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## **Rethinking marriage metabolism: The declining frequency of marital events in the United States**

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Author :

**Philip N Cohen**  
University of  
Maryland



## Rethinking marriage metabolism: The declining frequency of marital events in the United States

Philip N. Cohen

Department of Sociology

University of Maryland, College Park

pnc@umd.edu

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### **Abstract**

Previous research has employed an inadequate measure of marriage metabolism, but the concept may be useful for understanding the system of marriage. This paper addresses changes in the incidence of marital events in the United States from 2008 to 2020. I offer a measure, the Total Rate of Marital Events (TRME), that captures the lifetime experience of marital transitions (marriage, divorce, and widowhood) for a life table cohort. I find that the TRME declined steeply over this relatively short period: 25 percent for men and 23 percent for women. All three components declined in every age group below 90. I suggest that the slowing churn of the marriage system reflects the diminished social presence of marriage in daily life – if not its declining importance – which coincides with the increasingly selective status of married life. A higher status marriage system is a smaller, slower, and more stable marriage system.

## **Describing the marriage system**

How should we describe systematically a set of social practices and interactions as complex as marriage, spread across time and space? Andrew Cherlin expressed a common view in 2005 when we wrote that, “Marriage is less dominant as a social institution in the United States than at any time in history” (Cherlin 2005), reflecting its state of “deinstitutionalization” (Cherlin 2004). In that he meant a “weakening of the social norms” of the institution, and his analysis focused on demographic and cultural changes. Cherlin’s declining dominance echoed Schoen and Weinick (1993) from a decade earlier, who wrote, “recent changes suggest that [marriage] has retreated to a position of diminished prominence in the life cycle.” Since then, marriage has become less universal but also more stable (Smock and Schwartz 2020), which poses a problem for description of change in a single direction (Cherlin 2020). Nevertheless, images of decline and retreat dominate characterizations of trends in the system of marriage.

This paper takes off from one such motif, that of the marriage metabolism, to address changes in the incidence of marital events in the United States over a 12-year period, with an eye toward developing useful measures for future temporal and social comparisons. I offer a measure, the Total Rate of Marital Events (TRME), that captures the lifetime experience of marital transitions (marriage, divorce, and widowhood) for a life table cohort. I find that the TRME in the United States has declined steeply between 2008 and 2020, the years for which comparable data are available: 25 percent for men and 23 percent for women. All three components declined in every age group below 90. I suggest that the slowing churn of the marriage system is consistent with the diminished social presence of marriage in daily life – if not its declining importance – which coincides with the increasingly selective status of married life.

## **Background**

Before discussing measurement, a brief historiography of attempts to describe broad marriage trends will be useful background. In 1984, Kobrin (later Goldscheider) and Waite wrote, “Since the 1950s the American family has seen a major retreat from the pattern of early, stable, and nearly universal marriage,” and then shorted that to the phrase “retreat from marriage” (Kobrin and Waite 1984), the earliest occurrence I can find. *Retreat from marriage* first appeared in the title of an article in 1987, by demographer Robert Schoen (1987), to refer to the falling odds of marrying and the rising age at marriage over time, both indicating fewer years spent in marriage for the average

American. The phrase was immediately seized upon by advocates for pro-marriage social policy, including Bryce Christensen in 1988, who attributed it to Schoen (Christensen 1988) and then edited a book by that title that included prominent social scientists (Christensen 1990).

The phrase spread widely among sociologists in the early 1990s, and it was used colloquially, as in, “the current retreat from marriage,” without attribution (Lichter et al. 1992), as many scholars linked the decline in marriage to widening race and class inequality (Wilson 1997) and worsening social disorder, including crime (O’Brien, Stockard, and Isaacson 1999). When Norval Glenn introduced the phrase in a conservative 1996 volume, he attributed it to Christensen’s 1990 book (Popenoe, Elshtain, and Blankenhorn 1996). In a 2004 symposium, Pamela Smock (Smock 2004) cited a “litany of indicators” of the retreat: “declining fertility, increasing age at marriage, high levels of marital disruption, a growing separation between marriage and childbearing as manifested in an increasing proportion of children being born outside marriage, and the growth of nonmarital cohabitation.” In retrospect, that litany underscores the fact that the “retreat” was never linked to a commonly-accepted measure or index. The most common element of the “retreat from marriage” was probably families with children headed by single mothers, and especially Black single mothers (Lichter, McLaughlin, and Ribar 1997), who were leading the retreat (if that’s linguistically possible). Recent uses of “retreat from marriage” focus on lower rates of entry into marriage among adults (Brown 2022), with no reference to falling divorce rates (Cohen 2019a).<sup>1</sup> Should any decline in the prevalence or incidence of marriage be described as a “retreat”? Regardless of its application, the “retreat from marriage” language creates an unfortunate impression of marriage as a fixed object or institution, one that people were backing away from.<sup>2</sup>

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<sup>1</sup> The fact that divorce rates leveled off after the 1980s (Goldstein 1999), and then started to decline (but see Kennedy and Ruggles [2014]), should have proved a thorny complication for the “retreat from marriage” thesis, but it did not seem to. Despite reporting no increase in divorce rates from 1980 through 1995 at the turn of the century (Schoen and Standish 2001), Schoen (Schoen 2016) went on to write another paper titled, “The Continuing Retreat of Marriage” almost 20 years later – while still finding no increase in the rate of divorce.

<sup>2</sup> One strength of a paper by Schoen and Weinick (1993:744-5) was that they repurposed the word “retreat,” changing the subject of the verb from people to marriage itself. They wrote that “it [marriage] has retreated” rather than that people were retreating from it. But that change in emphasis did not stick in the wider discipline.

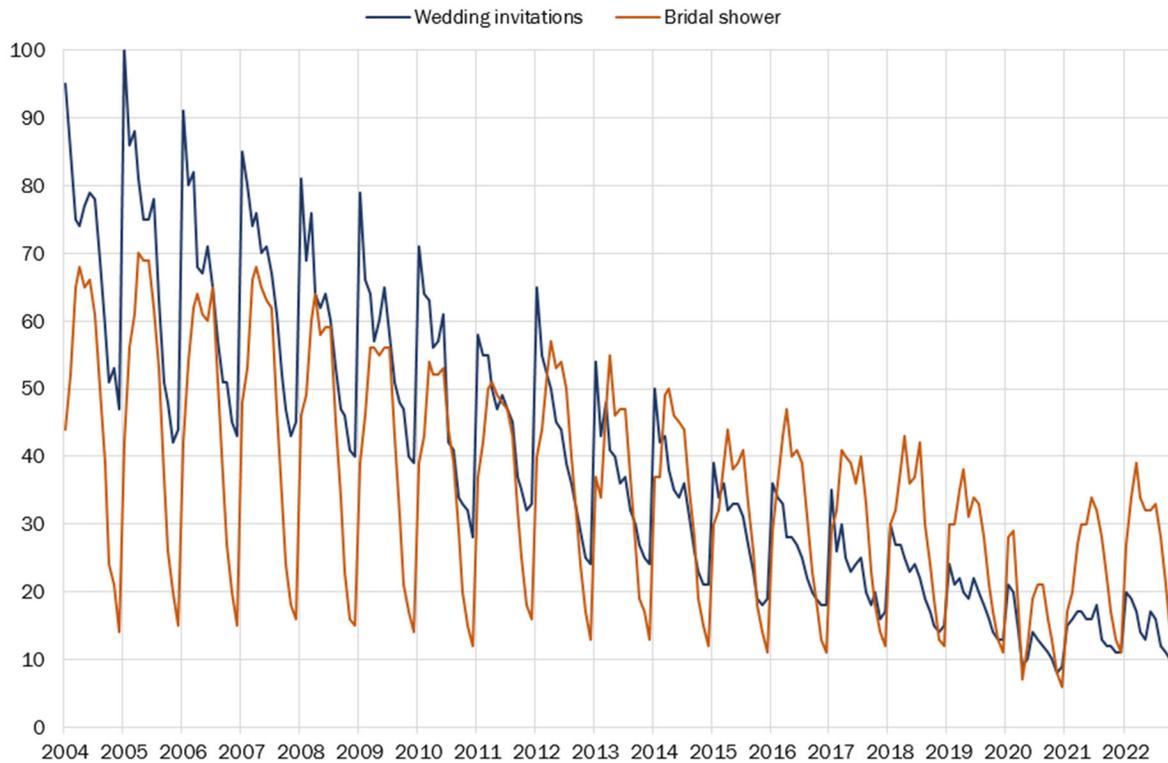
## Rethinking marriage metabolism

Schoen and Weinick (1993) titled their paper, “The slowing metabolism of marriage,” because they identified both declining rates of entering into marriage and a tapering off of divorce rates, which had been rising steeply through the 1970s. They attributed the metabolism concept to Norman Ryder (1975), who analyzed entrance into and exits from the working-age population, and adapted it to marriage. In the metaphor, the married population is the organism, so marriage and divorce are its anabolism and catabolism. As I argue below, widowhood should be part of the model. But the core idea of modeling the ebb and flow of marriage is interesting. Such models are a core function of demography, and attaching those models to social processes is one definition of social demography.<sup>3</sup>

Our imaginations should not be limited to annual measurement of official events and status, even if our analyses sometimes must be. Beyond the question of what to measure there is also the issue of time scales. In the historical development of families in modern society, there are secular trends, long waves of change, short term perturbations, and even seasonal variation – experienced and perceived differently according to culture, age, cohort, social status, and law. Consider Google searches for two wedding-related terms, “wedding invitations” and “bridal shower” (Figure 1). The trends show (a) sharp seasonal fluctuations, with low volume at the end of each year, a spike in “invitations” searches in January, followed by a peak in “shower” searches in the spring; (b) steep long-term declines from 2004 to the 2022; and, (c) disruption of the seasonal pattern during the COVID-19 pandemic. This illustrative example underscores the limitations of basing analysis of cultural trends on formally recognized demographic events – which is nevertheless the mode of the present research.

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<sup>3</sup> “The major concern of social demography is the analysis of how general social and cultural factors are related to population structure and process” (Ford and De Jong 1970:4)



**Figure 1.** Google searchers for “bridal shower” and “wedding invitations”: US, 2004-2022, by month. *Note:* Google does not publish absolute search volume, but normalizes the trends extracted together to a maximum of 100, allowing interpretation of the relative volume. *Source:* trends.google.com.

Schoen and Weinick (1993) offered no substantive rationale for their choice of variables (incidence of marriage and divorce), although the empirical pattern was persuasive. The lack of clarity evidenced the underdeveloped nature of the concept of metabolism. However, their paper did provide a metric for Cherlin (2005) to compare the U.S. to other countries. He summed first marriage rates and divorce rates to measure “marriage metabolism”, and found the U.S. scored much higher countries with high marriage and low divorce (e.g., Italy) as well as those with low marriage and high divorce (e.g., Sweden). Since Cherlin’s 2005 paper, unfortunately, the marriage metabolism concept has remained dormant (perhaps because it was not clearly defined, or because it lacked clear political implications). In subsequent work, however, Cherlin (2010) elaborated on the American exceptionalism of high rates of entry into and exit from marriage, cohabiting relationships, and demands for marriage equality by the gay rights movement, but he did not mention metabolism.

Neither Ryder (1975) nor Schoen and Weinick (1993) offered a rationale for defining the metabolism of marriage to include marriage and divorce but not widowhood. They may have been trying to

capture the deliberate choices people make with regard to marriage, rather than natural events. However, there are several reasons metabolism always should have included widowhood. First, the assumption that marriage and divorce reflect volitional elements of the system while widowhood does not is too strong. Not everyone chooses the time of their marriage or their partner, and many people are divorced against their will. Second, from the point of view of individual or social stability, the concept of metabolism should measure all manner of churning in the system. This is how the term, from life sciences, has been adapted to social systems to reflect the holistic dynamics of production and consumption (Kennedy, Cuddihy, and Engel-Yan 2007). Third, widowhood contributes bodies back to the pool of those eligible for marriage, as widowed people often remarry (in 2020, 18 percent of people who experienced widowhood were under age 60, and many remarry).

The measure of marriage metabolism I develop here asks simply: How often do people experience marital events? Of course, for married people, one could say every moment is a marital event, so marriage prevalence matters, but marital events in the sense of metabolism are better thought of as incidents of transition. So I use the sum of marriage, divorce, and widowhood incidence rates (described below). The metabolism concept does not map onto the “retreat” from marriage, as falling divorce rates reflect more marriage but lower marriage metabolism. And it is also orthogonal to Cherlin’s (2020) “deinstitutionalization” of marriage, which concerns the extent to which marriage dominates intimate relationships, and the behavior of married couples. But the measure I propose does reflect a core property of the system: its rate of turnover. In this respect it follows the initial insight of Ryder (1975), who saw metabolism as a tradeoff between stability and flexibility. Systems with low metabolism will change more slowly, for better or worse (Hulbert and Else 2000).

Consider some ideal-typical marriage metabolism profiles, listed from high to low metabolism:

- *Backlash against tradition.* Everyone gets married because marriage retains its traditional appeal, but most people get divorced before widowhood, as the random walk of individualism in the sudden absence of institutional constraints eventually leads couples apart. This is what right-wing activists against divorce feared in the 1980s (Whitehead 1993).
- *Transitional individualism.* In this transitional scenario, everyone gets married under a traditional regime, but when divorce is subsequently permitted only about half of couples break up. Contrary to the fears of the anti-divorce activists, this is best approximated by the US Baby Boom cohorts, but seems unlikely to persist (Brown and Lin 2012).
- *Strong marriage.* Everyone gets married and every marriage ends in widowhood. In this case, half the population are eventually widowed. This is what Christian right-wing marriage

advocates imagine when they call for policies that “strengthen marriage,” reflecting a return to a mythical traditional past (Wilcox, Wolfinger, and Stokes 2015).

- *Neoliberal freedom.* With weak institutional constraints, people only get married when they want to, and a large share of them end up getting divorced (and remarried). The overall divorce and widowhood rates are low because the marriage rate is low. The US has been described as approaching this scenario (Cherlin 2005).
- *Free love.* No marriage, and thus no divorce and no widowhood – as was proposed by anarchists such as Emma Goldman (Hsu 2018) – included for comparison.

These scenarios are shown in Table 1, ranked from high to low metabolism. In what follows I present a measure of marriage metabolism that includes marriage, divorce, and widowhood, and applies age-specific marital event rates to US life table numbers for 2008 and 2020.

**Table 1.** Illustrative marriage systems, by metabolism level

	Marriage	Divorce	Widowhood	Metabolism
Backlash against tradition	High	High	Low	High
Transitional individualism	High	Medium	Low	Medium
Strong marriage	High	Low	Medium	Medium
Neoliberal freedom	Medium	Low	Low	Low
Free love	None	None	None	None

### Data and method

In the absence of national vital statistics on marriage and divorce since around 1995 (Schoen 2016), the best source of age-specific marital events data is the American Community Survey (ACS), beginning in 2008. The historical range of the present analysis is thus limited to the ACS data collection period, as historical comparisons are difficult (Kennedy and Ruggles 2014). The ACS is an annual national household survey conducted by the U.S. Census Bureau, since 2001, of more than 3.5 million addresses, with interviews conducted by mail, phone, in person, and Internet (the composition of which has changed over the years). Selected households are legally required to participate. Respondents answer for themselves and for all members of the household.

Institutionalized individuals also have proxy responses (U.S. Census Bureau 2020). Since 2008, the

survey has asked whether individuals age 15 and older have been married, divorced, or widowed in the past 12 months. Same-sex and different-sex marriages are not differentiated; only two sex/gender categories are reported. The unweighted sample sizes of people age 15+ are 2.4 million in 2008 and 2.2 million in 2020. Census population weights are used in all analyses here. I use the public use data files prepared and distributed by IPUMS (Ruggles et al. 2022).

The ACS data are generally suitable for measures of incidence, which are reasonably well covered, according to Census Bureau analyses (Elliott, Simmons, and Lewis 2010). The inclusion of 2020 data merits discussion, however. Due to the COVID-19 pandemic, survey operations in 2020 were severely disrupted, and response rates fell dramatically (U.S. Census Bureau 2022). After analyzing the results and detecting inconsistencies in a number of time series trends, the Census Bureau developed a new set of weights for use with the 2020 data (Shin 2021). Those weights have been released with ACS microdata by IPUMS, and are used in this analysis (IPUMS 2021). Of course, assessing the results is made difficult by the fact that the pandemic was also tremendously disruptive of the marriage system itself (and everything else), which was apparent in both marriage and divorce rates (Wagner, Choi, and Cohen 2020; Westrick-Payne, Manning, and Carlson 2022), so the ability to benchmark estimates against known realities is even more uncertain than usual. To get an overview assessment of the trend, consider the crude rates of marriage, divorce, and widowhood, by sex and year, from the ACS data, in Table 2. Downward trends steeply accelerated in the drop from 2019 to 2020, for marriage (-10 and -11 percent) and divorce (-8 percent). However, these estimates are actually less dramatic than the declines reported in the National Center for Health Statistics' vital records, which were -16 percent for marriage and -15 percent for divorce (National Center for Health Statistics 2021). Additionally, although I end with 2020 (because at this writing the 2021 microdata are not yet available from IPUMS) analysis of 2021 data shows no change in the divorce rate from 2020 (Marino 2022) and a slight decrease in the marriage rate (Juteau 2022). This increases confidence in the 2020 estimates. In summary, because this analysis includes only age and sex (which are relatively easily corrected with weighting), and marital events; because it is national rather than attempting local estimates; and because the estimates are not unreasonable compared with NCHS reported numbers, I include the 2020 data, although caution is warranted in interpreting the results. With 2020 included, the incidence of marriage, divorce, and widowhood have all declined on a population basis from 2008 to 2020, so that the sum of these events fell 23 percent over 12 years.<sup>4</sup>

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<sup>4</sup> Note that I end with 2020, because at this writing the 2021 microdata are not yet available from IPUMS. However, analysis of 2021 data shows no change in the divorce rate from 2020 (Marino 2022) and a slight decrease in the marriage rate (Juteau 2022).

**Table 2.** Rates of marital events, per 1,000 population age 15+: 2008-2020

	Men			Women		
	Married	Divorced	Widowed	Married	Divorced	Widowed
2008	19.6	10.0	3.7	17.9	10.5	8.4
2009	19.1	9.2	3.5	17.5	9.7	7.8
2010	17.8	9.3	3.4	16.7	9.8	7.5
2011	17.5	9.4	3.6	16.4	9.7	7.8
2012	17.8	9.4	3.5	16.7	9.8	7.8
2013	17.5	8.5	3.5	16.3	9.0	7.5
2014	18.2	8.1	3.5	17.1	8.7	7.6
2015	18.5	8.1	3.5	17.3	8.3	7.6
2016	18.3	7.8	3.6	17.1	8.3	7.5
2017	18.3	7.6	3.5	17.2	8.0	7.3
2018	17.8	7.4	3.5	16.7	7.8	7.4
2019	17.4	7.1	3.5	16.4	7.6	7.4
2020	15.5	6.5	3.5	14.7	7.0	7.1

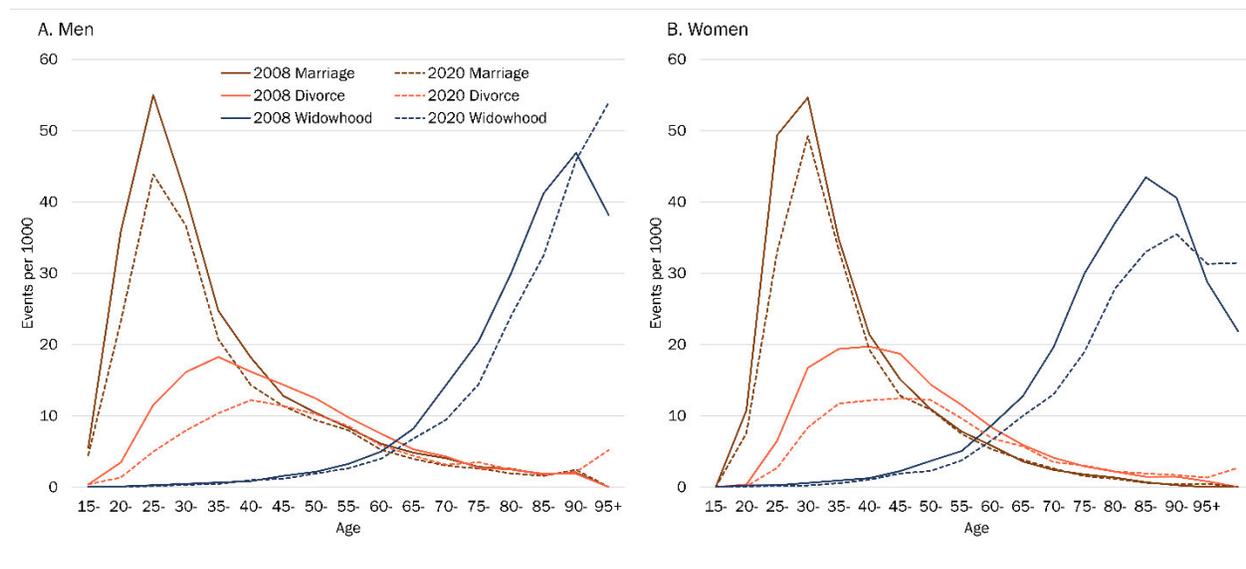
Note: Calculated from single-year American Community Survey public use data. See text

Having assembled the ACS data, I combined it with life table estimates from the National Center for Health Statistics to create the Total Rate of Marital Events (TRME). TRME is a period-based synthetic cohort measure of lifetime occurrence of marital events. It uses the ACS to estimate age-specific rates of marriage, divorce, and widowhood, by sex and single years of age from 15 to 95.<sup>5</sup> Then the age-specific event rates are multiplied by person-years lived (the Lx life table column) by sex and single years of age (National Center for Health Statistics 2022), to produce a number of events per 100,000 for the life table population (reported here as events per person). This method is similar to that used by the U.S. Census Bureau (2021) to estimate lifetime migration events. Because of age top-coding in the ACS, and because very few marital events occur at the bottom of the life table, I stop the analysis at age 95, with no open interval, so the TRME is interpreted as marital events per person from ages 15 to 95, or “lifetime” for short. (Stata code and data for the calculations are available in the replication materials at: <https://osf.io/at64y/>.)

<sup>5</sup> In principle there is no limit to the number of marital events a person might experience in one year, but in the ACS the maximum possible is one of each type, or three per year in total. In 2020, 2.6 percent of people age 15 or older were reported to have had one marital event, 0.04 percent had two events, and 0.001 percent reported three. I count these events separately, so each contributes to the numerator of the TRME.

## Results

Although marriage is increasingly occurring at older ages (Brown, Lin, and Mellencamp 2022), the trend toward fewer marital events is not principally the result of population aging, as Figure 2 confirms. For both men and women, at every age below 90, the rates of marriage, divorce, and widowhood declined over the period. In terms of metabolism, entering and exiting marriage (the latter measured two ways) both slowed. The shift in the curves shows them all moving toward older ages. Thus, at the crude level the metabolism of marriage is aging as well as slowing.

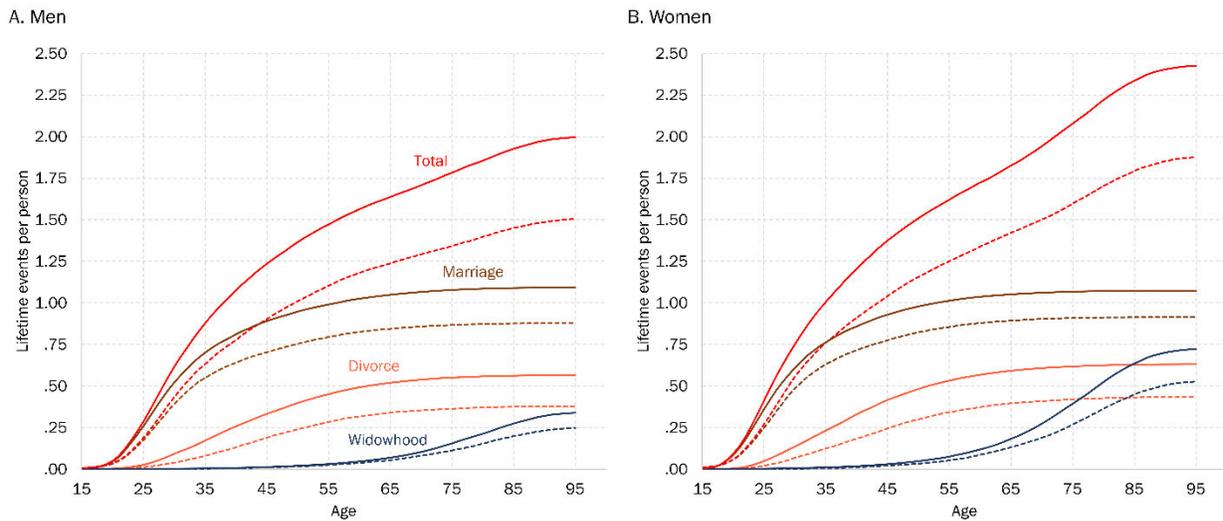


**Figure 2.** Age-specific rates of marriage, divorce, and widowhood, by sex: 2008 and 2020. Note: Calculated from single-year American Community Survey public use data. See text.

The TRME for the years 2008 through 2020 is summarized in Table 3, with totals from the last row of the life table. The final numbers are expressed as lifetime events per person in the synthetic cohort. The TRME shows a drop from 2.00 marital events per person to 1.50 for men, and from 2.43 to 1.88 per woman – a decline of 25 percent for men and 23 percent for women over the period. The cumulative totals by age for these events are shown in Figure 3 for the endpoints of the period, 2008 and 2020. The drop in total events is greater for women than for men (-.55 versus -.49 events per person), driven mostly by widowhood (-.20), although men show a larger decline in marriage (-.16 versus -.16). A notable milestone is reached during this period: the average number of lifetime marriages for both men and women fell below 1.0 in 2020.

**Table 3.** Total marital events per person: 2008 and 2020 life table populations

Year	Male				Female			
	Married	Divorce	Widow	Total	Married	Divorce	Widow	Total
2008	1.09	.57	.34	2.00	1.07	.63	.72	2.43
2009	1.06	.53	.33	1.91	1.05	.58	.67	2.30
2010	1.01	.53	.31	1.84	1.01	.59	.64	2.24
2011	1.00	.54	.33	1.87	.99	.59	.67	2.25
2012	1.01	.55	.32	1.88	1.01	.60	.67	2.28
2013	1.00	.50	.32	1.82	.99	.55	.64	2.19
2014	1.04	.48	.31	1.82	1.04	.53	.65	2.23
2015	1.06	.47	.30	1.83	1.05	.51	.64	2.20
2016	1.05	.46	.31	1.82	1.05	.52	.62	2.19
2017	1.04	.45	.29	1.79	1.05	.50	.60	2.15
2018	1.02	.43	.29	1.74	1.03	.49	.61	2.12
2019	1.00	.42	.29	1.71	1.01	.48	.60	2.09
2020	.88	.38	.25	1.50	.91	.44	.53	1.88
2008-12 change	-.21	-.19	-.09	-.49	-.16	-.20	-.20	-.55



**Figure 3.** Cumulative rates of marriage, divorce, and widowhood by age for men (A) and women (B), showing 2008 (solid lines) and 2020 (dotted lines). Rates from single-year American Community Survey data applied to life table person-years lived to produce lifetime events per person. See text.

## Discussion

The attempt to describe systemic properties of the marriage system in simple terms – its metabolism, or the frequency of marriage transitions in the life course – does not imply a singular explanation for the observed changes. Marriage, divorce, and widowhood are highly interrelated, but they each have their own dynamics as well – social and demographic, cultural, or legal. An enthusiasm for marriage, for example, might increase marriage rates but decrease divorce rates (unless it is accompanied by an enthusiasm for remarriage). A decline in marriage does not necessarily imply a subsequent decline in divorce or widowhood, even though there are more people to divorce or become widowed, if it is accompanied by changes in who marries, or when and how people exit marriage. If everyone divorces, for example, the rate of marriage would have no effect on the rate of widowhood. On the other hand, an increase in divorce or widowhood might lead to an increase in marriage, if the larger pool of eligible spouses improves the chances of people looking for marriage, but only in cultural conditions in which greater choice increases the odds of marrying and remarriage is acceptable. And it also is worth reiterating that these demographic indicators are at best partial measures of the cultural dynamics of marriage. This limitation is illustrated in Figure 1, which shows a 90 percent decline in Google searches for “wedding invitations” over 18 years, a rate of decline the “retreat from marriage” cannot match.

Despite its complexity and multicausality, however, there may be common elements to the changes in the system. The “retreat from marriage” literature has failed to substantiate a single pattern of social behavior or common preference against (or afraid of) getting or remaining married. But research shows there are discernible historical patterns. Marriage has become, “across the board, a more selective institution in terms of who marries (and who marries directly), who benefits, and who stays married,” writes Guzzo (Guzzo 2014). In analyzing the decline in divorce rates, Cohen (2019) described “a system in which U.S. marriage is rarer and more stable—a more elite status.” With regard to mortality, there has been a widening inequality in death rates associated with marriage, especially for Whites, so the married mortality advantage has grown (Cohen 2019b). Those conclusions fit Cherlin’s (2004) memorable image of modern marriage as a “capstone ... something to be achieved” – an institution at once more rare and more highly valued (a view he reaffirmed in 2020). Thus, one partial explanation for falling marriage, divorce, and widowhood rates may be greater selectivity into marriage, with fewer people achieving a more desirable status – and as a result exiting that status less often. A higher status marriage system is a smaller, slower, and more stable marriage system.

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