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Trends in Union Instability in the United States, 1980s-2010s

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Abstract: We use data from the 1995, 2002, 2006-10, 2011-13 cycles of the National Survey of Family Growth (NSFG) to examine trends in cohabitation in the United States. By the 2000s, 45% of first unions dissolved within 5 years, a dramatic increased over previous decades. The percent of first marriages dissolving within 5 years remained unchanged about 20%, compared to just over half of cohabiting unions. Educational differences in marital dissolution increased through the 1990s, before stabilizing.

Introduction

In December 2014, the New York Times boldly declared that "The Divorce Boom is Over, but the Myth Lives On" (Miller 2014)," Presenting analysis conducted by Justin Wolfers and Betsey Stevenson, Miller argues that couples who married in the 1990s and 2000s are divorcing at a substantially lower rate than couples who married in the 1970s and 1980s, in the midst of major social transformations. Wolfers explained that marriages today are more stable because they are now based on love.

> The people who married soon before the feminist movement were caught in the upheaval. They had married someone who was a good match for the postwar culture but the wrong partner after times changed. Modern marriage is more stable because people are again marrying people suitable to the world in which we live.

> "It's just love now," Mr. Wolfers said. "We marry to find our soul mate, rather than a good homemaker or a good earner. (Miller 2014)

Acknowledging a few exceptions (the elderly and low-income families), Miller and Wolfers argue that Americans have figured out marriage.

Other research suggests a less rosy picture. New data from the American Community Survey (ACS) shows that the overall divorce rates in the US have not changed, despite the rapidly aging population. Rates of formal divorce have risen dramatically since 1980 among Baby Boomers, along with stable divorce rates among women in their 30s, and potentially falling rates among women under age 25 in the United States (Kennedy and Ruggles 2014, Brown and Lin 2012).

Perhaps more importantly, the institution of marriage is different today than it was in the 1970s. Fewer young people are getting married (Wang and Parker 2014). Instead, as young adults are delaying or possibly forgoing marriage entirely, they are forming unions outside of marriage at unprecedented levels and at early ages (Smock and Manning 2004; Manning, Brown,

and Payne 2014). As cohabitation has become more socially acceptable, Americans have become less likely to marry their cohabiting partners and more likely to enter into multiple cohabiting unions (Lichter, Turner, and Sassler 2010, Kennedy & Bumpass 2008). Many cohabitors still marry their partners and premarital cohabitation no long increases the likelihood that a married couple will divorce (Manning and Cohen 2012). Nevertheless, it is likely that the couples at highest risk of union dissolution are forgoing marriage entirely. But, they are still entering partnerships and at young ages (Manning, Brown, and Payne 2014). By the early 1990s, union instability rates that include cohabiting unions as well as marriages had risen slightly (Raley and Bumpass 2003). Consequently, to fully understand how well American couples are managing new gender roles, transformations in the institution of marriage, and growing economic challenges, we have to take into account unions that form and dissolve outside of legal marriage. This paper does so, by examining trends in union dissolution more generally, and for cohabiting unions in particular, using data from the National Surveys for Family Growth (NSFG) 1988-2013.

Inequality and the Changing Institution of Marriage

Cherlin (2004) describes two major 20th century transformations in the meaning of marriage leading to the deinstitutionalization of contemporary marriage. First, the rise of companionate marriage during the 1950s, with a strict gender based division of labor, satisfaction gained from fulfilling roles within the family, and strong emotional/companionate bonds between spouses. Beginning in the 1960s, individualized marriage replaced companionate marriage. Emphasis on personal choice, self-development and flexible family roles within marriage was accompanied by new opportunities for family life outside of marriage (divorce,

non-marital fertility, cohabitation). Individual self-fulfillment took precedence over sacrifice for the good of the family. The norms governing roles, behaviors, and expectations in marriage in earlier decades have weakened, forcing contemporary couples to individually negotiate their roles and expectations for marriage.

These changes in the cultural foundations of marriage have been accompanied by rising rates of inequality and changes in the economic foundations of marriage (Ellwood and Jencks 2004; McLanahan and Percheksi 2008). Working class men have experienced decades of falling wages and disappearing jobs, while wages rose for highly educated workers. Women gained new opportunities in the labor force. The benefits of marriage have declined at the bottom of the economic ladder and increased at the top. As low-income couples report economic barriers to marriage (but not cohabitation or nonmarital parenthood) and marriage has become increasingly selective of the highly educated (Smock, Manning, and Porter 2005; Sweeney 2002).

Both the cultural and economic foundations for marriage have weakened over the course of the past 50 years. Understanding the consequences of these changes, however, cannot be done by looking only at marriage. Instead, we have to look at all unions – those who still select into marriage and those who increasingly are selecting into informal unions for partnership and parenting.

Data

To assess trends in overall union instability among younger adults, we use the National Survey of Family Growth (NSFG). The survey focuses on persons in reproductive ages, so we it is not useful for understanding longer-run trends in those age-groups showing increases in the incidence of divorce (women over age 45). But, it is valuable for studying those cohorts which

have experienced the largest increases in cohabitation and for observing the ages at which cohabitation typically occurs.

The 1988 wave of the periodic National Survey of Family Growth was among the first nationally representative surveys to collect detailed cohabitation histories. The NSFG was repeated in 1995, 2002, and 2006-2010, and 2011-13. Unfortunately, the 2002 data are compromised: routing errors in the 2002 female questionnaire produced substantial missing data and limited the usefulness of this wave for studying trends in union dissolution.[1]

Because the NSFG has longest run of cohabitation histories currently available, it is the best source for investigating trends in union dissolution among younger women. We examine trends in union formation for first marriage and first union cohorts over three decades and for four cohorts: 1980-1987, 1987-1994, and 1998-2005, and 2003-2012. These cohorts are selected to include unions formed during the 8 years before each NSFG cycle allowing us to maximize sample size, while limiting recall error (Hayford and Morgan 2008, Raley and Bumpass 2003).[2] In order to maximize sample sizes for the most recent Women interviewed in 2007-2009 could contribute observations to two cohorts, in order to maximize the sample size for the most recent marriage cohorts. Our analysis is limited to women who first marry or enter a first union by age 35 because this is the oldest age at which women could form unions in the first year of each of these cohorts.

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[1] Specifically, marital dissolution data are missing entirely for currently separated respondents, resulting in very high rates of missing data for marriages that dissolved in periods close to the survey administration. In addition, marriages in which the male partner had children from a prior union were also skipped out of the marriage dissolution questions.

[2] Because the two most NSFG includes interviews conducted during the years 2006-2010 and 2011-2013 we must use wider intervals for marriage than in earlier periods, and there is some overlap between the two cohorts. In addition, although there is a one-year overlap between the two earliest surveys, the impact is minimal as women entering unions in 1987 in the earliest cohort contribute at most one person-year of exposure to our analysis.

Results

Using the NSFG, we estimate life table and multivariate hazard models examining cohort differences in marriage or union dissolution within five years. Dissolution is defined as the time when a couple stops coresiding, whether they are cohabiting or married.

Table 1 presents cohort life table estimates of the proportion for first marriages and first unions dissolving within 5 years for women who formed unions by age 35.[3] We found little change in marital disruption over the past three decades. Approximately 20% of first marriage ended in separation within 5 year in each cohort.

Among first unions that began with cohabitation, about half ended in disruption in all three cohorts, even as their share of first unions increased from half to three-quarters. The percent dissolving increased slightly during the most recent period, from 47% before the Great Recession, to 53% for 2003-2012 cohort (which encompasses the Great Recession.)

When we combine marriages and cohabitations to look at disruption of all first unions, during these periods, we find strong evidence that increased union instability is on the rise for women of reproductive ages. Currently, for the 2003-2011 first union cohort, we estimate that 45% disrupted within 5 years. This represents a substantial increase, about 10 percentage points, over women forming unions in the 1980s, with most of the growth in instability occurring since the 1990s.

To control for age at union formation as well as marriage duration, we turned to Cox proportional hazards models. Table 2 presents descriptive statistics on age at marriage and union

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[3] Note that the proportion of first unions that began with cohabitation rather than direct marriage increased from 53% in the earliest cohort, to 75% in the most recent cohort, while percentage of first marriages preceded by cohabitation increased from 43% to 64%.

formation for our first marriage and first union cohorts. This shows that as marriage formation

has been delayed, cohabitation and union formation in the U.S. still occurs at very young ages:

35% of women enter first unions (marriage or cohabitation) in their teens, and this percentage

has not shifted greatly in three decades. (See Manning, Brown, and Payne 2014 for a discussion

of the stability of the age of cohabitation entry in the U.S.).

Table 3 presents results from Cox proportional hazard models predicting the dissolution

of first marriages and first unions. Our models include an indicator of marriage cohorts: 1980-87,

1987-94, 1998-2005, and 2003-2012 (the reference category). We also include controls for age at

marriage or union start—these variables are designed to control for compositional change due to

shifts in age at union formation.[4] Additional controls include educational attainment,

race/ethnicity, and nativity.

As shown on the left of Table 3, we find no significant change in the disruption of first

marriages across cohorts in our baseline model (cohort only). This result persists, even

controlling for increased marriage age and additional demographic changes.

Next, we look at first unions that began with cohabitation. We find that while there is a

significant increase between the two most recent periods (1998-2005 and 2003-2011). There are

no significant differences between any of the other periods. This result is robust to demographic

controls, and may indicate increased cohabitation instability during the Great Recession.

Finally, on the right of Table 3 we present results for all first unions, including both

marriages and cohabitations. The pattern is clear: when we consider cohabitation as well as

marriage, union instability has risen significantly and continuously over time. This finding is

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[4] In fact, the controls for age at union formation did not significantly change the cohort coefficients. We also ran
models with controls for additional demographic variables that could explain differences between cohorts:
educational attainment, race and ethnicity, and nativity. These also did not affect our results and are not shown.

robust to demographic controls. Not shown, however, is that controlling for the type of union (cohabitation or marriage) reduces these effects substantially, and only the coefficient for the most recent period remains marginally significant – again perhaps suggesting a recession effect.

Age at union entry and education attainment are both strongly correlated with all three dissolution risks in zero-order models, but because of their strong correlation with one another, these associations with union dissolution are weakened in the multivariate models shown in Table 3.

Past research has found that trends in divorce in the US vary significantly by educational attainment, with increases concentrated among women without a college-degree (see for instance Raley and Bumpass 2003, Martin 2006). Our second goal for this paper is to examine whether this continues today and for other types of unions.

To test this, we included an interaction term between education and cohort in our Cox models. This was significant only for the marriage models, and the results are shown in Table 4. (For simplicity, we have combined the two lower education groups into a single category.) These results indicate that divorce risks have remained stable for college-graduates, but have risen over time for those with no more than a high school degree. The education differential was much smaller in the earlier two cohorts, compared to the current cohort, with no differences between those marrying 1998 onwards.

Discussion and next steps

Marital instability has remained largely stable for these cohorts of reproductive-age women, with about 20% of marriages dissolving within five years. We find that marital

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separation risks have increased for less-educated women – although the magnitude of the educational disparity appears to have stabilized after the 1990s.

To a growing extent, cohabitation is now substituting for formal marriage. Dissolution of cohabiting unions has always been far more common than marital dissolution. Despite the predominance of cohabitation, we see no systematic increase in the stability of cohabiting unions. Instead, cohabitation instability may have risen slightly during the Great Recession. Because cohabitation makes up a rapidly growing percentage of all unions, however, they have an increasing impact on overall union instability. When we merge cohabiting unions and marital unions together, it is apparent that overall union instability grew rapidly before stabilizing in recent years.

The debate over whether or not there has been increase in the risk of marital dissolution over the past several decades misses the profound rise of union dissolution. Overall, unions have become less stable, although the pace of change may be abating. At the same time, the percentage of the population in unions is declining. Marriage is becoming increasingly selective. Over 40% of the population in 2008 had not married by their 30th birthday, a four-fold increase since 1980. Today, many of the people who would have been at the highest risk of divorce in the past are either already divorced or never married in the first place. The two extraordinary changes in union formation--the decline of marriage and the rise of cohabitation--are rendering conventional measures of marital dissolution increasingly irrelevant.

References

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(6), 731–741.

Cherlin, Andrew J. "The deinstitutionalization of American marriage." *Journal of Marriage and Family* 66.4 (2004): 848-861.

Ellwood D, Jencks C. (2004.) The uneven spread of single-parent families: What do we know? Where do we look for answers? In *Social Inequality*, ed. K Neckerman, pp. 3–78. New York: Russell Sage Foundation.

Hayford, S.R. & Morgan, S.P. (2008). The quality of retrospective data on cohabitation. Demography 45(1): 129–141.

Kennedy, S. & Bumpass, L.L. (2008). Cohabitation and children's living arrangements: New estimates from the United States, *Demographic Research*, 19: 1663-1692.

Kennedy, S. & Ruggles, S. (2014). Breaking Up Is Hard to Count: The Rise of Divorce in the United States, 1980–2010. *Demography*, 51: 587-598.

Lichter, D. T., Turner, R. N., & Sassler, S. (2010). National estimates of the rise in serial cohabitation. *Social Science Research,* 39: 754–765.

Manning, W.D. & Cohen, J. (2012) Premarital cohabitation and marital dissolution: An examination of recent marriages." *Journal of Marriage and Family* 74(2):377-387.

Manning, Wendy D., Susan L. Brown, and Krista Payne. (2014) "Two Decades of Stability and Change in Age at First Union Formation." Journal of Marriage and Family 76(2):247-260.

Martin, S.P. (2006). Trends in marital dissolution by women's education in the United States. *Demographic Research* 15: 537-560.

McLanahan, Sara, and Christine Percheski. "Family structure and the reproduction of inequalities." *Annu. Rev. Sociol* 34 (2008): 257-276.

Miller, Claire Cain (Dec. 2, 2014). "The Divorce Surge is Over, but the Myth Lives On." *The New York Times.* Retrieved from http://www.nytimes.com/2014/12/02/upshot/the-divorce-surge-is-over-but-the-myth-lives-on.html?abt=0002&abg=0&_r=0.

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(8): 245-260.

Smock, P.J. & Manning W.D. (2004). Living Together Unmarried in the United States: Demographic Perspectives and Implications for Family Policy. *Law & Policy* 26: 87-117.

Smock, Pamela J., Wendy D. Manning, and Meredith Porter. ""Everything's there except money": How money shapes decisions to marry among cohabitors." *Journal of Marriage and Family* 67.3 (2005): 680-696.

Sweeney, Megan M. "Two decades of family change: The shifting economic foundations of marriage." *American Sociological Review* (2002): 132-147.

Wang, W. & Parker K. 2014. "Record Share of Americans Have Never Married: As Values, Economics and Gender Patterns Change." Washington, D.C.: Pew Research Center's Social & Demographic Trends project.

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 and J. D. Wright (eds), *Research Handbook in the Law and Economics of the Family* (pp.96-108). Northampton: Edward Elgar Press.

Table 1. Life table estimates of first marriage and union dissolution within 5 years

	First marriages	First cohabiting unions	All first unions
Marriage/union cohort			
1980-1987	0.21	0.48	0.34
1987-1994	0.21	0.49	0.36
1998-2005	0.18	0.47	0.41
2003-2012	0.21	0.53	0.45

Source: National Survey of Family Growth 1988, 1995, 2006-10, and 2011-13. National Center for Health Statistics 1990, 1997b, 2011b.

Notes: includes only marriages and unions formed by age 35. Marital disruption is measured at the time of separation, not divorce.

Table 2. Distribution of age at marriage or formation of cohabiting unions, 1980-2009

	First marriages				First cohabiting union				First union			
	1980-1987	1987-1994	1998-2005	2003-2012	1980-1987	1987-1994	1998-2005	2003-2012	1980-1987	1987-1994	1998-2005	2003-2012
<20	0.24	0.19	0.12	0.08	0.39	0.38	0.41	0.42	0.35	0.32	0.35	0.36
20-22	0.32	0.28	0.24	0.21	0.28	0.31	0.27	0.24	0.31	0.30	0.28	0.25
23-25	0.23	0.22	0.27	0.28	0.17	0.16	0.17	0.22	0.19	0.18	0.19	0.22
26-29	0.14	0.20	0.23	0.27	0.11	0.11	0.10	0.09	0.10	0.13	0.11	0.12
30+	0.07	0.11	0.14	0.15	0.04	0.05	0.06	0.03	0.05	0.07	0.08	0.06
	1,690	2,110	1,818	1,169	1,135	1,516	2,111	1,471	1,998	2,468	2,736	1,815

Source: National Survey of Family Growth 1988, 1995, and 2011-13. National Center for Health Statistics 1990, 1997b, 2011b.

Note: Includes only marriages and unions formed by age 35.

Table 3. Proportional hazards models predicting rate of first marriage and union dissolution, within 5-years

	First marriage				First cohabitation				First union			
	Cohort		Full model		Cohort		Full model		Cohort		Full model	
	b	se	b	se	b	se	b	se	b	se	b	se
Cohort												
1980-87	0.04	0.12	-0.25	0.13	-0.03	0.08	-0.03	0.09	-0.28	0.08 ***	-0.32	0.08 ***
1987-94	0.04	0.12	-0.17	0.12	-0.07	0.07	-0.07	0.08	-0.28	0.07 ***	-0.28	0.08 ***
1998-2005	-0.16	0.13	-0.23	0.13	-0.17	0.07 *	-0.16	0.08 *	-0.16	0.08 *	-0.15	0.08 *
2005-2012												
Age[a]												
Under 20												
20-22			-0.39	0.17 *			-0.11	0.14			-0.32	0.12 **
23-25			-0.78	0.22 ***			-0.41	0.18 *			-0.62	0.17 ***
26-29			-0.72	0.26 **			-0.34	0.21			-0.42	0.20 *
30+			-0.52	0.32			-0.45	0.28			-0.40	0.24
Education												
<HS			0.70	0.27 *			0.14	0.21			0.46	0.20 *
HS degree			0.37	0.24			0.16	0.19			0.26	0.17
Some coll			0.33	0.24			0.19	0.19			0.29	0.17
Coll grad												
Race/ethnicity												
Hispanic			0.26	0.26			0.18	0.21			0.27	0.18
Non-Hisp White												
Non-Hisp Black			0.57	0.14 ***			0.35	0.10 ***			0.48	0.09 ***
Other			-0.18	0.45			0.33	0.30			0.23	0.34
Foreign Born			-0.98	0.39 *			-0.57	0.29			-1.06	0.30 ***

Source: National Survey of Family Growth 1988, 1995, 2006-10, and 2011-13. National Center for Health Statistics 1990, 1997b, 2011b.
Notes: includes only marriages and unions formed by age 35. Marital disruption is measured at the time of separation, not divorce.
[a]Age is measured at the time of marriage for first marriage dissolution and at the time of union start for cohabitation and union dissolution.

Table 4. Proportional hazards models predicting rate of first marriage, within 5-years, interaction between education and cohort

	Education-only			Interaction			Premarital controls		
	b	se		b	se		b	se	
Marriage cohort									
1980-87	-0.11	0.13		0.36	0.25		0.46	0.25	
1987-94	-0.10	0.12		0.09	0.22		0.17	0.22	
1998-2005	-0.20	0.13		-0.19	0.28		-0.14	0.28	
2005-2012									
Education									
<HS/HS	0.84	0.20	***	1.43	0.23	***	1.09	0.24	***
Some coll	0.54	0.22	*	0.86	0.27	**	0.71	0.26	**
Coll grad									
Cohort*Educ									
1980*<HS/HS				-0.99	0.31	**	-0.86	0.31	**
1980*Some coll				-0.57	0.35		-0.52	0.34	
1987*<HS/HS				-0.62	0.28	*	-0.53	0.28	
1987*Some coll				-0.08	0.33		-0.03	0.31	
1998*<HS/HS				-0.18	0.32		-0.21	0.32	
1998*Some coll				0.05	0.39		0.01	0.38	
Age at marriage									
Under 20									
20-22				-0.43	0.17	*	-0.51	0.17	**
23-25				-0.83	0.22	***	-1.03	0.22	***
26-29				-0.76	0.26	**	-1.01	0.26	***
30+				-0.56	0.32		-0.83	0.33	*
Race/ethnicity									
Hispanic				0.29	0.26		-0.04	0.23	
Non-Hispanic White									
Non-Hispanic Black				0.58	0.14	***	0.33	0.17	
Other				-0.17	0.46		-0.60	0.43	
Foreign Born				-0.94	0.38	*			
Premarital cohab							0.23	0.15	
Premarital birth							0.57	0.18	**

Source: National Survey of Family Growth 1988, 1995, 2006-10, and 2011-13. National Center for Health Statistics 1990, 1997b, 2011b

Notes: includes only marriages and unions formed by age 35. Marital disruption is measured at the time of separation, not divorce.