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Commitment and the Modern Union: Assessing the Link Between Premarital Cohabitation and Subsequent Marital Stability

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Abstract

In recent years, the incidence of premarital cohabitation has increased dramatically in many countries of Western Europe and in the United States. As cohabitation becomes more common an experience, it is increasingly important to understand the links between cohabitation and other steps in the process of family formation and dissolution. We focus on the relationship between premarital cohabitation and subsequent marital stability, and analyze data from the 1981 Women in Sweden survey using a hazards model approach.

Our results indicate that women who premaritally cohabit have almost 80 percent higher marital dissolution rates than those who do not cohabit. Women who live with their future husbands for over three years prior to marriage have over 50 percent higher dissolution rates than women who cohabit for shorter durations. Last, cohabitors and non-cohabitors whose marriages have remained intact for eight years appear to have dissolution rates after that time that are identical. In sum, we provide evidence that strongly suggests that the higher marital dissolution rates of cohabitors reflects their weaker commitment to the institution of marriage.

Introduction

Nonmarital cohabitation is one element of the increase in nontraditional family forms and household structure that has been observed in many developed countries, especially in Western Europe and the United States. Cohabitation outside of marriage has been linked to other demographic trends such as increasing proportions never married, increases in the average age at marriage, rising divorce rates, and rising proportions of births occurring outside of marriage. Many sociologists and demographers expect that nonmarital cohabitation will continue to increase over the course of the next decade (Davis, 1983; Glick, 1984; Macklin, 1978; Norton, 1983; and Westoff, 1978). Glick asserts, for example, that the number of cohabiting unmarried couples in the United States, which almost tripled in the 1970s, may nearly double during the 1980s.

The increase in nonmarital cohabitation has been particularly marked in Scandinavia. In Sweden, for example, unmarried cohabiting couples comprised one percent of all couples in 1960. In 1970, the proportion cohabiting but not married was seven percent and in 1979, 15 percent (Trost, 1980). In Denmark, between eight and nine percent of all unions were nonmarital in 1974; by 1978, unmarried cohabiting couples made up 13 percent of all couples. A similar but somewhat less marked trend has been observed in most of the remainder of Western Europe (Audirac, 1980; Brown and Kiernan, 1981; and Festy, 1980).

Clearly, understanding the links between nonmarital cohabitation and other steps in the processes of family formation and dissolution becomes increasingly important as the proportion of the population participating in this nontraditional family form grows. This paper focuses on the relationship between premarital cohabitation and subsequent marital stability.

Two hypotheses have been raised with respect to this relationship (see, e.g., Mead, 1966; Macklin, 1978; and Cherlin, 1981). One hypothesis states that a selection process operates in which only the most stable of cohabiting couples marry. In other words, cohabitation is viewed as a form of trial marriage in which unstable unions are "weeded out" before marriage occurs. In a union that does lead to formal marriage, the couple has presumably adjusted to expected marital roles and can avoid possible pitfalls associated with marriage to a person with whose living habits one is unfamiliar. Thus, one might expect marriages that are preceded by a period of cohabitation to be more stable than those that occurred without prior cohabitation.

The matching process implied by this hypothesis may represent the latest stage in the historical evolution of Western marriage markets. Marriage has never been a random coupling process in Western societies. Information about potential spouses has always played an important role in the making of matches. But the nature of the information deemed important, and the process by which it is gathered, has changed over time. Historically, the elder members of a family or community played a dominant role in arranging marriages; the suitability of potential matches was evaluated largely in terms of individuals' social and economic backgrounds. Individuals were raised with the expectation that they would make adjustments after marriage that were necessary to ensure longlasting and beneficial unions. However, over time, the bride and groom have come to play more prominent roles in the matching process-- they collect and process much of the information about potential spouses themselves (e.g., through dating), and they tend to place greater weight on information relating to personal characteristics such as personality and physical appearance. As a practical matter, careful screening before marriage has partly displaced the willingness to make adjustments after marriage as the supposed key to promoting successful unions.

Although its emergence lends itself to a variety of interpretations, premarital cohabitation may be at least partly viewed as an extension of the notion that information on a range of personal characteristics gathered directly by the individuals involved improves the quality of marital unions. Researching the validity of this perspective is indeed difficult. On the surface, one might judge the secular increase in marital instability as evidence against this view. But this is a difficult link to establish since so many other factors affecting both the process of entry into marriage and marital stability have changed over time.

The second hypothesis that has been offered regarding cohabitation and marital stability states that those who cohabit are a select group of people for whom relationships in general--both nonmarital and marital--are characterized by a lack of commitment and stability. In addition, those who cohabit may attach less importance to participation in traditional institutions, such as legal marriage, and may be more willing to dissolve unsatisfying relationships (see Carlson, 1986). Thus, premarital cohabitors might be expected to have higher marital dissolution rates than would that segment of the married population who did not cohabit. This hypothesis does not necessarily preclude the one outlined above. Even if cohabitors are more likely to dissolve their marriages than non-cohabitors, they may have lower dissolution rates than they would have had if they had not cohabited.

Given the dearth of studies on this subject using appropriate data and methodology,[1] we begin to disentangle the relationship between cohabitation and marital stability by investigating the empirical validity of each of these hypotheses. Further analysis illuminates some of the complexities involved in that relationship.

Because our analysis is based on individual level data, we will be able to control for several individual-specific variables that one might reasonably expect to be related to both premarital cohabitation and marital stability. Although our results are limited to the extent that we are unable to control for all important variables, we suspect that much can be learned about the process of entry into marriage and its implications for subsequent marital stability through the investigation we describe below.

The Data

Few data sets exist that are appropriate for researching the hypotheses set forth above. However, a 1981 Swedish survey, entitled "Women in Sweden," has a complete cohabitational and marital history as well as a pregnancy history and numerous background variables for each respondent. The survey, conducted by the Swedish National Central Bureau of Statistics (now Statistics Sweden), was based on a sample of 4966 women aged 20 to 44 and resident in the country as of February 1981. Interviews were carried out with 4300 respondents and took place primarily between March and May of 1981.

In the section of the survey dealing with marriage and cohabitation, respondents were asked to provide the dates (month and year) of all periods in their lives during which they "lived together with a man, either as married or without being formally married." For each period, the dates the couple "moved in together", married (if applicable), and "split up" are recorded. Periods of cohabitation and marriages lasting less than one month are not recorded. Note that the date of dissolution refers to the date the couple ceased living together rather than the date of divorce. Our analysis focuses on the dissolution, as indicated by marital separation, of first marriages. It is important to note that the population we examine here is composed only of ever-married women. Once we establish that a woman entered a first marriage, we classify her as a cohabitor if she lived with her first husband immediately prior to their marriage. Never-married women who either were cohabiting at the time of the survey or had cohabited before the survey date are not included in our study sample.

Preliminary Analysis

The proportion of women in the sample experiencing a marital dissolution, classified by whether they premaritally cohabited, is shown in Table 1. Almost two-thirds of the women in the sample cohabited with their first husband immediately prior to marrying. Overall, 18 percent had experienced the dissolution of their first marriage by the time of the survey. Among cohabitors, 18.3 percent had separated from their husbands, and among non-cohabitors, 17.4 percent. This simple cross-tabulation, then, reveals only trivial differences between the dissolution rates of cohabitors and non-cohabitors. Indeed, a chi-square test is unable to reject the null hypothesis that premarital cohabitation and marital dissolution are independent events.

The comparison of gross dissolution rates between cohabitors and non-cohabitors fails to control for a key variable related to dissolution probabilities: length of exposure to the risk of divorce. This variable might well be important since cohabitors tend to have later ages at first marriage than non-cohabitors and since there has been a cross-cohort increase in the propensity to cohabit. More brief exposure would, all else equal, tend to depress the proportion of cohabitors with dissolved marriages relative to the corresponding proportion of non-cohabitors.

We control for the differential exposure of cohabitors and non-cohabitors to the risk of separation by computing life tables for the two groups. These tables provide estimates of the probability that a woman will dissolve her first marriage at each duration, taking into account her length of exposure to risk (i.e., how long she has been married). Women who have dissolved a first marriage contribute exposure at each duration until the point of dissolution. Women who are still married at the time of the survey contribute exposure at each duration prior to the survey date. Life tables, therefore, incorporate information both about women who have separated and those who have not separated by the survey date.

The cumulative proportion of marriages dissolved by a given duration of marriage is shown in Figure 1 separately for cohabitors and non-cohabitors. Clearly, once we account for differential exposure between cohabitors and non-cohabitors, differences in marital dissolution occurring between the two groups become evident. Within ten years of the date of their first marriage, 18 percent of the cohabitor sample had separated compared to only 10 percent of the non-cohabitor sample; within 20 years, the figures had risen to 34 and 24 percent, respectively.

Given that the cohabitors and non-cohabitors differ with respect to marital stability, it is natural to explore whether these two groups of women differ in other ways as well. In particular, are there other factors that differentiate these two groups that could account for the differences in rates of marital dissolution, thus rendering the cohabitation factor *per se* insignificant?

Table 2 presents selected characteristics of women in our sample according to whether they cohabited before their first marriage and the current status of that marriage. A few characteristics that tend to differentiate ever-married women who did and did not premaritally cohabit are as follows: Those who did cohabit are younger than those who did not, they are somewhat more likely to have had a premarital conception, and they are more than twice as likely to have had a premarital birth though less likely to have had a marital birth.

Of those women who lived with their first husbands immediately prior to marriage, there is great variability in the length of time spent cohabiting. Table 3 indicates that approximately two out of five cohabiting women spent less than one year living with their future spouse. About the same proportion premaritally cohabited for one to three years, and the remaining fifth or so lived with their partner for over three years before they married.

The Model

It is clear from Table 2 that there are several factors that may simultaneously affect marital dissolution rates. Consequently, it is appropriate to study the relationship between premarital cohabitation and subsequent marital stability using a multivariate framework. A hazards model approach, which may be thought of as a multivariate extension of the simple life table analysis presented above, is suitable for the particular statistical problem we face (see, e.g., Cox and Oakes, 1984).

We assume that there is a hazard or risk of dissolution at each marital duration, *d*, and we allow this duration-specific risk to depend on individual characteristics.[2] In the proportional hazards model, a set of individual characteristics represented by a vector of covariates is allowed to shift the hazard by the same proportional amount at all durations. Thus, for an individual, *i*, with an observed set of characteristics represented by a vector of (possibly time-varying) covariates, $Z_i(d)$, the hazard function, $\mu_i(d)$, is given by $\mu_i(d) = \exp[\lambda(d)]\exp[\beta' Z_i(d)]$, where β is a vector of parameters and $\lambda(d)$ is the underlying duration pattern of risk. In this model, then, the underlying risk of dissolution for an individual *i* with characteristics $Z_i(d)$ is multiplied by a factor equal to $\exp[\beta' Z_i(d)]$.

We also examine a set of more general models in order to test for departures from some of the restrictive assumptions built into in the proportional hazards framework. More specifically, we allow the effects of individual characteristics to vary with duration of first marriage. This type of model enables us to examine, for example, the possibility that the relationship between premarital cohabitation and marital dissolution diminishes in magnitude as marriage duration increases. This model may be written as follows:

$$\mu_i(d) = \exp[\lambda(d)X_i(d)]\exp[\beta' Z_i(d)] ,$$

where $\lambda(d)$, β, and $Z_i(d)$ are defined as in the proportional hazards model and $X_i(d)$ represents a set of covariates with duration dependent effects. The model parameters are estimated using the method of maximum likelihood (see Tuma, 1979). The estimation procedure assumes that the hazard, $\mu_i(d)$, is constant within duration intervals. The intervals (in years) that we have chosen are: 0-1, 2-4, 5-7, 8-11, and 12 and greater. Experimentation with alternative intervals yielded no substantive differences in our analyses.

Results

The object of this statistical analysis is, of course, to identify the direction and magnitude of the relationship between premarital cohabitation and the risk of marital dissolution controlling for other factors associated with marital disruption. The first model that we report includes all covariates available in the Swedish survey that could sensibly be hypothesized to relate to marital dissolution (see Becker et al., 1977; Cherlin, 1977; Menken et al., 1981; Teachman, 1982; Morgan and Rindfuss, 1985; Murphy, 1985; and Waite et al., 1985). Table 4 displays the parameter estimates as well as their antilogs and standard errors in a simple porportional hazards model. Because the estimates are maximum likelihood, they are asymptotically normally distributed, thereby facilitating the drawing of statistical inferences.

First, we categorize women into three groups according to their premarital cohabitation experience: those who did not cohabit, those who cohabited one to three months, and those who cohabited more than three months. No premarital cohabitation is the omitted category. This categorization is intended to test the hypothesis that women who cohabit for very short durations are more similar to those who do not cohabit at all than they are to longer-term cohabitors. We might suppose that those who cohabit for a short time are either formally or informally engaged and are doing so merely for logistical reasons, having at the outset already committed themselves to marrying. Instead, we find that, compared to non-cohabitors, those who live together before marriage for either a brief or extended period of time are similarly likely to dissolve their marriages (the parameter estimates for the two groups of cohabitors are not significantly different); thus, in subsequent models we combine all cohabitors into one group.

The overall association between premarital cohabitation and subsequent marital stability is striking. The dissolution rates of women who premaritally cohabit with their future spouse are, on average, approximately 70 percent higher than the rates of those who do not. This result is comparable to that found by Blanc (1985) for Norway and Balakrishnan and his colleagues (1986) for Canada.[3] The magnitude of the cohabitation parameter is slightly smaller than that of age at marriage and greater than that of a premarital birth. Note that the covariate that indicates a woman cohabited more than once before marriage is positive but not significant. We may conclude, then, that the higher dissolution rates of cohabitors do not stem entirely from a small group of "repeat cohabitors" who have especially low commitment to the institution of marriage and to relationships in general.

Age at marriage has been dichotomized into those who married at less than or equal to 20 years of age and those who married at age 21 or older. We also include a covariate that indicates whether a woman had a birth prior to her first marriage. The event of a first marital birth is entered as a time-varying covariate (i.e., its value varies with duration) which assumes the value 0 at each duration until the first birth within marriage occurs and 1 at each duration thereafter. The coefficient may be interpreted as the relative risk of marital dissolution for a woman who has had a first birth, subsequent to that birth, compared to the corresponding risk for women who had not yet had a marital birth.

Additional results in Table 4 show that women who marry at a relatively young age or have a premarital birth have substantially higher marital dissolution rates than those who defer marriage and restrict their childbearing to within marital unions. An early age at marriage appears to be associated with almost double the rate of dissolution and a premarital birth with a rate that is one-half higher than their respective counterparts. However, the first birth within marriage tends to have a stabilizing effect on the marriage; dissolution rates of women who give birth within marriage are one-quarter lower subsequent to the birth compared to those women at the same marriage duration who have not given birth.

These results are not surprising, as they are consistent with previous research. For example, in his analysis of marital disruption in Great Britain, Murphy (1985) found that for every year that age at marriage is reduced, the risk of dissolution increases by 16 percent. Similarly, Menken et al. (1981) found that for both white and black women in the United States, separation rates decline regularly with increasing age at marriage. The occurrence of a premarital birth has also been found to have a significant positive effect on the rate of marital disruption (Menken et al., 1981; Teachman, 1982; and Morgan and Rindfuss, 1985). Although evidence regarding the relationship between marital fertility and marital dissolution is somewhat unclear, our findings are consistent with recent studies that suggest, at least for the first birth, that this relationship is negative (Becker et al., 1977; Thornton, 1977; Teachman, 1982; and Waite et al., 1985).

Level of education has been found to be negatively correlated with the likelihood of divorce (Menken et al., 1981; Teachman, 1982; and Morgan and Rindfuss, 1985). In Sweden, other factors appear to vitiate any bivariate relationship that may exist between education and marital instability.[4]

Given the problems with using completed education, social background, which is measured here by the occupation of the "main breadwinner" in the respondent's childhood home, may be an indicator of several factors including type of education, labor force participation, and parent's marital status (see Bernhardt and Hoem, 1985). We find that those women who grew up in a household in which the main breadwinner had been a salaried employee (i.e., white-collar worker), had substantially higher marital dissolution rates than other women.[5]

After testing several models we excluded covariates with insignificant parameter estimates and re-estimated the simpler model presented in Table 5. We also use this reduced set of covariates in subsequent models.[6] Parameter estimates are very similar to those found in Table 4. Note that premarital cohabitors in this model appear to have nearly 80 percent higher dissolution rates than their non-cohabiting counterparts.

Although there is reason to believe that the relationship between marital dissolution and each of our fixed covariates may change with marital duration (see Morgan and Rindfuss, 1985), estimation of models in which these covariates are allowed to vary with duration shows that only premarital cohabitation has significant duration-dependent effects. Thus, we present in Table 6 the results of a model in which only premarital cohabitation is allowed to have duration-dependent effects.

Women who cohabit prior to marriage may well be a group that is heterogeneous with respect to characteristics that were not measured in the Swedish data (e.g., in their level of religiosity, personal maturity, or the stability of their parents' marriage). Thus we may hypothesize, for example, that this group is composed of two subgroups--simply put, those who believe more and less in the institution of marriage as a lifetime commitment. Given this hypothesis, the "less committed" group may be expected to dissolve their marriages at a relatively high rate, leaving behind the "more committed" group (which has dissolution rates indistinguishable from the group who did not cohabit). If this is the case, then we would expect the relationship between cohabitation and dissolution to decrease in magnitude across duration.

Indeed, this more refined hypothesis is borne out by the results shown in Table 6. The relationship between marital stability and age at marriage, whether one had a premarital birth, and the timing of the first marital birth remains qualitatively identical to that observed in the previous model. However, it is clear from Table 6 that the nature of the relationship between marital stability and whether a woman cohabited with her future spouse changes substantially with marital duration. The monthly hazard of marital dissolution in the first two years of marriage for those women who have premaritally cohabited is over three times that of those who have not. The hazard for cohabitors declines to approximately two times that of non-cohabitors in the interval from two to eight years of marriage. After the first eight years of marriage, marriage dissolution rates of cohabitors and non-cohabitors converge to the extent that any differences are small in magnitude and statistically insignificant. We should note that this finding is consistent with the cumulative dissolution rates shown in Figure 1, which are essentially parallel for cohabitors and non-cohabitors after ten years or so duration of marriage.

It is not possible to determine conclusively whether one should interpret this pattern of changing effects across duration from a life course perspective assuming a homogeneous cohort of women or rather from a perspective that incorporates the notion of heterogeneity. From a life course perspective, one might say that all couples who cohabit prior to marriage are equally likely to dissolve their marriages at a relatively high rate during the first several years of marriage. After this time, however, couples who remain in intact marriages "settle in" and have dissolution rates essentially the same as those couples who did not premaritally cohabit.

As outlined earlier, an alternative interpretation views those who cohabit as a group that is heterogeneous with respect to one or more unobserved characteristics that are associated with the probability of dissolution. Thus, after the first eight years of marriage, those women with a greater propensity to divorce--due to the various characteristics that we have not observed--are selected out. The subgroup of women remaining, then, is indistinguishable from the segment of the population that never cohabited.

One characteristic that varies among cohabitors is the length of the period of cohabitation (see Table 3). Among the women in the Swedish sample, for example, the duration of cohabitation ranges from one month to more than ten years, with a mean cohabitational spell of approximately two years. The results presented in Table 7 derive from a model in which we examine only the premarital cohabitors in our sample. We include the duration of premarital cohabitation as a covariate in order to compare two hypotheses. First, it is possible that couples who cohabit for only a short period of time before marriage, in contrast to long-term cohabitors, have less opportunity to develop an understanding of each other and to recognize and resolve potential conflicts. Should this be the case, we would expect the duration of cohabitation to be negatively related to the rate of dissolution.

Alternatively, couples who cohabit for a long period of time may be those in which one or both partners are unsure about, or ideologically opposed to, the institution of marriage itself, but who marry perhaps due to mounting external pressure. Furthermore, it may well be that individuals who live together for several years before marrying become accustomed to a relatively individualistic mode of behavior (see Rosenblatt and Budd, 1975). Cohabitors are known, for example, to value the independence that comes with cohabitation, which is sacrificed to some extent in marriage. That is, cohabitors are often attracted to their nonmarital arrangement precisely because they view that arrangement as one associated with greater individual freedom than would be the case with marriage (see Blumstein and Schwartz, 1983). Consequently, those who premaritally cohabit for an extended period of time may miss the independence implicit in their previous arrangement more than those who live together for a relatively short length of time. In addition, we might expect that long-term cohabitors have been more stigmatized due to the non-conformity implicit in their unusually long spell of cohabitation. Thus it might be easier for them to withstand the social repercussions of divorce than it is for short-term cohabitors. This hypothesis would say, then, that long periods of cohabitation are associated with higher rates of dissolution.

The results shown in Table 7 are consistent with this latter hypothesis. Women who cohabit premaritally with their eventual husbands for three years or more have 54 percent higher marital dissolution rates than those who cohabit for shorter durations. Those who cohabit for three years or less appear to have essentially identical rates of dissolution. (The proportional factors for categories of duration 6-18 months and 19-36 months are not significantly different from one, and thus dissolution rates are not distinguishable from those of women in the base category, 0-5 months.)

The last model that we discuss, the parameter estimates of which are shown in Table 8, refers only to women who did not live with their prospective husband before marriage. Comparing the results in Tables 7 and 8, we see that the relationship between three factors--age at marriage, whether one had a premarital birth, and whether the main breadwinner during one's childhood was a salaried employee--and marital dissolution are similar for cohabitors and non-cohabitors.

The impact of a first marital birth, however, on marital stability subsequent to that birth is insignificant for women who did not premaritally cohabit. This result stands in stark contrast to the pronounced stabilizing effect of the first marital birth that is found among couples who did live together before marriage. A plausible explanation of this difference is that for non-cohabiting couples the solidifying event in the relationship is the marriage itself. In contrast, for the cohabitors marriage merely preserves the status quo and it is not until the event of a first birth that a significant change occurs. That is, for the non-cohabiting couple a first birth does not affect dissolution rates because the observable structural change occurs at the time of marriage when the couple begins to live together. However, for cohabiting couples the comparable cementing of the relationship takes place when the first child is born.

Translation of the underlying hazard rates and proportionality factors into cumulative dissolution probabilities yields statistics that allow one to see, in straightforward fashion, the vast differences in marital dissolution across various subgroups. We present in Table 9 and illustrate graphically in Figure 2 the probability that a woman will have separated by selected durations of marriage. The range of results is startling. For example, a woman who is childless, delayed marriage, and did not premaritally cohabit has a .08 probability of separating within 12 years of marriage. In contrast, her counterpart who did cohabit, is twice as likely to separate with a .16 probability. In addition, a woman who premaritally cohabited for more than three years, had a premarital birth, and married before she turned 21 years of age had a .54 probability of separating from her husband within her first 12 years of marriage.

Summary and Conclusions

The results presented in this paper indicate that Swedish women who premaritally cohabited with their first husbands dissolve their first marriages at a significantly higher rate than married women who did not cohabit. This finding is consistent with the hypothesis that those who cohabit may be a select group of people who lack, although not necessarily uniformly, what has been called "marital aptitude" (Bernard, 1972). That is, they "do not have the interests or the values demanded by marriage or the willingness to assume its responsibilities" (Bernard, 1972, p. 162).

Although direct evidence to support this interpretation cannot be obtained from the Swedish data set we have used here, the results of several studies of cohabitation and marriage in other countries are suggestive. Carlson (1986) reports that in a survey of 18 to 29 year olds in France in 1977, compared to married couples who had not cohabited, those who had cohabited or were cohabiting at the time of the survey were twice as likely to view marriage as a response to social pressure and were half as likely to see marriage as the result of the desire of the couple themselves to add something to their union. In addition, when respondents were asked about the future of marriage, the cohabitors were less likely to predict that marriage would continue to be the dominant form of living together and more likely to predict that marriage would eventually disappear.

Blumstein and Schwartz's (1983) study of couples in the United States shows that cohabiting couples are more committed to personal independence than are married couples. This commitment is reflected in a lower likelihood of pooling income, owning joint property, and sharing leisure activities. Cohabitors do not expect the man to assume the role of provider and do expect each partner to be responsible for his or her own economic welfare. Further, cohabiting couples are less likely than married couples to think monogamy is important and are more likely to approve of sex without love.

The results of a series of surveys conducted in Denmark[7] during the 1970s (the Euro-barometer surveys) suggest that cohabiting individuals are less likely than married individuals to subscribe to traditional sex roles. For example, in comparison to married couples of the same age, respondents who were living together tended to be more accepting of a husband moving for his wife's job and more likely to think it reasonable for a man to perform household chores, such as cleaning and ironing. Another difference between cohabiting and married persons in Denmark is that cohabitors are less likely to report their religion as important to them.

Although the evidence outlined above is indirect and fragmentary, taken together it supports the assertion that those who cohabit tend to be those less committed to the roles and responsibilities typically associated with marriage.

Our findings also indicate, however, that the difference in dissolution rates between cohabitors and non-cohabitors decreases in magnitude as marital duration increases. We test the hypothesis that diversity among cohabitors in the length of premarital cohabitation is partly responsible for the observed pattern of duration dependence. We find that among those who cohabited, women who lived with their future spouse for more than three years are significantly more likely to separate than those who cohabited for three years or less. This difference between cohabitors of long and of short duration may reflect differences in the motivation behind cohabiting or in the extent to which patterns of individualistic behavior developed during the cohabitation period continue after marriage.

In conclusion, simple descriptive statistics suggest no relationship between premarital cohabitation and subsequent marital stability. However, by applying a more complex model of marital duration, we have found the two events to be strongly negatively associated. This relationship is extremely robust under varying model specifications. Due to limitations of the data, we cannot conclusively determine the mechanisms underlying this relationship. Nevertheless, the weight of the evidence does suggest that the higher marital dissolution rates of cohabitors reflects their weaker commitment to the institution of marriage. Further insight into the nature and strength of the underlying structural relationships between premarital cohabitation and marital stability must await the development of richer data sets, especially those with more information on attitudes toward marriage.

NOTES

[1]To our knowledge, few of the studies conducted on this subject to date are based on representative samples of ever-married women. In addition, all use samples of currently married couples (see, e.g., DeMaris and Leslie, 1984). As a result, the least successful or stable marriages (i.e., those that have been dissolved) are not observed. Consequently, the results are biased by inclusion of a relatively large proportion of the most stable marriages. For a review, see Macklin (1978).

[2]We have explored the possibility that the salient measure of duration is "duration since the initiation of the union," not "duration since the initiation of the marriage." For married women who did not premaritally cohabit, obviously the measures are identical. However, for those who did cohabit, this new duration reflects the total amount of time that a couple has been in a union, formal or otherwise. In this regard, it is interesting to test the hypothesis that there are no differences in marital dissolution probabilities between cohabitors and non-cohabitors using this measure of duration. This hypothesis might be true if people "get tired of their partners" within some length of time, regardless of their marital status. For example, women who have been married ten months with no prior cohabitation would have dissolution rates similar to those who have been married only six months but with four months of premarital cohabitation.

We test this hypothesis by counting duration as that since union, however we censor our data before the time of marriage. In our example, then, we would pretend to observe those women who cohabited before marriage only in their fifth month of union and beyond. In this way, the fact that these women cannot possibly divorce before they are married does not bias our results. It is important, though, to bear in mind that our results are conditioned upon entering marriage. In this model, we also include a covariate denoting whether one cohabited. Under this hypothesis, the cohabitation covariate should be irrelevant to the likelihood of marital dissolution. However, when we estimate a model specified in this way, the relationship between cohabitation and subsequent marital stability was in the same direction and virtually as strong in magnitude.

Further analysis addressed whether a given length of premarital cohabitation could be translated into an "equivalent" length of marriage. Suppose, for example, that cohabitation were, for argument's sake, only half as "intense" an experience as marriage with respect to the amount of deterioration a relationship suffers over time. Referring again to our example above, in this scheme we pretend to observe the cohabiting couples in what we call the third "pseudo-month." That is, their marriage occurs in their third marriage-duration-equivalent month, since the four months of cohabitation translate into two months of marriage duration. We specified a range of such translations and in no case was the cohabitation parameter estimate anything but similar to that obtained in models measuring duration as that since marriage.

[3]Balakrishnan et al. (1986) find 50 percent higher dissolution rates for cohabitors using a proportional hazards model in which several other variables are incorporated. Using life tables, Blanc (1985) finds that in Norway the cumulative proportion of first marriages ending in separation after five years is .12 for cohabitors and .06 for non-cohabitors who married before age 21. For women who married at age 21 or later, the corresponding proportions are .06 and .02.

[4]We should note that this variable measures the respondent's level of education at the time of the survey, not at marriage. See Hoem (1985) for a detailed discussion of the problems in the information on completed education in the Swedish survey.

[5]This finding regarding main breadwinners' occupations is somewhat puzzling. It is possible that the mothers in these households were more likely to have worked outside the home and were themselves subject to higher dissolution rates. To some extent, this behavior might well be transmitted across generations. Unfortunately, given the available data, we are unable to test this or related hypotheses.

[6]In the interest of parsimony, we assume that the relationships among the variables under study are similar for all birth cohorts. In practical terms, parameter estimates are based disproportionately on the cohorts for whom we have the most information, that is, the older cohorts. Estimates not reported in this paper show that this assumption is a satisfactory one in that the marital dissolution experience of each cohort is satisfactorily replicated by the models employed.

[7]The Euro-barometer surveys are conducted by the Commission of the European Communities and made available through the ICPSR. Although nine countries participate in the surveys, the sample sizes are small and only in Denmark are there sufficient numbers of persons in the sample cohabiting to allow the construction of worthwhile cross-tabulations. The results reported here are drawn from Euro-barometer 3 and Euro-barometer 8.

Table 1: Percentage of women experiencing marital dissolution by premarital cohabitation experience.*

	Status of First Marriage at Time of Survey		
	Intact	Dissolved	All Women
Did premaritally cohabit	81.7 (1472)	18.3 (329)	65.0 (1801)
Did not premaritally cohabit	82.6 (800)	17.4 (168)	35.0 (968)
All Women	82.0 (2272)	18.0 (497)	100.0 (2769)

*Numbers of cases are reported in parentheses.

Table 2: Sample means of selected characteristics of ever-married women by premarital cohabitation experience and status of first marriage at time of survey.

	Women who did premaritally cohabit		Women who did not premaritally cohabit	
	First marriage		First marriage	
	Dissolved	Intact	Dissolved	Intact
Age at survey	35.1	33.1	38.3	37.3
Age at first marriage	22.0	24.0	21.1	22.3
Age at cohabitation	20.4	21.9	--	--
Premarital conception	.64	.53	.57	.37
Premarital birth	.38	.31	.19	.10
One or more marital births	.67	.82	.86	.93
Premaritally cohabited more than once	.06	.09	-0-	.003*
Occupation of main breadwinner during childhood:				
Salaried employee	.26	.25	.28	.24
Skilled or unskilled worker	.48	.49	.43	.40
Farmer or self-employed	.26	.26	.29	.36
Education:				
Less than secondary	.78	.65	.72	.75
Completed secondary	.09	.17	.11	.10
More than secondary	.13	.18	.17	.15

*Two women premaritally cohabited more than once, though they did not cohabit immediately prior to their first marriage.

Table 3: Percentage distribution of duration of premarital cohabitation with first husband.

Duration (months)	Percent
1-3	12.9
4-6	10.8
7-9	8.5
10-12	8.4
1-12	40.6
13-18	13.9
19-24	10.2
25-30	7.9
31-36	5.1
13-36	37.1
37-48	9.1
49-60	5.1
>60	8.1
>36	22.3

Table 4: The monthly hazard of marital dissolution and covariate effects--preliminary model.

Covariate	Parameter (standard error)	Antilog
Premarital cohabitation = 1-3 months	.4966 (.1572)	1.643
Premarital cohabitation >3 months	.5825 (.1047)	1.790
Premarital cohabitation >1 time	.3039* (.2529)	1.355
Age at marriage <21 years	.6486 (.0954)	1.913
Premarital birth	.4172 (.1050)	1.518
First marital birth	-.2889 (.1220)	.749
Education:**		
Completed secondary	.0741* (.1578)	1.077
More than secondary	.1611* (.1383)	1.175
Occupation of main breadwinner during childhood:***		
Skilled or unskilled worker	.0026* (.1104)	1.003
Salaried employee	.3785 (.1254)	1.460

Table 4 (continued):

Duration (in years)	Parameter (standard error)	Monthly Hazard (λ)	Annual Dissolution Probability ($1-\exp[-12\lambda]$)
0-1	-7.568 (.171)	.000517	.00618
2-4	-7.117 (.170)	.000811	.00969
5-7	-7.246 (.189)	.000713	.00852
8-11	-7.150 (.189)	.000785	.00937
≧12	-6.970 (.184)	.000940	.01122

Number of observations = 2769
log likelihood = -3676.701

*Estimate not significantly different from zero at the .05 level.

**Omitted category is "less than secondary school graduate."

***Omitted category is "farmer or self-employed."

Table 5: The monthly hazard of marital dissolution and covariate effects--simple model.*

Covariate	Parameter (standard error)	Antilog
Premarital cohabitation	.5778 (.0991)	1.782
Age at marriage <21 years	.6174 (.0933)	1.854
Premarital birth	.4141 (.1018)	1.513
First marital birth	-.2935 (.1218)	.746
Occupation of main breadwinner during childhood = salaried employee	.4079 (.1034)	1.504

Duration (in years)	Parameter (standard error)	Monthly Hazard (λ)	Annual Dissolution Probability ($1-\exp[-12\lambda]$)
0-1	-7.511 (.155)	.000547	.00654
2-4	-7.064 (.154)	.000855	.01021
5-7	-7.202 (.175)	.000745	.00890
8-11	-7.115 (.176)	.000813	.00971
≥12	-6.939 (.172)	.000970	.01157

Number of observations = 2769
log likelihood = -3678.239

*All parameter estimates are statistically significant at the .05 level.

Table 6: The monthly hazard of marital dissolution and covariate effects--premarital cohabitation as a duration-dependent parameter.

Covariate	Parameter (standard error)	Antilog
Age at marriage <21 years	.6306 (.0935)	1.879
Premarital birth	.4015 (.1020)	1.494
First marital birth	-.2958 (.1222)	.744
Occupation of main breadwinner during childhood = salaried employee	.4006 (.1034)	1.493

Duration (in years)	Parameter (standard error)	Monthly Hazard (λ)	Annual Dissolution Probability ($1-\exp[-12\lambda]$)	Premarital Cohabitation Parameter (standard error)	Premarital Cohabitation Antilog
0-1	-7.990 (.310)	.000339	.00406	1.171 (.328)	3.226
2-4	-7.109 (.202)	.000818	.00977	.641 (.200)	1.899
5-7	-7.381 (.242)	.000623	.00745	.830 (.244)	2.294
8-11	-6.976 (.203)	.000934	.01115	.345* (.211)	1.412
≧12	-6.806 (.186)	.001107	.01320	.293* (.197)	1.341

Number of observations = 2769
log likelihood = -3740.928

*Estimate not significantly different from zero at the .05 level.

Table 7: The monthly hazard of marital dissolution and covariate effects--only women who premaritally cohabited.

Covariate	Parameter (standard error)	Antilog
Age at marriage <21 years	.7318 (.1204)	2.079
Premarital birth	.3253 (.1231)	1.384
First marital birth	-.3364 (.1412)	.714
Occupation of main breadwinner during childhood = salaried employee	.4282 (.1289)	1.534
Duration of Cohabitation =		
6-18 months	.1380* (.1456)	1.148
19-36 months	.0261* (.1725)	1.026
>36 months	.4323 (.1929)	1.541

Duration (in years)	Parameter (standard error)	Monthly Hazard (λ)	Annual Dissolution Probability ($1-\exp[-12\lambda]$)
0-1	-6.981 (.190)	.000929	.01109
2-4	-6.602 (.196)	.001358	.01616
5-7	-6.660 (.218)	.001282	.01527
8-11	-6.721 (.228)	.001206	.01437
≥12	-6.603 (.233)	.001357	.01615

Number of observations = 1800
log likelihood = -2634.804

*Estimate not significantly different from zero at the .05 level.

Table 8: The monthly hazard of marital dissolution and covariate effects--only women who did not premaritally cohabit.

Covariate	Parameter (standard error)	Antilog
Age at marriage <21 years	.5553 (.1613)	1.742
Premarital birth	.4560 (.2029)	1.578
First marital birth	-.0307* (.2587)	.970
Occupation of main breadwinner during childhood = salaried employee	.3618 (.1738)	1.436

Duration (in years)	Parameter (standard error)	Monthly Hazard (λ)	Annual Dissolution Probability ($1-\exp[-12\lambda]$)
0-1	-8.028 (.330)	.000326	.00391
2-4	-7.262 (.279)	.000702	.00839
5-7	-7.574 (.327)	.000513	.00614
8-11	-7.182 (.305)	.000761	.00908
≧12	-7.012 (.300)	.000901	.01076

Number of observations = 969
log likelihood = -1305.476

*Estimate not significantly different from zero at the .05 level.

Table 9: Proportion of marriages estimated to result in separation by duration x.

Duration (in completed years)	Proportion Group 1	Group 2	Group 3	Group 4
1	.004	.011	.011	.048
2	.008	.021	.022	.094
3	.016	.044	.038	.157
4	.024	.066	.053	.216
5	.033	.087	.069	.271
6	.039	.102	.083	.319
7	.044	.117	.097	.364
8	.050	.132	.111	.406
9	.059	.154	.124	.443
10	.067	.175	.136	.477
11	.076	.195	.149	.510
12	.084	.215	.161	.540

Group 1 = Did not cohabit, age at marriage greater than 20, no premarital birth, no marital birth, main breadwinner's occupation during respondent's childhood not salaried employee.

Group 2 = Did not cohabit, age at marriage less than or equal to 20, premarital birth, no marital birth, main breadwinner's occupation during respondent's childhood not salaried employee.

Group 3 = Did cohabit for three years or less, age at marriage greater than 20, no premarital birth, no marital birth, main breadwinner's occupation during respondent's childhood not salaried employee.

Group 4 = Did cohabit for more than three years, age at marriage less than or equal to 20, premarital birth, no marital birth, main breadwinner's occupation during respondent's childhood not salaried employee.

FIGURE 1

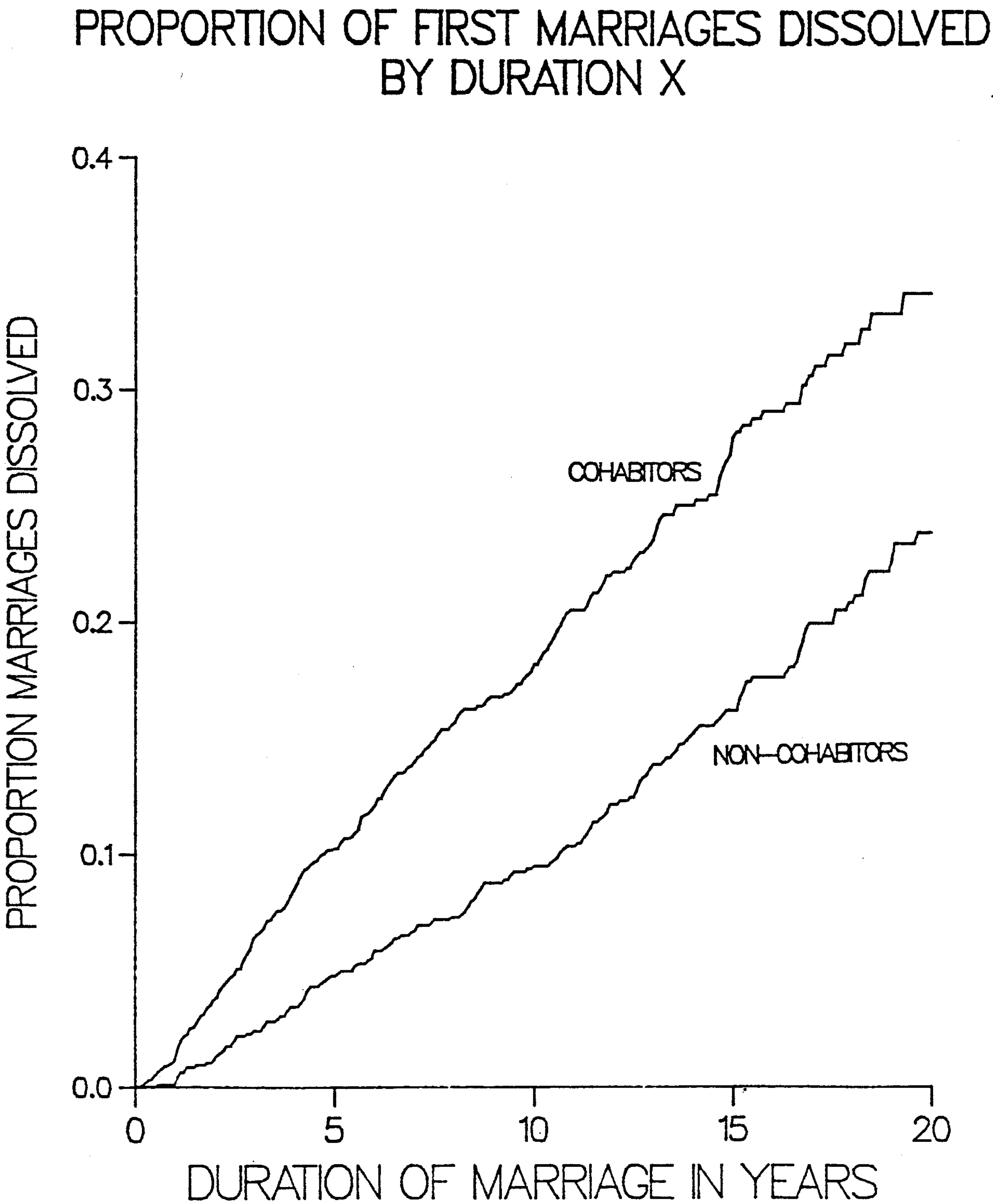
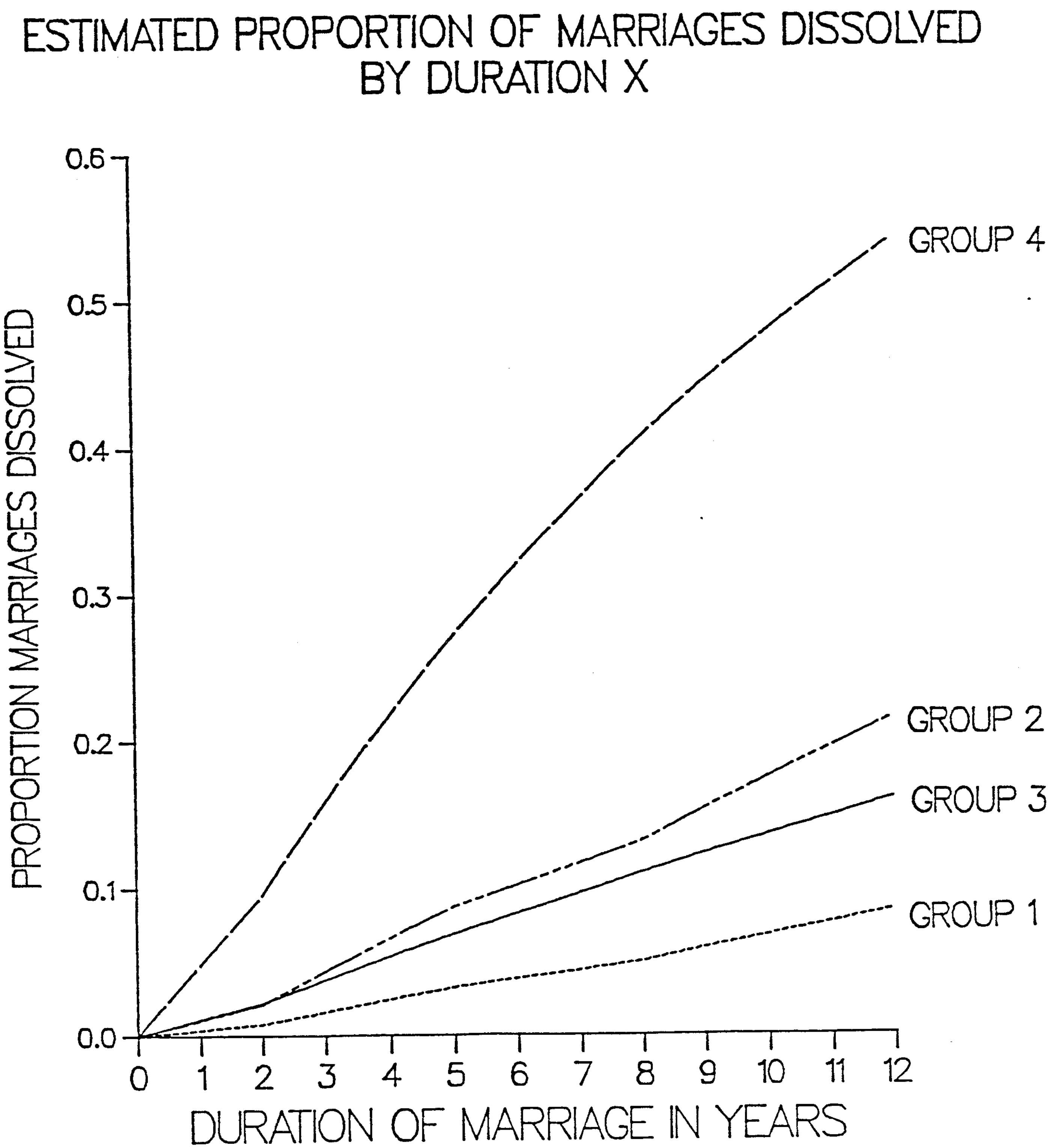

PROPORTION OF FIRST MARRIAGES DISSOLVED
BY DURATION X
PROPORTION MARRIAGES DISSOLVED
0.4
0.3
0.2
0.1
0.0
COHABITORS
NON-COHABITORS
0
5
10
15
20
DURATION OF MARRIAGE IN YEARS

FIGURE 2


ESTIMATED PROPORTION OF MARRIAGES DISSOLVED
BY DURATION X
0.6
0.5
0.4
0.3
0.2
0.1
0.0
PROPORTION MARRIAGES DISSOLVED
GROUP 4
GROUP 2
GROUP 3
GROUP 1
0 1 2 3 4 5 6 7 8 9 10 11 12
DURATION OF MARRIAGE IN YEARS

REFERENCES

Audirac, Pierre-Alain. 1982. "Cohabitation et Mariage: Qui Vit avec Qui?" Economie et Statistique, No. 145, June 1982, pp. 41-59.

Balakrishnan, T. R., K. V. Rao, Evelyne Lapierre-Adamcyk, and Karol J. Krotki. 1986. "A Hazards Model Analysis of the Covariates of Marriage Dissolution in Canada." Paper presented at the meetings of the Population Association of America, April 3-5, San Francisco.

Becker, Gary S., Elisabeth M. Landes, and Robert T. Michael. 1977. "An Economic Analysis of Marital Instability." Journal of Political Economy 85(6): 1141-1187.

Bernard, Jessie. 1972. The Future of Marriage. Toronto: Bantam Books.

Bernhardt, Eva and Britta Hoem. 1985. "Cohabitation and Social Background: Trends Observed for Swedish Women Born 1936-60." Stockholm Research Reports in Demography No. 23.

Blanc, Ann Klimas. 1985. The Effect of Nonmarital Cohabitation on Family Formation and Dissolution: A Comparative Analysis of Sweden and Norway. Unpublished Ph.D. dissertation, Princeton University.

Blumstein, Phillip and Pepper Schwartz. 1983. American Couples: Money, Work, Sex. New York: William Morrow.

Brown, A. and K. Kiernan. 1981. "Cohabitation in Great Britain: Evidence from the General Household Survey." Population Trends 25: 1-8.

Carlson, Elwood. 1986. "Couples without Children: Premarital Cohabitation in France." In Kingsley Davis (ed.) with A. Grossbard-Schechtman, Contemporary Marriage: Comparative Perspectives of a Changing Institution, New York: Russell Sage Foundation.

Cherlin, Andrew. 1977. "The Effect of Children on Marital Dissolution." Demography 14(3): 265-272.

_______________. 1981. Marriage, Divorce, Remarriage. Cambridge: Harvard University Press.

Cox, D. R. and D. Oakes. 1984. Analysis of Survival Data. London: Chapman and Hall.

Davis, K. 1983. "The Future of Marriage." Bulletin--The Academy of Arts and Sciences 36: 15-43.

DeMaris, Alfred and Gerald R. Leslie. 1984. "Cohabitation with the Future Spouse: Its Influence upon Marital Satisfaction and Communication," *Journal of Marriage and the Family* 46(1): 77-84.

Festy, P. 1980. "Aspects Demographiques de la Formation de la Famille en Europe Occidentale," in J. Eekelaar and S. Katz (eds.), *Marriage and Cohabitation in Contemporary Societies*. Toronto: Butterworth and Co.

Glick, Paul C. 1984. "Marriage, Divorce, and Living Arrangements: Prospective Changes." *Journal of Family Issues* 5(7): 7-26, March 1984.

Hoem, Jan. 1985. "The Impact of Education on Modern Union Initiation." Stockholm Research Reports in Demography No. 27.

Macklin, Eleanor D. 1978. "Nonmarital Heterosexual Cohabitation." *Marriage and Family Review* 1(2): 1-12.

Mead, Margaret. 1966. "Marriage in Two Steps." *Redbook*, July 1966: 48-49, 84-85.

Menken, Jane, James Trussell, Debra Stempel, and Ozer Babakol. 1981. "Proportional Hazards Life Table Models: An Illustrative Analysis of Socio-demographic Influences on Marriage Dissolution in the United States." *Demography* 18(2): 181-200.

Morgan, S. Philip and Ronald R. Rindfuss. 1985. "Marital Disruption: Structural and Temporal Dimensions." *American Journal of Sociology* 90(5): 1055-1077.

Murphy, M. J. 1985. "Demographic and Socio-economic Influences on Recent British Marital Breakdown Patterns." *Population Studies* 39(3): 441-460.

Norton, Arthur J. 1983. "Keeping Up with Households." *American Demographics*, February 1983, pp. 17-21.

Rosenblatt, Paul C. and Linda G. Budd. 1975. "Territoriality and Privacy in Married and Unmarried Cohabiting Couples." *The Journal of Social Psychology* 97: 67-75.

Teachman, Jay D. 1982. "Methodological Issues in the Analysis of Family Formation and Dissolution." *Journal of Marriage and the Family* 44(4): 1037-1053.

Thornton, Arland. 1977. "Children and Marital Stability." *Journal of Marriage and the Family* 39(3): 531-540.

Trost, J. 1980. "Cohabitation without Marriage in Sweden," in J. Eekelaar and S. Katz (eds.), *Marriage and Cohabitation in Contemporary Societies*. Toronto: Butterworth and Co.

Tuma, Nancy B. 1979. *Invoking RATE* (2nd ed.). Menlo Park, CA: SRI International.

Waite, Linda J., Gus W. Haggstrom, and David E. Kanouse. 1985. "The Consequences of Parenthood for the Marital Stability of Young Adults." American Sociological Review 50(6): 850-857.

Westoff, Charles F. 1978. "Some Speculations on the Future of Marriage and Fertility." Family Planning Perspectives 10(2): 79-83, March/April.