Meanings and measures of marital separation*

Dmitry Tumin

The Ohio State University

Department of Sociology

Siqi Han

The Ohio State University

Department of Sociology

Zhenchao Qian

The Ohio State University

Department of Sociology

* Direct correspondence to Dmitry Tumin, The Ohio State University, Department of Sociology,

238 Townshend Hall, 1885 Neil Avenue Mall, Columbus, OH 43210. E-mail: tumin.1@osu.edu.

Abstract:

Marital separation is an informal disruption of a marriage that may precede or substitute for a divorce. Data on marital separation have been collected from community and nationally representative samples, but the differences among measures of separation have not been examined. Our study analyzes the prevalence, resolution and duration of marital separations among ever-married women born between 1961 and 1965, using data from nationally representative cross-sectional and longitudinal surveys. Many women report living apart from their first husband, but inferring separations from data on when couples stop living together overestimates marital separations relative to a longitudinal measure that lets respondents define "separation" themselves. Retrospective and longitudinal measures produce different estimates of the proportion of separations ending in divorce, and of separations' median duration. These discrepancies point to a gap between people's experience of living apart from their spouse and their perception of separation as a distinct marital state.

In recent decades, relationship transitions have become increasingly decoupled from formal changes in marital status, a process described as the deinstitutionalization of marriage (Cherlin 2004). This process has been especially apparent in the rise of cohabitation, which has rapidly overtaken marriage as the most common type of first union (Cherlin 2010). We call attention to marital separation as cohabitation's analog in the period after marriage and before a divorce, if one occurs. Previous studies have emphasized the importance of separation as a time in which a couple experiences "pulling apart," attempts reconciliation, and negotiates over how the marriage should end (Radford et al. 1997; Wineberg 1994; Wineberg 1996). The period of separation, whether preceding or substituting for divorce, has also been found to contribute to stress and mental health problems (Bloom & Hodges 1981; Wyder et al. 2009). But, despite intense interest in the changing institutions of marriage and divorce (Amato 2010; Cherlin 2010), relatively little is known about marital separations, as distinct from divorce (Amato 2010).

Marital separation is an informal status that is common, but typically short-lived (Ono 1995; Bramlett & Mosher 2002). Separation has been variously described as a stage in the divorce process, an alternative to divorce, and a temporary break from a marriage (Radford et al. 1997; Binstock & Thornton 2003; Wineberg 1996). Prior studies have investigated the prevalence of marital separations (Kitson 1985), how and why marital separations end (Morgan 1988; Wineberg 1996), and why some separations are short-lived while others are enduring (Bramlett & Mosher 2002). These studies have relied on a variety of retrospective and longitudinal survey data to identify marital separations, but the extent to which these measures are consistent with one another is unknown, and different measures may be better suited to capturing different types of marital separation. In this paper, we discuss the meaning and measurement of marital separation, and compare measures of separation obtained using different

methods for a single birth cohort. We then show how the prevalence and nature of separations changes over the life course, as the cohort progresses from young to middle adulthood. Our results contribute to the study of union transitions by revealing the strengths and weaknesses of available measures of marital separation, and illustrating how the meaning of separation evolves over the life course.

Meanings of marital separation

Separation is a typical part of the divorce process: first, the couple separates, or begins living apart from one another, and later, the couple divorces (McDaniel & Coleman 2003). The period of physical separation is also characterized by emotional "pulling apart" (Radford et al. 1997) and "profound distress" (Bloom & Hodges 1981). This period sets the stage for the legal transition from married to divorced. As most separations end in divorce (Bramlett & Mosher 2002), the model of separation as a precursor to divorce is well supported. Ono (1995) notes that among newly divorced couples between 1970 and 1988, 99% of those who reported a date of separation had experienced at least a month of separation before the divorce took effect. Historically, separation has even been a prerequisite for divorce: prior to the liberalization of divorce laws, couples seeking to end their marriage were often required to separate for a certain period before a divorce would be granted (Vlosky & Monroe 2002). Today, the logistics of getting a divorce and at least one spouse's desire to move out as soon as is practical mean that the end of coresidence typically precedes the date on which the marriage is legally terminated (Radford et al, 1997).

Separation, or the end of co-residence, is integral to the process of divorcing, but is separation invariably a precursor to divorce? Some separations go on for many years without

resolving in divorce (Bramlett & Mosher 2002). The legal system has recognized some separations via the institution of separation agreements (Sharp 1983). Even without a formal separation agreement, a couple may negotiate terms for a long-term separation that functions as an alternative to divorce. Long-term separations are more common among Black and Hispanic women, women with low educational attainment, and women from economically disadvantaged communities (Bramlett & Mosher 2002; Morgan 1988). Ono (1995) proposes that social disadvantages diminish separated women's prospects of remarriage, and hence they have less incentive to complete the divorce process. It may also be that negotiating a long-term separation as an alternative to divorce allows couples with few resources to avoid the costs of obtaining a divorce through the legal system.

Not all separations lead to a formal or *de facto* divorce. When a separation ends in reconciliation, it represents a break in the marriage rather than its end (Wineberg & McCarthy 1994). Wineberg (1996) finds that nearly half of separated women attempt to reconcile with their spouses. In the long run, reconciliation attempts are seldom successful: two-thirds of women who reconcile are no longer married a year later (Wineberg 1994). Still, reconciliation can be a viable end to separation. For example, Kitson (1985) finds that about a tenth of marriages in a community sample had experienced a temporary separation due to marital discord. Reconciliations, like ongoing separations, are associated with social and economic disadvantages. Black women are more likely than White women to reconcile after separating (Wineberg & McCarthy 1994), and Morgan (1988) finds that women are most likely to reconcile after separating if they have never attended college. These findings suggest that a reliance on the relationship can turn a separation away from becoming a permanent end to the marriage (Wineberg 1996).

We have discussed three possible meanings of marital separation: a precursor to divorce; an alternative to divorce; and a temporary break from marriage. These categories do not cover all cases in which couples live apart without divorcing. Some couples may live apart for reasons other than marital discord (Binstock & Thornton 2003). Other couples may proceed so quickly to divorce that they may not perceive to have been distinctly "separated" at any point. Even when marital conflict contributes to a couple's decision to live apart, there is no clear threshold at which a relationship transitions from marriage to separation. It is unclear how long a couple must live apart, or how discordant their relationship must be, for that couple to be classified as separated. Given this uncertainty, it is important to recognize that some measures of marital separation will produce "false positives," or situations classified as separation that fall short of respondents' or researchers' concept of separation. The multiple meanings of separation, together with the risk of false positives, complicate the task of measuring marital separation, to which we turn next.

Measures of marital separation

Many people who marry experience marital separation at some point, but few are separated in any given year (Bramlett & Mosher 2002; Wineberg 1996). Consequently, most studies of marital separation analyze marital histories rather than current marital status alone. Typically, the relevant data are collected using a retrospective marital history, which allows identifying respondents who have ever separated, as well as the duration and outcome of separation. This methodology is exemplified by the National Surveys of Family Growth (NSFG), a series of nationally representative surveys of women ages 15 to 44. In early waves of the NSFG (1988 and earlier), separations that terminated a marriage were identified by asking respondents whether each of their past marriages ended by "divorce, separation, or [the] death of your partner." In

addition to asking respondents to report "separation" as such, the NSFG also collected event history data that could be used to identify separations. Respondents were first asked to supply the date their divorce became final or their marriage became annulled. Then, they were asked to supply the date when they and their spouse "stop[ped] living together for the last time." The time elapsed from the latter to the former date indicates the period of separation (Bramlett & Mosher 2002).

Other retrospective marital histories have included event history measures of separation similar to those collected by the NSFG. For example, the first wave of the National Survey of Families and Households (NSFH), administered in 1987-1988, asked respondents when they had stopped living with their spouse, (Wineberg & McCarthy 1994) as did the marital history collected from Panel Study of Income Dynamics (PSID) respondents in 1985 (Lillard & Waite 1989; Ono 1995). Binstock and Thornton (2003) use a similar measure of separation in their analysis of the Intergenerational Panel Study of Parents and Children, which sampled White children born in the Detroit metropolitan area in 1961 and followed through 1993. The life history calendar administered to respondents in this study linked marital transitions to the dates a respondent started or stopped "living with [a] spouse," and distinguished among "separation due to estrangement," "absences for other reasons," divorce, and widowhood (Freedman et al. 1988).

A few studies have used panel data to supplement or substitute for the retrospective marital history. To address the weaknesses of relying solely on retrospective data, Ono (1995) uses longitudinal data on reported separations in the PSID to supplement the data collected in the 1985 marital history. As Lillard and Waite (1989) note, this approach can add information about separations that ended in reconciliation and separations that were followed by divorce, but not reported as such when the retrospective history was collected (i.e., situations in which

respondents report the divorce to fall on the same date as when they stopped living with their spouse). Morgan (1988) takes a similar approach in analyzing the National Longitudinal Survey-Mature Women Cohort. In this study, respondents report at each interview whether they have married, separated, divorced or became widowed since the last interview. The "panel" measure of marital separations, drawn from longitudinal data on marital transitions, allows identifying separations when they first occur, regardless of whether they end in divorce, reconciliation, or ongoing separation. On the other hand, panel data risk missing separations that had occurred before respondents entered the study (Morgan 1988).

Current study

To understand the strengths and weakness of self-report, event history and panel measures of marital separation, we aim to compare estimates of the chances of marital separation, the resolution of separations, and the length of separations obtained using retrospective and longitudinal data for a single birth cohort. Consequently, we pursue the following research tasks:

1. Identify nationally representative data sets that collect high quality retrospective or longitudinal data on marital separations.

2. Identify a cohort that can be tracked across multiple data sets.

3. For this cohort, compare the chances of transition to marital separation, the outcome of marital separations, and separation durations, as estimated using each measure or definition of marital separation.

4. Examine how the differences across measures of separation evolve over the life course of this cohort.

Data and Method

Data

We aim to obtain both retrospective and longitudinal data that might be used to draw a contrast among different definitions of marital separation. Table 1 summarizes the surveys from which we draw data for our analysis, and the measures of marital separation available in each survey. The National Surveys of Family Growth (NSFG) are a series of cross-sectional surveys in which respondents complete an extensive marital history (Judkins, Mosher & Botman 1991; Potter et al. 1998; Lepkowski et al. 2006; Lepkowski et al. 2010). The 2006 wave of the NSFG has a longitudinal follow-up component, but in our analysis we only use the retrospective marital history portion of this study. We compare results obtained from retrospective marital histories to results obtained from a longitudinal cohort study, the National Longitudinal Survey of Youth—1979 cohort (NLSY79) (BLS 2012).

[Table 1 about here]

We focus our analysis on one cohort that can be tracked in both the NLSY79 and using retrospective marital histories from the 1988-2006 waves of the NSFG. This cohort represents the end of the Baby Boom, and includes people born between 1961 and 1965. For this cohort, data on women are available from five studies: NLSY79, 1988 NSFG, 1995 NSFG, 2002 NSFG and 2006 NSFG. As early waves of the NSFG (1995 and earlier) did not sample men, and the more recent waves of the NSFG have coded relationship history variables differently between the male and female questionnaires, we only use data on female respondents in the 2002 NSFG, 2006 NSFG, and NLSY79. For every data set included in our study, we construct an analytic subsample that includes women born between 1961 and 1965, and excludes women whose birth

date is unknown and women who have never married.[1] Table 2 summarizes original sample sizes

and the exclusions made to obtain our analytic subsample in each data set.

[Table 2 about here]

Measures

We aim to describe marital separations occurring during or at the end of the first marriage. For

each analytic subsample, we construct a measure of entering marital separation, as distinct from

any other way a marriage could be disrupted. In the 1988 NSFG, we create a "self-report"

measure of marital separation, which classifies respondents as having separated if they reported

that their first marriage had ended in separation. In all waves of the NSFG, we create an "event

history" measure of marital separation; this measure classifies respondents as having separated if

they reported a date on which they had stopped living with their first spouse, and if this date is

not the same as the date the first marriage ended.

In the NLSY79, we identify separation from the first spouse using data on initial marital

status (in 1979) and subsequent marital transitions. In each interview, respondents report up to

three marital transitions since their last interview, and the type and date of each transition. As

marital transitions are sometimes reported out of order, we re-sort the order of marital transitions

for each respondent by the date of each transition. Transitions missing a date are added to the

sequence of marital transitions in the order in which they were reported. For example, if a

respondent reports a divorce in June 1983, a separation in April 1983, and a marriage (with no

date), in that order, we re-order that respondent's marital history to be: separation, divorce,

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[1] When analyzing the NLSY79 data, we also exclude respondents in the military and economically disadvantaged non-Hispanic White oversamples, which were mostly discontinued early in the course of the study.

(re)marriage. We classify respondents as having separated from their first spouse if they report a separation after their first marriage, and if no other marital transitions intervene between the first marriage and the separation. We call this the "panel" measure of separation. Examples of survey questions used to construct the self-report, event history and panel measures of separation are presented in Table 1.

Next, we create a variable identifying how each separation ends.[2] For separations identified using the self-report or event history measure, we consider a separation to end in divorce if the respondent reports being currently divorced or married, or the respondent reports having married more than once. For separations identified using the event history measure, we also consider a separation to have ended in divorce if the respondent reports a valid date on which their first marriage had ended in divorce. For separations identified using our panel measure (NLSY79), we use the next marital transition in the sequence to assess how the separation ended. If the next transition is a divorce, a marriage, or a remarriage, we classify the separation as having ended in divorce. If the next transition is becoming reunited, we classify the separation as having ended in reunification. For all three of our measures of separation, if we cannot identify any end to the separation as described above, we consider it to be ongoing as of the time of the most recent interview.

Finally, we aim to calculate the length of each separation as the difference between its end date and its start date. For separations identified using the event history measure, we define the start date of the separation as the date a couple stopped living together. The end date is the

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[2] A negligible number of separations in our data (no more than 1% in any given data set) end in the respondent becoming widowed. We identify such separations in cases where the respondent is currently widowed and had only married once; where the respondent reports a valid date on which their first spouse had died; or, in the NLSY79, where the next marital transition after the separation is becoming widowed. We omit cases in the "separated, then widowed" category from all analyses except estimating the proportion of marriages that end in separation.

date the marriage ended (if the separation ended in divorce or annulment), or the date of the

interview (if the separation is ongoing). For separations identified using the panel measure, the

start date of the separation is the date given for that separation by the respondent. When a

separation ends in divorce, the end date is considered to be the date of the next transition, but

only if that transition is a divorce. Thus, if a separation is followed by a remarriage, the actual

end date of the separation is unknown even though the respondent must have divorced at some

point. When a separation ends in reunification, the end date is the date of the reunification, if

available. When a separation does not end, the end date is considered to be the date of the most

recent interview completed by that respondent. In the NSFG and NLSY79 analytic samples,

respectively, no more than 5% and 6% of separations have an unknown duration in any given

year.

Analysis

For each combination of data set and measure of separation, we calculate the weighted

proportions of first marriages that ended in separation; separations that ended in divorce;

separations that ended in reunification; and ongoing separations. We also calculate the weighted

medians of separation length for each of the three types of separation—leading to divorce,

leading to reunification, or ongoing. To obtain estimates from the NLSY79 that would be

comparable to the four cross-sectional surveys, we re-calculate our estimates from the NLSY79

for the following year ranges: 1979-1988; 1979-1994; 1979-2002; and 1979-2006. In each case,

we only use the NLSY79 waves that fall within that range of years, even if additional marital

transitions in this period were reported in later survey waves. For example, a 1987 separation not

reported until 1991 would not be counted towards the 1979-1988 estimates. All analyses were performed using STATA 13.0 (StataCorp, College Station, TX).

Results

Our first task is to identify the proportion of women whose first marriage was disrupted by separation. The self-report measure of separation, reflecting the respondent's retrospective judgment of how her first marriage ended, is only available in the 1988 NSFG. After restricting the sample to ever-married women in the 1961-1965 birth cohort, we find that 5% of women report that their first marriage was followed by separation. By comparison, the weighted percent of ever-married women who report being *currently* separated in the 1988 NSFG is 6%. Next, we turn to the event history and panel measures. Table 3 summarizes the proportion of first marriages ending in separation and separation as a proportion of all disruptions in the first marriage, estimated using either the event history measure (NSFG) or the panel measure (NLSY79). In 1988, the event history estimate reveals that 21% of ever-married women born between 1961 and 1965 separated from their first spouse. This figure includes both separations leading to divorce and separations that were ongoing at the time of the interview, but not separations that ended in reconciliation, as the survey question used to collect these data specifically asked about the end of a marriage. In the same year, the panel measure of separations shows that 20% of ever-married women born between 1961 and 1965 experienced a separation in the course of their first marriage, including separations that ended in reunification. As of 2006, both the event history and panel measures show that a somewhat higher proportion of ever-married women in this cohort (33% and 31%, respectively) experience a separation from their first husband.

We have estimated how many first marriages are disrupted by separation, but how common is marital separation as a type of marital exit? In the two rightmost columns of Table 3, we estimate what proportion of marital disruptions consists of separations, as opposed to becoming widowed or divorcing without separating first. In 1988, the event history measure indicates that 91% of marital disruptions are preceded by a period of living apart from one's spouse. On the other hand, the panel measure indicates that in only 70% of marital disruptions, the respondent reports having separated. Some of this discrepancy may be due to differences in the wording of questions used to identify marital separation (Table 1). The questions used to construct the event history (NSFG) measure explicitly prompt the respondent to think about the period of living apart from a spouse that happens at the end of a marriage. On the other hand, the questions used to track separation longitudinally (NLSY79) only ask respondents to report any recent changes in their marital status. The difference between the two measures remains consistent as the cohort ages, but in subsequent years, separations' share of marital disruption becomes smaller, regardless of the measure used. This decline cannot be explained by an increase in widowhood, which accounts for less than 2% of marital disruptions in the NLSY79 and less than 4% of marital disruptions in the NSFG, regardless of year. Therefore, it must be offset by an increase in the proportion of marital disruptions leading to divorce without separation.

[Table 3 about here]

Next, we estimate how many separations end in divorce. We present the results obtained using the event history (NSFG) and panel (NLSY79) measures in Table 4. Only the panel measure allows us to estimate how many separations resolve in reunification. In 1988, the event history measure indicates that 96% of separations resolve in a divorce. In the same year, the

panel measure shows that 72% of separations end in divorce, and 9% end in reunification. In later years, the event history estimates continue to indicate that virtually all separations (93% in 2006) resolve in divorce. Meanwhile, panel measures collected in later years show fewer and fewer separations ending in divorce (50% in 2006 as opposed to 72% in 1988), and more separations ending in reconciliation (19% in 2006, compared to 9% in 1988). In each case, the omitted categories are separations that remain ongoing as of the most recent interview, and separations that ended in the death of the spouse. The latter category, however, accounts for 1% or fewer of separations in any given data set.

[Table 4 about here]

Estimates of the median length of marital separation, stratified by how the separation ends, are presented in Table 5. Event history estimates show that separations leading to divorce are consistently short-lived: the median length of a separation that ends in divorce is 8 months in 1988, and 9 months and 2006. The median length of separations that are ongoing at the time of the interview is much higher: 23 months in 1995, but as high as 72 months in 1988. Using the panel measure of separations, we find that separations ending in divorce are indeed short-lived, with a median of 14 months in 1988 and 19 months in 2006. Separations that end in reunification tend to be even shorter, with a median length of 9 months in 1988 and 14.5 months in 2006. The longest separations tend to be those that remain ongoing: although such separations have a median length of 18 months in 1988, by 2006 their median length reaches 85 months. These estimates are derived from marital separations for which the start and end dates are known. (In the case of ongoing separations, the end date is the date of the interview, and is always known.) In the NLSY79 subsamples, between 4 and 6% of separations are missing either the start or end

date. In the NSFG data sets, a valid start date is required to identify a marital separation; between 1 and 5% of separations are missing the end date, depending on the year of the survey.

[Table 5 about here]

Discussion

We have used data from both retrospective marital histories and a longitudinal study to identify and characterize marital separations in a cohort of women born between 1961 and 1965. As past studies have found, many marriages are disrupted by a period of living apart, whether or not it is followed by divorce (Ono 1995; Bramlett & Mosher 2002; Binstock & Thornton 2003). Our first finding is the discrepancy between NSFG and NLSY79 measures of marital separation. Inferring separation from event history data on when a couple stops living together overestimates the proportion of marital disruptions involving separation, relative to measuring marital separations as reported by respondents in a longitudinal study. This discrepancy implies that "separations" identified using each measure may have different meanings. By design, the event history measure excludes separations that serve as temporary breaks in a marriage. It captures those separations that are either a precursor or an alternative to divorce. But, because the term "separation" is not used in the question text, this measure risks capturing "false positives"— periods of living apart that fall short of a respondent's definition of a change in marital status.

By contrast, the panel measure requires respondents to describe their change in marital status as a separation. Thus, the event history measure suggests that virtually all disruptions in a first marriage take the form of a "separation" (Table 3). For a cohort tracked from young adulthood to the beginning of middle age, this is doubtlessly true—any marital disruption other than an abrupt divorce or widowhood would involve some period of living apart from one's

spouse. The panel measure gives a more nuanced comparison of separations and other types of marital disruption. Respondents describe only two-thirds of marital disruptions as separations. Most of the remaining disruptions are described as "divorces," even if these were preceded by some period of living apart from one's spouse. Thus, there is a sizeable gap between respondents' perception of having separated (as a distinct transition in marital status) and their reports of living apart from their spouse.

People's perception of transitioning into a "separated" state is vital for distinguishing marital separation from both marriage and divorce. Amato (2010) describes being separated as an ambiguous state in which one is "not quite married, not quite divorced;" and prior studies of separation fail to identify any objective boundary that divides (self-identified) separated individuals from the married. Separation is often, but not always, triggered by a distinct event such as the discovery of infidelity (Bloom & Hodges 1981). But in a few cases, married couples may drift from living apart "for reasons other than marital discord" into an ongoing separation (Binstock & Thornton 2003). On the other hand, separations that are reported to be due to marital discord are sometimes very short-lived, and revert to marriage: Kitson (1985) demonstrates that many marriages are punctuated by temporary separations because of arguments or disagreements that can last as little as 48 hours. In our analysis, separations as reported by respondents generally fit the archetype of a period of living apart that precedes a divorce, but our findings also indicate that many such periods are not perceived as separations, and many reported separations do not fit this mold. The ambiguity of when a couple transitions from married to separated echoes Brown and Manning's (2009) study of cohabitation, which shows members of the same cohabiting family sometimes give conflicting descriptions of their family composition.

Although we have not investigated this possibility in our analysis, it is likely that, in some couples, one spouse perceives to have separated while the other does not.

As the cohort in our study ages, fewer disruptions in the first marriage are classified as separations (Table 3). Later marital exits are more likely to end in immediate divorce, decreasing separation's share of marital disruptions. One possible explanation for this finding is that separation becomes more selective in middle age compared to young adulthood. Marital disruptions that are reported as a separation may increasingly involve couples who are ambivalent about parting, or whose break-up is complicated by battles over custody, alimony or the division of assets. However, increased selectivity in the reporting of marital separations does not explain why the resolution of separations changes in the panel data but not in the event history data (Table 4). When separations are inferred from the date a couple stops living together, virtually all "separations" end in divorce, regardless of life course stage. However, when respondents report separations as such, fewer and fewer separations end in divorce in later years, whereas more separations end in reconciliation. Similarly, among separations that end in divorce, the median length remains stable across survey years when using the event-history measure, but steadily increases when using the panel measure (Table 5). Increasing discrepancies between the event history and panel measures of separation suggest that perceptions of separation may change over the life course. In other words, as women in this cohort age, they may increasingly associate the concept of marital separation with periods of living apart that are *not* a short-lived stepping-stone to divorce. However, our results do not indicate how or why such a shift in perceptions may occur.

We have designed our study to focus on the contrast among different measures of separation, attempting to minimize differences in birth cohort, survey year, and sample

composition across data sets. Our analysis of differences in descriptive measures of marital separation may clarify conflicting descriptions of marital separation in prior empirical studies. For example, Bramlett and Mosher (2002) analyze marital separations in the 1995 NSFG, using a method comparable to our event history measure, and find that 95% of marital separations lead to divorce within five years. By contrast, a study using data from the National Longitudinal Survey-Mature Women cohort (NLS-MW) and identifying separations using a method comparable to our panel measure, found that only 30% of separations ended in divorce within four years (Morgan 1988). Although many differences exist between the two studies—such as the birth cohorts and ages of women included in each study—our results suggest that some of the discrepancy in their estimates could be due to the 1995 NSFG analysis *inferring* separations from event history data, and the NLS-MW analysis using respondents' own reports of having experienced a separation, collected over a series of interviews.

Our comparison of NSFG estimates to the NLSY79 highlights the differences between longitudinal data and a series of retrospective marital histories. Other studies have demonstrated that the choice between retrospective and longitudinal data can substantively affect descriptions of relationship and fertility histories. Teitler and colleagues (2006) compare mothers' contemporaneous reports of cohabitation at the time of a child's birth to a retrospective measure of cohabitation taken a year later. Even at such a short interval, 12% of mothers revised their assessment of whether they had cohabited at the time their child was born. Hayford and Morgan (2008) find further evidence that retrospective cohabitation histories are unreliable: comparing data from the NSFH and the 1988, 1995 and 2002 waves of the NSFG, they find that when the same cohort is surveyed at later ages, respondents are less likely to report cohabitations that had occurred early in the life course. Joyner and colleagues demonstrate a similar phenomenon,

comparing fertility data among men surveyed in the 2002 NSFG and in two cohorts covered by the NLSY surveys: underreporting early births is more common in retrospective data (NSFG) than in data collected in a longitudinal study (e.g., NLSY79). We find some evidence that, as time goes on, separations become increasingly underreported. In 1988, far fewer ever-married women retrospectively report having ended their marriage in separation (5%) than the panel measure, derived from longitudinal NLSY79 data, would suggest (20%). If a separation ends in a divorce, it may be "forgotten" as a distinct marital transition when the respondent is interviewed many years later (Lillard & Waite 1989). Retrospective data on how the first marriage ended were only collected when this cohort was between 23 and 27 years old; the extent of separation underreporting in a retrospective measure of how the first marriage ended might be even greater later in the life course.

Our analysis of marital separations in a cohort of women born between 1961 and 1965 has shown that question wording, study design (retrospective or longitudinal), and respondents' age all influence estimates of the prevalence, resolution, and duration of marital separations. High quality, nationally representative data are now available on marital separation, a significant improvement over community samples used in prior studies on this topic (Bloom et al. 1977; Kitson 1985; Binstock & Thornton 2003). Consequently, past conclusions about the predictors and consequences of marital separation are due to be revisited (Bloom & Hodges 1981; Morgan 1988; Wineberg 1996), and new research distinguishing marital separation from divorce (Wyder et al. 2009) can be extended. Future research on marital separations must take into account the discrepancies among the various measures available. If marital separations are to be studied as distinct from divorces (Amato 2010), longitudinal measures in which respondents report

separation by name are most likely to conform to people's perception of having separated as

opposed to divorcing, and to avoid the problems of underreporting that stalk retrospective data.

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Table 1. Survey data and examples of questions used to identify marital separation.

Survey data in which measure is available	Type of measure and example of question wording
	Self-report measure: first marriage reported to have ended in separation
NSFG 1988	• How did that marriage end? Divorce/annulment, separation, or death of husband? (NSFG 1988)
	Event history measure: separation implied by date couple stopped living together
NSFG 1988 NSFG 1995 NSFG 2002 NSFG 2006	• In what month and year did your divorce become final? • In what month and year did your husband die? • In what month and year did you and (first husband) stop living together for the last time? (NSFG 2002)
	Panel data on changes in marital status
NLSY79	• When we talked to you on (date of last interview), you said you were (never married/married/separated/divorced/widowed). Has there been any change in your marital status since then? That is, have you been married, separated, divorced, remarried or widowed? What was the (first/second/etc.) change in marital status? • When did that happen? (NLSY79, 1980)[1]

Survey name abbreviations: NSFG, National Survey of Family Growth; NLSY79, National Longitudinal Study of Youth, 1979 Cohort.

[1] NLSY79 added a "reunited" option to this question in 1981.

Table 2. Sample restrictions and analytic subsample sizes.

Data set	Women in original sample	Not in 1961-1965 birth cohort	Never married	All other exclusions[1]	Women in analytic subsample
1988 NSFG	8,450	6,958	651	0	841
1995 NSFG	10,847	8,717	488	0	1,642
2002 NSFG	7,643	6,409	228	0	1,006
2006 NSFG	12,279	11,405	158	0	716
NLSY79					
1979-1988	6,283	3,355	1,208	242	1,478
1979-1994	6,283	3,355	795	257	1,876
1979-2002	6,283	3,355	624	257	2,047
1979-2006	6,283	3,355	586	257	2,085

Survey name abbreviations: NSFG, National Survey of Family Growth; NLSY79, National Longitudinal Study of Youth, 1979 Cohort.

[1] NLSY79 analysis excludes women in military and economically disadvantaged non-Hispanic White oversamples.

Table 3. Separations ending or disrupting the first marriage.

Year	Age range of 1961-1965 birth cohort	Separations as weighted proportion of first marriages		Separations as weighted proportion of disruptions of first marriage	
		Event history measure (NSFG)	Panel measure (NLSY79)	Event history measure (NSFG)	Panel measure (NLSY79)
1988	23-27	0.21	0.20	0.91	0.70
1995[1]	30-34	0.30	0.26	0.92	0.70
2002	37-41	0.25	0.30	0.79	0.64
2006	41-45	0.33	0.31	0.81	0.63

Survey name abbreviations: NSFG, National Survey of Family Growth;
NLSY79, National Longitudinal Study of Youth, 1979 Cohort.
[1] Panel measure estimates for this year only include NLSY79 waves up to 1994.

Table 4. Resolution of marital separations.[1]

Year	Age range of 1961-1965 birth cohort	Weighted proportion of separations ending in divorce		Weighted proportion of separations ending in reunification	
		Event history measure (NSFG)	Panel measure (NLSY79)	Event history measure (NSFG)	Panel measure (NLSY79)
1988	23-27	0.96	0.72	N/A	0.09
1995[2]	30-34	0.83	0.62	N/A	0.11
2002	37-41	0.99	0.53	N/A	0.17
2006	41-45	0.93	0.50	N/A	0.19

Survey name abbreviations: NSFG, National Survey of Family Growth; NLSY79, National Longitudinal Study of Youth, 1979 Cohort.

N/A: not applicable. Event history measure does not allow identifying separations that end in reconciliation.

[1] The omitted categories are "ongoing separations" and "separations ending in widowhood." No more than 1% of all separations end in widowhood in each data set.

[2] Panel measure estimates for this year only include NLSY79 waves up to 1994.

Table 5. Median length of marital separations, in months.

Year	Age range of 1961-1965 birth cohort	Separations ending in divorce		Separations ending in reunification		Ongoing separations	
		Event history measure (NSFG)	Panel measure (NLSY79)	Event history measure (NSFG)	Panel measure (NLSY79)	Event history measure (NSFG)	Panel measure (NLSY79)
1988	23-27	8.0	14.0	N/A	9.0	72.0	18.0
1995[1]	30-34	8.0	15.0	N/A	12.0	23.0	35.5
2002	37-41	10.0	18.0	N/A	13.0	59.0	73.0
2006	41-45	9.0	19.0	N/A	14.5	55.0	85.0

Survey name abbreviations: NSFG, National Survey of Family Growth; NLSY79, National Longitudinal Study of Youth, 1979 Cohort.
N/A: not applicable. Event history measure does not allow identifying separations that end in reconciliation.
[1] Panel measure estimates for this year only include NLSY79 waves up to 1994.