
Is Your Love in Vain? Another Look at Premarital Cohabitation and Divorce

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ABSTRACT

In this paper we provide an empirical investigation of the association between premarital cohabitation and subsequent risk of divorce. Theoretically couples who cohabit before marriage should have a lower subsequent risk of divorce since cohabitation enables you to gather information about the match quality, and only good matches evolve into marriage. However, a considerable number of papers have come to the complete opposite conclusion. The counter-intuitive result has been justified with self-selection of cohabitants as the main argument. In the present paper, we provide new evidence concerning the relationship between premarital cohabitation and divorce.

I. Introduction

One of the main explanations for divorce is attributed to uncertainty about the quality of the current match and other characteristics of the partner that are relevant for the partnership. At the time of entering the partnership two partners have only limited information on the determinants of the gains from the union. As

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time passes, the couple accumulates new information on the quality of the match and on the outside options of each partner and the couple decides whether to dissolve or continue the partnership (see Weiss 1997; Burdett and Coles 1998; Brien, Lillard, and Stern 2001). The idea behind learning about match-specific quality is closely related to Jovanovic's (1979) model of job turnover. Likewise, the implications overlap in the sense that the risk of divorce—similar to the exit rate out of employment—(eventually) exhibits negative duration dependence. The longer a relationship has lasted, the lower is the risk of a breakup. In addition, couples who start out as cohabitants have the advantage of gathering information about their partner before marrying. Hence, only good matches evolve into marriage, and marriages preceded by cohabitation should have a lower risk of divorce.

Although intuitively appealing, the idea that marriages preceded by cohabitation are more stable has received close to no empirical support. In fact, a substantial number of investigations find evidence that support the opposite, namely that premarital cohabitation is associated with a higher subsequent risk of divorce (see Blanc 1985; Balakrishnan et al. 1987; Bennett, Blanc, and Bloom 1988; Trussell, Rodríguez, and Vaughan 1992; Hoem and Hoem 1992; Bracher et al. 1993; Lillard, Brien, and Waite 1995; Weiss and Willis 1997; and Brien, Lillard, and Stern 2001). A number of possible explanations for this theoretically counter-intuitive result have emerged. The most persuasive is self-selection of cohabiting couples. Couples who cohabit before marriage have a higher latent probability of divorce than couples who marry without premarital cohabitation. This proneness to divorce is driven by differences in socioeconomic circumstances and/or differences in attitudes towards marriage as an institution. Only Lillard, Brien, and Waite (1995) correct for the self-selection effect and find support for the existence of such an effect. However, even after purging their model for self-selection they are not able to find support for a learning effect.

In the present paper, we take another look at the association between premarital cohabitation and the subsequent risk of divorce. We do this in the context of the Danish marriage market. The Danish marriage market is interesting in this respect since premarital cohabitation, as a marriage market phenomenon, had its beginning on a larger scale in Denmark and Sweden in the 1960s. Since then premarital cohabitation has spread throughout the western world and is now the norm in a number of countries like the United States, United Kingdom, New Zealand, Norway, France, Sweden, and Denmark.

The investigation is based on a register-based data set collected by Statistics Denmark. We find that couples who cohabited before marrying have lower risk of divorce in the subsequent marriage. Our result is in accordance with the learning hypothesis, but not with what is commonly found in the literature. However, on the basis of newly released survey data, we argue how similar results are likely to emerge in other countries as well. The paper is organized as follows: In Section II, we present the data; in Section III the main results are discussed; and in Section IV, we conclude.

II. Data

The data used in this study come from IDA (Integrated Database for Labour Market Research) created by Statistics Denmark. The IDA sample used here

contains (among other things) information on marriage market conditions for a randomly drawn subsample of all individuals born between January 1, 1955 and January 1, 1965. These individuals are followed from 1980 to 1995. The data set enables us to identify individual transitions between different states in the marriage market on an annual basis. The information about marriage market status is based on the individual's situation on December 31 each year and is derived from household information. This means that only individuals sharing the same address are identified as cohabiting or married. If two individuals are sharing a flat—without being a couple—it will still count as cohabitation in the data. The only way we can ascertain that individuals living together are actually partners is to consider married couples only. In this study we therefore restrict focus to marriages. Of course, married couples that are not living together will be registered as singles, but this type of relationship is likely to be low in number. If there is a break in a marriage, say we observe a couple to be married in 1987, to live as single individuals in 1988, and then as a married couple again in 1989, we disregard the break, and contribute the intervening spell to measurement error.¹ The information used in the analysis is gathered in the following way: We observe the individuals in 1980, where we have information about various personal characteristics and marriage market status. For each subsequent year we observe a new stream of data for the individuals. If an individual enters a relationship we also observe the personal characteristics of the partner. Because we are interested in marriages and especially in the personal characteristics during the marriage, we disregard left-censored marriages.

The sample includes a total of 7,327 marriages during the entire period. Of them, 6,771 individuals experience one marriage during this period, 315 experience two marriages, six three marriages, and two individuals experience four marriages.

In this sample, 5,770 marriages or 79 percent of the marriages are preceded by premarital cohabitation. Compared with international studies covering more or less the same period, the Danish population have a large number of marriages that are preceded by cohabitation. The percentage of marriages preceded by cohabitation in Australia is 15 percent (Bracher et al. 1993), more than 50 percent in the United Kingdom (Georgellis 1996), 22 percent in the United State (Lillard, Brien, and Waite 1995), and 65 percent in Sweden (Bennett, Blanc, and Bloom 1988).

A. *Marriage duration*

Figure 1 shows the Kaplan-Meier hazard functions for divorces. The two lines show the divorce hazard for marriages preceded by cohabitation and not preceded by cohabitation, respectively.

First, we see that the hazard rate is much higher for couples who marry without premarital cohabitation. The hazard functions do not reach the same level until the couples have been married for eight years. The figures indicate that premarital cohabitation decreases the instantaneous probability of divorce. If this result still holds after correcting for different observed background variables, it is at odds with findings in other studies.

The shape of the hazard functions shows that after an initial increase the instantaneous divorce probability declines with duration. This pattern is in accordance with

1. For these couples the intervening spell could imply that they actually divorce and then remarry (what Bracher et al. 1993 label "The Elizabeth Taylor syndrome"). The data, however, do not allow for correct identification of this type of behavior.

theories on divorce that acknowledge that gathering information about the partner is a key aspect of partnerships. The eventual decline in the hazard is supported by several elements. First of all, in the beginning the signals may not be that reliable, and it is difficult to evaluate the exact quality of the marriage. However, as time passes the quality of the match becomes clearer and bad matches will terminate. Secondly, the accumulation of marriage-specific capital, like children and property, is enhanced as the marriage proceeds, and will according to Becker, Landes, and Michael (1977) stabilize the marriage. Thirdly, there is the effect of unobserved heterogeneity; more divorce-prone couples will dissolve the marriage earlier.

III. Results

In order to obtain the effect of premarital cohabitation and other covariates on the risk of divorce we estimate a hazard model for grouped duration data (see Kiefer 1990 for details). The results are presented in Table 1. The results in the divorce equation present the effect of the explanatory variables on the exit rate out of marriage. Because we only observe that a divorce has occurred sometime within a given year, we use explanatory variables for time $t - 1$ to explain the divorce hazard at time t in order to reduce the possibility that the value of a given characteristic is influenced by the divorce event. In this paper, we focus only on the effect of premarital cohabitation. For a discussion of the other results, see Svarer (2002).

Our main result is that premarital cohabitation is negatively correlated with the risk of divorce.² First, we find a negative, significant effect of the incidence of premarital cohabitation. Second, we find that premarital cohabitation of long duration is associated with a lower dissolution risk.³ In sum, our results differ from practically all other studies in this field (See Blanc 1985 on Norwegian data; Balakrishnan et al. 1987 on Canadian data. See Bennett, Blanc, and Bloom 1988; Trussell and Trussell 1992; and Hoem and Hoem 1992 all on Swedish data. See Bracher et al. 1993 on Australian data. See Lillard, Brien, and Waite 1995; Weiss and Willis 1997; and Brien, Lillard, and Stern 2001 all on U.S. data).⁴ In the following subsections, we discuss the potential causes for the difference in results and whether the results should have any interest to researchers outside Denmark.

2. The average duration of marriages that were preceded by cohabitation is the same as that of marriages that were not. Hence, the result is not generated by comparing marriages that are consistently shorter due to an initial period of cohabitation.

3. We tried to endogenize the premarital cohabitation decision. Identification in that model is, however, not particularly strong, since we have no proper instrument to explain the exogenous variation in the decision to cohabit before marriage. Theoretically, identification can be obtained due to the presence of multiple marriages for some individuals (see Lillard, Brien, and Waite 1995). In our data very few individuals (fewer than 5 per cent) experience more than one marriage. This implies very poor identification. Hence, in the present paper we only report the results from a reduced form model.

4. One exception is Georgellis (1996). Based on British data from the General Household Survey collected in 1990–91, he finds that the duration of premarital cohabitation and subsequent divorce risk is negatively correlated.

Table 1
Results from the econometric model

	Cohabitation decision		Divorce equation	
	Coefficient	Standard deviation	Coefficient	Standard deviation
Cohabitation				
Couple has cohabited			-0.2500 ^a	0.0790
Duration of cohabitation			-0.1078 ^a	0.0213
Husband's education				
Vocational	-0.0368	0.0306	-0.3710 ^a	0.0740
Short	-0.2887 ^a	0.0511	-0.2621 ^b	0.1329
Medium	-0.4829 ^a	0.0495	-0.4881 ^a	0.1423
Long	-0.8323 ^a	0.0491	-0.6791 ^a	0.1497
Husband more educated	0.3769 ^a	0.0358	0.1814 ^b	0.0975
Couple has same degree of education	0.3230 ^a	0.0289	0.2281 ^a	0.0744
Income (in 1980 DKK)				
Wife's income	0.7640 ^a	0.0302	0.3386 ^a	0.0834
Husband's income	0.2301 ^a	0.0289	0.1099 ^a	0.0518
Children				
Own child younger than two			-0.5130 ^a	0.0642
Stepchildren		0.0300	0.4565 ^a	0.0749
Premarital birth to the couple	-0.5286 ^a		0.2079 ^a	0.0708

Table 1 (continued)

	Cohabitation decision		Divorce equation	
	Coefficient	Standard deviation	Coefficient	Standard deviation
Age				
Wife between 15–20 years	-0.0152	0.0606	0.3654 ^a	0.1705
Wife between 21–25 years	0.2024 ^a	0.0468	0.2959 ^a	0.1349
Wife between 26–30 years	0.2907 ^a	0.0393	0.0427	0.1185
Husband between 15–20 years	-0.2897 ^a	0.0664	0.6870 ^a	0.1734
Husband between 21–25 years	0.0910 ^a	0.0460	0.3920 ^a	0.1219
Husband between 26–30 years	0.1834 ^a	0.0353	0.2734 ^a	0.0927
Wife more than four years older	-0.5201 ^a	0.0655	0.1962	0.1710
Husband more than four years older	-0.1886 ^a	0.0339	0.2686 ^a	0.0869
Other characteristics				
Illness, wife	0.0109	0.0281	0.1610 ^a	0.0732
Illness, husband	-0.1104 ^a	0.0328	0.2322 ^a	0.0791
Unemployment degree, wife	0.1521 ^a	0.0485	0.2815 ^a	0.1105
Unemployment degree, husband	-0.2389 ^a	0.0668	0.9548 ^a	0.1394
2 nd marriage or more	-0.2125 ^a	0.0642	0.4113 ^a	0.1323
Work for same employer	-0.5342 ^a	0.0341	0.2226 ^a	0.0831
Province	0.4180 ^a	0.0226	-0.2902 ^a	0.0600
Number of observations		7,327		

Note: "a" significant at 0.05, "b" significant at 0.1.

A. *Who cohabits before marriage?*

Table 1 also contains results from a logit model, which describes the association between a range of explanatory variables and the decision to cohabit before marrying in Denmark. Compared with Lillard, Brien, and Waite (1995) who study this phenomenon in the context of the U.S. marriage market, and with Bennett, Blanc, and Bloom (1988) who study cohabitation in the Swedish marriage market, we find striking differences that might suggest why our results deviate with respect to the effect of cohabitation on the divorce hazard. First, we find that individuals who engage in several marriages are less likely to cohabit; Lillard, Brien, and Waite (1995) find the opposite to be the case for the United States. Second, we find that couples with stepchildren are less likely to cohabit; Bennett, Blanc, and Bloom (1988) find the opposite for Sweden. Third, we find that individuals living outside the Copenhagen metropolitan area are more likely to cohabit; in comparison Lillard, Brien, and Waite (1995) find that individuals in rural areas are less likely to cohabit compared with individuals in urban areas. In addition, the young individuals in our sample are more likely to marry directly compared to older individuals. The opposite pattern is found by Bennett, Blanc, and Bloom (1988) and Lillard, Brien, and Waite (1995). In sum, we find that a number of the characteristics, that describe individuals who cohabit before marriage, are different in Denmark compared to other countries. This suggests that as premarital cohabitation becomes more popular the composition of the pool of cohabitants changes.

B. *How many cohabit before marriage?*

Another issue is the magnitude of premarital cohabitation. Recently, Kiernan (2000) described how cohabitation has been one of the important factors behind the decline in the marriage rates in many European countries. According to Kiernan (2000) cohabitation was barely statistically visible prior to the 1970s. However, the form of cohabitation which we consider in this paper, cohabitation as a prelude to marriage, “. . . came to the fore during the 1960s in Sweden and Denmark, and during the 1970s in other Northern and Western European countries, North America, and Australia and New Zealand.” (Kiernan 2000). As Kiernan (2000) also notes, data on cohabitation tend to be scarce. The one recent exception is the U.N. Economic Commission for Europe’s Fertility and Family Surveys.⁵

Table 2 presents the type of first relationship among women with a first partnership at the time of the survey. Unfortunately, the survey for Denmark didn’t provide the appropriate numbers, but from the data set used in this paper we know that 78 percent of the marriages were preceded by premarital cohabitation. Several points are worth noticing. First, the magnitude of cohabitation varies markedly between the different countries. In the Northern and Western European countries cohabitation is very common, whereas in Southern and Eastern European countries relatively few women engage in premarital cohabitation. Second, cohabitation is gaining popularity in all countries in the table. A comparison between the two cohorts reveals that the fraction

5. The country specific surveys contain between 1,700 and 6,000 females and are collected at different times in the different countries ranging from 1988 to 1999. For more information on these surveys see <http://www.unece.org/ead/pau/ffs>.

Table 2

Type of first partnership among women with a first partnership at the time of the survey

Country	Age group 25–29 years old			Age group 35–39 years old		
	Married directly	Cohabited, then married	Cohabited	Married directly	Cohabited, then married	Cohabited
Sweden	7	41	52	8	62	30
Norway	24	50	35	62	30	7
Finland	17	43	40	31	46	23
France	12	30	58	48	34	19
Austria	19	41	40	30	42	28
Switzerland	19	44	37	30	52	18
West Germany	16	38	46	38	33	29
Belgium	77	11	12	82	7	7
The Netherlands	26	33	41	51	29	20
Italy	86	8	6	91	5	4
Spain	80	8	12	91	4	5
Greece	50	38	12	64	27	9
Canada	36	28	36	58	25	17
New Zealand	15	31	54	33	33	33
Czech Republic	55	27	18	67	25	8
Slovenia	44	33	23	70	10	20
Estonia	20	50	30	25	50	25
Latvia	50	34	17	67	26	8
Lithuania	75	9	16	78	10	12
Hungary	76	14	10	84	9	7
Poland	95	3	2	96	3	1

Note: Updated version of a table from Kiernan (2000).

Source: U.N. Economic Commission for Europe's Fertility and Family Surveys.

of first partnerships that began as marriage has declined in all countries over time. Third, for the younger cohort cohabitation is now the norm in a number of countries like Denmark, Norway, Sweden, Finland, France, Austria, Switzerland, West Germany, The Netherlands, New Zealand, and Estonia.⁶ In addition, the U.S. Bureau

6. Part of the development in the fraction of cohabitation between the two cohorts could be attributed to the fact that we only observe individuals who have experienced a first partnership. For countries where the cohabitation hazard is higher than the direct marriage hazard at young ages, the trends in fraction of cohabitation between the two cohorts would be exaggerated.

of Census reports that 523,000 individuals cohabited in 1970 in the United States. In 1997, the number was 4,125,000, an increase of more than 600 percent. Also, in 1970 the fraction of marriages preceded by cohabitation in the United States was 11 percent. In the early 1990s the number was 56 percent. In the United Kingdom more than 50 percent of those who married in 1987 cohabited before their marriage (Georgellis 1996).

In conclusion, we see a major increase in the tendency to cohabit before marriage. This development, of course, also changes the composition of the pool of cohabitants. The results found in the literature mentioned above are based on data sets collected in the early and mid 1980s and therefore cover a period where premarital cohabitation was less prevalent. The results found in this paper will hopefully encourage researchers in other countries to base related investigations on more recent data sets.

C. How robust are our findings on premarital cohabitation and divorce?

If other researchers took on the challenge, would they be likely to find a negative association between premarital cohabitation and risk of divorce? Table 3 provides a very tentative answer.

The U.N. Economic Commission for Europe's Fertility and Family Surveys also contain information about partnership dissolution by type of marriage; married directly or cohabited then married. In Table 3, we present the cumulative percentage of first marriages for the female sample, which have dissolved after five and ten years by type of marriage for the age group 35–39 years old. Two main considerations lie behind the choice of numbers in Table 3. First, the older cohort has longer potential partnership history than the younger cohort. Second, for some countries the sample sizes are relatively small which implies that comparing marriages of long duration would make the comparison even more fragile. The small sample sizes also imply that the comparisons are only suggestive. Still, interesting results emerge. First, Table 3 confirms the results found in this paper. That is, in Denmark couples who cohabit before marriage are less likely to divorce in the first five and ten years of marriage. Second, a similar association is found for a number of the other countries, although not as strong as for Denmark. Actually, for nine out of the 20 countries in the table the cumulative divorce rates after five years of marriage are higher for couples who married directly compared to those who cohabited before marriage.

After ten years of marriage the pattern is largely the same. Three of the countries that had the same pattern as Denmark now experience a relatively higher risk of divorce for couples who cohabited before marriage. The comparison after ten years is, however, based on a very small sample.

It could be argued that the lower cumulative risk of divorce after five or ten years of marriage in Table 3 could in part be due to negative duration dependence. In Section I, we argued that the learning hypothesis implies that the hazard rate out of marriage exhibits negative duration dependence. If negative duration dependence applies to the complete duration of the relationship calculated as the sum of time spent cohabiting and the time spent being married then we should correct for time

Table 3

Cumulative percentage of first marriages that have been dissolved after five and ten years, by type of marriage

Country	Age Group 35–39			
	Married directly		Cohabited, then married	
	Five years	Ten years	Five years	Ten years
Denmark* (30-31 years old)	20.7	26.8	10.4	12.5
Sweden* (38 years old)	11.5	14.8	8.7	15.4
Norway* (38 years old)	7.1	12.6	4.7	9.2
Finland	7.0	13.3	8.6	14.4
France	6.7	n.a.	9.2	n.a.
Austria	10.1	14.6	8.4	12.4
Switzerland	7.7	14.3	10.9	17.0
West Germany	7.8	11.7	3.9	11.4
East Germany	8.6	15.5	14.3	19.3
Belgium	5.1	8.5	2.7	5.8
The Netherlands	4.5	8.4	8.5	13.3
Greece	5.2	8.7	1.8	2.7
Canada	7.6	15.1	11.6	25.6
New Zealand	9.6	15.2	7.3	13.3
Czech Republic	7.9	11.4	7.1	21.8
Slovenia	3.7	5.0	6.0	9.1
Estonia	10.7	18.2	16.8	39.1
Latvia	15.3	28.3	16.7	22.7
Lithuania	6.9	15.7	20.0	22.9
Hungary	10.2	17.4	10.3	18.4

Source: U.N. Economic Commission for Europe's Fertility and Family Surveys.

* For these countries the respondents' age at the time of interview is reported.

spent in cohabitation. Unfortunately, this cannot be done as we have no cross-country data on time spent cohabiting. On the other hand, in the related literature that found a positive association between premarital cohabitation and risk of divorce no information for time spent cohabiting was included either. Also looking a bit forward, the issue might not present that much of a problem. In Figure 2 the estimated baseline hazard function is depicted.

The figure reveals that the divorce hazard increases sharply in the first couple of years after marriage. Hereafter, the hazard flattens with an insignificantly decreasing tendency. A similar pattern is found by Weiss and Willis (1997).

Figure 2 suggests that something works counter the theoretical prediction. A likely explanation is that the correction for part of the marriage-specific capital accumulation related to the inclusion of children tends to remove some of the expected duration



Figure 1
Kaplan-Meier Hazard Function for Divorces

dependence, and therefore explains why the hazard function differs from the non-parametric hazard functions in Figure 1 which revealed a significant negative duration dependence.

IV. Conclusion

In this paper we have investigated the association between premarital cohabitation and the subsequent risk of divorce in the Danish marriage market. Premarital cohabitation enables the couple to gather information about the quality of the current match before actually entering into marriage. Hereby, the couple can reduce the problem of incomplete information. We find that couples who have cohabited prior to marriage have a lower risk of divorce. The fact that this pattern is (almost) uniquely found on the Danish marriage market could be attributed to the relatively broad moral bonds that characterize the Danish marriage market. In Denmark, in general, it is not associated with social stigmatization to live together without being married. The tentative conclusion from this paper suggests that this feature enables Danes to do the, in an economic sense, most sensible thing, namely, to engage in “trial marriages” before actual marriages.

Recently released data from the U.N. Economic Commission for Europe’s Fertility and Family Surveys indicated close similarities between Denmark and many other

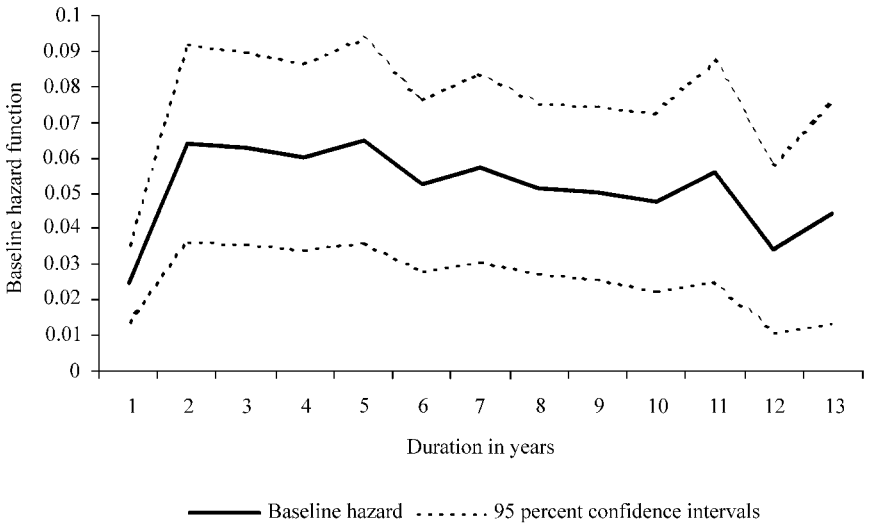


Figure 2
Baseline Hazard Function

countries with respect to the magnitude of premarital cohabitation and the association between premarital cohabitation and divorce. This suggests that the results from this paper could be found in other countries as well, if similar studies were conducted on up-to-date micro data sets.

References

- Balakrishnan, T.R., K. Vaninadha Rao, Evelyne Lapierre-Adamcyk, and Karol J. Krotki. 1987. "A Hazard Model Analysis of the Covariates of Marriage Dissolution in Canada." *Demography* 24(3):395–406.
- Becker, Gary S., Elisabeth M. Landes, and Robert T. Michael. 1977. "An Economic Analysis of Marital Stability." *Journal of Political Economy* 85(6):1141–87.
- Bennett, Neil G., Ann K. Blanc, and David E. Bloom. 1988. "Commitment and the Modern Union: Assessing the Link between Premarital Cohabitation and Subsequent Marital Stability." *American Sociological Review* 53(February):127–38.
- Blanc, Ann K. 1985. "The Effect of Nonmarital Cohabitation on Family Formation and Dissolution: A Comparative Analysis of Sweden and Norway." Dissertation. Princeton: Princeton University.
- Bracher, Michael, Gigi Santow, S. Phillip Morgan, and James Trussell. 1993. "Marriage Dissolution in Australia: Models and Explanations." *Population Studies* 47:403–25.
- Brien, M. J., L. A. Lillard, and S. Stern. 2001. "Cohabitation, Marriage, and Divorce in a Model of Match Quality." University of Virginia. Unpublished.
- Burdett, Kenneth, and Melvyn Coles. 1998. "Separating Cycles." *Journal of Economic Dynamics and Control* 22:1069–91.

- Georgellis, Yannis. 1996. "Duration of First Marriage: Does Pre-Marital Cohabitation Matter?" *Applied Economic Letters* 3:217–19.
- Hoem, Britta and Jan Hoem. 1992. "The Disruption of Marital and Nonmarital Unions in Contemporary Sweden" In *Demographic Applications of Event History Analysis* ed. James Trussell, Richard Hankinson, and Judith Tilton, 61–93. Oxford England: Clarendon Press.
- Jovanovic, Boyan 1979. "Job Matching and the Theory of Turnover." *Journal of Political Economy* 87(5, pt. 1):972–90.
- Kiefer, Nicholas M. 1990. "Econometric Methods for Grouped Duration Data." In *Panel Data and Labour Market Studies* ed. J. Hartog, G. Ridder, and J. Theeuwes, 97–117. North-Holland: Elsevier Science B.V.
- Kiernan, Kathleen. 2000. "European Perspectives on Union Formation." In *The Ties That Bind*, ed. Linda Waite, 40–58. New York: Aldine de Gruyter.
- Lillard, Lee A., Michael J. Brien, and Linda J. Waite. 1995. "Premarital Cohabitation and Subsequent Marital Dissolution: A Matter of Self-Selection?" *Demography* 32(3):437–57.
- Svarer, Michael. 2002. "Determinants of Divorce in Denmark" Working paper 2002-19 Department of Economics, University of Aarhus.
- Trussell, James, Germán Rodríguez, and Barbara Vaughan. 1992. "Union dissolution in Sweden." In *Demographic Applications of Event History Analysis* ed. James Trussell, Richard Hankinson, and Judith Tilton, 38–60. Oxford England: Clarendon Press.
- Weiss, Yoram. 1997. "The Formation and Dissolution of Families: Why Marry? Who Marries Whom? And What Happens Upon Divorce." In *Handbook of Population and Family Economics*, ed. Mark R. Rosenzweig and Oded Stark, 81–123. Amsterdam: Elsevier Science B.V.
- Weiss, Yoram and Robert J. Willis. 1997. "Match Quality, New Information, and Marital Dissolution." *Journal of Labor Economics* 15(1):S293–S329.