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IZA DP No. 10503

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ABSTRACT

Marital Instability in the United States: Trends, Driving Forces, and Implications for Children

This paper surveys some of the main strands in the recent literature on the economics of divorce, with a focus on U.S. studies. We begin with a discussion of changes over time in the divorce rate and the widening gap in marital instability by socioeconomic status. We review the role of age at entry into first marriage, including recent analyses that find strikingly different relationships by race and ethnicity. Compared to other developed economies, the divorce rate in the U.S. is exceptionally high. We offer possible explanations, including the roles of theologically conservative religions (which promote early entry into motherhood and marriage, and low female education), and the high levels of both income inequality and teen fertility in the U.S. We review the effects of divorce reforms. While such reforms have made it easier for women to leave violent marriages, lack of an ability to be economically self sufficient remains an important barrier for many women trapped in such marriages. In light of this, we discuss the importance of caution in interpreting research findings: a high level of marital stability is not always the best outcome. Finally, we review the literature on the effects of divorce on the well-being of children and the role of child support policies.

JEL Classification: J12

Keywords: divorce, marital dissolution, marital instability, family structure

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INTRODUCTION

Economic analyses of divorce started in the 1970s with the seminal research of Gary Becker and his colleagues (Becker 1973, 1974; Becker, Landes and Michael 1977). In this work, marriage is viewed as a partnership that helps coordinate and facilitate production, investment and consumption activities, including raising children. The amount of the gain associated with marriage varies across couples, depending on the traits of each spouse, the quality of their match, the degree of specialization, and the level of investments in general and marriage-specific human capital. Divorce means that although initially both partners expected to be better off married to each other compared to their best alternatives, at a subsequent time this is no longer true. Thus either expectations were incorrect or major unforeseen events occurred. Unions where gains from marriage started at a high level can better withstand the winds of mistaken expectations or unforeseen events. Early studies in the literature, surveyed by Weiss (1997) and Lehrer (2003), followed closely the analytical framework developed by Becker and his colleagues and the path that they illuminated. The present chapter reviews some of the main strands in the more recent literature, with a focus on U.S. studies.

TRENDS

Changes over time in the divorce rate

The pronounced increase in the divorce rate over much of the 20th century is one of the most salient demographic trends in the U.S. landscape. The rate was unusually low in the 1950s and early 1960s, and unusually high in the 1970s - over this period the annual divorce rate more than doubled. But the long term trend line shows a pattern of secular increase over time - from less than 5 divorces per 1,000 married couples at the beginning of the century to approximately 23 in 1979, followed by a modest decline to approximately 17 in 2005; the recent decline is evident also if divorces are measured relative to the population (Stevenson and Wolfers 2007; Isen and Stevenson 2011). By historical standards, however, the divorce rate remains very high. Figure 1 graphically illustrates the recent trends since 1960.

Several factors contributed to the long term increase in the divorce rate. Becker (1981) emphasizes the role of declining gains from marriage stemming from division of labor and specialization: as women's education, wages and participation in the labor force increased, women became more similar to men in their productivity characteristics. In turn, there is some evidence that the higher expected probability of marital dissolution may have fueled a further increase in female labor supply (Johnson and Skinner 1986). Major technological advances in the household sector also contributed to this increase (Greenwood et al. 2005). As more women entered the labor force, they made inroads into traditionally male jobs and occupational segregation declined. McKinnish (2007) finds support for her hypothesis that the greater diversity in the workplace represented an additional force contributing to higher rates of divorce. Becker (1981) identifies the growth of public programs as another important mechanism, which operated by weakening the traditional role of family ties in protecting family members against adverse shocks to health or income. But subsequent empirical evidence showed that the overall effects of the welfare system on family structure in the U.S. have been small in magnitude (Moffitt 1992). The growth in marital instability over time had snowball effects, as it decreased the stigma associated with divorce and offered improved opportunities for remarriage to those dissolving their unions (Becker 1981).

More recently, attention has turned to explaining why the divorce rate has fallen since 1980 (though it remains substantially higher than before the increase in the 1970s). Exploring the potential role of the contraceptive revolution as a driving force, Goldin and Katz (2002) note two countervailing influences. On the one hand, the improved careers for women and decreased fertility stimulated by the pill may have contributed to an increased risk of marital dissolution. On the other hand, by delaying women's entry into marriage, the pill led to improved matches in the marriage market and a decreased risk of dissolution. Using data on college educated women and exploiting differences across states and cohorts in legal access to the pill, the authors find that the latter force dominated. They also find similar but weaker effects associated with the legalization of abortion.

The argument described above points to delayed entry into marriage as the key mechanism responsible for the decrease in the divorce rate. In 1980, the median age at marriage was 22 for women and 25 for men. By 2015, it had reached 27 for women and 29 for men (U.S.

Census Bureau 2016a). Rotz (2016) uses three empirical approaches to attempt to quantify the causal effect of a later age at marriage: controlling for variables at the state and year level that could produce a spurious correlation between age at marriage and divorce; using the marital histories of sisters to run regressions with family fixed effects; and exploiting variation across states in minimum age at marriage laws. Her results show that the increase in age at marriage explains at least 60% of the decline in the divorce rate from 1980 to 2004.

In interpreting the trends described above, it is important to keep in mind that part of the decline in divorce is due to the retreat from marriage that the U.S. has witnessed over the past decades - especially among low-income, high divorce risk individuals. At the same time, the prevalence of informal living arrangements has increased, and cohabiting unions are more unstable than marital unions (Bumpass and Lu 2000). As Raley and Bumpass (2003, p. 246) note, "Cohabitation has moved some of the instability of family life out of the statistical accounting system of marriage and divorce." Thus the current level of instability in American families is far greater than that suggested by divorce statistics.

Differences by socioeconomic status

The overall decline in the divorce rate since 1980 masks pronounced differences in the trend by socioeconomic status (SES). Based on analyses of the 1996-2001 Surveys of Income and Program Participation (SIPP), Martin (2006) finds that while the divorce rate declined for college graduates, for the non-college educated it remained fairly stable (high school degree or some college) or actually increased (high-school dropouts). A similar pattern was uncovered by analyses of the 1995 National Survey of Family Growth (NSFG) (Raley and Bumpass 2003*).* A more recent study based on the 2004 SIPP finds that for those marrying in the 1990s, a decline in the divorce rate for those with less than a college degree is beginning to be visible (Isen and Stevenson 2011).

The widening gap in marital stability described above is part of a series of diverging trajectories between high and low SES groups (McLanahan 2004). The former are increasingly witnessing not only high levels of marital stability – but also patterns of delayed entry to marriage and childbearing, growing levels of female employment, and fathers who are involved

with child care. In contrast, the salient patterns for the latter – in addition to low marital stability among those who do get married - are a retreat from marriage and higher levels of cohabitation and non-marital fertility. Together, these trends point to increasing disparity in the resources available to children.

In studying the socioeconomic gradient in the various dimensions of demographic behavior, including divorce, the key distinction is between college graduates and those with less education (Lundberg et al. 2016). Analyses of data on female respondents in the 2006-2010 NSFG find that the probability that a first marriage will be intact for at least 20 years is 78% for those with a bachelor's degree. The corresponding figures for those with some college, a high school diploma and less than high school, respectively, are 49%, 41% and 39% (Copen et al. 2012).

Lundberg and Pollack (2015) and Lundberg et al. (2016) review reasons offered in the sociology and demography literatures for why the retreat from marriage has been far more pronounced among those with low education. These include a decline in the pool of marriageable men, the growth of public programs that provide support to low-income single parents, and the increasing cultural significance of marriage. They also advance an alternative interpretation: those with higher levels of education plan to make greater investments in children; hence they have stronger incentives to marry, because the marriage contract serves as a valuable inter-temporal commitment device.

The mirror image of the above arguments is that gains from marriage are smaller for those with lower education; thus if they do get married, they have a higher probability of an eventual divorce. Another factor is that this group is far more vulnerable to adverse shocks that can be destabilizing to a marriage, such as unemployment, foreclosure, or illness. Moreover, as Becker (1981) noted, prophecies of divorce tend to be self-fulfilling. Low SES couples are surrounded by high levels of union instability in their communities. Thus they have incentives to make few investments in spouse-specific human capital, as the value of such investments irreversibly declines following marriage dissolution (Chiswick and Lehrer 1990). In turn, this behavior puts their marriages at high risk of dissolution.

DETERMINANTS

The role of age at marriage

As noted above, delayed entry into marriage has been a major demographic trend of the past several decades. Building on Becker's (1981) model of the optimal sorting in the marriage market, Oppenheimer (1988) argues that marriages contracted later should be more stable due to a maturity effect: at older ages people have better self knowledge and are also better able to assess the traits and potential trajectories of their partners. Their marriages are thus less likely to be destabilized by mistaken expectations. Becker et al. (1977) suggest the possibility of an opposing "poor match effect" operating at late ages at marriage. As women still single in their thirties or later begin to hear the biological clock tick, they may settle for a match that is far from the optimal; the result is a higher probability of a subsequent divorce. Delayed entry into marriage can also affect marital instability indirectly, by increasing exposure to the risk of other events. Importantly, women who marry later are more likely to have had the opportunity to complete a college education (a stabilizing influence); they are also more likely to enter marriage with a child from a previous union (a destabilizing effect).

Using data on white respondents in the 1967 Survey of Economic Opportunity, Becker et al. (1977) find that the relationship between women's age at first marriage and the probability of divorce is non-linear. At first, increases in age are associated with a decline in the divorce probability, but after a point, additional increases are associated with greater marital instability. They interpret this finding as evidence of a dominant poor match effect for late ages at marriage.

Two studies based on cross-sectional data on non-Hispanic white female respondents from the NSFG for 1995/ 2002-2003 (Lehrer 2008) and 2006-2010 (Lehrer and Chen 2013) revisit this issue, presenting reduced form estimates of the effects of age at first marriage. This research finds that although women who marry late generally do so having completed relative high levels of schooling, and the same is true of their partners, their unions disproportionately have other characteristics that are associated with high marital instability: the spouses differ substantially in race/ethnicity, age, education, and/or religion, and the husband had been married before. This evidence is consistent with the presence of a poor match effect. Yet the results also show that these unconventional marriages contracted at late ages tend to be very solid. Based on

reduced form regressions that provide estimates of the total effects associated with age at marriage, the curve relating women's age at first marriage to the probability of divorce is found to be steeply downward sloping until the early thirties, flattening out thereafter. The analyses support the hypothesis that the various indicators of a poor match (e.g., age heterogamy) are always associated with higher marital instability, even in couples that have delayed marriage. But the stabilizing effects associated with older ages at marriage (greater maturity) and higher levels of educational attainment (increased resources) are far larger and dominate.

Taking advantage of the large sample size for minority groups in the 2006-2010 NSFG, a parallel study examines the marriages of Hispanic and black women, and finds strikingly different patterns (Lehrer and Son 2016). For black women, reduced-form regressions show that marital instability decreases with age only up to ages 24-26. For Hispanic women, marital instability falls from ages ≤20 to 21-23 and the curve flattens out at that point; beyond ages 30-32 it turns upward, producing a U-shaped relationship. Behind these patterns are pronounced differentials by race/ethnicity in the associations of age at marriage with investments in human capital and non-marital fertility. For non-Hispanic white women, delayed entry into marriage is associated with a large increase in the educational attainment of both spouses and a small increase in non-marital fertility. In contrast, the opposite is the case for their black and Hispanic counterparts: an increase in age at marriage is accompanied by a much higher prevalence of out-of-wedlock childbearing, but very little increase in years of schooling completed. These findings underscore that the common procedure in much of the literature on divorce in the U.S. - pooling all groups with simple controls for race/ethnicity - can lead to highly misleading results.

A fruitful avenue for future research is work along the lines of Rotz's (2016) causal analyses of the effects of age at marriage - conducted separately by race/ ethnicity. This will require data sets that are both rich in information (e.g., longitudinal data, information on siblings) and contain large numbers of Hispanic and black respondents.

Factors that may explain the exceptionally high US divorce rate

As Table 1 illustrates, the divorce rate in the U.S. is an outlier – it is above that of all other OECD countries except the Czech Republic. An explanation based on the U.S. cultural model of

individualism has been suggested in the sociology literature (Cherlin 2009). The model emphasizes personal happiness and includes the concept that if people are unsatisfied with their marriage, they are justified in seeking a divorce. A low level of resources represents a key source of marital instability, and the much greater gap between rich and poor in the U.S. is likely an important economic factor behind the unusually high U.S. divorce rate. This hypothesis deserves attention in future investigations.

Within the U.S., marital instability is especially high in the Bible Belt states (Lesthaeghe and Neidert 2006; Glass and Levchak 2014).[1] Thus it is those states that are driving the exceptionally high divorce rate. Although at first this relationship seems surprising, it is not if one recognizes that religion can influence economic and demographic behaviors by affecting the perceived costs and benefits of various decisions that people make over the life cycle (Lehrer 2004). Consistent with the structure of perceived benefits and costs that they face, conservative Protestant women stand out for their early entry into motherhood (often pre-maritally), a young age at marriage, and low levels of education and family wealth (Pearce 2010; Lehrer 2011; Glass and Levchak 2014) – all of which are conducive to elevated probabilities of divorce. What is unexpected given the strong pro-family messages of the religion is that even when a wide range of economic and demographic factors are held constant, conservative Protestants do not have marriages that are particularly stable (Lehrer and Chiswick 1993; Glass and Levchak 2014). Cherlin (2009, p. 135) suggests an explanation based on the adaptation of religious congregations to the American culture of individualism. The congregations are supportive of divorce, and tell people "that self-development is good and that if they divorce, they will be forgiven and cared for." Glass and Levchak (2014) note that individuals affiliated to other faiths who live in communities with high concentrations of conservative Protestants also face an elevated risk of divorce, reflecting in part local policies that limit sexual education, access to contraception and abortion, and support for high quality public schooling.

It is likely that the high rate of divorce in the U.S. stems in part from misperceptions of the true, full costs of various behaviors - especially entry into motherhood in the teen years. The widely viewed MTV show, *16 and Pregnant*, is a documentary that depicts the reality of how difficult it is for a teen mother to raise a child - including the challenges of extensive sleep deprivation. Kearney and Levine (2015) find that the show encouraged teens to obtain

information on birth control and led to a 4.3% decline in the teen birth between June 2009, when the show started, to the end of 2010 - accounting for 24% of the decrease in teen fertility over this period. This research demonstrates that the media can be a potent force to help teens change their behavior by educating them about the true costs of early entry into parenthood, and may be interpreted in light of the growing literature on the causal effects of media exposure on social outcomes. Teen births have been found to have a pronounced adverse effect on educational attainment (Hoffman and Scher 2008), and in turn, as discussed above, lower levels of education are a destabilizing force in marriages. In addition, the vast majority of youths who become mothers in their teen years do so out of wedlock - often going on to subsequent marriage with other partners. The child, representing human capital specific to a previous union, can be a destabilizing force in that marriage.[2] Thus it is likely that the beneficial effects of the documentary went beyond a decline in teen births and included also, with a lag, a decline in the divorce rate. More generally, at present the U.S. has an exceptionally high teen birth rate and also an exceptionally high divorce rate, and it seems likely that the former is an important contributing factor to the latter. This hypothesis deserves attention in future research.

In the public health literature, entertainment-education has been defined as "the process of purposely designing and implementing a media message to both entertain and educate, in order to increase audience members' knowledge about an educational issue, create favorable attitudes, shift social norms, and change overt behavior" (Singhal, Cody, Rogers et al. 2004). The remarkable success of the *16 and Pregnant* show suggests that interdisciplinary research efforts involving public health scholars and economists, collaborating to design and evaluate interventions that can improve health and economic wellbeing, represent a promising avenue for future investigations.

Coming back to the role of religion, participation in religious activities can of course have far-reaching beneficial effects, and much of the early literature in the sociology and economics of religion focused on such effects. For example, Lehrer and Chiswick (1993) find that having an affiliation to a religion – any religion – is associated with positive effects on marital stability. Gruber (2005) finds that individuals who live in areas with high density of their religion (as proxied by the ancestral mix of area residents) have higher levels of religious participation, leading to more favorable outcomes in several dimensions, including education,

income, and marital status. Gruber and Hungerman (2008) show that the repeal of blue laws in several states led to decreased attendance at religious services and, in turn, to an increase in drinking and drug use among individuals who initially attended religious services and were affected by such laws.[3] Indirect effects that would likely stem from this increase in risky behaviors are lower levels of marital quality and stability.

Increasingly studies have been noting that the influences associated with religion can be complex in all areas, and in particular with regard to intimate partner violence – the most basic indicator of poor marital quality. Ethnographic research in the U.S. shows that religion is generally a constructive force that decreases the risk of both perpetration of intimate partner violence and victimization. But in all religious traditions, including Judaism, Islam, and Christianity, conservative theological beliefs (e.g., condemning divorce, encouraging traditional gender norms) can be taken to an extreme, and misinterpreted to condone men's violent behaviors and to encourage women to remain in marriages that are abusive (Nason-Clark 2004; Levitt and Ware 2006). Lehrer, Lehrer and Krauss (2009) find that low and moderate levels of religious participation are associated with a decreased rate of female victimization in dating relationships, but at high levels of religious participation the protective effects disappear and there is some evidence that they may become adverse. Other research has identified non-linearities in the relationship between religious participation and earnings, with the association becoming negative at very high levels of religious participation (Chiswick and Huang 2008).[4]

The role of divorce reform

It used to be that divorce would be granted by the courts in the U.S. only if fault could be ascribed to the husband or wife and both spouses consented to divorce. At various times, mostly during the 20th and 21st centuries, states began to liberalize these laws by permitting divorce without finding a spouse guilty of marital fault (no-fault divorce) and without a requirement that both spouses agree (unilateral divorce). A large number of states passed unilateral laws during the 1970s and 1980s; in many cases no-fault divorce reforms had been put in place several decades earlier. As of today, all states permit some form of no-fault, unilateral divorce.

Becker's analysis (1981) predicted that under Coasian bargaining, divorce reforms should affect only alimony and child support payments (making them lower for women in unilateral no-fault states), not the divorce rate.[5] The variation across states in the timing of these reforms offered an opportunity to examine this issue empirically, and pioneering work by Peters (1986) found support for the predictions of Becker's theory. Numerous studies followed, with mixed results. Some report that divorce reforms led to an increase in the divorce rate (e.g., Friedberg 1998; Gruber 2004); others find no effect on the divorce rate (e.g., Gray 1998). Wolfers (2006) suggests that the dynamic effects of the policy changes offer a possible explanation for differences across studies. He finds that divorce reforms initially led to a pronounced increase in the divorce rate - a result of pent up demand facilitated by liberalization - but that this increase was reversed over the following decade. Subsequent analyses suggest that the reversal can be explained in part by changes in laws that govern child custody and child support payments (Gonzalez-Val and Marcén 2012). Such changes, which influence the aftermath of divorce, were passed in most states at least a decade after divorce reform laws. Under joint custody parents are required to cooperate in decisions affecting the children, implying in some ways a move back to mutual consent. And stricter enforcement of child support increases the expected financial costs of divorce for the spouse who would have to pay child support.

Divorce reform affected many other areas of economic and demographic behavior. Using data from the 1970 and 1980 censuses, Stevenson (2007) examines the influence of divorce reform on the behavior of couples in their first two years of marriage. She finds that unilateral divorce laws decrease investments in spouse-specific human capital and increase investments in portable human capital: newlyweds in states with such laws are more likely to have both spouses working full time in the labor market and display higher rates of female labor force participation; they are also less likely to have a child and to support each other through school. Stevenson and Wolfers (2006) find that in states that passed unilateral divorce laws, there was a decline in female suicide and in incidents of women murdered by their intimate partners. They interpret their findings as suggesting that such laws increased women's bargaining power in abusive relationships, potentially stopping the violence, and helped some women leave these relationships.

The role of barriers to economic self sufficiency

Divorce reforms have made it easier for women to leave violent marriages. Yet another important obstacle remains for many women trapped in such unions – lack of an ability to be economically self sufficient. Government policies aimed to increase disadvantaged women's marketable skills can help them achieve financial independence. Initiatives that narrow the male-female wage gap can also be a valuable tool in this regard, aside from helping achieve a more equitable distribution of resources. Aizer (2010) finds that by improving women's outside options, an increase in their relative wage improves their bargaining power within marriage and reduces violence. To address the problem of endogeneity of wages (e.g., abused women are less productive and may have lower wages), she constructs measures of wages for men and women based on the exogenous demand for male and female labor. And to avoid the shortcomings of violence measures based on self reports in survey data (violence is under-reported), she uses administrative data on hospitalizations of women for assault. Her results show that the reduction in the wage gap between 1990 and 2003 explains 9% of the decline in domestic violence over this period.

Although there has been some decrease in intimate partner violence in the U.S., the level remains high especially in low SES groups (Renzetti 2009). Thus in interpreting results from studies on factors associated with the likelihood of divorce, it is important to keep in mind that a high level of marital stability is not necessarily the best outcome. For example, Lehrer and Son (2016) find that for non-Hispanic white and black women, a higher level of education at entry into marriage is associated with greater marital stability – consistent with patterns typically reported in the literature. But among Hispanic women, it is those with less than a high school degree who have the lowest probability of divorce. It is unclear whether these unions represent happy, stable marriages, or whether this is an example of women being unable to escape bad marital relationships due to lack of marketable skills. Among women with less than 12 years of schooling, Hispanic women have by a wide margin the lowest levels of education - and hence the largest barriers to economic self sufficiency- suggesting that the latter scenario is a real possibility. These considerations underscore the importance of further studies that pay attention to the quality of stable marriages – especially the basic indicators of absence of physical and psychological intimate partner violence.

At the micro level, experiences of unemployment have been found to be associated with a higher probability of divorce (e.g., Charles and Stephens 2004). A puzzle that deserves attention in future research is that, although there are exceptions (e.g., Arkes and Shen 2010), most studies at the macro level have found that the divorce rate declines during periods of recession (Amato and Beattie 2011; Schaller 2013). Hellerstein and Morrill (2011) find that a one percentage point increase in the unemployment rate is associated with approximately a one percent decrease in the divorce rate. In subsequent work, Hellerstein, Morrill and Zou (2013) find that the pro-cyclicality of divorce is concentrated in couples where the wife entered marriage as a teenager and/or does not have a college degree. As the authors note, divorce may not be financially feasible for these women during an economic downturn. Anecdotal evidence suggests that with divorce being less available as a safety valve, intimate partner violence increases during economic downturns (Renzetti 2009). Research is needed to examine this concern. In estimating how the prevalence of intimate partner violence varies over the business cycle, it will be important to note that ongoing intimate partner violence requires both an aggressor and a spouse who does not leave, dissolving the union; thus it matters how the population at risk is defined - couples who entered marriage at a given date or married couples at a given date (Pollak 2004).

CONSEQUENCES OF DIVORCE

Effects on the well-being of children

Along with the higher divorce rate, the increased levels of cohabitation and non-marital fertility in the 1960s and 1970s contributed to rising numbers of children living in non-traditional family structures. This development stimulated numerous studies on how growing up in such structures affects children. Pioneering work by McLanahan and Sandefur (1994) uses four data sets to measure associations between family structure and child well-being. The authors compare child outcomes for children raised by both biological parents to those of children raised in single-parent and step families. They examine many dimensions, including high school graduation rates, college enrollment, college graduation rates, teen fertility, and unemployment as young adults. Outcomes for the former group of children are generally found to be better. This work

stimulated a large number of additional studies, which corroborated the finding of strong associations between non-traditional family structures and adverse child outcomes.

Subsequent research addresses the concern that the observed associations could be driven by selection: the parents who divorce or never get married disproportionately have negative unobservable traits and behaviors, which are the real cause of the adverse child outcomes. These studies aim to go from correlation to causation using various statistical methodologies, with mixed results. Some employ longitudinal data to examine children's outcomes before and after divorce. Cherlin et al. (1991) find that children whose parents eventually divorced had displayed behavioral or achievement problems prior to the dissolution of the marriage. In contrast, Painter and Levine (2000) find that traits in the family before divorce do not explain the worse outcomes of children whose parents dissolve their union. Other studies use parental death as a quasi-natural experiment, making the case that death is more likely to be exogenous than divorce or non-marital parenting. Corak (2001) and Lang and Zagorsky (2001) find that family structure changes due to parental death have little effect on children's subsequent labor market outcomes. But as the authors note, death is substantively a different shock than father absence stemming from divorce or out-of-wedlock parenting.

Another approach addresses selection biases by comparing siblings who have experienced non-traditional family structures for different lengths of time. Some of these studies find that there is no causal effect (e.g., Bjorklund, Ginther, and Sundstrom 2007); others conclude that selection accounts for some but not all of the adverse child outcomes (e.g., Ermisch and Francesconi 2001). In another strategy involving use of macro-level data, Gruber (2004) exploits variations across states and over time in the adoption of unilateral divorce laws. His study provides reduced-form estimates of the two ways in which such laws affect child outcomes – via an increase in the divorce rate and through their impact on intra-family bargaining and union formation. The main finding is that adults who were exposed to divorce reform in childhood have worse adult outcomes in several dimensions, including educational attainment, income, and the likelihood of marriage dissolution and suicide.

While McLanahan and Sandefur (1994) and many of the studies that followed emphasize the distinction between children who are raised by both biological parents and children who are not, Ginther and Pollak (2004) suggest that the key distinction is between children who grow up

in traditional nuclear families (families in which all children are the joint children of both parents) versus children raised in all other family structures, including single-parent families and blended families. Novel findings from this research are that (a) children raised in traditional nuclear families have better educational outcomes than the joint children from stable blended families; and (b) within stable blended families, there are no differences in educational outcomes between the joint children and the stepchildren. Contributing factors include the stresses of blended families which may affect all the children in such families, and parents' efforts to compensate for any negative consequences of family structure on their children from a previous union. As the authors note, the latter explanation "highlights the fact that observed educational outcomes are not "pure" family structure effects, whatever that may mean, but also reflect the effects of any compensating or reinforcing family-allocation decisions." (p. 692)

Aside from studies focusing on family structure, a growing literature shows that instability of family arrangements is associated with detrimental outcomes for children. As Fomby and Cherlin (2007, p. 201) note, "Each breakup, divorce, remarriage, or new cohabitation brings with it a period of adjustment…" Again, the association may reflect a selection effect - adverse parental characteristics may lead to both multiple transitions in family structure and negative child outcomes - or it could be that instability has damaging effects. Using 1979-2000 data from the NLSY and 2000 data from the mother-child supplement, the authors find that part of the association between number of transitions and adverse behavioral child outcomes is causal. This strand of the literature suggests that stability per se may be important, raising the possibility that a child living with his divorced or never-married mother may be better off if she does not enter a new cohabiting or marital union.

As Gruber (2004, p.806) observes, "in theory, the implications of divorce for child well-being are ambiguous. While depriving the family of one potential earner and caregiver can clearly have negative implications, breaking up emotionally or physically harmful marriages can have benefits for children." This statement underscores that while results from this body of literature provide valuable information for couples with young children considering the decision of whether or not to divorce, they do not provide answers – the cost-benefit analysis will be different in each case.

Stevenson and Wolfers (2007) also caution that even those studies that address problems of endogeneity do not have straightforward implications for public policy, as we currently do not have an understanding of what represents an efficient number of divorces for society. Yet the body of knowledge in this literature does provide some useful information for policymakers. For instance, it calls into question the wisdom of the programs that were put in place by the Bush administration in 2006 to actively promote marriage among disadvantaged groups. Many of the benefits associated with marriage are not causal, and as noted above, it is not clear that a child living with his single mother would do better if she entered marriage. As another example, findings in this literature suggest that government - funded initiatives aimed at improving relationship skills among middle- and low-income couples could yield important benefits, as it is not controversial that a stable, well-functioning marriage is an ideal setting for child rearing. In their review paper, Cowan, Pape Cowan and Knox (2010) note that many of these programs have indeed been effective for middle-income groups. Disappointingly, evaluation of *Building Strong Families* – a large scale program designed for low-income, fragile families – finds no effects on relationship quality or the probability that the couple would remain together or get married (Wood, McConnell, Moore et al. 2012). Cowan et al. (2010) suggest that interventions that integrate couple-relationship and father-involvement perspectives show promise and deserve attention in future research.

Child support policies

As the rate of divorce skyrocketed in the 1960s and 1970s, a low level of child support provided by fathers was identified as a major source of the disproportionately high rate of poverty in female-headed households. Weiss and Willis (1985) suggest an explanation based on the concept that children are public goods from the perspective of parents. They note that for the non-custodial parent (typically the father) it is difficult or impossible to control the allocation of resources by the custodial parent (typically the mother). Thus the father has an incentive to free-ride, and the allocation of resources to the children falls to an inefficiently low level. The same reasoning applies to father absence due to out-of-wedlock childbearing.

The first major federal child-support legislation was passed in 1974, with the goal of enforcing payment by non-custodial parents. Over the 1980s and 1990s, additional laws gave mandates to states in the areas of establishing paternity, setting adequate child support awards, and enforcing child support through various techniques including automatic wage withholding. These laws aimed to transfer the financial burden of supporting children in single-parent families from the government to the non-custodial parents, and they have contributed significantly to increased child support receipts over the years (Case, Lin and McLanahan 2003). But there is still much room for improvement. Only 45.6% of custodial parents who were due child support payments in 2013 received full payment (U.S. Census Bureau 2016b).

Child support payments are often accompanied by greater contact with the non-custodial parent, and this observation led researchers to the hypothesis that increases in income stemming from child support should have larger beneficial effects on child outcomes than equal increases in income from other sources. Reviewing some of the early studies in this literature, Beller and Graham (2003) note that while substantial evidence supports this theory, the possibility that the results are driven by selection effects cannot be ruled out: it may simply be that fathers who provide child support have unobserved characteristics that lead to better child outcomes. Based on data from the National Longitudinal Survey of Youth, Argys, Peters, and Brooks-Gunn, et al. (1998) find that child support payments have a positive influence on children's cognitive development above the effect stemming from simply providing additional income. Using economic/ demographic conditions and various policies (regarding divorce, child support and welfare) as instruments for child-support awards, they find that this effect persists after accounting for unobserved traits of fathers and families. Their results also suggest that child outcomes are better in families that have cooperative awards than in those where fathers are forced to pay by court-ordered awards.

Efforts to strengthen child support enforcement are clearly valuable in addressing free-rider issues and helping increase support to children in single-parent families. Because of such efforts men also have fewer children out-of-wedlock, and those who do become fathers are led to partner with women who have higher levels of education and are more prone to invest in their children (Aizer and McLanahan 2006). However, some fathers lack stable employment and adequate earnings; this concern has led to calls for government policies to do more to raise the

employment and earning prospects of disadvantaged men. Several initiatives on this front have been put into place (Cancian, Meyer and Han 2011). Policies to improve labor market outcomes for disadvantaged women would help also - in making them more financially secure, and as noted earlier in this chapter, less vulnerable to intimate partner violence. Going forward, Waldfogel (2009, p. 54) observes that "we need to put priority on policies that help families have all their adults working in the labor market and earning a decent wage alongside policies that provide support to families that are not able to do so." Another strand in the literature places emphasis on allocating resources to early investments in disadvantaged children. In their review paper, Conti and Heckman (2014, pp. 384-385) note that "policy attention has mostly focused on improving the financial position of families... However, increases in family resources do not necessarily translate into increased investment in children." They point out that early investments increase the productivity of later investments, and dynamic complementarity explains why investments in disadvantaged young children are so productive, while investments in low-ability adults typically have low returns.

CONCLUDING REMARKS

This chapter reviewed some of the main strands in the recent U.S. literature on divorce. We discussed changes over time in the divorce rate and the widening gap in marital instability between low and high SES groups. We also reviewed the role of women's age at first marriage, including recent analyses that show striking differences by race / ethnicity in the relationship between such age and the likelihood of divorce.

Although the rate of divorce in the U.S. today is below the peak levels it reached in the 1970s, it remains very high both by historical standards in the U.S. and by comparison to the rate in other industrialized nations. We suggested that several inter-related factors likely contribute to the exceptionally high U.S. divorce rate: (a) theologically conservative religions that promote early entry into marriage and motherhood and a low level of female educational attainment; (b) a teen birth rate that is the highest in the developed world; and (c) an unusually high level of income inequality. In closing this chapter, it is important to note a channel of causality flowing in the opposite direction: the especially high divorce rate in low SES groups is undoubtedly

contributing to the high level of income inequality across families in the U.S. The inter-connections between socioeconomic differences in family structure (including divorce) and income inequality have been studied extensively in the sociology literature (e.g., see review by McLanahan and Percheski 2008), but surprisingly this topic has received limited attention by economists (some exceptions include Lee 2005, and Daly and Valletta 2006). Further efforts in this direction are a high priority in the agenda for future research, as the upward trend in income inequality that began in the late 1960s shows no signs of coming to an end.

There is an extensive literature on the effects of divorce reforms and we highlighted some of the main findings therein. Although such reforms have made it easier for women to leave violent marriages, lack of an ability to be economically self sufficient remains an important obstacle for many women trapped in such marriages. In light of this, caution is needed in interpreting research findings: a high level of marital stability is not always the best outcome. Analyses of marital quality in stable low SES couples, including measures of psychological and physical intimate partner violence, would be a fruitful avenue for future investigations. Finally, we reviewed studies on the effects of divorce on children and the role of child support policies, including recent research showing that the beneficial effects of such payments go beyond the additional economic resources provided. Although it does not provide answers, the economic literature on the consequences of divorce for children offers valuable information for parents contemplating the possibility of dissolving their union.

ACKNOWLEDGEMENTS

We are indebted to Susan Averett, Saul Hoffman, Laura Argys and Houston Stokes for many valuable suggestions and comments on earlier drafts of this paper.

This paper was prepared for inclusion in the *Oxford Handbook on the Economics of Women.* Susan L. Averett, Laura M. Argys and Saul D. Hoffman (eds.). New York: Oxford University Press. Forthcoming, 2018.

ENDNOTES

[1] The "Bible Belt" refers to the south-eastern and south-central regions of the U.S., areas with large proportions of religiously conservative individuals.

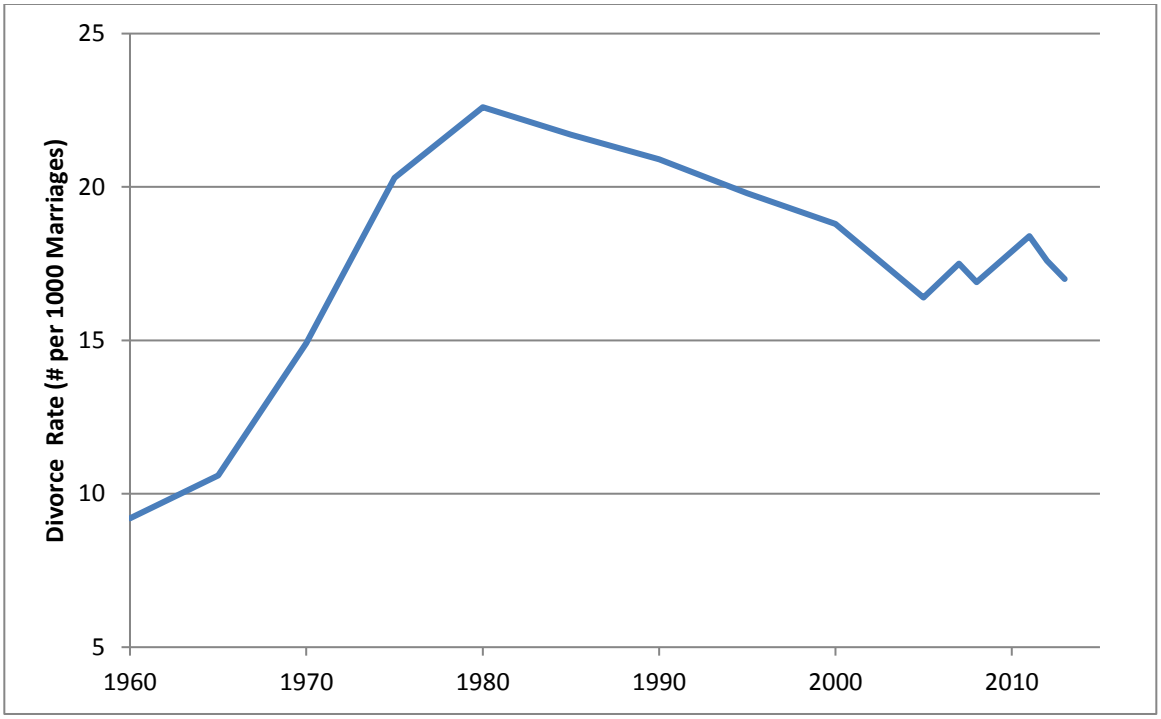
[2] The presence of a child from another union may increase instability in the current marriage because it signals that many of the mother's future investments of energy, time, and other resources will be oriented to that child (Chiswick and Lehrer 1990).

[3] Blue laws restrict certain activities on Sundays, such as retail trade, barbering, or the sale of alcohol. Following the 1961 Supreme Court ruling on the constitutionality of these laws, many states began to repeal them.

[4] Gruber's (2005) work has been rightly praised for paving the way towards estimation of causal relationships in key areas within the economics of religion (Iyer 2016). But the question he has formulated – "Is religion good for you?" would best be restated to recognize the nuanced religion effects: as religious participation and the intensity of religious belief increase, such effects can change not only in magnitude, but also in sign (Lehrer 2011). Furthermore, the content of religious messages matters, and in future research it would be desirable to conduct separate analyses by religious affiliation.

[5] The Coase theorem states that if transaction costs are small, a change in property rights will not affect resource allocation. Within the context of marital unions, a marriage contract will be ended if it is efficient to do so regardless of who holds the property rights; however, financial settlements will be affected.

Figure 1. Divorce rate, Unites States, 1960-2013



Source: Hoffman and Averett (2016), p. 84.

Table 1. Percentage of persons ages 15 and over by relationship status, OECD countries, 2012.

Country	% Divorced / Separated	Country	% Divorced / Separated
Australia	6.8	Japan	3.2
Austria	7.7	Korea	1.9
Belgium	6.1	Luxembourg	8.8
Canada	8.5	Mexico	5.4
Chile	6.0	Netherlands	4.6
Czech Republic	11.8	New Zealand	6.8
Denmark	7.1	Norway	5.4
Estonia	10.3	Poland	5.4
Finland	10.5	Portugal	3.3
France	8.0	Slovak Republic	6.0
Germany	7.6	Slovenia	3.6
Greece	3.5	Spain	5.2
Hungary	8.2	Sweden	7.4
Iceland	2.6	Switzerland	9.3
Ireland	3.5	Turkey	2.2
Israel	4.7	United Kingdom	9.4
Italy	4.9	United States	10.6

Source: *Society at a Glance (2014): OECD Social Indicators.*

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