Breaking Up Is Hard to Count: The Rise of Divorce in the United States, 1980–2010

Sheela Kennedy · Steven Ruggles

Abstract This article critically evaluates the available data on trends in divorce in the United States. We find that both vital statistics and retrospective survey data on divorce after 1990 underestimate recent marital instability. These flawed data have led some analysts to conclude that divorce has been stable or declining for the past three decades. Using new data from the American Community Survey and controlling for changes in the age composition of the married population, we conclude that there was actually a substantial increase in age-standardized divorce rates between 1990 and 2008. Divorce rates have doubled over the past two decades among persons over age 35. Among the youngest couples, however, divorce rates are stable or declining. If current trends continue, overall age-standardized divorce rates could level off or even decline over the next few decades. We argue that the leveling of divorce among persons born since 1980 probably reflects the increasing selectivity of marriage.

Keywords Divorce trends · Union instability · Vital statistics

Introduction

Since 1980, vital statistics suggest that the number of divorces per 1,000 married women in the United States has declined by about 20 %. Some observers have concluded that this reflects a fundamental shift in behavior. Stevenson and Wolfers (2011:107) argued that "couples marrying after the 1970s were better calibrated about how their family life would play out and were likely better matched for a life together based upon modern gender roles. As such, they were likely in a better position to have their marriages survive than were those marrying in the 1970s." Several analysts have agreed that that the risk of disruption has declined in recent years (Heaton 2002; Isen and Stevenson 2010; Stevenson and Wolfers 2007), although some argue this decline is limited to college graduates (Martin 2006; Raley and Bumpass 2003).

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Other studies, however, have suggested greater continuity over the past three decades. Well before the divorce rate peaked, Preston (1975) used indirect methods to estimate that 44 % of marriages would end in divorce based on the disruption rates observed in 1973. By the 1980s, most demographic analysts agreed that about one-half of marriages then being contracted would end in divorce (e.g., Cherlin 1981; Glick 1984; Norton 1983). Life table estimates based on more recent data also suggest that nearly one-half of marriages will end in divorce (Raley and Bumpass 2003; Schoen and Standish 2001). Pointing to changes in the timing of divorce, Schoen and Canudas-Romo (2006:756) argued that "it is premature to believe that the probability of divorce has begun to decline."

This article has two main goals. First, we critically evaluate the strengths and weaknesses of the main data sources that have been used to measure changes in divorce: the vital statistics system, the Current Population Survey (CPS), the Survey of Income and Program Participation (SIPP), and the American Community Survey (ACS). We argue that a deterioration of the statistical system created uncertainty about trends in union instability over the past three decades, but new data from the ACS represent a substantial improvement over existing sources. Second, we use the ACS to estimate recent trends in marital instability. We conclude that controlling for basic changes in the age composition of the married population, overall divorce incidence has increased substantially in recent years.

Vital Records

For the past 145 years, official divorce records have been the primary source for statistics about trends in marital instability. The quality of early divorce statistics was good, especially in comparison with the available data from that period on births, deaths, and marriages. Carroll D. Wright, the U.S. Commissioner of Labor in the late 1800s, wrote in the first federal report on divorce that the statistics were "practically complete" (Wright 1889:133). Wright compiled statistics for the period from 1867 to 1886 from the nation's 2,700 counties. He sent "special agents" to the county seats, where they went through public court records and transcribed details of each divorce case. The U.S. Census Bureau (1908) conducted a similar survey covering the period 1887–1906.

For the next 50 years, funding for collection of divorce records was inadequate. The Census Bureau gathered data sporadically from 1907 until 1940. In most years, national divorce totals were estimated from state totals provided by a limited subset of states (U.S. Bureau of the Census 1925; National Office of Vital Statistics 1950). After World War II, responsibility for divorce statistics shifted to the newly created National Office of Vital Statistics located in the Public Health Service (Plateris 1973). The new agency focused mainly on health statistics, and divorce was a poor fit; few divorce statistics were published beyond national totals estimated from partial state data.

There was significant improvement in the later twentieth century. In 1958, the agency introduced a Divorce Registration Area (DRA) with the goal of producing detailed and reliable divorce statistics. The DRA initially comprised 16 states, and the number of participating states gradually rose to 31 (Hetzel 1997). For the first time, federal authorities monitored the completeness and accuracy of divorce reporting. For states outside the DRA, the agency collected aggregate summary statistics.

The progress in divorce statistics did not last. In 1996, the collection of detailed divorce and marriage statistics in DRA states was discontinued. The agency—by then known as the National Center for Health Statistics (NCHS)—determined that the quality of marriage and divorce statistics had deteriorated, no resources were available to fix the quality problems, and alternative sources of information were readily available (Broome 1995). Accordingly, the funds used to collect marriage and divorce statistics were redirected to higher-priority uses. As part of the new policy, NCHS stopped making payments to state vital statistics offices for collection of detailed data from marriage and divorce certificates. The agency continued to collect monthly counts of the raw number of divorces in each state, compensating the states with a payment of just $1,000 annually (Lewin Group 2008). Without adequate support, compliance gradually declined. In 1990, NCHS obtained basic counts of the number of divorces from every state (Clarke 1995); by 2005, six states had ceased reporting any divorce data whatsoever (National Center for Health Statistics 2011). There are no estimates of the completeness of reporting in the 44 states that still provide basic counts, but it is likely that omissions have risen substantially (Sutton and Munson 2008).

The long-run trend in estimates of the refined divorce rate (divorces per 1,000 married women) appears in Fig. 1. Some periods of data have better reporting than others; in particular, data collection was probably best for 1867–1906, 1916, 1922–1932, and 1960–1990. In other periods—identified by shading in Fig. 1—the data are more questionable. In particular, although the broad trends shown in Fig. 1 are doubtless realistic, the decline of the post-1990 period is probably exaggerated because of the acknowledged deterioration of data collection.

Despite the shortcomings of the vital statistics on divorce, they provide an invaluable benchmark for evaluating alternative sources. Because the error in vital statistics stems from underreporting, we can be confident that true divorce rates must be at least as high as the rates based on official divorce records for the population represented by reporting states. In periods of poor reporting, the official records likely understate divorce rates. There is virtually no potential, however, for overcount of divorces in any period.
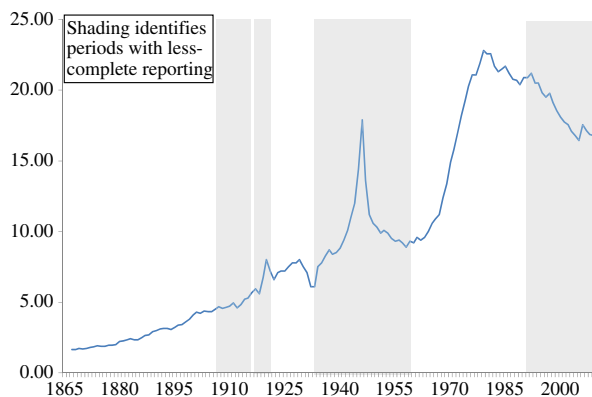

Fig. 1 Divorces per 1,000 married women, 1867–2010. *Sources:* 1867–1919 number of divorces, National Office of Vital Statistics (1949: Part 1, Table CT); 1920–1995, Haines (2006); 1996–2010 number of divorces, National Center for Health Statistics (2012); 1867–1919, 1996–2010 proportion married females estimated from Ruggles et al. (2012)

Therefore, when evaluating other sources, the vital statistics define the lower bound for the number of divorces in the population.

Retrospective Surveys: CPS and SIPP

When NCHS discontinued the collection of detailed divorce data, a major part of the rationale was that similar data could be obtained through survey data: in particular, the June marital history supplement of the CPS (Broome 1995). Ironically, the final June marital history supplement was conducted in 1995, six months before NCHS discontinued the collection of divorce statistics.

Early comparisons between the CPS and vital statistics found substantially lower divorce rates in the CPS (Castro Martin and Bumpass 1989; McCarthy et al. 1989). Goldstein (1999) compared the 1990 CPS estimates of the refined divorce rate with the national estimates from vital statistics, finding that the two series matched closely. We replicated Goldstein's finding and then carried out the same analysis for other CPS samples. Panel A of Fig. 2 shows the refined divorce rate as reported in the national vital statistics and estimated from the 1980, 1985, 1990, and 1995 CPS samples for the 45 years prior to each survey. The analysis is restricted to women because reporting of marital disruption is less reliable for men (Bumpass et al. 1991; U.S. Census Bureau 1975).
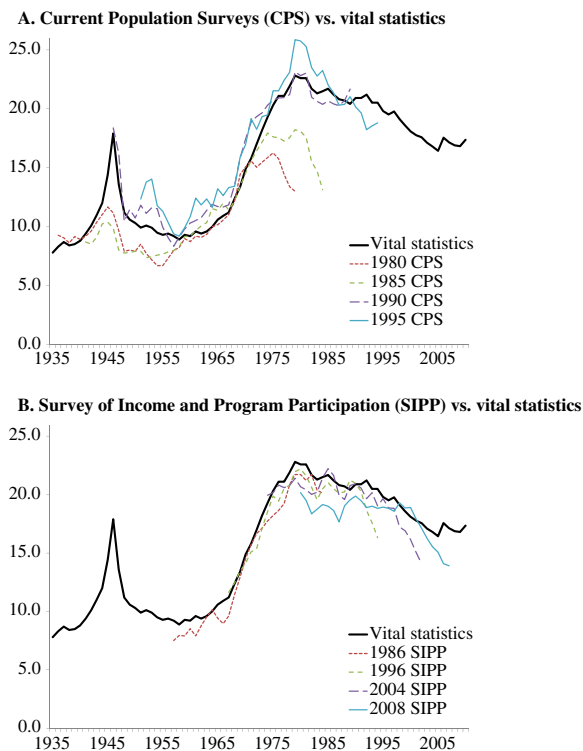

Fig. 2 Divorces per 1,000 married women calculated from retrospective surveys, compared with estimates from vital statistics. *Note:* The CPS and SIPP estimates represent a three-year moving average to reduce random variability. *Sources:* See Fig. 1; U.S. Census Bureau (1982, 1988, 1989, 1991, 1997, 1998b, 2008, 2011)

The 1990 CPS matches vital statistics closely; in the decade prior to the survey, the average refined divorce rate is just 1.1 % lower than the comparable estimates from vital statistics. The 1995 survey is almost as good, with just a 3.5 % discrepancy, although it significantly understates divorces that took place during the five years immediately preceding the survey (Raley and Bumpass 2003). In the 1980 and 1985 surveys, however, the estimated CPS divorce rate was approximately 20 % lower than the vital statistics divorce rate during the decade prior to each survey. Thus, it appears that both the early critics of CPS divorce data and Goldstein's more favorable interpretation were substantially correct; apparently, there was a dramatic improvement in the quality of divorce reporting between the 1985 and the 1990 surveys.

After the CPS stopped inquiring about marital history, demographers turned primarily to SIPP, which showed a decline in divorce after 1990 (Isen and Stevenson 2010; Stevenson and Wolfers 2007, 2011). As in the case of the CPS, several early critics suggested that SIPP data substantially understated divorce (Hernandez 1989; Hill 1986; U.S. Census Bureau 1998a). Panel B of Fig. 2 compares SIPP estimates with the vital statistics. The 1986 SIPP implies a refined divorce rate only slightly lower than that obtained through the vital statistics, but the discrepancy grew dramatically in subsequent waves, especially for divorces that took place in the decade preceding the survey. The mismatch is particularly evident in the 2008 SIPP, which substantially understates divorce rates in all but a handful of years. Considering the likelihood that the vital statistics understate actual divorce rates after 1990, the much lower divorce rates implied by the 2004 and 2008 SIPP data are troubling.

The progressive deterioration of the SIPP is reflected in extraordinary levels of nonresponse and imputation. Marital histories for all household members in the SIPP are reported by a single respondent (Raley 2011), and this may contribute to the high rate of nonresponse in all years. Data quality problems in SIPP, however, have apparently worsened over the past several iterations, and underreporting of divorce became more severe. For example, date of divorce is imputed for about 30 % of cases in the 2004 SIPP and *nearly one-half* of cases in the 2008 wave.[1] It is therefore not advisable to use SIPP to assess divorce trends, and we should reconsider using studies that rely on SIPP to establish a decline in divorce after 1995.

The American Community Survey

In 2008, as a "response to the long-standing void in data on marriages and divorces," the Census Bureau added new marital history questions to the ACS (Elliott et al. 2010). The new questions asked whether individuals were married, divorced, or widowed within the past 12 months, as well as number of times they had ever married and the year of the most recent marriage. The questions were designed to substitute for the vital statistics.[2] By focusing on recent events, the Census Bureau hoped that the ACS could

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[1] The unexpected finding that underreporting was most severe in the decade preceding the survey may result from imputation. In the 2008 survey, just 19 % of divorces within five years of the survey had an imputed date, compared with 52 % of divorces taking place 10 years before the survey or earlier. In 2004, the comparable figures were 8 % and 30 %, respectively.
[2] Like the vital statistics, the ACS questions do not capture separation. This could pose concerns for studies of subgroup differences in marital instability (McCarthy 1978; Raley and Bumpass 2003).

minimize the underreporting that characterized previous marital history surveys. The ACS provides data on 1.3 million women ages 15 and older each year. The large sample sizes of the ACS allow for analysis of state-level divorce statistics, and the annual data collection allows researchers to capture trends as they occur.

The ACS yields divorce rate estimates that are not only higher than the retrospective surveys but also higher than the vital statistics. After making adjustments to maximize comparability of the ACS and the vital statistics, we find that female-based refined divorce rate estimates calculated from the ACS were about 15 % higher than vital statistics.[3] All things considered, we believe that the ACS estimates are more credible than the vital statistics. As NCHS acknowledges, there has been significant underreporting of divorces in the vital records after 1990. Although it is possible that the ACS could *over*report divorce, we expect that any net overreporting would be small.

A 2006 content test of the proposed ACS divorce question found that 7.8 % of 176 women who reported getting a divorce in the previous 12 months did not actually receive a final divorce decree during that period (O'Connell et al. 2007). Conversely, however, we can be confident that some women who *did* get a final divorce decree in the previous 12 months failed to report it in the ACS, but the content test did not evaluate underreporting. Although we currently have no means of measuring the net bias of ACS divorce statistics, overreporting and underreporting would tend to cancel each other out. Accordingly, if overreporting did result in a net upward bias in ACS divorce statistics, the magnitude is likely to be smaller than the 7.8 % found in the content test, and it cannot explain the 15 % discrepancy between the ACS and the vital rates.

Closer analysis also suggests that the ACS may be more accurate than the vital statistics. The difference between the ACS and vital statistics estimates is smaller in states with good electronic systems for collecting vital records (Elliott et al. 2010). The vital statistics have more interstate variation than the ACS, which is consistent with a hypothesis that varying attention to the collection of divorce statistics from state to state has led to increasing variation in the completeness of reporting. The states with the sharpest decline in the vital statistics divorce rates between 1980 and 2010 also tend to be states with the biggest discrepancy between the vital statistics and the ACS in 2010 (adjusted *R*-squared = .12, *p* = .013). Again, this is consistent with the hypothesis that the decline in divorce rates from vital statistics partly resulted from the deterioration of data collection in particular states—notably Texas, Illinois, and Ohio.

If the ACS divorce rates are correct and the recent NCHS rates are biased, this significantly revises our understanding of the trajectory of change in divorce over the past 30 years. According to the vital statistics, the refined divorce rate declined by 21 % (from 22.6 to 17.8 divorces per thousand married women) between 1980 and 2008; substituting the ACS estimates, the decline was only 2 % (from 22.6 to 22.1).

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[3] Compared with the ACS estimates, the vital statistics–refined divorce rates are 18.3 % lower in 2008, 13.2 % lower in 2009, and 14.9 % lower in 2010. In recent years, NCHS has published divorce counts for 44 states and the District of Columbia. To make the NCHS and ACS comparable, we must limit the analysis to these places. In addition, the ACS for a given year must be compared with two years of NCHS data because the ACS is collected continuously over the course of the year, so the reference period for vital events occurring within the previous 12 months could be any time during the current year or the previous year. Therefore, we compare the 2008 ACS with the average of NCHS divorce rates in 2007 and 2008.

These refined divorce rates do not control for changes in the age composition of the married population. For 1970 and for 1980 to 1990, NCHS published age-specific divorce rates for the DRA, which included data for about 30 states, thus representing one-half of the population.[4] These were probably the highest-quality divorce statistics ever gathered by NCHS, given that the completeness of data reporting was being closely monitored by the agency. Figure 3 shows the age-standardized trend in divorces per 1,000 married women from 1970 to 2011 for the DRA. The national unstandardized refined divorce rate from vital statistics and from the ACS, as shown in Figs. 1 and 2, is provided for reference.

With 2010 as the standard population, the age-standardized divorce rate rose by 40 % between 1980 and 2008. After a slight dip in 2009—possibly a result of the Great Recession (Chowdury 2012; Cohen 2012; Schaller 2013)—the rise has continued, and 2011 has the highest divorce rate of any year to date. If we substitute 1980 as the standard population, the change becomes smaller but remains substantial: if the age distribution of married women in 2008 had been the same as it was in 1980, the divorce rate in 2008 would have been 25 % higher than in 1980. Thus, the apparent stability of the unstandardized divorce rate since 1980 is an artifact of a shift of the married population out of high-divorce younger ages into lower-divorce older ages; if we hold the age distribution constant using either 1980 or 2010 as the standard, we can see a substantial increase in divorce rates. Even if the ACS overreported divorces by 15 %, the data would indicate a sizable increase in age-standardized divorce during the past three decades, regardless of the standard used. This finding does not reflect peculiarities of the DRA: the 2011 refined divorce rate was even higher for states outside the DRA.

The age-standardized divorce rate does not fully account for compositional change. Over the past three decades, the average duration of marriages has grown, age at marriage has increased, and the rate of remarriages has declined (Kreider and Ellis 2011). Those who have been married a long time, those who marry later in life, and those in first marriages are at comparatively low risk of divorce. Accordingly, if it were possible to control fully for compositional change in marriage age, duration, and marriage order—as well as current age—the increase in divorce rates since 1980 might be even more dramatic than suggested in Fig. 3. Unfortunately, we lack sufficient data to control for all four compositional factors.

The rise of divorce has not occurred evenly across age groups. As pointed out by Brown and Lin (2012), there has been a striking increase in divorce among the middle-aged. Figure 4 shows the age-specific rates for 1970, 1980, 1990, and 2008–2010. From 1970 to 1980, divorce rates increased at every age, but the age pattern remained essentially similar. The level of divorce in 1990 was almost the same as in 1980, but a small shift in the age pattern can be discerned: among women in their 20s and early 30s, 1990 had slightly lower divorce rates than 1980, but the reverse was true among those over age 40. Over the next two decades, this shift in the age pattern accelerated. Among persons under age 25, divorce was lower in the ACS than in the 1990 vital statistics; among women in their 50s, the recent ACS data show divorce rates over twice as high as the comparable rates in 1990. The rise of standardized divorce rates reflects this increase in divorce among persons age 35 and older.

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[4] The composition of the DRA shifted slightly from 1970 to 1990; Figs. 3 and 4 use the 1990 footprint of states reporting age-specific rates (Clarke 1995; National Center for Health Statistics 1985).
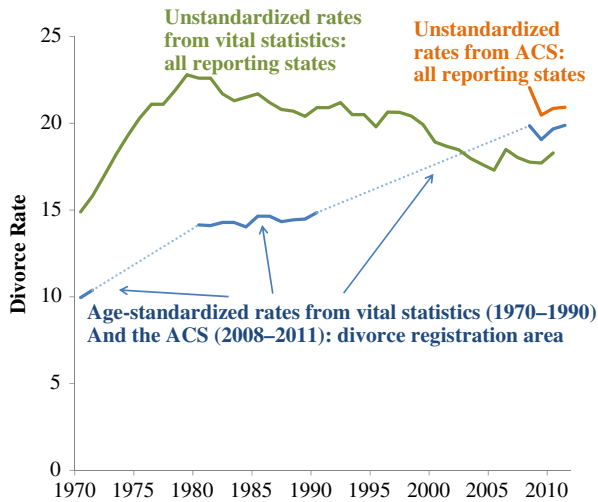
Fig. 3 Comparison of age-standardized and unstandardized divorces per 1,000 married women. *Note:* Standard population = married women in 2010. Unstandardized rates for ACS based on vital statistics reporting states in 2010 (44 states and the District of Columbia). Age-standardized rates are calculated based on age-specific rates published in 1970 and for the decade from 1980 to 1990, and for 2008–2011 for the Divorce Registration Area (29 states and the District of Columbia). The difference between the standardized and unstandardized ACS rates in 2010 results from the differing geographic footprint. *Sources:* Unstandardized rates, see Fig. 1. Standardized rates, 1970, 1980, 1984–1990: Clarke (1995); 1982–1983: National Center for Health Statistics (1985: table 6); 2008–2011: Ruggles et al. (2012)

Figure 5 shows the age pattern of the *prevalence* of marital instability, which we define as the percentage of ever-married persons who have ever been divorced or separated, as opposed to the incidence of divorce measured elsewhere in this article. By focusing on the changing stock of ever-divorced population rather than the flow of divorces, Fig. 5 reveals the cumulative consequences of the shifting patterns of divorce
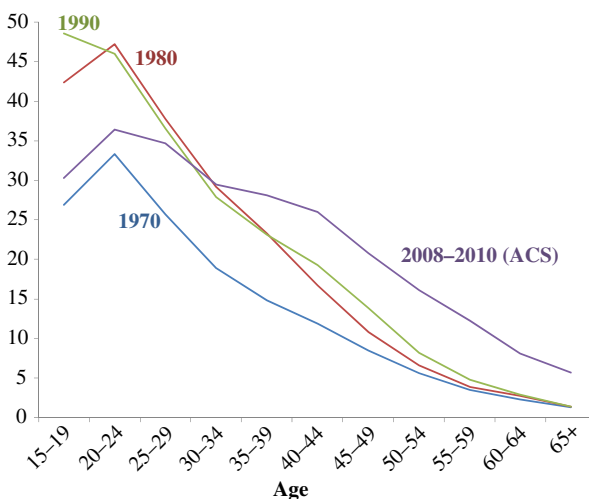

Fig. 4 Age-specific divorce rates per 1,000 married women, Divorce Registration Area, 1970–2010. *Sources:* 1970, 1980, 1990: Clarke (1995). 2008–2010: Ruggles et al. (2012)
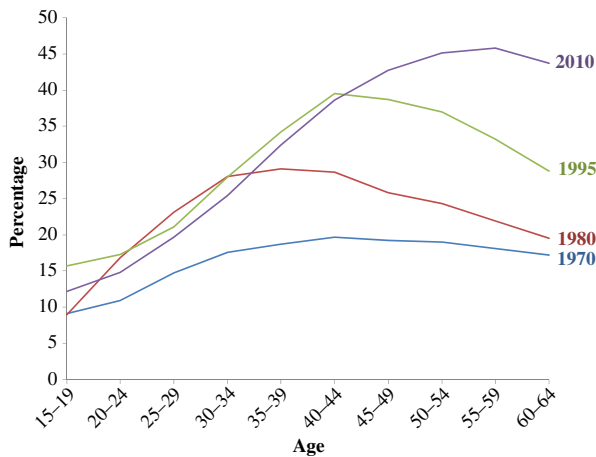
Fig. 5 Percentage of ever-married persons ever divorced or separated, by age: 1970–2010. *Note:* Assumes constant age-specific effect of widowhood among remarried population from 1995 to 2010. *Sources:* 1970, 2010: Ruggles et al. (2012); 1980, 1995: U.S. Census Bureau (1982, 1997)

rates. Like the statistics on the incidence of divorce shown in Fig. 4, the prevalence statistics in Fig. 5 show a decline in marital instability from 1980 to 2010 among younger ever-married people. This decline is more than cancelled out, however, by a massive increase among persons in their 50s. By 2010, almost one-half of ever-married persons had been divorced or separated by the time they reached their late 50s.

The shifting age pattern of divorce suggests a cohort effect. The same people who had unprecedented divorce incidence in 1980 and 1990 when they were in their 20s and 30s are now in their 40s, 50s, and 60s. The Baby Boom generation was responsible for the extraordinary rise in marital instability after 1970. They are now middle-aged, but their pattern of high marital instability continues. As Brown and Lin (2012) pointed out, part of this may simply be a consequence of the high divorce rates that they experienced earlier in life, given that remarriages tend to be less stable than first marriages.

Discussion

Cherlin (2009) argued that the turbulence in family life caused by frequent entrance into and dissolution of formal marriages and informal cohabiting unions is the defining characteristic of American family life. Our results document striking growth in this turbulence since the 1980s and 1990s, during a period when many analysts have argued that marriages have become more stable. There are three reasons most observers missed the rapid increase in divorce after 1990. First, the demographic community was not aware of the extent of deterioration in the vital statistics and the SIPP. Second, the analyses did not account for the changes in the composition of the married population, especially the shift of the married population into older ages (over age 35), where the increase in divorce rates is concentrated. Third, some studies relied on the National Survey of Family Growth (NSFG), which excludes older couples.

As Goldstein (1999) and others have suggested, there was a leveling of divorce between 1980 and 1990, even controlling for changes in age structure, duration, and marriage order. The deterioration of the vital statistics system made it appear that the refined divorce rate declined rapidly after 1990, but new ACS data indicate that the refined divorce rate was actually stable during this period, with no controls for changing population composition. The age-standardized refined divorce rate increased substantially after 1990 and is now at an all-time high.

There have been striking changes in the age pattern of divorce over the past three decades. Divorce at age 40 or older is much more common than it was, and divorce of persons in their teens and early 20s has dropped. The cohort born after World War II divorced more frequently than those who came before, and they are continuing to do so at unprecedented rates as they age. It makes sense that the Baby Boomers divorced more than their predecessors. The loosening of legal constraints and declining social stigma has reduced barriers to divorce, and the opening of new economic opportunities for women allowed many to escape bad marriages (Ruggles 1997). But why has divorce leveled off or started to decline among the young?

The decline in divorce rates among women under age 25 probably reflects increasing selectivity of marriage. Fewer young people are getting married: over 40 % of the population in 2008 had not married by their 30th birthday, marking a fourfold increase since 1980. With the rise of cohabitation, it is likely that many couples who would have been at the highest risk of divorce in the past—for example, those entering unions as teenagers as a result of an unplanned pregnancy, or with low levels of income and education—are forgoing marriage entirely (Cherlin 2004; Smock et al. 2005). As pressures to marry recede, people can be more selective about their partners; thus, it makes sense that marriages may become more stable. We do not, however, anticipate that a decline of divorce will lead to an increase in overall union stability. Because cohabiting unions are more unstable than marriages, we expect that the rapid rise of cohabitation among the young will neutralize any decline of divorce (Kennedy and Ruggles 2013; Raley and Bumpass 2003).

References

Broome, C. V. (1995). Change in marriage and divorce data available from the National Center for Health Statistics. *Federal Register, 60,* 64437–64438.

Brown, S. L., & Lin, I. (2012). The gray divorce revolution: Rising divorce among middle-aged and older adults, 1990–2010. *Journals of Gerontology. Series B, Psychological Sciences and Social Sciences, 67,* 731–741.

Bumpass, L. L., Castro Martin, T., & Sweet, J. A. (1991). The impact of family background and early marital factors on marital disruption. *Journal of Family Issues, 12,* 22–42.

Castro Martin, T., & Bumpass, L. L. (1989). Recent trends in marital disruption. *Demography, 26,* 37–51.

Cherlin, A. J. (1981). *Marriage, divorce, remarriage.* Cambridge MA: Harvard University Press.

Cherlin, A. J. (2004). The deinstitutionalization of American marriage. *Journal of Marriage and Family, 66,* 848–861.

Cherlin, A. J. (2009). *The marriage-go-round.* New York, NY: Alfred A. Knopf.

Chowdury, A. (2012). 'Til recession do us part: Booms, busts and divorce in the United States. *Applied Economics Letters, 20,* 255–261.

Clarke, S. V. (1995). Advance report of final divorce statistics, 1989 and 1990. *Monthly Vital Statistics Report, 43*(9), 1–31.

Cohen, P. N. (2012). *Recession and divorce in the United States: Economic conditions and the odds of divorce, 2008–2010* (Working paper). College Park: Maryland Population Research Center.

Elliott, D. B., Simmons, T., & Lewis, J. M. (2010). *Evaluation of the marital events items on the ACS* (U.S. Census Technical and Analytic Reports on the American Community Survey). Washington, DC: U.S. Census Bureau.

Glick, P. (1984). Marriage, divorce, and living arrangements: Prospective issues. *Journal of Family Issues, 5,* 7–26.

Goldstein, J. R. (1999). The leveling of divorce in the United States. *Demography, 36,* 409–414.

Haines, M. R. (2006), Marriage and divorce rates: 1920–1995. In S. B. Carter, S. S. Gartner, M. R. Haines, A. L. Olmstead, R. Sutch, & G. Wright (Eds.), *Historical statistics of the United States, earliest times to the present: Millennial edition* (Table Ae507-513). New York, NY: Cambridge University Press.

Heaton, T. B. (2002). Factors contributing to increasing marital stability in the United States. *Journal of Family Issues, 23,* 392–409.

Hernandez, D. (1989). *Components of longitudinal household change for 1984–85: An evaluation of national estimates from the SIPP* (SIPP Working Paper Series No. 8922). Washington, DC: U.S. Bureau of the Census.

Hetzel, A. M. (1997). *U.S. Vital Statistics System. Major activities and developments, 1950–95* (DHHS Publication No. (PHS) 97-1003). Hyattsville, MD: National Center for Health Statistics.

Hill, D. (1986). An additive model of recall error: Analysis of SIPP data. In *Proceedings of the Section on Survey Research Methods, American Statistical Association (1986)* (pp. 226–230). Alexandria, VA: American Statistical Association.

Isen, A., & Stevenson, B. (2010). *Women's education and family behavior: Trends in marriage, divorce and fertility* (NBER Working Paper No. 15725). Cambridge, MA: National Bureau of Economic Research.

Kennedy, S., & Ruggles, S. (2013). *Breaking up is hard to count: The rise of divorce and cohabitation instability in the United States* (MPC Working Papers No. 2013–01). Minneapolis: Minnesota Population Center, University of Minnesota.

Kreider, R. M., & Ellis, R. (2011). *Number, timing, and duration of marriages and divorces: 2009* (Current Population Reports P70-125). Washington, DC: U.S. Census Bureau.

Lewin Group. (2008). *Collection of marriage and divorce statistics by states. Final report.* Prepared for U.S. Department of Health and Human Services Administration for Children and Families and the Office of the Assistant Secretary for Evaluation and Planning. Falls Church, VA: The Lewin Group. Retrieved from http://archive.acf.hhs.gov/programs/opre/strengthen/expl_opt/reports/coll_stats/coll_stats.pdf

Martin, S. P. (2006). Trends in marital dissolution by women's education in the United States. *Demographic Research, 15*(article 20), 537–560. doi:10.4054/DemRes.2006.15.20

McCarthy, J. (1978). A comparison in the probability of dissolution of first and second marriages. *Demography, 15,* 345–359.

McCarthy, J., Pendleton, A., & Cherlin, A. (1989). The quality of marriage and divorce data from surveys. In *Challenges for public health statistics in the 1990s* (pp. 286–290). Hyattsville, MD: National Center for Health Statistics.

National Center for Health Statistics (NCHS). (1985). Advance report of final divorce statistics, 1983. *Monthly Vital Statistics Report, 34*(9, Suppl.). Hyattsville, MD: Public Health Service.

National Center for Health Statistics (NCHS). (2011). *Divorce rates by state: 1990, 1995, and 1999-2010.* http://www.cdc.gov/nchs/data/dvs/divorce_rates_90_95_99-11.pdf

National Center for Health Statistics (NCHS). (2012). *National Vital Statistics System: Marriages and divorces.* Retrieved from http://www.cdc.gov/nchs/mardiv.htm

National Office of Vital Statistics. (1949). *Vital Statistics of the United States* (Report prepared under the direction of H. L. Dunn). Washington, DC: U.S. Government Printing Office.

National Office of Vital Statistics. (1950). History and organization of the vital statistics system. Pp. 1–19 in *Vital Statistics of the United States.* (Report prepared under the direction of H. L. Dunn). Washington, DC: U.S. Government Printing Office.

Norton, A. (1983). Family life cycle: 1980. *Journal of Marriage and the Family, 45,* 267–275.

O'Connell, M., Gooding, G., & Ericson, L. (2007). *Evaluation report covering marital history* (2006 American Community Survey Content Test Report). Washington, DC: U.S. Census Bureau.

Plateris, A. A. (1973). *100 Years of marriage and divorce statistics, 1867–1967* (National Vital Statistics System Series 21(24)). Rockville, MD: National Center for Health Statistics.

Preston, S. H. (1975). Estimating the proportion of American marriages that end in divorce. *Sociological Methods and Research, 3,* 435–460.

Raley, R. K. (2011, July). *A brief on the quality of data of marital and relationship instability in the United States.* Paper presented at the *Counting Couples, Counting Families* conference, Bethesda, MD.

Raley, R. K., & Bumpass, L. L. (2003). The topography of the divorce plateau: Levels and trends in union stability in the United States after 1980. *Demographic Research, 8*(article 8), 245–260. doi:10.4054/DemRes.2003.8.8

Ruggles, S. (1997). The rise of divorce and separation in the United States, 1880–1990. *Demography, 34,* 455–466.

Ruggles, S., Alexander, J. T., Genadek, K., Goeken, R., Schroeder, M. B., & Sobek, M. (2012). *Integrated Public Use Microdata Series: Version 5.0* [Machine-readable database]. Minneapolis: University of Minnesota.

Schaller, J. (2013). For richer, if not for poorer? Marriage and divorce over the business cycle. *Journal of Population Economics, 26,* 1007–1033.

Schoen, R., & Canudas-Romo, V. (2006). Timing effects on divorce: 20th century experience in the United States. *Journal of Marriage and Family, 68,* 749–758.

Schoen, R., & Standish, N. (2001). The retrenchment of marriage in the US. *Population and Development Review, 27,* 553–563.

Smock, P. J., Manning, W. D., & Porter, M. (2005). "Everything's there except the money": How money shapes decisions to marry among cohabitors. *Journal of Marriage and Family, 67,* 680–696.

Stevenson, B., & Wolfers, J. (2007). Marriage and divorce: Changes and their driving forces. *The Journal of Economic Perspectives, 21,* 27–52.

Stevenson, B., & Wolfers, J. (2011). Trends in marital stability. In L. Cohen & J. D. Wright (Eds.), *Research handbook in the law and economics of the family* (pp. 96–108). Northampton, MA: Edward Elgar Press.

Sutton, P. D., & Munson, M. L. (2008). *Births, marriages, divorces, and deaths: Provisional data for July 2007* (National Vital Statistics Reports 56(14)). Hyattsville, MD: National Center for Health Statistics.

U.S. Bureau of the Census. (1925). *Marriage and divorce, 1922.* Washington, DC: U.S. Government Printing Office.

U.S. Bureau of the Census. (1975). *Accuracy of data for selected population characteristics as measured by the 1970 CPS-census match* (Evaluation and Research Program, Series PHC(E)-11). Washington, DC: U.S. Government Printing Office.

U.S. Census Bureau. (1908). *Marriage and divorce, 1887–1906* (Bulletin 96). Washington, DC: U.S. Government Printing Office.

U.S. Census Bureau. (1982). *Current Population Survey, June 1980.* Washington, DC: U.S. Department of Commerce, Bureau of the Census.

U.S. Census Bureau. (1988). *Current Population Survey, June 1985: Marital history and fertility.* Washington, DC: U.S. Department of Commerce, Bureau of the Census.

U.S. Census Bureau. (1989). *Survey of Income and Program Participation (SIPP) 1986 panel.* Washington, DC: U.S. Department of Commerce, Bureau of the Census.

U.S. Census Bureau. (1991). *Current Population Survey, June 1990: Fertility, birth expectations, and marital history.* Washington, DC: U.S. Department of Commerce, Bureau of the Census.

U.S. Census Bureau. (1997). *Current Population Survey, June 1995: Fertility, birth expectations, and marital history.* Washington, DC: U.S. Department of Commerce, Bureau of the Census.

U.S. Census Bureau. (1998a). *SIPP quality profile 1998* (SIPP Working Paper No. 230, 3rd ed.). Washington, DC: U.S. Department of Commerce, Bureau of the Census.

U.S. Census Bureau. (1998b). *Survey of Income and Program Participation (SIPP) 1996 panel.* Washington, DC: U.S. Department of Commerce, Bureau of the Census.

U.S. Census Bureau. (2008). *Survey of Income and Program Participation (SIPP) 2004 panel, Wave 2 Topical Module.* Washington, DC: U.S. Census Bureau.

U.S. Census Bureau. (2011). *Survey of Income and Program Participation (SIPP) 2008 panel, Wave 2 Topical Module.* Washington, DC: U.S. Census Bureau.

Wright, C. D. (1889). *A report on marriage and divorce in the United States, 1867 to 1886.* Washington, DC: U.S. Government Printing Office.