retirement security has shown the importance of marital history in determining later-life economic outcomes, focusing mostly on women in the 1930-1949 birth cohorts. (e.g. Wilmoth and Koso, 2002; Munnell, 2004; Zargosky, 2005; Holden and Fontes, 2009, Ulker, 2009; Vespa and Painter, 2011; Zissimopoulos, Karney, and Rauer, 2015; Couch et al., 2011, and Tamborini, Iams, and Whitman 2009). The women in these cohorts had relatively low levels of labor force attachment. Thus, their financial positions at later ages are intimately linked to their husbands' income and savings behaviors. We argue that these cohorts

of women were also likely to have been greatly disadvantaged by the (probably unexpected) shift from consent to unilateral divorce that was associated with a large temporary increase in divorce rates (Friedberg, 1998; Wolfers, 2006).

Economists have previously used the shift to unilateral divorce to study the effects of divorce laws on the welfare of children (Gruber, 2004), marital conflict (Stevenson and Wolfers, 2006), and women's labor supply decisions (Peters, 1986; Grey, 1998 and Stevenson, 2008). Unilateral divorce may also have important effects on household savings and investments. Stevenson (2007) evaluates the impact of divorce on marriage-specific investment such as the purchase of a house, showing that unilateral divorce tends to decrease such investments. Voena (2015) estimates the empirical relationship between divorce, married women's labor force participation, and household savings. Both papers show that that property-division laws mediate the impact of unilateral divorce on the intertemporal behavior of married couples.

Changes in exposure to divorce risk across cohorts have also been shown to be important. In particular, Fernandez and Wong (2014) used a dynamic quantitative approach to understand the differences in labor supply (for both married and divorced women under 60) and household savings between the 1935 and 1955 cohorts, demonstrating that increases in divorce risk explain a substantial component of the observed changes.

This chapter contributes to our understanding of women's later-life labor force participation (and the impacts of unilateral divorce) by using the widespread changes in divorce laws occurring in the late 1960s, 1970s, and 1980s as a quasi-experiment to assess the importance of marital history on women's outcomes between ages 50 and 74. We first use data from the 1986 to 2008 waves of the Survey of Income and Program Participation (SIPP) to document the relationships between current marital status, past marital history, and current employment and retirement outcomes for women age 50 to 74, born 1911-1958. We then exploit variation in laws governing divorce across states and over time to identify the causal relationship between *age at divorce* and employment and retirement outcomes for older women.

We find that the spread of unilateral divorce was associated with cross-cohort differences in the probability of divorce over the lifecycle. We also show that past divorce has long run consequences for older women's marital, work, and retirement decisions, above and beyond the

impact of past divorce on current marital status. For ever-divorced women, the age at divorce is also an important determinant of these outcomes. Finally, we show that women who were exposed to unilateral divorce at later ages tended to get divorced later in life (conditional on ever getting divorced). They also exhibit different patterns of labor force participation and retirement at older ages.

For ever-divorced women, an increase in divorce risk at a later age significantly *increases* the probability of full-time employment at age 60 and older (and reduces the probability of having ever collected social security or having ever retired). Additionally, later exposure to unilateral divorce is associated with a higher probability of having older children at divorce, a lower probability of acquiring additional education post-marriage, and a lower level of retirement wealth. Taken together, these results suggest that women who divorce at a later age might have to work more post-divorce and later in life to make up for lower levels of financial well-being after divorce.

For never-divorced women, a later exposure to divorce risk is associated with a substantial *decline* in full-time employment after age 60 (but not significant effect on the probability of having ever collected social security or having ever retired). These findings are consistent with the literature, which suggests that married women work more as a precaution against divorce when divorce risk increases.

II. Data

We used the Survey of Income and Program Participation (SIPP) to explore the relationship between marital status and later-life labor force participation, drawing data from the panels that began in 1986-1988, 1990-1993, 1996, 2001, 2004, and 2008. These data provide key demographic information; details on respondents' current employment situations and assets; and retrospective information about respondents' fertility, educational attainment (including the dates degrees were received), employment, and marriages (including the year of marriage and the date and way a marriage ended, if applicable).

In most of the analysis, we restrict the sample to ever-married women age 50-74. We further consider only women who provided information allowing us to identify their race;

state of birth; age at marriage; and marital status, employment status, urban location, and education at the time of their first SIPP interview. We also dropped all observations for which the status of a woman's first marriage could not be identified. The final sample contains 55,835 observations, including 38,313 never-divorced and 17,522 ever-divorced women.

Finally, while the sample sizes for all outcomes can vary due to item-specific non-response and non-response to one or more of the interviews throughout a SIPP panel, sample sizes also vary because of changes in the SIPP across waves. In particular, retrospective information on employment during marriage is only available in the 1996 and later panels

Summary statistics for the different samples are reported in Appendix Table 1.

II. Change in divorce rates by age and cohort

Divorce rates were particularly low in the 1950s and early 1960s. Then they rose sharply, doubling between the mid-1960s and the mid-1970s and peaking in the early to mid-1980s. Starting in 2005, the crude divorce rate has lingered around 3.6 divorces per thousand people—the lowest divorce rate since 1970 (see Figure 1 and related discussion in Stevenson and Wolfers, 2007). Although the issue has been somewhat contentious, a consensus has emerged in the economic literature that with the shift to unilateral consent came a short run increase in the divorce rate (Friedberg, 1998; Wolfers, 2007).

Figure 1 shows how women in our different cohorts experienced increases in divorce rates at different points in the lifecycle, as suggested by the relative timing of unilateral divorce legislation (which we will return to below). The figure describes the overall patterns in the share of women ever divorced by age and cohort. The horizontal axis is age and different lines correspond to different cohorts. The graph shows that women in later cohorts are more likely to have ever divorced their spouses at any given age than women born in earlier cohorts.¹ However, we also see that each cohort of interest exhibits a sharp increase in divorce at a different age. For

¹ By definition, the share of women ever divorced should not decrease by age, and any small downward changes seen are the result of sampling error.

the 1950-1959 cohort, this surge in divorce occurs prior to age 40 and the share of women ever divorced is essentially unchanged thereafter. For the next earliest cohort (women born 1940-1949), we see a sharp increase in divorce between age 40 and 45. A similar increase can be seen for women born between 1930 and 1939 around age 50 and a smaller, albeit notable, increase in divorce can be found for the 1920-1929 cohort around age 60. Thus, the different cohorts exhibited similar increases in divorce in calendar time, but this increase in divorce occurred when the women were at different ages.

Differences in age at divorce are notable for several reasons. Most prominently, such differences can affect women's marital status at later ages, as shown in Figure 2. For example, when observed in the SIPP between age 50 and 74, 55 percent of women who divorced before age 30 were currently married and 29 percent were currently divorced. For women who divorced in their 40s, these proportions are reversed: 62 percent of these women were currently divorced and only 32 percent were currently married. Differences in age at divorce could also lead to changes in later-life employment and retirement choices, either because of differences in current marital status or for other reasons. The next section explores this possibility.

III. Descriptive regressions: Current and past marital status and later-life outcomes

We used regression analysis to explore how both marital status and marital history relate to several employment outcomes for our sample of interest, also controlling for birth year, state of birth, and SIPP panel fixed effects; age at marriage; and race, education, and urban location at the time of the first SIPP interview.

The results shown in Table 1 indicate that both current marital status and marital history predict labor force participation later in life. Ignoring current marital status (column 1), ever-divorced women are 7 percentage points more likely to have been employed full-time at some point during their participation in the SIPP. Results are similar if one instead focuses on whether a woman divorced prior to age 50 (column 3). Including indicators for both current and past marital status in the regression (column 2) reveals that both variables matter, though a woman's current marital status is a stronger predictor of current behavior. In particular, women who have ever divorced are 2 percentage points more likely than other women to have worked during their

SIPP panel, conditional on current marital status. Women who were divorced at the time they entered the SIPP panel were an additional 13 percentage points more likely to have worked (in total, these women are 15 percentage points more likely to have worked than a never-divorced, currently married woman). This relationship holds if we instead consider both part- and full-time employment (column 4) or full-time employment at a given point in time during the SIPP panel (column 5).

We additionally explored whether the relationship between employment and marital status varied for women in different demographic groups. Focusing on full-time employment, we found the relationship was relatively stable (see Table 2). Coefficients on both ever-divorce and current marital status tend to be similar for women with a college education or more (column 1) and women with some college or less education (column 2). The exception is the coefficient on currently separated women, which is significantly higher (by 8 percentage point) for women with college or more education. We also see similar patterns in the whole population (column 2, Table 1) and in the subset of the population that is age 60 or older (column 3). Although relationships between the key variables and employment are similar for both whites (column 4) and non-whites (column 5), associations tend to be stronger for whites. Furthermore, the relationship between ever-divorce and employment is statistically significant only among white women.

We further examined whether marital status was associated with differences in two key, outcomes closely related to employment: whether a woman classified herself as ever having retired from a job and whether a woman collected social security (both measured at any point in the SIPP panel, see Table 3). As in the previous tables, every specification also controls for birth year, state of birth, and SIPP panel fixed effects; age at marriage; and race, education and urban location at interview time.

Overall, women who were ever divorced were about 1 percentage point more likely to have collected social security than never-divorced women (column 1). Considering both ever having been through a divorce and current marital status further suggests that the former is more important than the latter. The coefficient on the indicator for ever-divorce is statistically significant, while that on the indicator for currently being divorced is not. This pattern could result because many women who were ever divorced can collect social security based on their ex-spouses earnings, making them more likely to collect social security overall.

A different pattern emerges when one focuses on the sample of women who were over 62, and thus eligible to collect social security based on their own work history (column 3). Within this group, current marital status is significantly related to collection of social security, although the coefficient on ever-divorce is insignificant. This suggests that the relationship between marital status and social security receipt may differ within populations with different social security eligibility.²

Past and present marital status appear to relate differently to the propensity to consider oneself as having ever retired (columns 4 and 5). Ignoring the separate effect of current marital status, women who have ever been through a divorce are about 1 percentage point less likely to have ever retired than women who have not done so. But currently divorced women drive this relationship. Indeed, conditional on past marital status, currently divorced women are 8 percentage points less likely to have ever retired than other women.

For ever-divorced women, the age at which a divorce occurred is also an important predictor of later-life outcomes, even conditional on marital status later in life. Table 4 reports regression results for our three outcomes. Women who divorced later are more likely to be employed full-time (the results are similar for any employment or employment in the first panel month). In particular, when we include in our regression a linear control for age at divorce (column 1), a 10-year increase in age at divorce is associated with approximately a two-percentage point increase in the propensity of a woman to work full-time when observed between ages 50 and 74. Further, including controls for age at divorce in ten-year bins (column 2), we find that, everything else being equal, women who divorced in their 30s and 40s are about three-percentage points more likely to be employed full-time than those who divorced before age 30 and women who divorced in their 50s are about five-percentage points more likely to be working full-time at later ages. These findings are strongest for white women and for women with some college or less (results not reported). That is, we do not find a significant effect of age at divorce on the probability of full-time employment on the sub-sample of non-white or college

² See Maestas in this volume for an analysis of social security eligibility on work and (joint) retirement of older women. See Iam and Tamborini (2012) for a study of the change in marital history and women's eligibility for Social Security marriage-based benefits at retirement across cohorts and its contribution to racial inequality at older ages.

educated ever-divorced women. Age at divorce is also negatively associated with the probability a woman collects social security at any point in the panel, though the size of the effect is relatively small (column 3 and 4), and it is not significantly related to the probability a woman has ever retired from a job (column 5 and 6) once we control for current marital status.

IV. Changes in divorce legislation

The associations laid out in the previous section cannot be interpreted causally, even cautiously. To better understand how differences in marital history can cause differences in later-life labor force participation, we examine the relationship between divorce laws and our outcomes of interest. Changes in these laws over time and across states provide a quasi-experiment allowing us to measure plausibly exogenous variation in divorce risk over time and across the lifecycle.

Divorce laws indicate the conditions under which a couple can divorce, each spouse's property rights over household assets, and guidelines for alimony and child support. Prior to the 1960s, most states allowed divorce only under mutual consent. Fault-based divorce law implied that divorce could be granted only under specific circumstances (for example, adultery, cruelty, or mental illness) and only under the consent of the party proved innocent (Weitzman, 1985). The late 1960s brought about the start of a shift in divorce laws from mutual consent to unilateral consent and from fault to no-fault grounds.³ Under no-fault divorce, a couple can simply agree that they cannot stay married due to irreconcilable differences or “irretrievable breakdown”. Though most states today have established no-fault, unilateral divorce laws, laws differ based on separation requirements (which may range from no separation requirement to a one-year requirement) and on whether fault grounds shape the division of assets and spousal support. These variations have caused a small amount of variation in the definition of unilateral divorce in the literature.

³ The late 1970s and 1980s also saw a shift in divorce laws that establish each spouse's property rights over household assets. It would also be interesting to investigate whether the changing property division legislation had an independent impact but this is beyond the scope of this paper.

We consider a state to have unilateral divorce if they allow no-fault marital dissolution and do not have a separation requirement. Spousal support and property division can still be at-fault under our definition. This classification is very similar to others used in the literature (e.g. Gruber, 2004, Wolfers, 2006, and Voena, 2015).⁴ As a robustness check we use a second classification that relaxes the no-separation requirement (that is, a state has unilateral divorce if and only if no-fault divorce is allowed). Under this second definition, some states are classified as allowing unilateral divorce at an earlier date and an additional eleven states are classified as ever allowing unilateral divorce.⁵ Our results are robust to using either of these definitions (but we only report findings based on our preferred definition).

We use a woman's state of birth to determine access to unilateral divorce. Identification is thus necessarily limited to women born in states where there was a change of legislation prior to the women's SIPP interviews. Using our preferred definition of unilateral divorce, the resulting sample contains 30,321 women (including 10,420 ever-divorced and 19,901 never-divorced women).⁶

Our empirical strategy exploits cross-state, cross-cohort variation in access to unilateral divorce to identify the (pseudo)causal relationship between *age at divorce* and older women's outcome.

Two stylized facts support our strategy. First, as shown in Figure 3, exposure to unilateral divorce increased at different times across cohorts. This figure plots the share of women in our sample who were exposed to unilateral divorce at a given age, showing how the legal changes affected different cohorts at different points over their lifecycle and complementing the evidence on divorce rates in Figure 1. Less than 10 percent of women born in 1910-1919 were exposed to unilateral divorce before age 50. But by age 60, 60 percent had been exposed. Women in the

⁴ In some cases, there is a one-year discrepancy between our definition and others in the literature. This is because we have chosen to classify a state as having unilateral divorce at the time the law becomes effective (for example, in Arizona the law passed May 1973 but went into effect on January 1974). See the appendix for details.

⁵ See Appendix Table 2. We also include a third definition that classifies a state as unilateral if alimony/assets are also assigned on no-fault grounds. See the appendix for details.

⁶ Our alternative definition of unilateral divorce yields a sample of 49,806 women (16,174 ever-divorced and 13,632 never-divorced).

1920-1929 cohort experience minimal exposure until age 40. But by age 60, 80 percent of women in this cohort would have had access to unilateral divorce in their birth state. Similarly, women in the 1930-1939 cohorts experience the shift in their 30s and early 40s and those born 1940-1949 did so in their mid 20s to mid 30s. Sixty percent of women in the most recent cohorts (born 1950-1959) were exposed to unilateral divorce at age 20. Second, as shown in Figure 4, there is a strong, positive correlation between the age at which divorce became unilateral and age at divorce among ever-divorced women. Thus, different cohorts exhibited similar increases in both divorce risk and divorce in calendar time, but this increase occurred when these women were at very different ages. We exploit this variation to study the relationship between the age divorce risk increase (that is, when unilateral divorce became available) and later outcomes of both ever- and never-divorced women.

IV.i Empirical Specification

We use OLS to explore the relationships of interest. The general version of the estimating equation is:

$$y_{itsc} = \varphi_s + d_t + \eta_c + \alpha Z_i + \delta \text{Age at Unilateral}_{isc} + \varepsilon_{its} \quad (1)$$

where y_{itsc} is the outcome of interest (e.g., age at divorce, full-time employment, social security, or retirement), for person i in SIPP panel t , born in state s , in cohort c . φ_s are state of birth dummies, d_t are dummies corresponding to SIPP panels, η_c are year of birth dummies, and Z_i are covariates for woman i , such as age at marriage or duration of marriage (depending on the specification), race (if applicable), education at interview (if applicable) and urban location at interview. Women born in states where unilateral divorce was never available are omitted from this analysis.⁷

The coefficient of greatest interest is that on the variable representing age when unilateral divorce became available determined based on state of birth, δ . This coefficient represents the (pseudo)causal effect of having one's risk of divorce increase at a later age. This could lead to

⁷ We also omit 9 women who were born in a state where unilateral divorce became available but were interviewed for the SIPP prior to that law change. These women lived in the small number of states that allowed unilateral divorce starting in 1987.

changes in outcomes for a number of reasons. The change could affect age at divorce, current marital status, or choices during marriage. It could also impact the process of marriage formation by altering the reservation quality of matching; however, for 84 percent women in our sample, marriage occurred well before the law change, likely making this mechanism less important.

IV.ii Main Results

The age at which unilateral divorce became available is associated with a marginally significant increase in the probability that a woman has ever been divorced, as shown in Table 5.⁸ For the entirety of our sample, we find that a 10-year increase in age at the legalization of unilateral divorce is associated with approximately a 10 percentage point increase in the probability of ever-divorce. We also see a similar pattern in the subset of the population that is age 60 or older and for whites; however, the relationship is not significant for non-whites and negative for women with some college or lower levels of educational attainment.

Differently, for college educated women, age when unilateral divorce became available is strongly associated with a higher probability of ever-divorce. A one-year increase in age when unilateral divorce was first allowed is associated with approximately a seven-percentage point increase in the probability of ever-divorce. As discussed in the literature, the passage of unilateral divorce was associated with a “pipeline” effect, causing marriages with the smallest surpluses to dissolve (Rasul, 2006). The large effect is consistent with college-educated women who experienced unilateral divorce at later ages being relatively more likely to have marriages with very small surpluses.

Additionally, later exposure to unilateral divorce is associated with later age at divorce for ever-divorced women (see Table 6). For all such women, a ten-year increase in age when unilateral divorce was first allowed is associated with a 2.6 year delay in age at divorce (2.2 controlling for age at marriage). Looking at subgroups, we find a stronger association within samples of white women, women with some college or less education, and women aged 60 year

⁸ The overall pattern of these results is similar when the outcome of interest is an indicator for having divorced by age 50 (see Appendix Table 3).

and older. For these samples, a ten-year increase in the age unilateral divorce was introduced is associated with a four- to five-year delay in age at divorce. Consistent with the results in the previous table, we also find that age when unilateral divorce was implemented does not correlate with age at divorce for non-white women.

Having established these associations, we investigate the impact of the age when unilateral divorce was introduced on full-time employment later in life in Table 7. We find that the association varies substantially depending on the sample considered, likely because different mechanisms are at play. Most notably, the ‘exogenous’ variation in divorce risk has different implications for ever-divorced and never-divorced women.

For all ever-married women (the first panel of Table 7), full-time employment in later life is not significantly affected by the age when unilateral divorce became available; however, when we control for work experience during the first marriage, the coefficient becomes large in absolute value and significant. Later exposure to unilateral divorce is associated with lower full-time employment at age 50 to 74. Having worked during marriage is associated with a higher probability of full-time work. But there is no significant interaction between this variable and exposure to unilateral divorce.⁹

The next three panels of Table 7 focus on the sample aged 60 and over, in line with the analysis in the other chapters of this book. This restriction excludes cohorts of women born after 1949. It also focuses the analysis on the age group that is disproportionately “working longer.” For this subsample, being older when unilateral divorce was introduced is associated with a lower probability of being employed full-time at age 60-74. The size and significance of the coefficient is relatively constant across specifications and does not depend on whether we control for age at marriage, the duration of marriage when unilateral divorce became available, current marital status, or whether a woman worked during her first marriage. The estimates imply that a ten-year delay in unilateral divorce legislation would be associated with a decline in the probability of full-time employment by 7 percentage points. This is a (possibly too) large effect considering that the fraction of 60-to 74-year-old women who are employed full-time at any

⁹ Note that we lose about half of the sample because the information we use to construct this variable is only available in later SIPP panels. We plan to use the SIPP synthetic beta data to obtain better measures of work attachment during first marriage and further investigate this mechanism.

point in their SIPP panel increased from 29 to 41 percent between the 1930-1939 and 1940-1949 cohorts.

Endogeneity bias may be reasonable for some of this effect's size. Although age unilateral divorce was introduced is plausibly exogenous, the variable also likely affects some of the (endogenous) control variables – age at marriage, current marital status, the quality of the second marriage – that have been shown to be important in predicting divorce (Rotz, 2015, Bac, 2015). Moreover, other factors discussed in this book and elsewhere (for example, financial literacy, see Lusardi and Mitchell, 2008, and changes in normal retirement age and delay retirement credits, see Panis et al., 2002, and Cribb et al., 2014) are obviously also important determinants and potentially correlated with both our key variables.

A separate analysis of ever-divorced and never-divorced women aged 60 and older further elucidates the mechanisms at work. For ever-divorced women, a higher age at the introduction of unilateral divorce is associated with an *increase* in full-time employment. In this case, a ten-year delay in age at unilateral is associated with a 4 to 8 percentage point increase in full-time employment, depending on the specification. This is consistent with women who divorce at later ages having to work remedially post-divorce and later in life. Further consistent with this story, the size of the coefficient is halved once we control for whether a woman worked during her first marriage. For never divorced women, a later age at the time of unilateral divorce legalization has a negative impact on employment. This is consistent with the notion that women might respond to higher divorce risk by working more as a precaution, essentially insuring themselves against a potential future loss of income due to divorce (Johnson and Skinner, 1986). It is also consistent with previous findings in the literature (Fernandez and Wong, 2014).

Looking at our other outcomes of interest (Table 8), we can see that the negative association between employment and the age when unilateral divorce was introduced is also observed for other measures of employment in the whole sample and for never-divorced women. Additionally, a later age when unilateral divorce was introduced is associated with a decrease in both the probability of having ever collected social security or having ever retired at any point in the panel. This also holds for ever-divorced women but not for never-divorced women.

We further consider how our results for employment vary by education and race in Table 9. For ever-divorced women aged 60 and older, we find the strongest effects for non-white women and women with a college degree – though the mechanisms for these effects could well differ. For never-divorced women aged 60 and older, impacts are negative and significant across all subgroups.

Finally, Table 10 investigates some of the potential mechanisms for our findings. Later exposure to the unilateral laws is associated with ever-divorced women being less likely to have obtained additional education after their first marriage started and more likely to have a formal retirement savings account and to have had a youngest child older than 18 at the time of dissolution of their first marriage. The market values of all the retirement accounts in their own name are also significantly lower on average the older they were when unilateral divorce was introduced. A ten-year delay in unilateral divorce is associated with -\$6840 of assets in retirement accounts. For never divorced women later exposure to the unilateral laws is associated with a higher likelihood of having obtained additional education after their first marriage started and to have a formal retirement savings account but it does not impact the total value of their own retirement accounts.

V. Conclusions

Overall, this study demonstrates that the spread of unilateral divorce was associated with cross-cohort differences in the probability of divorce over the lifecycle. We also show that past divorce has long run consequences for older women's marital, work, and retirement decisions, above and beyond the impact of past divorce on current marital status. For ever-divorced women, the age at divorce is also an important determinant of these outcomes. Finally, we show that women who were exposed to unilateral divorce at later ages tended to get divorced later in life (conditional on ever getting divorced). They also exhibit different patterns of labor force participation and retirement at older ages.

For ever-divorced women, an increase in divorce risk at a later age significantly *increases* the probability of full-time employment at age 60 and older (and reduces the probability of having ever collected social security or having ever retired). Additionally, later exposure to

unilateral divorce is associated with a higher probability of having children older than 18 at divorce, a lower probability of acquiring additional education post-marriage, and a lower level of retirement wealth. This suggests that ever-divorced women are working longer remedially. When they divorce at later ages, they have to work longer to increase their assets prior to retirement.

For never-divorced women, a later exposure to divorce risk is associated with a substantial *decline* in full-time employment after age 60. These women invest more in their own human capital within marriage, and thus may be more financially secure and have to work less later in life.

References

Bac, Mehmet. 2015. "On the Selection Effects Under Consent and Unilateral Divorce," *American Law and Economics Review*, Vol. 17 (1): 43–86.

Couch, Kenneth A., Christopher R. Tamborini, Gayle L. Reznik, and John W. R. Phillips. 2011. "Impact of Divorce on Women's Earnings and Retirement Over the Life Course." Paper presented at the Conference on Unexpected Lifecycle Events and Economic Well-Being: The Roles of Job Loss, Disability, and Changing Family Structure. Federal Reserve Bank of San Francisco, CA.

Cribb, Jonathan, Carl Emmerson, and Gemma Tetlow. 2014. "How does increasing the early retirement age for women affect the labour supply of women and their husbands?" Netspar Discussion Paper 01/2014-003.

Fernández, Raquel and Joyce C. Wong. 2014. "Divorce Risk and Working Wives: A quantitative life-cycle analysis of female labor force participation." *Economic Journal*, Vol. 124 (May): 319-358.

Friedberg, Leora. 1998. "Did Unilateral Divorce Raise Divorce Rates? Evidence from Panel Data." *American Economic Review*, Vol. 88(3): 608-627.

Gray Jeffrey. 1998. "Divorce-law Changes, Household Bargaining and Female Labor Supply." *American Economic Review*, Vol. 88(3): 628-642.

Gruber Jonathan. 2004. "Is making divorce easier bad for children? The long-run implications of unilateral divorce." *Journal of Labor Economics*, Vol. 22(4): 799-833.

Greene, W.H., and A.O. Quester. 1982. "Divorce risk and wives' labor supply behavior," *Social Science Quarterly*, Vol. 63: 16-27.

Holden, Karen and Fontes, Angela. 2009 "Economic Security in Retirement," *Journal of Women, Politics & Policy*, Vol. 30(2): 173-197.

Iams, Howard M. and Christopher R. Tamborini. 2012. "The Implications of Marital History Change on Women's Eligibility for Social Security Wife and Widow Benefits, 1990–2009," *Social Security Bulletin*, Vol. 72, No. 2.

Johnson W.R. and Skinner J. 1986. "Labor Supply and Marital Separation," *American Economic Review*, 76(3): 455-469.

Lusardi, Annamaria and Olivia S. Mitchell. 2008. "Planning and Financial Literacy: How Do Women Fare?" *American Economic Review* 98(2): 413–417.

Munnell, Alicia. 2004. "Why Are So Many Older Women Poor" Just the Facts 10, Center for Retirement Research, Boston College.

Panis, Constantijn, Michael Hurd, David Loughran, Julie Zissimopoulos, Steven Haider and Patricia StClair. 2002. "The Effects of Changing Social Security Administration's Early Retirement Age and the Normal Retirement Age." Santa Monica: RAND.

Rasul, Imran. 2006. "Marriage markets and divorce laws." *Journal of Law, Economics, and Organization*, Vol. 22: 1:30–69.

Rotz, Dana. 2015. "Why Have Divorce Rates Fallen? The Role of Women's Age at Marriage," *Journal of Human Resources*, doi: 10.3368/jhr.51.4.0214-6224R.

Stevenson, Betsey. 2007. "The Impact of Divorce Laws on Marriage-Specific Capital," *Journal of Labor Economics*, Vol. 25(1): 75-94.

Stevenson, Betsey. 2008. "Divorce Law and Women's Labor Supply," *Journal of Empirical Legal Studies*, Vol. 5(4): 853-873.

Stevenson, Betsey and Justin Wolfers. 2006. "Bargaining in the Shadow of the Law: Divorce Laws and Family Distress," *Quarterly Journal of Economics*, Vol. 121(1): 267-288.

Stevenson, Betsey and Justin Wolfers. 2007. "Marriage and divorce: Changes and their driving forces." *Journal of Economic Perspectives*, Vol. 21 (2): 27-52.

Tamborini, Christopher R., Howard M. Iams, and Kevin Whitman. 2009. "Marital Histories, Race, and Social Security Spouse and Widow Benefit Eligibility in the United States." *Research on Aging*, 31(5): 577–605.

Tamborini, Christopher R. and Kevin Whitman. 2007. "Women, Marriage, and Social Security Benefits: Revisited," *Social Security Bulletin*, 67(4): 1–20.

Ulker, Aydogan. 2009. "Wealth Holdings and Portfolio Allocation of the Elderly: The Role of Marital History," *Journal of Family and Economic Issues*, Vol. 30(1): 90-108.

Vespa, Jonathan and Matthew A. Painter II. 2011. "Cohabitation History, Marriage, and Wealth Accumulation." *Demography* 48(3): 983-1004.

Voena, Alessandra. 2015. "Your, Mine and Ours: Do Divorce Laws Affect the Intertemporal Behavior of Married Couples?" *American Economic Review*, 105.8 (2015): 2295-2332

Wilmoth, Janet and Gregor Koso. 2002. "Does Marital History Matter? Marital Status and Wealth Outcomes Among Preretirement Adults," *Journal of Marriage and Family* 64: 254-68.

Weitzman, Lenore. 1985. *The divorce revolution*. New York: Free Press.

Wolfers, Justin. 2007. "Did Unilateral Divorce Laws Raise Divorce Rates? A Reconciliation and New Results." *American Economic Review*, Vol. 96(5): 1802-1820.

Zagorski, Jay L. 2005. "Marriage and divorce's impact on wealth," *Journal of Sociology*, Vol. 41 (December): 406-424,

Zissimopoulos, Julie, Benjamin Karney, and Amy Rauer. 2008. "Marital Histories and Economic Well-Being." Working Paper No. WP 2008-180. Ann Arbor, MI: University of Michigan Retirement Research Center.

Appendix: Timing of divorce law reforms

Note that in the descriptions below, “fully unilateral” means meeting all criteria, including no-fault alimony and having no separation requirement. “Unilateral” means that the state was not no-fault for alimony and/or assets.

ALASKA

Alaska became a no-fault state in 1935. Its first unilateral law was passed in 1962 and went into effect in 1963. The state became no-fault for alimony and asset division in 1974.

ALABAMA

Alabama became fully no-fault in 1971 (alimony and asset division included.)

ARKANSAS

Became no-fault in 1937 with a three-year mutually agreed upon separation requirement, and unilateral divorce allowed in 1979. The unilateral law had an 18-month separation requirement, and was no-fault for alimony/asset division.

ARIZONA

Arizona became fully no-fault (alimony included) with a law passed in 1973, which was implemented beginning in 1974.

CALIFORNIA

California passed a fully unilateral law (alimony included) in 1969, which went into effect in 1970.

COLORADO

Colorado introduced fully unilateral divorce with a law passed in 1971, effective starting 1972.

CONNECTICUT

Unilateral law passed in 1973 with no separation requirement.

DELAWARE

Unilateral with 6 month separation requirement in 1968, where couples also had to show that the marriage had been irretrievably broken for two years prior to the divorce. Became no-fault for alimony in 1979 (passed 1978) but still had a separation requirement.

DISTRICT OF COLUMBIA

Unilateral law passed in 1977. There was a six-month separation requirement if mutually agreed upon or a twelve-month separation requirement if contested.

FLORIDA

Introduced unilateral divorce with no separation requirement in 1971. Went no-fault for alimony in 1978.

GEORGIA

Introduced unilateral divorce with no separation requirement in 1973.

HAWAII

Introduced fully unilateral divorce in 1972.

IOWA

Iowa introduced unilateral divorce with no separation requirement in 1970, and without fault for alimony in 1972.

IDAHO

Idaho introduced unilateral divorce with no separation requirement in 1971, and for alimony in 1990.

ILLINOIS

Illinois became no-fault in 1984, with a law initially passed in 1983. The state had a two-year separation requirement and was no-fault for alimony.

INDIANA

Indiana introduced fully unilateral divorce in 1973.

KANSAS

Kansas introduced unilateral divorce in 1969 and no-fault for alimony in 1990.

KENTUCKY

Kentucky introduced unilateral divorce in 1972 and no-fault for alimony in 1987.

LOUISIANA

We are omitting Louisiana. There was little reliable and consistent information to be found on its historical divorce laws. This state allows covenant marriages, which only allow mutual consent or fault-based divorce. This is consistent with much of the literature.

MASSACHUSETTS

Massachusetts introduced unilateral divorce in 1975.

MARYLAND

Allowed divorce after five-year separation in 1937, but was not unilateral. This was shortened to three years in 1969. The state introduced unilateral divorce with a two-year separation requirement in 1983.

MAINE

Introduced unilateral divorce in 1973, and added no-fault alimony in 1985.

MICHIGAN

Introduced unilateral divorce with no separation requirement in 1972.

MINNESOTA

Introduced fully unilateral divorce in 1974.

MISSOURI

Introduced unilateral divorce in 1973.

MISSISSIPPI

Mississippi added no-fault provisions to its grounds for divorce in 1976, but did not allow unilateral divorce. This was expanded upon in 1978 by adding no-fault alimony, but the state remains non-unilateral.

MONTANA

Montana added no-fault provisions to its allowed grounds for divorce in 1973. It introduced fully unilateral divorce, no-fault alimony included, in 1975.

NORTH CAROLINA

We omit North Carolina. This state only allowed divorce on grounds of separation (originally 10 years, shortened to 1 year in 1965) and adultery, and not on other traditional grounds such as cruelty, neglect to provide, and desertion.

NORTH DAKOTA

North Dakota introduced fully unilateral divorce in 1971.

NEBRASKA

Nebraska introduced fully unilateral divorce in 1972.

NEW HAMPSHIRE

New Hampshire introduced unilateral divorce in 1971.

NEW JERSEY

New Jersey introduced unilateral divorce in 1971 with an 18-month separation requirement.

NEW MEXICO

New Mexico became no-fault in 1933, and unilateral in 1973. The state then became no-fault for alimony in 1976.

NEVADA

Nevada had loose divorce laws preceding the no-fault revolution but was not fully unilateral until 1973.

NEW YORK

New York is a fault state for divorce. Reforms in 1966 and 1967 only served to expand the list of allowed fault grounds for divorce.

OHIO

Ohio introduced unilateral divorce with a one-year separation requirement in 1974.

OKLAHOMA

Oklahoma was a unilateral state as early as 1953, and became no-fault for alimony in 1975.

OREGON

Oregon introduced fully unilateral divorce in 1973.

PENNSYLVANIA

Pennsylvania introduced unilateral divorce with some noteworthy restrictions in 1980. There was a three-year separation requirement, and if the divorce was contested, the court had to rule the marriage was broken in order for the divorce to be completed immediately. If the court did not rule that the marriage was broken, the judge had the authority to assign counseling before effectively ending the marriage. In practice, this appears to have allowed unilateral divorce.

RHODE ISLAND

Rhode Island introduced unilateral divorce in 1976.

SOUTH CAROLINA

South Carolina introduced unilateral divorce with a three-year separation requirement in 1969. This requirement was shortened to one year in 1979.

SOUTH DAKOTA

South Dakota introduced unilateral divorce in 1985.

TENNESSEE

Tennessee introduced unilateral divorce in 1977 with a separation requirement that varied upon whether the couple had children (minimum two years).

TEXAS

Texas introduced unilateral divorce in 1970.

UTAH

Utah introduced unilateral divorce in 1987.

VIRGINIA

Virginia introduced unilateral divorce in 1960 with a varying separation requirement (minimum six months).

VERMONT

Vermont introduced unilateral divorce in 1969 with a six-month separation requirement.

WASHINGTON

Washington introduced fully unilateral divorce in 1973.

WISCONSIN

Wisconsin introduced unilateral divorce with a one-year separation requirement in 1978.

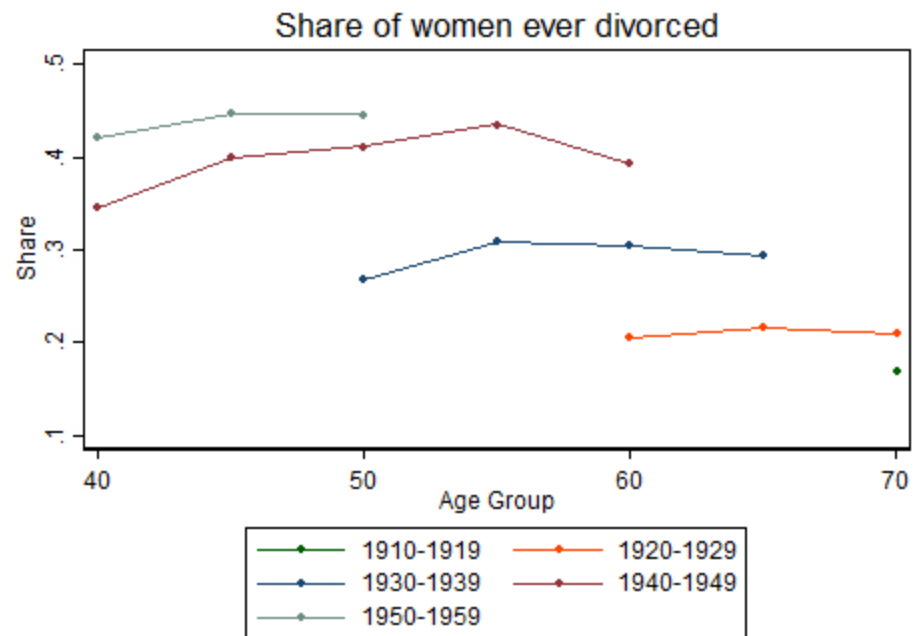
WEST VIRGINIA

West Virginia introduced unilateral divorce with a two-year separation requirement in 1977, which has since been reduced to one year.

WYOMING

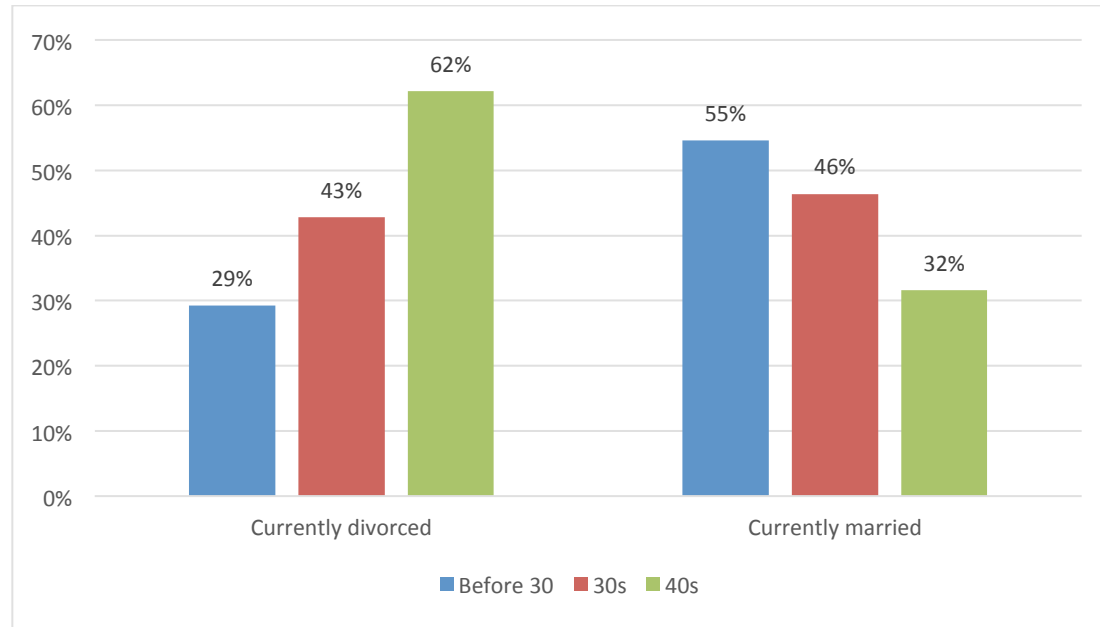
Wyoming introduced unilateral divorce in 1977.

Figure 1: Change in incidence of divorce, age profiles by cohort



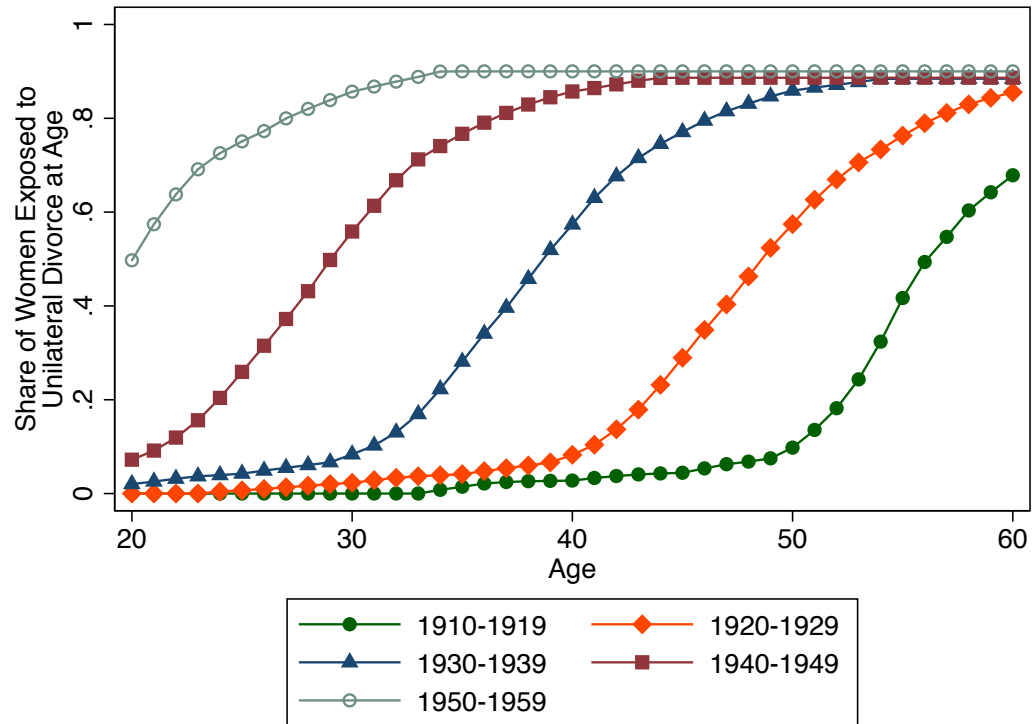
Source: Women age 40-74 at first interview in the SIPP, 1986-2008 Panels.

Figure 2: Age at divorce and current marital status (ever divorced women)



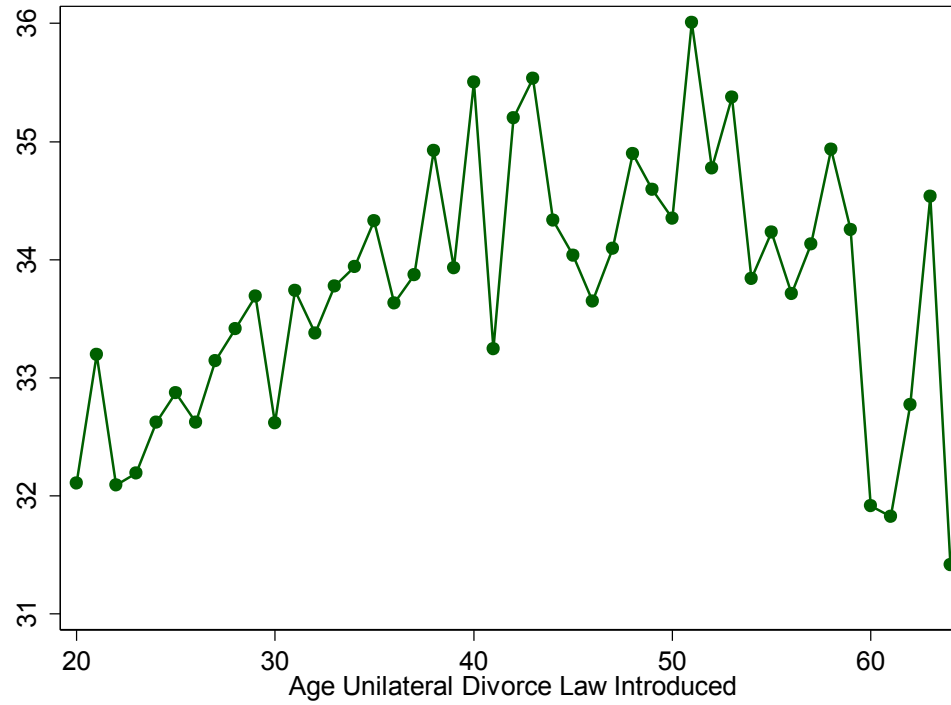
Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels. Sample: Ever divorced women

Figure 3: Exposure to Unilateral Divorce over the Life-cycle by Cohort (All Women)



Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Figure 4: Age at Divorce and Age Unilateral Divorce Introduced



Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Women born in states where unilateral divorce was never available are omitted from this analysis.

Table 1: Marital Status and Later-Life Employment – All Women

	<i>Employed full time at any point in panel</i>		<i>Employed at any point in panel</i>	<i>Employed full time in first panel month</i>
<i>Ever divorced</i>	0.0724*** (0.00407)	0.0195*** (0.00491)	0.0169*** (0.00502)	0.0158*** (0.00481)
<i>Ever widowed</i>	0.0250*** (0.00423)	-0.00600 (0.00833)	-0.00843 (0.00910)	-0.00516 (0.00806)
<i>Currently divorced</i>		0.125*** (0.00673)	0.0930*** (0.00655)	0.133*** (0.00676)
<i>Currently widowed</i>		0.0563*** (0.00895)	0.0549*** (0.00992)	0.0551*** (0.00862)
<i>Currently separated</i>		0.000813 (0.0166)	-0.0441*** (0.0166)	0.0131 (0.0161)
<i>Divorced by 50</i>			0.0752*** (0.00440)	
<i>Widowed by 50</i>			0.0452*** (0.00703)	
<i>Age at marriage</i>	0.00195*** (0.000315)	0.00156*** (0.000315)	0.00216*** (0.000352)	0.000941*** (0.000329)
<i>Observations</i>	55,835	55,835	49,242	(0.000306)
<i>R-squared</i>	0.259	0.264	0.250	55,835

Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Regressions also control for birth year, state of birth, panel fixed effects, race, education at interview and urban location at interview. Robust standard errors in parentheses.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 2: Marital Status and Later-Life Employment – Subsamples

	<i>Employed full time any time in panel</i>				
	<i>College or More</i>	<i>Some College or Less</i>	<i>Age 60 or older</i>	<i>White</i>	<i>Non-white</i>
<i>Ever divorced</i>	0.0227*	0.0194***	0.0116**	0.0202***	0.0127
	(0.0134)	(0.00527)	(0.00575)	(0.00567)	(0.00993)
<i>Ever widowed</i>	-0.0152	-0.00595	0.00369	0.00434	-0.0425**
	(0.0278)	(0.00872)	(0.00860)	(0.00938)	(0.0180)
<i>Currently divorced</i>	0.141***	0.120***	0.114***	0.139***	0.0914***
	(0.0161)	(0.00747)	(0.00919)	(0.00793)	(0.0129)
<i>Currently widowed</i>	0.0912***	0.0513***	0.0394***	0.0594***	0.0587***
	(0.0305)	(0.00935)	(0.00914)	(0.0102)	(0.0188)
<i>Currently separated</i>	0.0831*	-0.00576	0.0452*	0.0115	-0.00346
	(0.0427)	(0.0178)	(0.0234)	(0.0267)	(0.0212)
<i>Age at marriage</i>	-0.000729	0.00206***	0.00156***	0.00159***	0.00154***
	(0.000779)	(0.000344)	(0.000357)	(0.000375)	(0.000579)
<i>Observations</i>	9,479	46,356	29,748	42,539	13,296
<i>R-squared</i>	0.272	0.246	0.141	0.267	0.266

Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Regressions also control for birth year, state of birth, panel fixed effects, race (if applicable), education at interview (if applicable) and urban location at interview. Robust standard errors in parentheses.

*/**/*** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 3: Marital Status, Social Security and Retirement

	<i>Collected social security at any point in panel</i>			<i>Retired at any point in panel</i>	
	<i>Whole Sample</i>		<i>Aged 62+</i>	<i>Whole Sample</i>	
<i>Ever divorced</i>	0.0145*** (0.00325)	0.0173*** (0.00395)	0.00547 (0.00419)	-0.00975** (0.00381)	0.0231*** (0.00469)
<i>Ever widowed</i>	0.0395*** (0.00375)	0.0248*** (0.00719)	-0.000611 (0.00694)	-4.20e-06 (0.00443)	0.0201** (0.00853)
<i>Currently divorced</i>		-0.00489 (0.00552)	-0.0257*** (0.00650)		-0.0782*** (0.00622)
<i>Currently widowed</i>		0.0188** (0.00783)	-0.00335 (0.00724)		-0.0374*** (0.00932)
<i>Currently separated</i>		0.0356** (0.0146)	-0.0356** (0.0179)		-0.0827*** (0.0145)
<i>Age at marriage</i>	-0.000739*** (0.000268)	-0.000753*** (0.000268)	-0.00115*** (0.000291)	0.000808*** (0.000312)	0.00108*** (0.000312)
<i>White</i>	-0.000771 (0.00516)	-2.46e-05 (0.00517)	0.0203*** (0.00483)	0.00900 (0.00579)	0.00467 (0.00579)
<i>Black</i>	0.0218*** (0.00813)	0.0212*** (0.00813)	-0.0104 (0.00888)	0.0257*** (0.00877)	0.0289*** (0.00876)
<i>Other races</i>	0.0233* (0.0131)	0.0236* (0.0131)	0.0243* (0.0132)	0.0282* (0.0151)	0.0276* (0.0150)
<i>Less than high school</i>	-0.0114*** (0.00326)	-0.0116*** (0.00326)	-0.00745** (0.00336)	0.00974** (0.00390)	0.0114*** (0.00390)
<i>High school</i>	0.114*** (0.00514)	0.113*** (0.00515)	0.0699*** (0.00652)	-0.0898*** (0.00611)	-0.0893*** (0.00611)
<i>Some college</i>	0.0877*** (0.00420)	0.0872*** (0.00421)	0.0680*** (0.00607)	-0.0410*** (0.00515)	-0.0418*** (0.00515)
<i>Observations</i>	55,835	55,835	24,958	55,835	55,835
<i>R-squared</i>	0.563	0.564	0.080	0.374	0.376

Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Regressions also control for birth year, state of birth, panel fixed effects and urban location at interview. Omitted categories: Hispanic, College or more. Robust standard errors in parentheses.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 4: Divorce Timing and Later-Life Outcomes

	<i>Employed full time at any point in panel</i>		<i>Collected social security at any point in panel</i>		<i>Retired at any point in panel</i>	
<i>Ever widowed</i>	-0.0254 (0.0195)	-0.0251 (0.0195)	0.0445*** (0.0167)	0.0451*** (0.0167)	-0.00448 (0.0188)	-0.00500 (0.0189)
<i>Currently divorced</i>	0.113*** (0.00779)	0.114*** (0.00778)	0.00415 (0.00635)	0.00294 (0.00635)	-0.0810*** (0.00715)	-0.0814*** (0.00713)
<i>Currently widowed</i>	0.0692*** (0.0210)	0.0683*** (0.0211)	0.0242 (0.0183)	0.0243 (0.0183)	-0.0329 (0.0208)	-0.0323 (0.0208)
<i>Currently separated</i>	0.0334 (0.0307)	0.0339 (0.0307)	0.0434* (0.0261)	0.0433* (0.0261)	-0.0795*** (0.0255)	-0.0798*** (0.0255)
<i>Age at divorce</i>	0.00166*** (0.000388)		-0.000818** (0.000322)		-0.000255 (0.000369)	
<i>Divorced in 30s</i>		0.0295*** (0.00826)		-0.00954 (0.00673)		-0.0114 (0.00762)
<i>Divorced in 40s</i>		0.0362*** (0.00996)		-0.0140* (0.00812)		-0.00216 (0.00914)
<i>Divorced in 50s</i>		0.0480*** (0.0151)		-0.0251** (0.0123)		-0.0174 (0.0146)
<i>Divorced at age 60+</i>		0.000629 (0.0288)		0.0153 (0.0245)		0.0174 (0.0309)
<i>Age at marriage</i>	0.00179** (0.000850)	0.00192** (0.000841)	-0.00126* (0.000714)	-0.00144** (0.000709)	0.000796 (0.000803)	0.000834 (0.000796)
<i>Observations</i>	17,054	17,054	17,054	17,054	17,054	17,054
<i>R-squared</i>	0.255	0.255	0.507	0.507	0.360	0.360

Source: Ever-divorced women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Regressions also control for birth year, state of birth, panel fixed effects, race, education at interview and urban location at interview. Robust standard errors in parentheses.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 5: Effect of Age When Unilateral Divorce Became Available on Ever-Divorce

	<i>Indicator for Ever-Divorce</i>					
	<i>All women</i>	<i>60+</i>	<i>White</i>	<i>Non-white</i>	<i>College+</i>	<i>Some college</i>
<i>Age when unilateral divorce introduced</i>	0.00918*	0.0154***	0.00988*	-0.0142	0.0723***	-0.0113**
	(0.00454)	(0.00102)	(0.00499)	(0.0165)	(0.00940)	(0.00546)
<i>Age at marriage</i>	-0.0140***	-0.0106***	-0.0146***	-0.0122***	-0.0145***	-0.0149***
	(0.000458)	(0.000397)	(0.000483)	(0.000621)	(0.00148)	(0.000454)
<i>Observations</i>	30,321	15,891	23,001	7,320	5,050	24,750
<i>R-squared</i>	0.089	0.069	0.095	0.081	0.085	0.102

Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Regressions also control for birth year, state of birth, panel fixed effects, race (if applicable), education at interview (if applicable) and urban location at interview. Women born in states where unilateral divorce was never available are omitted from this analysis. Standard errors clustered by state of birth are reported in parentheses.

*** Significant different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 6: Effect of Age When Unilateral Divorce Became Available on Age at Divorce

	<i>Age at Divorce</i>							
	<i>All women</i>	<i>White</i>	<i>Non-white</i>	<i>College+</i>	<i>60+</i>	<i>Some college</i>		
<i>Age when unilateral divorce introduced</i>	0.257** (0.123)	0.220** (0.108)	1.290*** (0.0403)	0.413*** (0.144)	0.00940 (0.302)	0.167 (0.169)	0.444*** (0.0613)	0.458*** (0.139)
<i>Age at marriage</i>		0.964*** (0.0211)		0.983*** (0.0275)	0.924*** (0.0207)	0.856*** (0.0462)	0.999*** (0.0240)	0.992*** (0.0232)
<i>Marriage duration when unilateral divorce introduced</i>			-0.137*** (0.0347)					
<i>Observations</i>	10,133	10,133	4,039	7,457	2,676	1,672	4,401	8,461
<i>R-squared</i>	0.0739	0.228	0.476	0.228	0.254	0.283	0.228	0.210

Source: Ever divorced women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Regressions also control for birth year, state of birth, panel fixed effects, race (if applicable), education at interview (if applicable) and urban location at interview. Women born in states where unilateral divorce was never available are omitted from this analysis. Standard errors clustered by state of birth are reported in parentheses.

*** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 7: Effect of Age When Unilateral Divorce Became Available on Later-Life Employment

<i>Employed full time at any point in panel: Whole Sample</i>						
<i>Age when unilateral divorce introduced</i>	-0.00325	-0.00613	-0.00222	-0.00649	-0.00767**	-0.0116***
	(0.00417)	(0.00417)	(0.00401)	(0.00407)	(0.00354)	(0.00364)
<i>Age at marriage</i>	0.000538**	0.000983***				
	(0.000259)	(0.000275)				
<i>Worked during 1st marriage * Age unilateral introduced</i>					1.69e-06	-0.000236
					(0.000686)	(0.000698)
<i>Worked during 1st marriage</i>					0.0634***	0.0690***
					(0.0198)	(0.0201)
<i>Marriage duration when unilateral divorce introduced</i>			-0.000723***	-0.000148	-0.000944**	-0.000223
			(0.000159)	(0.000151)	(0.000427)	(0.000441)
<i>Control for current marital status</i>	No	Yes	No	Yes	No	Yes
<i>Observations</i>	30,370	30,370	30,370	30,370	16,306	16,306
<i>R-squared</i>	0.249	0.259	0.249	0.259	0.143	0.153
<i>Employed full time at any point in panel: Age 60 and Older</i>						
<i>Age when unilateral divorce introduced</i>	-0.00812***	-0.00750***	-0.00864***	-0.00781***	-0.00713**	-0.00679**
	(0.000810)	(0.000771)	(0.000804)	(0.000775)	(0.00294)	(0.00298)
<i>Age at marriage</i>	0.000665	0.000982**				
	(0.000471)	(0.000462)				
<i>Worked during 1st marriage * Age unilateral introduced</i>					0.000925	0.000497
					(0.00163)	(0.00165)
<i>Worked during 1st marriage</i>					0.0375	0.0520
					(0.0582)	(0.0580)
<i>Marriage duration when unilateral divorce introduced</i>			-0.000761***	-0.000237*	-0.000979	-0.000198
			(0.000130)	(0.000127)	(0.000650)	(0.000643)
<i>Control for current marital status</i>	No	Yes	No	Yes	No	Yes
<i>Observations</i>	15,934	15,934	15,934	15,934	4,403	4,403
<i>R-squared</i>	0.129	0.143	0.130	0.143	0.121	0.133
<i>Employed full time at any point in panel: Age 60 and Older, Ever Divorced</i>						
<i>Age when unilateral divorce introduced</i>	0.00587***	0.00804***	0.00622***	0.00795***	0.0385***	0.0392***
	(0.00197)	(0.00199)	(0.00199)	(0.00201)	(0.00899)	(0.00948)
<i>Age at marriage</i>	0.00367***	0.00189*				
	(0.00105)	(0.00102)				
<i>Worked during 1st marriage * Age unilateral introduced</i>					0.00273	0.00252
					(0.00205)	(0.00219)
<i>Worked during 1st marriage</i>					-0.0508	-0.0439
					(0.0685)	(0.0749)
<i>Marriage duration when unilateral divorce introduced</i>			0.000817*	-0.000169	0.00263**	0.00145
			(0.000441)	(0.000464)	(0.00120)	(0.00123)
<i>Control for current marital status</i>	No	Yes	No	Yes	No	Yes
<i>Observations</i>	4,567	4,567	4,567	4,567	1,613	1,613
<i>R-squared</i>	0.146	0.161	0.146	0.160	0.131	0.148

Table 7 continued

<i>Employed full time at any point in panel: Age 60 and Older, Never Divorced</i>						
<i>Age when unilateral divorce introduced</i>	-0.0175*** (0.00109)	-0.0171*** (0.00107)	-0.0175*** (0.00111)	-0.0172*** (0.00110)	-0.0274*** (0.00229)	-0.0270*** (0.00230)
<i>Age at marriage</i>	0.000870* (0.000491)	0.00101* (0.000498)				
<i>Worked during 1st marriage * Age unilateral introduced</i>					-0.000826 (0.00224)	-0.000958 (0.00225)
<i>Worked during 1st marriage</i>					0.118 (0.0861)	0.122 (0.0865)
<i>Marriage duration when unilateral divorce introduced</i>			-0.000548** (0.000249)	-0.000335 (0.000262)	-0.00108 (0.000919)	-0.000702 (0.000969)
<i>Control for current marital status</i>	No	Yes	No	Yes	No	Yes
<i>Observations</i>	11,324	11,324	11,324	11,324	2,787	2,787
<i>R-squared</i>	0.122	0.125	0.122	0.124	0.142	0.144

Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Regressions also control for birth year, state of birth, panel fixed effects, race, education at interview and urban location at interview. Women born in states where unilateral divorce was never available are omitted from this analysis. Standard errors clustered by state of birth are reported in parentheses.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 8: Effect of Age When Unilateral Divorce Became Available on Later-Life Outcomes

	<i>Employed at any point in panel</i>	<i>Employed full time in first panel month</i>	<i>Collected social security at any point in panel</i>	<i>Retired at any point in panel</i>
<i>Women 60+</i>				
<i>Age when unilateral divorce introduced</i>	-0.00817*** (0.00106)	-0.0110*** (0.000760)	-0.00576*** (0.000692)	-0.00388*** (0.00106)
<i>Marriage duration when unilateral divorce introduced</i>	-0.000832*** (0.000197)	-0.000692*** (0.000131)	0.000151 (0.000128)	-0.000841*** (0.000202)
<i>Observations</i>	15,934	15,934	15,934	15,934
<i>R-squared</i>	0.148	0.102	0.210	0.273
<i>Ever Divorced Women 60+</i>				
<i>Age when unilateral divorce introduced</i>	0.0128*** (0.00204)	-0.00579*** (0.00173)	-0.0159*** (0.00174)	-0.0115*** (0.00205)
<i>Marriage duration when unilateral divorce introduced</i>	0.00172*** (0.000458)	0.000772* (0.000395)	-0.000416 (0.000293)	0.000306 (0.000464)
<i>Observations</i>	4,567	4,567	4,567	4,567
<i>R-squared</i>	0.171	0.123	0.195	0.224
<i>Never Divorced Women 60+</i>				
<i>Age when unilateral divorce introduced</i>	-0.0203*** (0.00140)	-0.0143*** (0.000945)	1.77e-05 (0.000861)	-0.000423 (0.00128)
<i>Marriage duration when unilateral divorce introduced</i>	-0.000722** (0.000289)	-0.000441* (0.000235)	0.000571** (0.000257)	-0.00102*** (0.000351)
<i>Observations</i>	11,324	11,324	11,324	11,324
<i>R-squared</i>	0.138	0.093	0.223	0.301

Source: Women age 60-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Regressions also control for birth year, state of birth, panel fixed effects, race, education at interview and urban location at interview. Women born in states where unilateral divorce was never available are omitted from this analysis. Standard errors clustered by state of birth are reported in parentheses.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 9: Effect of Age When Unilateral Divorce Became Available on Later-Life Employment – Subsamples

	<i>Employed Full Time During Panel</i>							
	<i>Ever divorced, Age 60 or older</i>				<i>Never divorced, Age 60 or older</i>			
	<i>White</i>	<i>Non-white</i>	<i>College+</i>	<i>Some college or less</i>	<i>White</i>	<i>Non-white</i>	<i>College+</i>	<i>Some college or less</i>
<i>Age when unilateral divorce introduced</i>	-0.00236 (0.00199)	0.0405*** (0.00716)	0.0998*** (0.0150)	0.000385 (0.00200)	-0.0200*** (0.000523)	-0.0110** (0.00495)	-0.0504*** (0.00756)	-0.0148*** (0.00108)
<i>Marriage duration when unilateral divorce introduced</i>	0.000997** (0.000473)	0.000276 (0.000886)	-0.00229 (0.00152)	0.00116** (0.000500)	-0.000473* (0.000278)	-0.000892* (0.000475)	-0.00214* (0.00109)	-0.000422 (0.000251)
<i>Observations</i>	3,384	1,183	620	3,947	8,800	2,524	1,492	9,832
<i>R-squared</i>	0.146	0.194	0.267	0.137	0.127	0.148	0.183	0.111

Source: Women age 60-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Regressions also control for birth year, state of birth, panel fixed effects, race (if applicable), education at interview (if applicable) and urban location at interview. Women born in states where unilateral divorce was never available are omitted from this analysis. Standard errors clustered by state of birth are reported in parentheses.

*** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Table 10: Potential Mechanisms

	<i>Ever divorced, Age 60 or older</i>				<i>Never divorced, Age 60 or older</i>		
	<i>Obtained additional education after marriage</i>	<i>Have IRA, Keogh, 401K, 403b, or Thrift plan</i>	<i>Total market value of all retirement accounts in own name</i>	<i>Youngest child over 18 at divorce</i>	<i>Obtained additional education after marriage</i>	<i>Have IRA, Keogh, 401K, 403b, or Thrift plan</i>	<i>Total market value of all retirement accounts in own name</i>
<i>Age when unilateral divorce introduced</i>	-0.00515*** (0.00111)	0.0107*** (0.00286)	-684.0*** (192.2)	0.0198*** (0.00120)	0.0104*** (0.000749)	0.00436*** (0.00106)	40.10 (112.2)
<i>Observations</i>	4,538	3,347	3,350	4,710	11,292	7,441	7,441
<i>R-squared</i>	0.564	0.260	0.066	0.427	0.675	0.333	0.054

Source: Women age 60-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Regressions also control for birth year, state of birth, panel fixed effects, race, education at marriage, urban location at interview and age at marriage. Women born in states where unilateral divorce was never available are omitted from this analysis. Standard errors clustered by state of birth are reported in parentheses.

*** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.

Appendix Table 1: Summary Statistics

	<i>All Women</i>		<i>Ever divorced women</i>		<i>Women where unilateral divorce ever available</i>		<i>Ever divorced women where unilateral divorce ever available</i>	
	<i>Mean</i>	<i>Std. Deviation</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Age</i>	60.76	7.11	59.34	6.77	60.72	7.08	59.35	6.76
<i>Currently married</i>	0.68	0.47	0.44	0.50	0.70	0.46	0.46	0.50
<i>Currently divorced</i>	0.14	0.35	0.44	0.50	0.13	0.34	0.43	0.49
<i>Currently separated</i>	0.01	0.12	0.02	0.13	0.01	0.11	0.02	0.12
<i>Currently widowed</i>	0.17	0.37	0.10	0.30	0.15	0.36	0.10	0.30
<i>Ever divorced</i>	0.32	0.47	1.00	0.00	0.31	0.46	1.00	0.00
<i>Age at divorce</i>	33.61	9.97	33.61	9.97	33.41	9.93	33.41	9.93
<i>Divorced by 50</i>	0.29	0.46	0.98	0.15	0.29	0.45	0.98	0.16
<i>Age at marriage</i>	22.08	5.79	20.85	4.45	21.99	5.70	20.77	4.37
<i>Less than HS</i>	0.19	0.40	0.18	0.39	0.19	0.40	0.18	0.39
<i>High School</i>	0.37	0.48	0.32	0.47	0.37	0.48	0.32	0.47
<i>Some college</i>	0.26	0.44	0.32	0.47	0.27	0.44	0.33	0.47
<i>College or more</i>	0.17	0.37	0.17	0.38	0.17	0.37	0.16	0.37
<i>Less than HS at marriage</i>	0.28	0.45	0.32	0.47	0.32	0.47	0.34	0.47
<i>High School at marriage</i>	0.40	0.49	0.38	0.49	0.38	0.48	0.37	0.48
<i>Some college at marriage</i>	0.24	0.43	0.25	0.43	0.23	0.42	0.24	0.43
<i>College or more at marriage</i>	0.08	0.26	0.05	0.22	0.07	0.25	0.05	0.21
<i>Employed full time at any point in panel</i>	0.33	0.47	0.43	0.50	0.33	0.47	0.43	0.50
<i>Employed at any point in panel</i>	0.49	0.50	0.58	0.49	0.49	0.50	0.58	0.49
<i>Employed full time in first panel month</i>	0.28	0.45	0.36	0.48	0.27	0.45	0.36	0.48
<i>Collected social security at any point in panel</i>	0.53	0.50	0.48	0.50	0.52	0.50	0.48	0.50
<i>Retired at any point in panel</i>	0.46	0.50	0.44	0.50	0.45	0.50	0.43	0.50
<i>Worked during 1st marriage</i>	0.66	0.47	0.63	0.48	0.66	0.47	0.63	0.48
<i>Obtained additional education after marriage</i>	0.80	0.40	0.85	0.36	0.80	0.40	0.85	0.36
<i>Obtained additional degree after marriage</i>	0.28	0.45	0.39	0.49	0.28	0.45	0.39	0.49
<i>Have IRA, Keogh, 401K, 403b, or Thrift plan</i>	0.48	0.50	0.44	0.50	0.49	0.50	0.45	0.50
<i>Total mkt value all retirement accounts in own name</i>	8461.46	32251.30	9739.27	33833.15	8296.76	31737.22	9629.71	33536.01
<i>Oldest child under 6 at divorce</i>	0.23	0.42	0.27	0.44	0.24	0.43	0.28	0.45

Appendix Table 2: Unilateral Divorce Laws

	<i>Definition 1: No-fault dissolution, no separation requirement</i>	<i>Definition 2: No-fault dissolution, allows for separation requirement</i>	<i>Definition 3: No-fault dissolution, no separation, no-fault property/alimony</i>	<i>Wolfers (2006)</i>	<i>Gruber (2004)</i>	<i>Friedberg (1998)</i>	<i>Voena (2015)</i>
<i>AK</i>	1963	1963	1974	1935	1935	no	pre-1967
<i>AL</i>	1971	1971	1971	1971	1971	1971	1971
<i>AR</i>	no	1979	no	no	no	no	no
<i>AZ</i>	1974	1974	1974	1973	1973	1973	1973
<i>CA</i>	1970	1970	1970	1970	1970	1970	1970
<i>CO</i>	1972	1972	1972	1971	1972	1971	1972
<i>CT</i>	1973	1973	no	1973	1973	1973	1973
<i>DC</i>	no	1977	no	no	no	no	no
<i>DE</i>	1974	1968	no	no	1968	no	1968
<i>FL</i>	1971	1971	1978	1971	1971	1971	1971
<i>GA</i>	1973	1973	no	1973	1973	1973	1973
<i>HI</i>	1972	1972	1972	1973	1972	1973	1972
<i>IA</i>	1970	1970	1972	1970	1970	1970	1970
<i>ID</i>	1971	1971	1990	1971	1971	1971	1971
<i>IL</i>	no	1984	no	no	no	no	no
<i>IN</i>	1973	1973	1973	1973	1973	1973	1973
<i>KS</i>	1969	1969	1990	1969	1969	1969	1969
<i>KY</i>	1972	1972	1987	1972	1972	1972	1972
<i>LA</i>	no	no	no	no	no	no	no
<i>MA</i>	1975	1975	no	1975	1975	1975	1975
<i>MD</i>	no	1983	no	no	no	no	no
<i>ME</i>	1973	1973	1985	1973	1973	1973	1973
<i>MI</i>	1972	1972	no	1972	1972	1972	1972
<i>MN</i>	1974	1974	1974	1974	1974	1974	1974
<i>MO</i>	no	1973	no	no	no	no	no
<i>MS</i>	no	no	no	no	no	no	no

Appendix Table 2 continued

<i>MT</i>	1975	1975	1975	1975	1973	1975	1973
<i>NC</i>	no	no	no	no	no	no	no
<i>ND</i>	1971	1971	1971	1971	1971	1971	1971
<i>NE</i>	1972	1972	1972	1972	1972	1972	1972
<i>NH</i>	1971	1971	1971	1971	1971	1971	1971
<i>NJ</i>	no	1971	no	no	no	no	no
<i>NM</i>	1973	1973	1976	1973	1933	1973	1973
<i>NV</i>	1973	1973	1973	1973	1967	1973	1967
<i>NY</i>	no	no	no	no	no	no	no
<i>OH</i>	no	1974	no	no	no	no	1992
<i>OK</i>	1953	1953	1975	1953	1953	no	pre-1967
<i>OR</i>	1971	1971	1971	1973	1971	1973	1971
<i>PA</i>	no	1980	no	no	no	no	no
<i>RI</i>	1976	1976	no	1976	1975	1976	1975
<i>SC</i>	no	1969	no	no	no	no	no
<i>SD</i>	1985	1985	no	1985	1985	1985	1985
<i>TN</i>	no	1977	no	no	no	no	no
<i>TX</i>	1970	1970	no	1974	1970	1974	1970
<i>UT</i>	1987	1987	no	no	1987		1987
<i>VA</i>	no	1960	no	no	no	no	no
<i>VT</i>	no	1969	no	no	no	no	no
<i>WA</i>	1973	1973	1973	1973	1973	1973	1973
<i>WI</i>	no	1978	no	no	1978	no	1978
<i>WV</i>	no	1977	no	no	no	no	1984
<i>WY</i>	1977	1977	no	1977	1977	1977	1977

Appendix Table 3: Effect of Age When Unilateral Divorce Became Available on Ever-Divorce

	<i>Indicator for Divorced by 50</i>				
	<i>All women</i>	<i>60+</i>	<i>White</i>	<i>Non-white</i>	<i>College+</i>
<i>Age when unilateral divorce became available</i>	0.00865*	0.0163***	0.00998*	-0.0115	0.0605***
	(0.00458)	(0.00107)	(0.00503)	(0.0161)	(0.00891)
<i>Age at marriage</i>	-0.0151***	-0.0116***	-0.0154***	-0.0139***	-0.0159***
	(0.000488)	(0.000455)	(0.000529)	(0.000581)	(0.00131)
<i>Observations</i>	29,623	15,472	22,518	7,105	4,873
<i>R-squared</i>	0.098	0.075	0.104	0.094	0.097

Source: Women age 50-74 at first interview in the SIPP, 1986-2008 Panels.

Notes: Age when unilateral divorce became available is determined based on state of birth. Regressions also control for birth year, state of birth, panel fixed effects, race (if applicable), education at interview (if applicable) and urban location at interview. Women born in states where unilateral divorce was never available are omitted from this analysis. Standard errors clustered by state of birth are reported in parentheses.

*/**/*** Significantly different from zero at the 0.10/0.05/0.01 level, two tailed test.