

## Cohabitation and Marital Dissolution: A Comment on Rosenfeld and Roseler (2019)

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### **Abstract:**

**Objective:** Our goal is to comment on a recently published paper (Rosenfeld & Roesler, 2019. *Journal of Marriage and Family*, 81, 42-58) and provide an alternative analysis of the association between premarital cohabitation and marital instability.

**Background:** Their findings run counter to recently published papers on this topic. Although their article offers a potential explanation for this finding, the models include multiple and potentially confounding measures of time creating questions about their conclusions.

**Method:** Our comment is based on approaches used in prior studies of cohabitation and marital instability using the same data source. Reviews of measures of time and data limitations are included along with new event history analyses focusing on marriage cohorts.

**Results:** Their models arguably include too many indicators of time. Unlike the study by Rosenfeld and Roesler (2019) and consistent with other recent studies, we find that cohabitation has a weaker association with dissolution among recently married couples and cohabitation with a spouse prior to marriage is not associated with marital instability for recent marriage cohorts. This finding holds even when accounting for variation by marital duration.

**Conclusion:** This comment provides insights into the use of the National Survey of Family Growth data (<https://www.cdc.gov/nchs/nsfg/index.htm> data) and measurement of time. Our results provide evidence that counters the conclusion by Rosenfeld and Roesler (2019) that scholars have been “misled” about the role of cohabitation and marital dissolution.

**Keywords:** cohabitation | demography | dissolution | divorce | marriage

### **Article:**

#### **Introduction**

The way that cohabitation influences marital stability has been a subject of study since the 1980s, capturing the interest of family scholars, popular media, and the general public. As cohabitation became more widespread, growing interest emerged in how premarital cohabitation might influence the stability of marriage. As articulated by scholars in the early 1980s, cohabitation might serve as a testing ground to determine if partners are compatible; thus, it was expected that cohabitation would weed out negative matches and lead to more positive outcomes than their counterparts who did not live together before marriage. Yet empirical evidence showed that the “weeding” hypothesis was not supported, instead premarital cohabitation with a spouse was associated with higher levels of marital instability (Smock, 2000). The scholarly explanation for this finding was that cohabitation was selective of individuals who were more prone to end unhappy marriages.

As cohabitation continued to rise and divorce declined, a new set of papers emerged with a different finding. Reinhold (2010), using data spanning 1988 through 2002, found that among recent marriage cohorts, cohabitation with a spouse had a weaker effect on marital dissolution than in earlier cohorts. A meta-analysis (Jose et al., 2010) and two empirical articles (Kuperberg, 2014; Manning & Cohen, 2012) on this topic were published in *Journal of Marriage and Family*. Both Kuperberg (2014) and Manning and Cohen (2012) found that the association between premarital cohabitation with a spouse and marital dissolution has largely disappeared for recently married couples.

The article by Rosenfeld and Roesler (2019) (hereafter RR) contradicts, but does not cite, these findings on cohabitation and marital dissolution using the same data source and published in the same journal. RR conclude “We find that the association between marital dissolution and premarital cohabitation has not changed over time or across marriage cohorts. The benefits of cohabitation experience in the first years of marriage have misled scholars into thinking that the most recent marriage cohorts will not experience heightened marital dissolution due to premarital cohabitation” (p. 42).

However, we argue that their analysis confounds numerous measures of “time” as well as ignores the age truncation of the survey used in their study (National Survey of Family Growth). These issues were raised and elaborated on in prior research (Kuperberg, 2014; Manning & Cohen, 2012; Philips & Sweeney, 2005). We believe that engagement with these articles on the same topic is crucial to the advancement of science. Our comment notes their problematic measurement of time, discusses data constraints, and presents marriage cohort analyses of cohabitation with a spouse and marital stability across cohorts. Our findings support prior research and refute RR’s conclusion.

### **Confounding the measurement of time**

The goal of the RR’s paper is to determine whether the association between cohabitation with a spouse and marital stability has changed over time while accounting for marital duration. Most researchers interested in change over time on this and related topics gauge change by using what is termed a “marriage cohort.” This measure represents the year or set of years during which a couple married. Thus, researchers categorize marriage cohorts to represent couples marrying during a particular time period (e.g., 2000–2004) or rely on a continuous indicator of marriage year.

Although RR’s tables 1 and 2 suggest that the effect of cohabitation is weaker for more recent marriage cohorts (table 1: p. 49 and table 2: p. 51), the initial focus of their paper rests on

a different measure of time—“Calendar Year” (figure 2: p. 48). Calendar year is a period indicator measuring the year marital dissolution was observed or year of interview if dissolution did not occur. This measure should be a time-varying indicator and not a fixed indicator (e.g., the year of dissolution in 1995 should not be used to predict whether a dissolution occurred in 1987). As RR noted (p. 48), it is important to be cautious about measures of time as linear indicators of marital duration, calendar year, and marriage year in the same model define one another (i.e.,  $\text{Calendar year} = \text{Marital duration} + \text{Marriage year}$ ). Demographers have struggled with this age-period-cohort (APC) problem, and there are numerous concerns about interpreting results from inappropriately identified models (e.g., Li & Wu 2008). RR attempt to avoid this issue with the inclusion of a categorical, rather than linear, measure of decade of calendar year in their final models. RR conclude that the weakening association between cohabitation and marital instability across marriage years (i.e., marriage cohorts) is explained by early marital duration (labeled Calendar Year of Marriage in table 2).

Ultimately, RR present results based on too many and confounding conceptualizations of “time” (see, e.g., table 2: p. 51 and online Table S1). For example, RR include three marriage duration indicators (Model 4) that are not mutually exclusive: (a) Marital Duration First Calendar Year (whether it is the first year of the couple’s marriage), (b) Marital Duration First 5 Years of Marriage (whether the couple is in their first 5 years of marriage), and (c) Marital Duration (yearly continuous variable). In addition, their model includes (d) Marriage Cohort (continuous indicator of year of marriage), (e) Calendar Decade (a categorical version of Calendar Year), and (f) survey wave (dummy variables indicating year of survey). Their final model refuting prior research includes interactions of cohabitation and marriage cohort as well as cohabitation and first year of marriage indicator. The upshot is that there are too many indicators of time in their models leading to questions about their conclusions based on time.

The models that appear to be inappropriately specified serve as their basis for rejecting the finding in the literature that the association between cohabitation and marital stability has decreased across marriage cohorts. After discussing data issues, we propose and execute a straightforward approach that provides an alternative test of their key research question.

### **Data Issues: Age Truncation and Retrospective Bias**

The National Survey of Family Growth (NSFG) is the leading survey to study family dynamics in the United States and is used by RR because of the retrospective cohabitation and marriage data. An important feature of the NSFG is that the upper age limit of respondents is age 44. This upper age limit results in serious limitations to how the data can be used to generate retrospective histories and to the representativeness of marriage cohorts. By not addressing this issue, RR calculate findings for early periods using incomplete marriage cohorts with a bias toward younger ages at marriage (Bramlett & Mosher, 2002). For example, if one is using the 1988 data to examine marriages dating back to 1970, as RR do, the experiences of women married in 1970 would represent a narrow age range: women who were 15–44 years old in 1988 but who were 26 years old or younger in 1970. Another age truncation issue is that relatively long marriages cannot be observed with these data without bias toward those that occurred at young ages. For example, a 15-year marriage can only be observed for women who married at age 29 or younger. A third issue related to age truncation is that researchers have raised concerns about retrospective questions on cohabitation experiences, suggesting experiences closer to the date of interview are more accurate (Hayford & Morgan, 2008). To address these issues, researchers typically limit

analyses to marriages started within 10 years of interview allowing examination of marriages that occurred up to age 35 (Kuperberg, 2014; Manning & Cohen, 2012; Philips & Sweeney, 2005). RR mention the issue of age truncation in the methods section, but do not address it. It is important that researchers consider these data issues when pooling and constructing cohorts with the NSFG.

A second data concern, albeit more minor, is that RR's overall strategy is to weight their bivariate analyses but not the multivariate analyses. Thus, they do not include complex design factors that are part of the weighting. Although we recognize debates about the application of weights, the NSFG Users Guide states, "The NSFG is not based upon simple random sampling, but upon a multi-stage, probability-based complex sample design, intended to yield estimates of the US household population aged 15-44" (p. 4). The survey weights used with the NSFG are important and are based on how individuals are clustered, and not simply individual weights based on demographic characteristics. The authors argue that the unweighted models are the best strategy given their interest in examining model fit with measures such as the Bayesian Information Criteria and Akaike's Information Criteria, which cannot be calculated using survey-weighted data. There are alternative strategies to grapple with model fit such as the f-adjusted means residual test (Kuperberg, 2014).

## **Analysis**

We present empirical results based on the fundamental question: is cohabitation associated with marital instability across marriage cohorts and does this association vary by marital duration for recent marriage cohorts (up to 10 years)? While this is seemingly the goal of RR's analysis, their models as specified make that difficult to state with certainty. Our simple and straightforward models are intended to show whether and how premarital cohabitation (defined as cohabitation with a spouse) is associated with marital stability using a harmonized 1995–2015 NSFG file (NSFG Cycle 5—1995, NSFG Cycle 6—2002, 2006–2010 NSFG, and 2011–2015 NSFG). As with most past studies, we limited analysis to those married at age 35 or younger, married within 10 years of interview, and we used survey weights. Using the same basic analytic strategy as RR, we estimated the odds of dissolution (divorce or separation) using person-year discrete-time event history models. We focused on experiences for women in first marriages that spanned nearly three decades (1985–2012) who married within 10 years of interview ( $n = 9,852$ ) and where first cohabitation or marriage occurred between the ages 15–35 ( $n = 9,507$ ). Our analyses were restricted to women without missing data on any covariates. This final analytic sample consisted of 9,287 women with 45,886 person-years.

Our results interacting marriage cohort and cohabitation with a spouse were consistent with Reinhold (2010) as well as the RR findings: the effect of premarital cohabitation has diminished in more recent marriage cohorts. Table 1 presents the initial model (Model 1) and an interaction model of marriage cohort and cohabitation (Model 2). The results were similar across bivariate and multivariate models, indicating that the association between cohabitation and dissolution weakened across marriage cohorts (our multivariate models included indicators that were parallel to the RR covariates). Figure 1 draws on the adjusted odds ratios from Table 1 (Model 2) and essentially replicates RR's figure 2 (p. 48), but focuses on marriage year rather than calendar year. We found positive and significant odds of dissolution for women who cohabited with their spouse in earlier marriage cohorts (prior to 2003 in these analyses), but not in the more recent marriage cohorts. In an effort to replicate the spirit of RR's analysis in Model

3, we substituted a time-varying indicator of calendar year for marriage year as a main effect and interaction term. The main effect indicated that calendar year was not associated with the odds of dissolution for those who do not cohabit and the interaction term was marginally statistically significant ( $p = .079$ ), indicating cohabitation had a somewhat weaker influence in more recent periods. We could not discern whether calendar year was a fixed or time-varying indicator in RR's analysis. If it was fixed, it is conceptually inappropriate because the year of eventual dissolution was predicting whether a dissolution occurred prior to the dissolution. When we replaced a fixed version of calendar year for marriage cohort in Model 3 Table 1 for the time-varying measure (results not shown see Online Supplement), we find that the interaction term for cohabitation and calendar year was not statistically significant ( $p = .334$ ). This offers one potential explanation for RR's initial findings (table 1, p. 49).

Focusing on marriage cohorts, we observed similar findings when we generated an early and recent marriage cohort based on RR's designation (1985–1995 and 1996–2012) (see Table 2 for early and recent marriage cohort estimates). In the cohort-specific models, cohabitation was associated with higher likelihood of dissolution in earlier marriage cohorts and not among recent marriage cohorts. The upshot was that these models showed that cohabitation was not associated with marital stability among recent marriage cohorts.

The primary conclusion of the RR paper was that there was an association between cohabitation and marital dissolution among recent cohorts that was missed by not accounting for differential cohabitation effects according to marital duration. Table 2 shows the association between cohabitation and dissolution for all marriages, marriages formed prior to 1996 and since 1996 (defined by RR as a recent cohort). The first column mimics the key model in the RR paper (table 2, Model 3, p. 51) with our indicators of time. Unlike in the RR model, the marriage year and cohabitation interaction term retained significance when including an interaction of cohabitation and marital duration. The second columns in the early and recent cohort analyses also included an interaction for cohabitation and marital duration. The interaction term was not statistically significant, indicating that cohabitation operates in a similar manner across marital durations (up to 10 years). The cohabitation coefficient in this model represented the effect of cohabitation in the first year of marriage and was associated with dissolution in the early cohort but there was no statistically significant effect in the recent cohort. (Supplemental analyses that focused on a person-month, rather than person-year file, yielded similar results). Although we do not agree with the RR's measures and modeling of time, we replicated their primary RR model (table 2, Model 3, p. 51) in Appendix A (including an interaction of cohabitation and the first year of marriage, first year of marriage dummy variable, time-varying calendar year decade variables, and survey year) and we still found a significant interaction term of cohabitation and marriage cohort. When we replaced the fixed with the time-varying indicator of calendar year decade, we obtained a similar finding (results not shown, see Online Supplement). Additional analyses explicitly testing for the association of cohabitation and dissolution at later marital durations indicated no effect of cohabitation for women married since 1996. These models included a linear version of duration; applying that a categorical duration variable yielded similar results at most yearly durations (Online Supplement). Taken together, our results did not support RR's conclusions about recent marriage cohorts.

**Table 1.** Women's Odds Ratios of Marital Dissolution for 1985-2012 Marriage Cohorts.

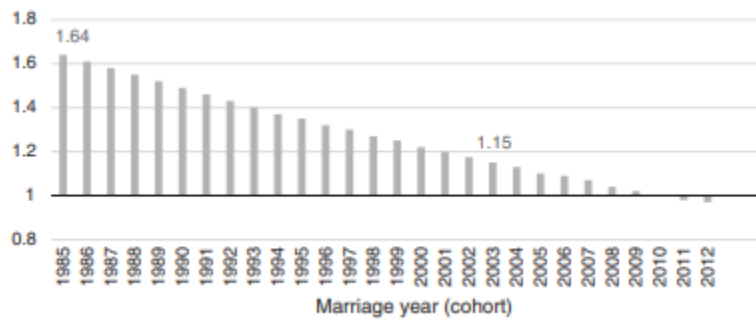
	Model 1	Model 2	Model 3
Premarital cohabitation	1.30*	1.64*	1.61*
Marriage year	0.99	1.01	
Cohabit* marriage year		0.98*	
Marital duration (years)	0.95*	0.95*	0.95*
Calendar year (time varying)			1.00
Cohabit* calendar year			0.99
Age in marriage			
18-19	0.78	0.77	0.77
20-24	0.45*	0.45*	0.45*
25+	0.28*	0.28*	0.28*
Education at marriage			
High school	1.15	1.00	1.00
Some college	0.92	0.92	0.92
College degree	0.47*	0.46*	0.47*
Race/ethnicity			
White	0.57*	0.57*	0.57*
Hispanic	0.50*	0.50*	0.50*
Other	0.55*	0.54*	0.54*
Mother's education			
High school	1.15	1.16	1.16
Some college	1.18	1.19	1.19
College degree	1.28*	1.28*	1.28*
Two biological parent	0.70*	0.70*	0.70*

family			
Child at marriage	1.51*	1.51*	1.51*

Note: N =9,287 women and 45,886 person-years. Estimates based on logistic regression discrete-time person-year models. Variables coded similar to RR except education and fertility were measured at marriage to avoid confounding associations between covariates and marital dissolution. Also we include Hispanic as race/ethnicity category. Reference groups: age<18, education (respondent and mother) less than high school, and race/ethnicity Black. Marriage year is a continuous indicator indicating marriage cohort and duration is a continuous indicator.

Source: NSFG 1985–2015. \*p <.05

**Figure 1.** Adjusted Odds Ratio of Association Between Cohabitation and Marital Dissolution.



Source: NSFG 1985–2015.

Note: Odds Ratios Based on Table 1 Model 2.

**Table 2.** Women’s Odds Ratios of Marital Dissolution for All, Early, and Recent Marriage Cohorts

	All cohorts	Early cohort (1985-1995)		Recent cohort (1996-2012)	
	Model 1	Model 1	Model 2	Model 1	Model 2
Premarital cohabitation	1.43*	1.48*	1.32*	1.07	0.99
Marriage year	1.01	0.98*	0.98*	1.02	1.02
Cohabit* marriage year	0.98*				
Duration	0.92*	0.93*	0.91*	0.98	0.96
Cohabit* duration	1.04		1.05		1.04
Age at marriage					
18-19	0.77	0.72	0.72	0.90	0.89
20-24	0.45*	0.45*	0.45*	0.47*	0.47*

25+	0.28*	0.32*	0.32*	0.25*	0.25*
Education at marriage					
High school	1.00	1.07	1.07	0.90	0.90
Some college	0.92	0.97	0.97	0.83	0.84
College degree	0.47*	0.59*	0.59*	0.32*	0.32*
Race/ethnicity					
White	0.57*	0.70*	0.70*	0.42*	0.42*
Hispanic	0.50*	0.53*	0.53*	0.45*	0.45*
Other	0.54*	0.55*	0.55*	0.54*	0.54*
Mother's education					
High school	1.16	0.98	0.98	1.53*	1.53*
Some college	1.19	1.08	1.08	1.43*	1.43*
College degree	1.27*	1.11	1.11	1.63*	1.61*
Two biological parent family	0.71*	0.75*	0.75*	0.66*	0.66*
Child at marriage	1.51*	1.57*	1.57*	1.47*	1.47*

Note: All cohorts N =9,287 women and 45,886 person years. Early cohort N =4,410 and 24,485 person years and recent cohort N =4,877 women and 21,401 person-years. Estimates based on logistic regression discrete-time person-year models. Variables coded similar to RR except education and fertility were measured at marriage to avoid confounding associations between covariates and marital dissolution. Also we include Hispanic as race/ethnicity category. Reference groups: age<18, education (respondent and mother) less than high school, and race/ethnicity Black. Marriage year is a continuous indicator, indicating marriage cohort and duration is a continuous indicator.

Source: NSFG 1985–2015. \*p <.05.

## Conclusion

There is a need for new studies using a variety of data sources to examine the association between cohabitation and marital instability. Unfortunately, opportunities are limited because the NSFG is the only nationally representative data available to answer this issue across cohorts. Analysis of recent marriage cohorts will be possible as respondents in birth cohort-based data collections (e.g., National Longitudinal Adolescent Study of Adolescent to Adult Health; National Longitudinal Study of Youth 1997) move into the divorcing years (median age of



divorce 40) (Anderson, 2017), although caution is needed because the measurement of cohabitation differs across surveys (Manning et al., 2019). Although research in other countries may be instructive, the US context for cohabitation is unique and merits further study.

Our comment, using roughly similar models as RR, suggests a different conclusion from that of RR. But we argue that it is the more appropriate one given issues about measuring time and specifications of the NSFG data, specifically age truncation. New research is necessary because the nature of both cohabitation and marriage is shifting. Consistent with the diffusion hypothesis (Liefbroer & Dourleign, 2006), as direct marriages (those not preceded by cohabitation) are increasingly rare, it is possible that cohabitation may again have a negative influence on marital stability.

We believe the RR paper has raised important issues and there remain unresolved questions about how to measure time, including nonlinear specifications and combining age, period, and cohort. Furthermore, attention to alternative explanations for shifts in the effect of cohabitation on marital dissolution across marriage cohort is warranted, such as accounting for age at relationship initiation or coresidence as a marker of marital dissolution risk (Kuperberg, 2014) as well as addressing the lengthening of time spent in cohabiting unions. We also concur that considering whether an association between cohabitation and marital instability accelerates or diminishes with marital duration is important as well as identifying new ways to account for relationship duration. As RR and other researchers find, there may not be a one size fits all explanation for link between cohabitation and marital instability and further attention to sociodemographic subgroup differentials is needed.

In sum, we do not find the evidence provided in the RR study that scholars have been “misled” about the shifting significance of cohabitation in predicting marital instability to be convincing. We believe the body of prior work and this comment provide important insights and contribute to current family debates. Our goal is to move family research and knowledge forward. It is in this spirit that we offer our comments to the authors and to all interested family scholars.

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## **Supporting Information**

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix S1: Supporting Information

## **References**

Anderson, L. (2017). Median age at first divorce, 2015. In Family profiles 17-03. Bowling Green, OH: National Center for Family and Marriage Research.

- <https://www.bgsu.edu/ncfmr/resources/data/family-profiles/anderson-median-age-firstdivorce-fp-17-03.html>.
- Bramlett, M., & Mosher, W. (2002). Cohabitation, marriage, divorce and remarriage in the United States. *Vital and Health Statistics, Series 23*, (22), 1–93.  
<https://pdfs.semanticscholar.org/12c6/7c5f970fee4e48e86ae806cc47faac6fff27.pdf>.
- Hayford, S., & Morgan, S. P. (2008). The quality of retrospective data on cohabitation. *Demography*, 45, 129–141. <https://doi.org/10.1353/dem.2008.0005>.
- Jose, A., O’Leary, D., & Moyer, A. (2010). Does premarital cohabitation predict subsequent marital stability and marital quality? A meta-analysis. *Journal of Marriage and Family*, 72(1), 105–116. <https://doi.org/10.1111/j.1741-3737.2009.00686.x>.
- Kuperberg, A. (2014). Age at coresidence, premarital cohabitation and marriage dissolution: 1985-2009. *Journal of Marriage and Family*, 76, 352–369.  
<https://doi.org/10.1111/jomf.12092>.
- Liefbroer, A., & Dourleign, E. (2006). Unmarried cohabitation and union instability: Testing the role of diffusion using data from 16 European countries. *Demography*, 43, 203–221.  
<https://doi.org/10.1353/dem.2006.0018>.
- Li, J.-C. A., & Wu, L. L. (2008). No trend in the intergenerational transmission of divorce. *Demography*, 45, 875–883. <https://doi.org/10.1353/dem.0.0030>.
- Manning, W., & Cohen, J. (2012). Premarital cohabitation and marital dissolution: An examination of recent marriages. *Journal of Marriage and Family*, 74, 377–387.  
<https://doi.org/10.1111/j.1741-3737.2012.00960.x>.
- Manning, W., Joyner, K., Hemez, P., & Cupka, C. (2019). Measuring cohabitation in U.S. National Surveys. *Demography*, 56, 1195–1218. <https://doi.org/10.1007/s13524-019-00796-0>.
- Philips, J., & Sweeney, M. (2005). Premarital cohabitation and marital disruption among white, black and Mexican American women. *Journal of Marriage and Family*, 67, 296–314.  
<https://doi.org/10.1111/j.0022-2445.2005.00117.x>.
- Reinhold, S. (2010). Reassessing the link between premarital cohabitation and marital instability. *Demography*, 47, 729–733.
- Rosenfeld, M. J., & Roesler, K. (2019). Cohabitation experience and cohabitation’s association with marital dissolution. *Journal of Marriage and Family*, 81, 42–58.  
<https://doi.org/10.1111/jomf.12530>.
- Smock, P. J. (2000). Cohabitation in the United States: An appraisal of research themes, findings, and implications. *Annual Review of Sociology*, 26, 1–20.  
<https://doi.org/10.1146/annurev.soc.26.1.1>.

## A. Appendix

**Table A1.** Replication of RR’s Analysis of Women’s Odds Ratios of Marital Dissolution

	Model 1
Premarital cohabitation	1.74*

Marriage year	1.01
Cohabit x marriage year	0.98*
First year of marriage	0.83
Cohabit x first year of marriage	0.77
Duration	0.93*
Calendar decade (time-varying)	
1990s	0.96
2000s	0.66*
2010s	0.55*
NSFG wave	
2002	1.06
2006-2010	1.27
2011-2013	1.66*
2013-2015	1.90*
Age at marriage	
18-19	0.77*
20-24	0.46*
25+	0.29*
Education at marriage	
High school	0.98
Some college	0.86
College degree	0.45*
Race/ethnicity	
White	0.56*
Hispanic	0.49*

Other	0.53*
Mother's education	
High school	1.17
Some college	1.20*
College degree	1.29*
Two biological parent family	0.71*
Child at marriage	1.53*

Notes: We do not believe this is an appropriate model to assess marital dissolution, but attempt to replicate the RR model. 45,586 person-years and N =9,287 women. Estimates based on logistic regression discrete-time person-year models. Variables coded similar to RR except education and fertility were measured at marriage to avoid confounding associations between covariates and dissolution. Also we include Hispanic as race/ethnicity category. Reference groups: calendar decade 1980s, interview wave 1995, age<18, education (respondent and mother) less than high school, and race/ethnicity black. Marriage year is a continuous indicator measuring marriage cohort and duration a continuous indicator measuring marital duration. First year of marriage is a dummy variable equivalent to RR's Calendar Year of Marriage, but we use this term to avoid confusion with the variable labeled Calendar Year. \*p <.05. Source: NSFG 1985–2015.