

Interracial Marriage and Marital Instability

by

Rose M. Kreider

Rose.Kreider@census.gov

Population Association of America

Los Angeles CA, March 24, 2000

This paper reports the results of research and analysis undertaken by Census Bureau staff. It has undergone a more limited review than official Census Bureau publications. This report is released to inform interested parties of research and to encourage discussion. The views expressed in this paper are those of the author(s) and do not necessarily represent the views of the U.S. Census Bureau.

This paper is based on my dissertation in Sociology written at the University of Maryland, College Park. The views expressed in this paper are those of the author and do not necessarily represent the views of the US Census Bureau.

Note that this paper was completed before I came to work for the Census Bureau, and that I do not use race and ethnicity in the same way as the Bureau.

PAA Abstract
Rose Kreider

This paper uses the 1995 *National Survey of Family Growth* to consider whether interracial first marriages are less stable than endogamous marriages. While some characteristics typical of interracial couples predict that they should be more stable, others predict less stability. Using a life table, I find that interracial first marriages are 1.4 years shorter on average than endogamous first marriages. I calculate survival curves for various subgroups to see whether there are particular interracial couples who are less stable than endogamous couples. I find that interracial couples who married young are more likely to divorce than those who married later. Using event history analysis, I find that after controlling for determinants of divorce, interracial couples are about 50 percent more likely to divorce than endogamous couples, although as a predictor, being in an interracial couple is less important than many other characteristics we know to predict an increased risk of divorce.

As an indicator of social distance (Muhsam 1990), interracial marriage reflects the way social interaction is structured in a society and so allows us to look at the current state of race relations (Tinker 1982; Kalmijn 1993). In the 20th century, the distance between ethnic groups has been decreasing. The increase in intermarriage is one indicator of the changes in boundaries between groups. Using census data, Stevens and Tyler (1998) estimate that the percentage of all marriages which were interracial (not including Hispanics as a separate category) increased from .4 percent in 1960 to 2.9 percent in 1990.¹ Between 1980 and 1990, interracial marriage increased within all gender, educational and racial groups, but especially among the more educated (Qian 1997). The most recent data available—the March 1998 Current Population Survey, shows that 5 percent of all married couples are interracial, including Hispanic as one of the categories (Population Today 1999).

But while an increase in interracial marriage may move us closer to a multiracial society, there is some concern that these marriages are less stable than marriages where spouses are from the same racial group. There is a small literature which has looked at interracial marriage and marital disruption, and supports the idea that in general, interracial and interethnic marriages are less stable than same race unions.

In Table 1, we see that the 1995 National Survey of Family Growth (NSFG) shows a higher divorce² rate for interracial first marriages.

¹ Estimates in other work fall well in line with these numbers (Porterfield 1982 in Cretser and Leon 1985; Spanier 1983; Besharov and Sullivan 1996).

² Note that I am including separation and divorce, but will just use the words divorce or disruption throughout. Since separated couples seldom reunite, combining separation and divorce should make little difference (Bumpass, Martin, Sweet 1991).

Table 1. Percent of First Marriages Ending in Separation or Divorce 1995 NSFG

	Same Race	N	Different Races	N
Married	65.10 %	4,008	59.82 %	402
Divorced or Separated	34.90 %	2,149	40.18 %	270
Total	100 %	6,157	100 %	672

Source: 1995 NSFG. Chi square=7.37 p<.007

Using the 1995 NSFG, this paper addresses the following questions: Are interracial marriages less stable than same race unions? What factors help explain the differential stability between same race and interracial marriages?

In this paper, I use the 1995 National Survey of Family Growth (NSFG) to consider whether interracial first marriages are shorter in duration, and what factors may help explain this. First, after discussing the data and the theoretical approach to creating the models, I use a life table to look at the duration of the marriage, and whether interracial first marriages are shorter than endogamous first marriages. I calculate survival curves for various subgroups in order to see whether there are certain interracial couples who are less stable than endogamous couples. Second, I do a discrete time event history analysis using logistic regression to attempt to explain the differential disruption rates of endogamous and interracial first marriages.

Much of the research on interracial marriage in the US focuses on why people enter such unions, has tended to look only at intermarriage between two groups, e.g., blacks and whites, or has described changes in the prevalence of interracial marriage over time. Previous work in this area uses data from the late 1960s and the 1970s (Monahan 1970; Heer 1974; Schwertfeger

1982; Jones 1996), or the samples are confined to Hawaii (Monahan 1966; Ho and Johnson 1990) Iowa (Monahan 1970) or Kansas (Monahan 1971b). This paper adds to the literature by:

1. providing a look at the stability of interracial marriages as compared with endogamous marriages;
2. using a recent data source; and
3. using a nationally representative data source.

It is important to know just how much more likely interracial couples are to disrupt, and what factors might help explain the gap in disruption rates. If an increase in interracial marriages will make divorce even more common, this is an issue that needs to be addressed. Consequences for the children who are involved are also important, since divorce affects women and children more negatively than men (Duncan and Hoffman 1985; Hoffman and Duncan 1988; Holden and Smock 1991; Smock 1993; Peterson 1996; Bianchi, Subaiya, and Kahn 1999). Divorce leaves more children in single parent households, which increases the risk of negative outcomes for children (McClanahan and Sandefur 1994).

INTERRACIAL MARRIAGE AND DIVORCE

A small literature has explored whether interracial and interethnic marriages are more or less stable than endogamous marriages. The evidence is conflicting, and the studies vary in the methods and data they use. There has been perhaps more speculation than actual research on the topic, partly due to a lack of good data which would allow comparisons of divorce rates for interracial and same race marriages for a representative sample. Census data, virtually the only data source large enough to obtain decent sample sizes for the various interracial combinations, have no direct measures of marital dissolution, and provide only a snapshot of current marriages. Vital statistics data--marriage and divorce records--are not comparable for the entire United

States since reporting and collection varies by state. As Monahan repeatedly stresses, race data is no longer collected in vital statistics data in many states, some of them states where we might expect a higher prevalence of interracial marriage, since they are in the West or have large metropolitan populations, e.g. New York and California (1966; 1970; 1971a; 1971b; 1976a). Longitudinal data on interracial couples have been virtually non-existent, due to the relatively rare nature of interracial marriage.

I argue in the rest of this section that the literature shows mixed marriages to be less stable. The reader should be aware, however, that the conclusion that mixed marriages may be less stable is based on a literature that draws together a wide variety of studies using unrepresentative samples and less than ideal methods.

The less supported position in the literature is that intermarriages are more stable than same race marriages. The studies in which this has been the finding have usually found that divorce rates for various interracial combinations fall between those for same race marriages for the races involved in the particular combination (Monahan 1966; Monahan 1970; Ho and Johnson 1990; Jones 1996). So, the divorce rate for Chinese couples is very low, and that for endogamous whites is higher than for endogamous Chinese couples, but the rate for Chinese-white interracial couples falls between the other two rates.

Monahan appears to be the main proponent of the idea that interracial marriages are at the least not much less stable than same race unions; (also Lynn 1953 cited in Cretser and Leon 1985) that the difference has decreased over time in Hawaii (Monahan 1966; Ho and Johnson 1990); and that in some cases interracial unions are more stable (Monahan 1971b). Although Schmitt (1969) does not discuss this topic, his study shows that the number of divorces granted

during 1964-1966 per 100 marriages contracted during 1961-1963 in Hawaii was quite similar for same race and interracial couples--22.5 and 22.1 respectively. As he notes, divorce ratios differed more by age gap between the spouses than by racial differences. But, methodological concerns about these studies include the fact that the samples were small and unrepresentative, since they were neither in the South nor in large cities (Spickard 1989:328). Schmitt's study (1969) suffers from the "migratory divorce" problem which I discuss below.

The bulk of the literature supports the other position--that intermarriages are less stable than intramarriages. If indeed we are more inclined to trust the literature which shows that interracial marriages are less stable than same race marriages, in general, how big is the difference? In Table 2, which compiles the findings of studies that compared divorce ratios for same race marriages and intermarriages, we see that although three studies (Schmitt 1969; Monahan 1970; Ho and Johnson 1990) found that in some cases mixed marriages had a lower divorce ratio than same race marriages, eight studies found that mixed marriages had a higher risk of divorce, (Cheng and Yamamura 1957; Monahan 1966; Monahan 1970; Monahan 1971b; Heer 1974; Schwertfeger 1982; Rankin and Maneker 1988; Ho and Johnson 1990).

With respect to the studies which show mixed marriages as more stable than same race marriages, Schmitt (1969) does not say whether the difference between the two types of couples is significant, but it is substantively very small. Monahan (1970) finds that only one interracial combination of those which he considers is more stable than endogamous marriages, that being black husband white wife couples. Ho and Johnson's (1990) results reverse depending on the group of marriages used as the base. They use 1986-1988 Hawaiian marriage and divorce data and find that interethnic marriages are more stable when considering resident marriages as the

base, but that same race marriages are more stable when considering all marriages as the base.

Table 2 Compilation of Findings Comparing the Stability of Interracial and Same Race Marriages

Author and Year	Measure	Findings	Time Period and Data
Interracial Marriages More Stable than Same Race Marriages			
Schmitt 1969	divorce ratio	22.5 same race 22.1 mixed	1964-66 divorces 1961-63 marriages Hawaii
Ho and Johnson 1990	divorce ratio	54.0 same race 37.2 mixed, by race of wife 38.7 mixed, by race of husband	1985-87 divorces and resident marriages Hawaii
Interracial Marriages Less Stable than Same Race Marriages			
Cheng and Yamamura 1957	divorce ratio	20.4 same race 29.8 mixed	1952-54 divorces 1945-54 marriages Hawaii
Monahan 1966	divorce ratio	18.8 same race 20.2 mixed	1958-62 divorces 1956-1962 marriages Hawaii
Monahan 1970	divorce ratio	19.4 endog. Whites 39.1 endog. Blacks 35.1 White Husband, Black Wife 16.8 Black Husband, White Wife	1955-67 divorces 1948-54 marriages Iowa
Monahan 1971b	divorce ratio	27 same race 45 mixed	1952-69 divorces 1949-66 marriages Kansas
Heer 1974	compares # 1950-60 marriages with # of same type marriages in 1970 census	22.2 % endog. black 10.2 % endog. white 53.3 % white husband-black wife 36.6 % black husband-white wife	1960 and 1970 marriages US Census and Vital Statistics Data
Schwertfeger 1982	percent divorcing by second data point	13.8 % endogamous 19.2 % mixed	1 st marriages of civilian residents 1968, followup 1976 Hawaii
Rankin and Maneker 1988	median marital duration in years	5.4 years endogamous white 5.1 years endogamous black 6.5 years endogamous other 2.9 years white-black 4.7 years white-other 5.0 years black-other	1977 divorces, California
Ho and Johnson 1990	divorce ratio	24.6 same race 33 mixed, by race of wife 35.1 by husband's race	1985-87 divorces and all marriages, Hawaii

This is due to the fact that a relatively large proportion of marriages contracted in Hawaii are to

nonresident endogamous Caucasians who are likely to divorce elsewhere if they divorce. A similar concern about “migratory divorces” is raised by Monahan (1971b). When using state vital statistics data—marriage and divorce records, there is some slippage since the divorces recorded in the state may not have resulted from marriages contracted in the state. Hawaii may be an extreme example, since one third of couples divorced in Hawaii were married elsewhere (Schmitt 1969). There could also be differential migration of interracial and same race couples into or out of the state. In any case, besides methodological concerns, since intermarriage in Hawaii has a very different history and context than intermarriage in the continental US, it would be ill advised to conclude based on these two studies that mixed marriages are more stable than endogamous marriages.

Moving to the section of Table 2 which lists studies which have found interracial marriages to be less stable than same race marriages, we see that the differential in stability varies across the samples and depends on the particular combination being considered. While Monahan (1966) finds a relatively small difference in the divorce ratio for the two couple types in Hawaii, about 1.4 additional divorces per 100 marriages, his Kansas sample (1971b) shows a difference of 18 divorces per 100 marriages. The other two studies using the divorce ratio fall between Monahan’s, with mixed marriages having a divorce ratio which is 9.4 (Cheng and Yamamura 1957) and 8.4 to 10.5 (Ho and Johnson 1990) points higher for mixed marriages than same race.

The remaining studies use measures other than the divorce ratio to estimate the difference in stability between interracial and same race marriages. These measures include a longitudinal study which considers the percent of marriages at a given time point which divorce by a second

point in time, median years of duration, and a comparison of the number of marriages of particular racial combinations at two points in time.

The first is Heer's (1974) study using 1960 and 1970 US census data. Heer looks at the number of first marriages (common-law or legal) contracted during 1950-60 and compares that with the number of the same such marriages in the 1970 census. He then calculates a percentage of the marriages of a particular racial combination that are still intact. If we reverse his percentages to indicate the percentage no longer intact, although of course the data are confounded by migration and mortality, we find that 10.2 percent of endogamous white couples were no longer intact, as compared with 22.2 percent of endogamous black couples. The corresponding percentages no longer intact for white husband/black wife couples and black husband/white wife couples, respectively, were 53.3 and 36.6 percent. So, from Heer's study, we might conclude that the gap is rather large.

A second study which does not use the divorce ratio is the panel study which, like most of the studies listed in Table 2, was done in Hawaii (Schwertfeger 1982). This study looks at first marriages of civilian residents contracted in 1968 in Hawaii, and follows them through 1976. About 14 percent of the endogamous marriages divorce, while 19 percent of the mixed marriages divorce. The differential in stability in this study is smaller than in Heer's (1974) study, but Schwertfeger's sample is from Hawaii, and she looks at intermarriage between six groups rather than only between whites and blacks, as Heer does.

The third study which provides some estimate of the differentials in stability between mixed and same race marriages is by Rankin and Maneker (1988). Using a 10 percent random

sample of divorce cases in California in 1977, they found that interracial marriages were roughly 1-2 years shorter than that of endogamous couples, on average.

Because of the migratory divorce problem as well as the lack of real measures of stability in vital statistics data, it seems preferable to use other types of data to study the stability of interracial marriages. The methodological weaknesses and limited scope of the samples used in the few studies which concluded that interracial marriages are more stable, or nearly as stable as same race unions, make it inadvisable to conclude that mixed marriage are more stable than same race marriages overall. Indeed, the evidence from the bulk of the literature is that mixed marriages tend to be less stable, although this clearly varies by the particular interracial combination. The higher rates of divorce for mixed marriages hold across several different types of samples, and across studies which use several different methods of estimating stability.

There are at least three reasons it is time for an in-depth look at interracial marriage and marital stability. The first reason is that most of the studies in the area were done in the late 1960s and 1970s. Much has happened in terms of race relations in the US in the intervening years. The second reason is that the studies in this area provide inconclusive findings at best. This is due in part to the third reason, which is that a lack of good data forced researchers to use less than ideal methods and odd samples. This paper uses recent data which is nationally representative to study marital disruption among intermarried couples. The methods used in this paper—life table estimates and event history, are more appropriate for looking at marital stability than using the divorce ratio based on marriage records. Since race relations are at the forefront of major issues facing the US today, we need better information about the interaction of racial

groups within marriages and families.

DATA

The Cycle V NSFG is a nationally representative sample of 10,847 civilian noninstitutionalized women aged 15-44 as of April 1, 1995. The response rate was 79 percent. (Abma 1997) Hispanic women and non-Hispanic black women were oversampled (Potter et al 1998). Since the NSFG did not collect race data on second or subsequent husbands unless they are a current husband, I analyze all first marriages in the sample, whether past or present. There are 6,829 women in the sample who have had, or are currently in their first marriage. Of these marriages, 672 are interracial as defined below. Thirty five percent of the endogamous first marriages ended in separation or divorce by 1995, while 40 percent of the interracial marriages ended in divorce or separation. (See Table 1.)

The advantages of using the 1995 NSFG to look at the question of interracial unions and stability are that the data set is recent, nationally representative, and includes information on marital dissolution. The disadvantages are that the NSFG was not designed to look at union stability, and so does not include measures about the quality of the union itself which might help predict stability, as well as the fact that all data were collected from the woman, rather than from both spouses. Other disadvantages of the NSFG include the restriction to first marriages, made necessary by the fact that race of subsequent husbands, except current husbands, was not collected.³ Although the NSFG was not designed to study union stability, it is possible to look at

³ I also considered analyzing first unions rather than first marriages, but this was not possible. Out of 1,379 cohabiting unions, the race of the woman's first cohabiting partner is present for only 125 cases where the woman had a first union that was a cohabitation that dissolved.

the issue because a full marital history was collected, as well as characteristics of spouses.

Which Marriages are Interracial?

I define an interracial marriage as a marriage in which the spouses are identified as falling into different categories where the choices are: American Indian, Asian, Black, White and Hispanic. In the NSFG, Hispanic origin is asked as a separate question from race; I have coded race of the spouses so that Hispanic origin overrides the race reported for that spouse. If an individual reported that he or she was white in the question that asked for race, but reported that they were of Hispanic origin, I code him or her as Hispanic. So the racial categories I use are non-Hispanics of all races, and a Hispanic category which may include persons of any race.

Race in the NSFG

The 1995 wave of the NSFG allowed respondents to report more than one race; they could report up to four races. They were also asked to report one race which “best described” the person. In the NSFG, race reports for the respondent are self-identified, but the respondent also reports the race of all other individuals referenced in the survey. So we have the race of the respondent’s first husband as reported by the respondent. A relatively low percentage of the respondents reported more than one race for themselves--1.2 percent. The percentage is even smaller for first husbands--.8 percent.

To take advantage of the way race was collected in the NSFG, I use the race which the respondent says best describes the person if more than one race is reported. Since racial identification is subjective, it makes more sense to use the race specified by the respondent when asked specifically what one race best describes the individual, rather than just taking the first race

the woman mentioned.

INDEPENDENT VARIABLES

Predictors of Marital Disruption

Although divorce rates have declined in the United States since 1980 (Goldstein 1999), they are the highest in the world (Carter and Glick 1976; Goldstein 1999). As divorce rates rose in the United States in the 1960s and 1970s, research focused on its determinants: What characteristics of spouses and marriages are associated with a higher likelihood of divorce or separation? White (1990) lists the main determinants as: previous marriages, parental divorce, cohabitation, age at marriage, premarital childbearing and premarital pregnancy, childlessness, age and marital duration, race, marital happiness, marital interaction, socioeconomic level, and women's employment. I will briefly discuss determinants which I am able to measure using the NSFG, dividing them into determinants for which the difference between interracial and endogamous couples would lead us to hypothesize that interracial couples will be more likely to divorce, and determinants for which the difference between the two couple types would lead us to hypothesize that interracial couples should be less likely to divorce.⁴

First I will discuss characteristics of the wife, husband, and couple which we would expect to raise the chances of divorce for interracial couples. These include the husband's previous marriage (since all wives are in their first marriage), premarital cohabitation, a wife who did not grow up in a two parent family, childlessness, and husbands to whom religion was not "very important." Second, I will deal with characteristics of each spouse and of the couple which

⁴ Since White has already organized the literature through the 1980s, I will not repeat this, but will instead add studies which have been published since her article appeared in 1990.

should lower the chances of divorce for interracial couples as compared with endogamous couples. These include wife's later age at marriage, husband's higher educational attainment, wives who are foreign born, and wives who are not African American. In each case, I will describe the variable and how I coded it, and I will also compare interracial and endogamous couples on the mean for the variable. Table 3 lists the coding for each variable and the expected finding with respect to the difference between interracial and endogamous couples.

Differences Leading to Higher Likelihood of Divorce for Interracial Couples

Interracial couples, as compared with endogamous couples, are more often previously married, are more likely to cohabit before marriage, are less likely to have grown up in a two-parent family, are more often childless, and are less likely to be religious. Past research suggests that each of these characteristics increases the risk of divorce. The NSFG provides measures of each of these characteristics.

The debate about whether premarital cohabitation raises the chances of divorce continues in the literature, although most studies have found this to be the case (Bennett, Blanc, and Bloom 1988; Bumpass and Sweet 1989; Krishnan 1998). Studies which offer reasons why cohabitators have higher rates of divorce say that perhaps cohabitators are more likely to see divorce as a viable solution since they are already used to living under the stigma of cohabiting (Booth and Johnson 1988), or that cohabitators are less committed to long-term relationships and have less traditional views about family (Bumpass, Sweet and Cherlin 1991). On the other hand, Teachman and Polonko (1990) found that when they included the total time in the union, rather than only the time married, that couples who cohabited before marriage had similar disruption patterns and

rates as those who did not cohabit.

Table 3. Coding of NSFG Variables

Variable	Coding	Expected Finding
Characteristics that Predict Higher Chance of Divorce for Interracial Couples		
Premarital Cohabitation	1 = cohabited before marrying 0 = couple did not cohabit	Interracial couples will be more likely to cohabit before marriage. Cohabitation increases the likelihood of divorce.
Husband Previously Married	1 = Previously married (All wives are in first marriage) 0 = Not previously married	Higher proportion of husbands in interracial marriages will be previously married. Previous marriage increases the likelihood of divorce.
Grew up in Two Parent Family	1 = Wife grew up in a 2-parent family from birth 0 = All other family situations	Women in interracial couples will be less likely to have grown up in a 2-parent family. Growing up in a single parent family increases the risk of divorce.
Religion Very Important to Husband	1 = Wife reports religion "very important" to first husband 0 = Wife reports religion "somewhat important" or "not important" to husband	Husbands in interracial marriages will be less likely to see religion as "very important." Less religious individuals will be more likely to divorce.
Childless	1 = Couple has no children 0 = Couple has children	Interracial couples will be more likely to be childless. Childless couples divorce more frequently than couples with children.
Characteristics that Predict Lower Chance of Divorce for Interracial Couples		
Wife's Age at Marriage	1 = Age 15 to 20 0 = Age 21 to 49	Women in interracial marriages marry later. Later marriage reduces the risk of divorce.
Wife Foreign Born	1 = foreign born 0 = US born	Women in interracial marriages will be more likely to be foreign born. Foreign born individuals are less likely to seek divorce than the native born.
Wife Black	1 = Black 0 = Non-Black	Respondents in interracial first marriages are less likely to be black since blacks have a low intermarriage rate. Being non-black lowers the risk of divorce.
Husband's Education	Years of schooling at the time of first marriage, coded as: Less than high school, high school grad, some college, college grad	Husbands in interracial marriages will have higher education. The more education the lower the risk of divorce.

The literature on interracial marriage does not discuss whether interracial couples would be more likely to cohabit, but we might assume this to be true since these couples are willing to

go against other societal norms to marry across racial lines. Since relationship histories were collected from the women, we know whether the couple cohabited before marrying. In 45 percent of the interracial first marriages in the NSFG, the couple cohabited before marrying, compared with 35 percent of the endogamous couples.

Individuals in interracial marriages are more likely to be remarried than those in endogamous marriages. In Table 4, which shows the means for characteristics of the couples which affect their chance of divorce, we see that the husband was previously married in 19 percent of the interracial couples, as compared with 15 percent of endogamous couples. Higher order marriages have a higher failure rate (Martin and Bumpass 1989), so this characteristic of interracial couples leads to a prediction of a higher risk of divorce. The husband's characteristics are reported by the wife. All of the women are in their first marriage because of the necessity of limiting the sample to first marriages (see discussion of data earlier in this chapter), so the only variation is in whether the husband has been previously married.

Another variable I use in the models although it is not addressed in the literature as differing between interracial and endogamous couples is a dummy variable indicating whether the woman grew up in a two-parent household from birth, whether the two parents were biological or adoptive. This is a constructed variable (named INTCTFAM) which is provided on the NSFG public use data set. I expect this to be associated with a lower chance of divorce, since the literature indicates that children who have experienced the divorce of their parents are more likely to divorce when they marry. The higher risk of divorce is hypothesized to occur because people who have experienced the divorce of their parents are more likely to behave in ways that

Table 4 Means for Characteristics of Couples and the Relationship to Disruption, NSFG Regular Sample

Characteristics that Predict Higher Chance of Divorce for Interracial Couples			
	Interracial Couples	Same Race Couples	Difference
Premarital Cohabitation	.45	.35	***
Husband Previously Married	.19	.15	*
Grew up in Two Parent Family	.58	.66	***
Religion Very Important to Husb	.27	.30	
Characteristics that Predict Lower Chance of Divorce for Interracial Couples			
Wife Age 15 to 20 at Marriage	.41	.45	*
Wife Foreign Born	.15	.12	*
Wife Black	.07	.18	***
Wife Hispanic	.37	.13	***
Husband's Education			
% Less Than HS degree	.15	.19	**
% High School degree	.47	.43	
% Some College	.21	.21	
% College Graduate	.17	.18	

*=p<.05 **=p<.01 ***=p<.001 Source: 1995 NSFG regular sample, unweighted. Sample restricted to women married at least once, not missing on interracial indicator var and not missing on marital disruption var. Note that interracial couples are more often childless, which we expect to be associated with a higher chance of divorce. This variable is not presented here since it is created in the person year file.

hurt the quality of their relationship with their spouse (Bumpass, Martin and Sweet 1991; Amato 1996). Table 4 shows that women in interracial marriages are less likely to have grown up in a two parent family: 58 percent of the women in interracial marriages compared with 66 percent of the women in endogamous couples grew up in two parent families.⁵

Although the level of religiosity, or religious affiliation is not addressed in the literature

¹⁴ The NSFG collects a detailed childhood living situation history, so I also ran models with the number of living situations as a predictor, but it had no significant relationship to disruption.

about interracial couples, I include a measure of religiosity for the husband, since this has been shown to predict stability (Glenn and Supancic 1984; Call and Heaton 1997; Krishnan 1998). Although religious affiliation has been used as a predictor of stability in the past, it is no longer as useful (Lehrer 1996b). So although the NSFG collected information on the religious affiliation of the husband, I decided to use a measure of religiosity instead, as discussed below. Wives reported their current religious affiliation and their affiliation during childhood, but since affiliation is not a good predictor of stability and I have a report for the wrong time period, I did not use it.

Since religious affiliation has become less useful in predicting marital stability, researchers have begun to advocate the use of measures of religiosity instead. Measures of how frequently someone attends religious services tap into the amount of time the individual spends with members of their religious community as well as time which might be spent exposed to religious teaching (Glenn and Supancic 1984; Call and Heaton 1997; Krishnan 1998).

Since there is no measure of attendance at religious services for the husband, I use a variable which indicates importance of religion to the husband. It is the wife's report of whether religion was "very important," "somewhat important" or "not important" to her first husband. I collapse the last two categories together as the omitted category for the analysis. In cases where the wife is reporting about a former husband, this is probably a better general measure than if she had been asked to report frequency of attendance at religious services, which would appear to be more difficult to recall with accuracy, than simply how important religion was to him.⁶

⁶ Wives also reported how important religion was to them in their daily life at the time of the interview, as well as how often they attend religious services currently. The problem with using the wife's report of current religiosity is that divorce is likely to affect her view of religion,

Childlessness is associated with a higher risk of divorce (Wineberg 1988). Since interracial couples are more likely to be childless, I expect that the number of births may help predict divorce (Heer 1974; Rankin and Maneker 1988). Although the presence of young children may lessen the risk of divorce (White 1990), the actual number of children a couple has has not been found to be highly correlated with divorce (Waite and Lillard 1991). So, rather than including a total number of children born to the couple, I use a variable which indicates whether or not the couple is childless. Looking at Table 6, which provides the means for characteristics of the couple which influence the risk of divorce for the person year sample, we see that 30 percent of interracial couples are childless, as compared with 27 percent of endogamous couples. While the above listed characteristics of interracial couples would lead us to predict their chances of divorce should be higher than for endogamous couples, there are other characteristics of interracial couples which would lead us to expect that their chances of divorce should be lower than for endogamous couples.

Differences Leading to Lower Likelihood of Divorce for Interracial Couples

Some of the characteristics on which interracial couples differ from endogamous couples are associated with a lower likelihood of divorce. Interracial couples are often older when they marry, are more likely to be foreign born, are less likely to be black, and are likely to have higher education than endogamous couples. Each of these characteristics leads to a prediction of a

and perhaps her connection to her religious community. This is especially likely if she belonged to a religious group which stressed the importance of marriage (Call and Heaton 1997). Following divorce, individuals may question the usefulness of their religious beliefs, or be stigmatized by members of their religious community for what is seen as a transgression of religious rules. So I use only the report of how important religion was to the husband.

Table 6 Means for Characteristics of Couples and the Relationship to Disruption, NSFG Person Year Sample

Characteristics that Predict Higher Chance of Divorce for Interracial Couples		
	Interracial Couples	Same Race Couples
Premarital Cohabitation	.38	.26
Husband Previously Married	.14	.13
Grew up in Two Parent Family	.64	.71
Religion Very Important to Husband	.35	.35
Childless	.30	.27
Births	.17	.16
Miscarriages	.03	.03
Abortions	.01	.008
Characteristics that Predict Lower Chance of Divorce for Interracial Couples		
Wife Age 15 to 20 at Marriage	.45	.51
Wife Foreign Born	.18	.12
Wife Black	.06	.14
Wife Hispanic	.35	.12
Husband's Education		
% Less Than HS degree	.13	.19
% High School degree	.47	.41
% Some College	.23	.22
% College Graduate	.18	.18
N=	4,588	51,474

Source: 1995 NSFG person year file, unweighted, where event and interracial indicator variables are not missing.

lower chance of divorce for interracial couples as compared with endogamous couples. Age at marriage is an important predictor of divorce (Teachman 1986; Martin and Bumpass 1989; White 1990; Bumpass, Martin and Sweet 1991). The literature leads us to expect that women in interracial marriages will marry later, and hence will have a lower risk of divorce due to this factor (Monahan 1971a; Rankin and Maneker 1988; Sung 1990; Tucker and Mitchell-

Kernan 1990). Age at marriage was not collected for husbands. Respondent's age at marriage is included in the models as a dummy variable which indicates whether the woman was less than age 21 when she married. The omitted group is women whose first marriage occurred when they were 21 or older. The median age at marriage for the sample is 21. Forty one percent of the women in interracial couples married before age 21, while 45 percent of the women in same race marriages were age 15 to 20 when they married. (See Table 5.)

Women who are foreign born are also expected to have lower rates of divorce: divorce rates in most countries are lower than in the US, and these women may bring a norm for lower divorce with them. Twelve percent of the women in endogamous couples are foreign born, compared with 15 percent of the women in interracial couples. Information about the place of birth of husbands was not collected.

African Americans have higher divorce rates than those of other racial groups, on average (Espenshade 1983; Bumpass, Martin and Sweet 1991; Tzeng and Mare 1995). Since blacks are less frequently intermarried than members of other racial groups, we expect that women in interracial first marriages will be less likely to be black than endogamous women. I have defined race of the respondent as black, Hispanic, or nonblack non-Hispanic since the sample is not large enough to compare all racial groups. While 18 percent of the endogamous couples involve a black woman, in only seven percent of the interracial couples is the woman black.

Higher educational levels are associated with a reduced risk of divorce (White 1990; Bumpass, Martin and Sweet 1991; Tzeng and Mare 1995). The measures of educational attainment available for the respondent and her first husband are not necessarily collected at the same time point. Education of the respondent in the NSFG is collected as of the interview date

in 1995, which may not correspond to education at the time of first marriage. The educational level of the first husband is reported as years of schooling completed at the time of first marriage, if the respondent is no longer in the first marriage, and as of the interview date if the respondent is currently married to her first husband.⁷

I decided to use a categorical coding for the husband's education since I found that there was no difference in the risk of disruption between couples where the husband had only a high school degree and couples in which the husband had not completed high school. Except for the fact that a lower percentage of husbands in interracial couples (15 percent as compared with 19 percent) have less than a high school degree, the educational levels of husbands in interracial and endogamous marriages are not significantly different. This is somewhat surprising given that the literature shows that interracial couples often have higher education.

Disruption and Marital Duration

In the 1995 NSFG, 35 percent of the endogamous first marriages ended in separation or divorce by 1995, while 40 percent of the interracial marriages ended in divorce or separation. The five percentage point gap between the two types of couples is not large, although it is

⁷ I ran models including wife's education, coded both continuously and as a categorical variable, as well as the education of the first husband (separately since they are highly correlated). For the categorical variable, I grouped education into the following categories: 1=did not complete high school; 2=high school grad/ GED; 3=some college; 4=college graduate, since having a high school or college degree is qualitatively different from not having a degree. I found that the husband's educational attainment was more strongly related to disruption than the wife's education. This may be because the education of the woman was collected for the time of the interview rather than at the time of the first marriage. Since those who married young are more likely to disrupt, these women may be more likely to get additional education after their first marriage.

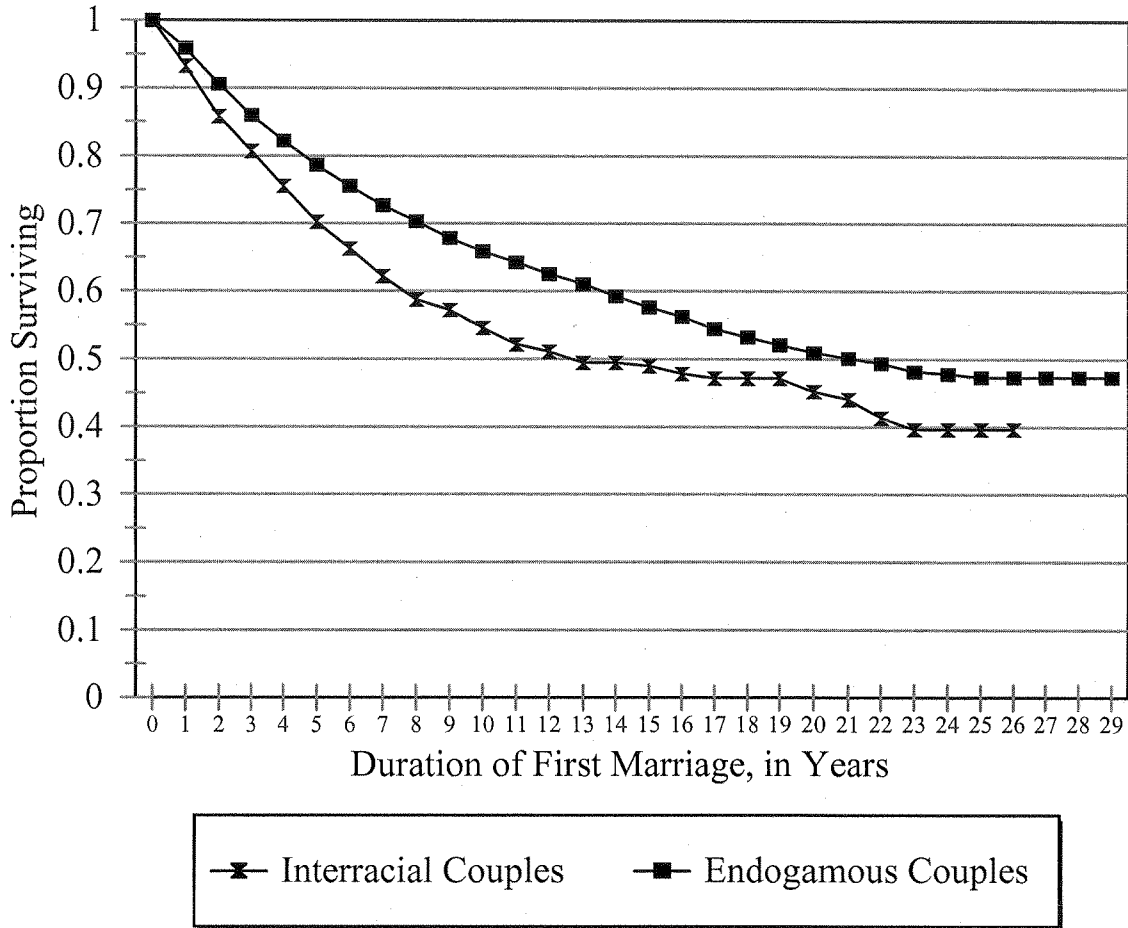
statistically significant. Since we know that interracial marriages disrupt more often than endogamous ones, just how much shorter are these marriages, on average? Are there any particular subgroups of interracial couples which are particularly likely to disrupt?

To answer these questions, we turn to life table estimates and multivariate analysis. If we simply take the average of marital duration, we find that interracial first marriages are 1.36 years shorter on average than same race marriages in the NSFG.⁸ But interracial couples are more likely to cohabit, so perhaps if we include the entire time the couple cohabited, the union duration would not differ as much. In fact, when we use the date the couple began living together as the start of the union, rather than the date of the legal marriage, we find that interracial unions are 1.58 years shorter on average.

Another way to state the shorter duration of interracial marriages is to look at the proportion surviving, from a life table estimate, in order to see how many years elapsed until half of the couples had divorced (or were censored because their spouse died or the interview occurred). Half of the endogamous couples remained in the sample by their 22nd year of marriage, while half of the interracial couples had left the sample by their 13th year of marriage. Figure 1 shows survival curves for both endogamous and interracial couples. In Figure 1 we see that while the survival curves for the two groups of couples are roughly the same for about the first two years of marital duration, after that, the proportion of interracial couples surviving drops more quickly than for endogamous couples. At about 13 years, the curve levels off for interracial couples, although it drops slightly again after about 19 years.

¹⁶ This is in line with Rankin and Maneker's (1988) findings using a sample of divorce cases in California in 1977.

Figure 1 Proportion Surviving
by Year and Couple Type, NSFG



Although interracial couples are more likely to disrupt overall than endogamous couples, perhaps there are particular interracial couples who are less stable and are creating the overall difference. Table 7 shows the proportion of interracial and endogamous couples who disrupt, for selected subgroups. Table 7 also shows results of tests of significance of the difference in the

Table 7 Life Table Estimates of the Difference in Proportion of First Marriages Disrupted for Interracial and Endogamous Couples

Subgroup	Proportion Disrupting		Difference	Sample Size	
	Interracial	Same Race	Interracial - Endogamous	Interracial	Same Race
Whole Sample	.60	.53	.07***	659	6,061
Couple cohabited	.76	.57	.19***	295	2,082
Couple did not cohabit	.52	.51	.01**	364	3,979
Husband was previously married	.62	.60	.02***	123	922
Husband not previously married	.57	.52	.05***	536	5,134
Wife grew up in 2 parent family	.54	.48	.06***	384	4,005
Wife did NOT grow up in 2 parent family	.70	.62	.08**	275	2,057
Religion very important to husband	.23	.21	.02	179	1,789
Religion not very important to husb	.73	.64	.09***	479	4,214
Husband had at least a HS degree	.57	.51	.06***	556	4,854
Husband had less than a HS degree	.76	.59	.17***	103	1,207

Source: 1995 NSFG. * = p<.05 **=p<.01 ***=p<.001

proportion disrupting.⁹ The difference between interracial couples and endogamous couples is significant for all subgroups of couples, except for couples where religion is reported as being very important to the husband.¹⁰

The difference in the proportion disrupting, overall, is 7 percentage points. The largest difference in the proportion disrupting, between the couple types is for couples who cohabited—a difference of 19 percentage points. A similarly large difference in the proportion disrupting

¹⁷ I did not calculate survival curves by whether the wife is foreign born and whether the wife is black since the sample sizes become very small.

¹⁸ Some of the differences show up as significant although the actual gap is too small to be substantively significant.

exists for couples in which the husband had less than a high school degree—17 percentage points. The other differences are between 5 and 10 percentage points, with a higher proportion of interracial couples disrupting than endogamous couples, except for couples who did not cohabit, couples in which the husband was previously married, and couples in which religion was “very important” to the husband. Differences between the couples for those groups were very small, only one and two percentage points.

Table 8 shows the proportion disrupting disaggregated by wife’s age at marriage. The top section of Table 8 looks at the same set of characteristics as in Table 7, but gives the difference in the proportion disrupting only for couples in which the wife was married before she was 21 years old. The difference between interracial and endogamous couples where the wife married before age 21 is 11 percentage points, larger than the difference for all interracial and endogamous couples. As in Table 7, the survival curves for interracial and endogamous couples differ significantly for all of the characteristics except where religion is very important to the husband. The largest difference in proportions is for couples in which the husband has less than a high school degree (21 percentage points).

Except among couples who cohabited, the difference in the proportion disrupting is larger for all subgroups of couples who married before the wife was age 21 than for the whole sample. Subgroups in which the difference between interracial and endogamous couples is 10 percentage points or greater include: those who cohabited; those in which the husband was previously married, as well as those in which the husband was not previously married; those in which the wife did not grow up in a two-parent family; those in which religion was not “very important” to

Table 8 Life Table Estimates of the Difference in Proportion of First Marriages Disrupted for Interracial and Endogamous Couples, by Wife's Age at Marriage

Subgroup	Proportion Disrupting		Difference	Sample Size	
	Interracial	Same Race	Interracial - Endogamous	Interracial	Same Race
Wife married before age 21	.71	.60	.11***	272	2759
Couple cohabited	.87	.68	.19*	100	649
Couple did not cohabit	.65	.58	.07***	172	2110
Husband was previously married	.80	.69	.11**	29	222
Husband not previously married	.69	.59	.10***	243	2536
Wife grew up in 2 parent family	.64	.56	.08**	146	1736
Wife did not grow up in 2 par. fam.	.80	.67	.13**	126	1023
Relig. very important to husband	.30	.25	.05	60	736
Relig. not very important to husb	.82	.72	.10***	211	1992
Husband had at least a HS degree	.69	.60	.09**	213	1991
Husband had less than a HS deg.	.81	.60	.21***	59	769
Wife >=21 yrs. old at marriage	.41	.41	0**	387	3302
Couple cohabited	.50	.50	0*	195	1433
Couple did not cohabit	.33	.36	-.03	192	1869
Husband was previously married	.54	.60	-.06**	94	701
Husband not previously married	.37	.37	0	294	2599
Wife grew up in 2 parent family	.38	.35	.03**	238	2269
Wife did not grow up in 2 par. fam.	.48	.57	-.09	149	1034
Relig. very important to husband	.14	.18	-.04	120	1053
Relig. not very important to husb	.52	.50	.02**	268	2222
Husband had at least a HS deg.	.39	.39	0**	343	2863
Husband had less than a HS deg.	.58	.52	.06	44	439

Source: 1995 NSFG. * = p<.05 **=p<.01 ***=p<.001

the husband; and those in which the husband had less than a high school degree. None of the differences in the proportion disrupting were smaller than 5 percentage points.

In the bottom panel of Table 8, the difference in proportion disrupting is given for couples in which the wife was at least 21 years old when she married. Here we see that overall, the difference between interracial and endogamous couples is zero—that is, they disrupt at the same rate. The biggest difference where interracial couples disrupt more often is for couples in which the husband had less than a high school degree—six percentage points). However, this difference is not statistically significant: it is based on only 44 interracial couples. There are four subgroups where the difference in proportions is negative, only one of which is significant. Endogamous couples where the husband was previously married disrupted more often than interracial couples.

Although interracial first marriages in the NSFG disrupt significantly more often than endogamous first marriages, this differs by the age at marriage for the wife. Interracial couples who married before the wife was 21 years old are much more likely to disrupt than endogamous couples who married at young ages, while there are much smaller, often non-significant differences between interracial and endogamous couples in which the woman was at least 21 years old when they married. This is an important finding since it shows that not all interracial couples have a higher chance of disruption than do similar endogamous couples. We can only speculate why interracial couples who marry at younger ages have a significantly higher chance of disruption than similar endogamous couples. Perhaps these couples have accumulated fewer resources to deal with the extra stress they face as interracial couples. Perhaps interracial couples who marry at younger ages are less realistic about the difficulties they will face, and so are less

willing or able to invest the necessary effort to make the marriage last.

Marital Disruption: Event History Results

Many of the factors that predict divorce covary. In order to see what factors are most powerful in explaining the differential in marital duration between interracial and endogamous first marriages, I estimated a discrete-time hazard model with logistic regression. I constructed a person-year file in which couples contribute a unit of observation for each year they are at risk of divorce. When the couple divorces, a spouse dies, or the interview date occurs, the couple is dropped from the data set, or censored. The dependent variable in these analyses is the hazard of disruption at each year of duration of the first marriage, given that the couple has not already divorced, that neither spouse has died, and that the interview date has not yet occurred.

Table 9 presents odds ratios for logistic regression models I estimated using the person year file.¹¹ The first model predicts the hazard of disruption with only the type of marriage, interracial or endogamous, as a predictor. In this model, we find that interracial couples are about one and a half times more likely to disrupt than endogamous couples.

The second model includes the predictors that we expect should be associated with a higher chance of divorce for interracial couples. That is, I control for predictors of divorce on which the means on the variable suggest that interracial couples are more prone to divorce than endogamous couples. More specifically, interracial couples have more often cohabited before

¹⁹ The models are unweighted. However, since the NSFG oversampled for Hispanic women and non-Hispanic black women, variables are included to control for these characteristics.

Table 9 Event History Analysis: Logistic Regression Models of Duration of 1st Marriage, NSFG

Odds Ratio	Model 1	Model 2	Model 3	Model 4
Interracial	1.49***	1.39***	1.61***	1.48***
Characteristics that Predict Higher Chance of Divorce for Interracial Couples				
Premarital Cohabitation	---	1.14**	---	1.27***
Husband Previously Married	---	1.05	---	1.18**
Grew up in Two Parent Family	---	.61***	---	.72***
Religion Very Important to Husband	---	.23***	---	.24***
Childless	---	1.48***	---	1.70***
Characteristics that Predict Lower Chance of Divorce for Interracial Couples				
Wife Age 15 to 20 at Marriage	---	---	1.36***	1.67***
Wife Foreign Born	---	---	.57***	.66***
Wife Black	---	---	1.61***	1.66***
Wife Hispanic	---	---	1.08	1.14
Husband's Education				
% Less Than HS degree	---	---	.97	.91
% High School degree	---	---	omitted	omitted
% Some College	---	---	.57***	.66***
% College Graduate	---	---	.48***	.55***
-2 Log Likelihood	18815	17898	18394	17507
N=	56,062	56,062	56,062	56,062

Note: This is the person year file. Dependent variable is the hazard of disruption, given that it has not yet occurred and that the couple has not been censored. *= $p < .05$ **= $p < .01$ ***= $p < .001$ (two-tailed tests)

marriage, have a husband who was previously married, grew up less often in a two parent family, are less likely to report that religion is “very important” to the husband, and are more often childless. So, after controlling for these characteristics, which might explain away some or all of the “interracial effect,” we would expect the odds ratio associated with the interracial indicator

variable to be smaller.

As expected, in Model 2, the relative risk associated with the indicator variable for whether the couple is interracial is a little lower than in the first model: 1.4 as compared with 1.5. However, even after we control for the characteristics of interracial couples which we expect to raise their relative chance of divorce, their risk is still 40 percent higher than that of endogamous couples. The largest predictor in the model is the dummy variable indicating whether religion was “very important” to the husband. Couples in which religion was “very important” to the husband had odds of divorce only 23 percent as high as couples where religion was “somewhat important” or “not important.” Women who grew up in a two parent family also had a lower risk of divorce—their odds were 61 percent those of women who did not grow up in a two parent family. Previous marriage of the husband did not significantly raise the chances of divorce. If a couple cohabited before they were married, their chances of divorce were 14 percent higher than those who did not cohabit. Couples who were childless had a 48 percent higher risk of disruption than those who had children. Although controlling for characteristics of interracial couples which we expect to be associated with a higher chance of divorce does lower the size of the effect of being an interracial couple, it does not account for the difference between interracial and endogamous disruption rates.

The third model in Table 9 includes predictors in which the characteristics of interracial relative to endogamous couples lead to an expectation of a lower risk of disruption for interracial couples. That is, wives in interracial couples were older when they married, are more often foreign born, are less likely to be black, and we would expect husbands in interracial marriages to

have higher education than those in endogamous marriages. So, after controlling for these characteristics, we would expect the relative risk of disruption associated with the interracial indicator variable might go up.

Model 3 shows that the relative risk associated with being an interracial couple was higher than in Model 1, at 1.61, as expected: that is, interracial couples have a 61 percent higher chance of disruption than endogamous couples, controlling for these predictors. This was about the same magnitude of relative risk associated with the wife being black—a 61 percent higher risk than for nonblack respondents. Women who were foreign born had odds of disruption only 57 percent those of US born women. For couples in which the husband had at least some college, the risk of disruption was lower than for those where the husband had a high school degree or less. Where husbands had at least some college, the odds of divorce were 57 percent as high as couples where the husband had a high school degree. Couples in which the husband had a college degree had odds 48 percent those in which the husband had a high school degree.

Model 4 incorporates both sets of predictors: those which should increase and those which should decrease the risk of divorce for interracial couples. The relative risk of disruption associated with being an interracial couple is, overall, still 48 percent higher than for endogamous couples. The relative risks associated with the other predictors are about the same as in the previous models, although the risk associated with premarital cohabitation is a bit higher (1.27) than it was in the Model 2 (1.14). The relative risk associated with childlessness (70 percent higher than for couples with children) is higher in the full model than in Model 2 (48 percent higher).

Being in an interracial marriage increases the odds of divorce, but it is a less important predictor of divorce than other characteristics of individuals and couples which we are accustomed to thinking of as raising the likelihood of divorce. In the NSFG model, comparing standardized coefficients for the predictors, whether the couple is interracial or not is less important in predicting disruption than whether the couple is childless, whether the respondent is black, whether the woman grew up in a two parent family, husband's religiosity, wife's age at marriage, whether the wife is foreign born, and whether the husband had some college, or was a college graduate. The standardized coefficient for whether the couple is interracial is about the same size as the one for whether the couple cohabited.

Although interracial marriages are more likely to disrupt than endogamous marriages, the fact that the marriage is interracial is a less important predictor than some other predictors which we take for granted as increasing the risks of divorce—for example, educational level and age at marriage—is a positive finding. Since we expect that interracial marriages will become increasingly common in the US, it is useful to know that these marriages are not radically different from endogamous marriages in terms of what predicts divorce.

REFERENCES

- Abma, Joyce C., et al. 1997. "Fertility, Family Planning, and Women's Health: New Data from the 1995 National Survey of Family Growth" *Vital Health Statistics Series 23*. No 19.
- Amato, Paul R. 1996. "Explaining the Intergenerational Transmission of Divorce" *Journal of Marriage and the Family* 58:628-640.
- Bennett, Neil G. and Blanc, Ann Klimas and David E. Bloom. 1988. "Commitment and the Modern Union: Assessing the Link Between Premarital Cohabitation and Subsequent Marital Stability" *American Sociological Review* 53:127-138.
- Besharov, D.J. and T.S. Sullivan. 1996. "The Interracial Generation: From Mixed Marriages, the Offspring of Hope." *The Washington Post*: July 21.
- Bianchi, Suzanne, Lekha Subaiya and Joan Kahn. 1999. "The Gender Gap in the Economic Well-Being of Nonresident Fathers and Custodial Mothers" *Demography* 36:2:195-203.
- Booth, Alan, and David Johnson. 1988. "Premarital cohabitation and marital success" *Journal of Family Issues* 9:255-272.
- Bumpass, Larry L. and Teresa Castro Martin and James A. Sweet. 1991. "The Impact of Family Background and Early Marital Factors on Marital Disruption" *Journal of Family Issues* 12:1:22-42.
- Bumpass, Larry L. and James A. Sweet. 1989. "National estimates of cohabitation: Cohort levels and union stability" *Demography* 25: 615-625.
- Bumpass, Larry L. and James A. Sweet and Andrew Cherlin. 1991. "The Role of Cohabitation in Declining Rates of Marriage" *Journal of Marriage and the Family* 53:913-927.
- Call, Vaughn R.A. and Tim B. Heaton. 1997. "Religious Influence on Marital Stability" *Journal for the Scientific Study of Religion* 36:3:382-392.
- Carter, H. and Paul C. Glick. 1976. *Marriage and Divorce: A Social and Economic Study*. (Rev. ed.) Cambridge MA: Harvard University Press.
- Cheng, C.K. and Douglas S. Yamamura. 1957. "Interracial Marriage and Divorce in Hawaii" *Social Forces* 36:77-84.
- Cretser, Gary A. and Joseph J. Leon. 1985. "Racial, Religious, and National Origin Inter-marriage in the US: Review of Selected Theory, Method, and Research" *International Journal of Sociology of the Family* 15:3-30.
- Duncan, Greg J. and Saul D. Hoffman. 1985. "A reconsideration of the economic consequences of marital dissolution." *Demography* 22:485-497.
- Espenshade, Thomas. 1983. "Marriage Trends in America: Estimates, Implications, and Underlying Causes" *Population and Development Review* 9:3:193-245.
- Glenn, Norval D. and Michael Supancic. 1984. "The Social and Demographic Correlates of Divorce and Separation in the United States: An Update and Reconsideration" *Journal of Marriage and the Family* 46:3:563-575.
- Goldstein, Joshua. 1999. "The Leveling of Divorce in the United States" *Demography* 36:3:409-414.

- Heer, David M. 1974. "The Prevalence of Black-White Marriage in the United States, 1960 and 1970" *Journal of Marriage and the Family* 36:246-258.
- Ho, Fung Chu and Ronald C. Johnson. 1990. "Intra-ethnic and Inter-ethnic Marriage and Divorce in Hawaii" *Social Forces* 37:1-2:44-51.
- Hoffman Saul D. and Greg J. Duncan. 1988. "What *Are* the Economic Consequences of Divorce?" *Demography* 25:4:641-645.
- Holden, Karen C. and Pamela J. Smock. 1991. "The Economic Costs of Marital Dissolution: Why Do Women Bear a Disproportionate Cost?" *Annual Review of Sociology* 17:51-78.
- Jones, F.L. 1994. "Are Marriages that Cross Ethnic Boundaries more likely to end in divorce?" *Journal of the Australian Population Association* 11:115-132.
- Jones, F.L. 1996. "Convergence and Divergence in Ethnic Divorce Patterns: A Research Note" *Journal of Marriage and the Family* 58:1:213-218.
- Kalmijn, Matthijs. 1993. "Trends in Black/White Intermarriage" *Social Forces* 72:1:119-146.
- Krishnan, Vijaya. 1998. "Premarital Cohabitation and Marital Disruption" *Journal of Divorce and Remarriage* 28:3/4:157-170.
- Labov, Teresa and Jerry A. Jacobs. 1998. "Preserving Multiple Ancestry: Intermarriage and Mixed Births in Hawaii" *Journal of Comparative Family Studies* XXIX:3:481-502.
- Lehrer, Evelyn L. 1996. "The Role of the Husband's Religious Affiliation in the Economic and Demographic Behavior of Families" *Journal for the Scientific Study of Religion* 35:2:145-155.
- Liebertson, Stanley and Mary Waters. 1988. *From Many Strands: Ethnic and Racial Groups in Contemporary America*. Russell Sage Foundation: New York.
- Lynn, Anne Q. 1953. "Interracial Marriages in Washington, DC, 1940-47" Dissertation. Washington: Catholic University of America Press.
- Martin, Teresa Castro and Larry L. Bumpass. 1989. "Recent Trends in Marital Disruption" *Demography* 26:1:37-51.
- McLanahan, Sara, and Gary Sandefur. 1994. *Growing Up With a Single Parent: What Hurts, What Helps*. Cambridge, Mass.: Harvard University Press.
- Monahan, Thomas P. 1966. "Interracial Marriage and Divorce in the State of Hawaii" *Eugenics Quarterly* 13:40-47.
- Monahan, Thomas P. 1970. "Are Interracial Marriages Really Less Stable?" *Social Forces* 48:461-473.
- Monahan, Thomas P. 1971a. "Interracial Marriage in the US: Some Data on Upstate New York" *International Journal of the Sociology of the Family* 94-105.
- Monahan, Thomas P. 1971b. "Interracial Marriage and Divorce in Kansas and the Question of Instability of Mixed Marriages" *Journal of Comparative Family Studies* 2:107-120.

- Monahan, Thomas P. 1976a. "An Overview of Statistics on Interracial Marriage in the United States, with data on its extent from 1963-1970" *Journal of Marriage and the Family* 38:223-231.
- Muhsam, Helmut. 1990. "Social Distance and Asymmetry in Inter-marriage Patterns" *Journal of Comparative Family Studies* XXI:3:307-324.
- Nagel, Joane. 1995. "American Indian Ethnic Renewal: Politics and the Resurgence of Identity" *American Sociological Review* 60:947-965.
- Passel, Jeffrey S. and Patricia A. Berman. 1986. "Quality of 1980 Census Data for American Indians" *Social Biology* 33:163-182.
- Peterson, Richard R. 1996. "A Re-evaluation of the Consequences of Divorce" *American Sociological Review* 61:528-536.
- "Speaking Graphically" 1999. *Population Today*. Washington DC: Population Reference Bureau. 27:2:6.
- Porterfield, Ernest. 1982. "Black-American Inter-marriage in the United States," pp. 17-34 in Gary A. Cretser and Joseph J. Leon (eds.) *Inter-marriage in the United States*. New York: The Haworth Press.
- Potter FJ, Iannachione VG, Mosher WD, Mason RE, Kavee JD. 1998. "National Survey of Family Growth Cycle 5: design, estimation, and inference" *Vital and Health Statistics* 2:124.
- Qian, Zhenchao. 1997. "Breaking the Racial Barriers: Variations in Interracial Marriage Between 1980 and 1990" *Demography* 34:2:263-276.
- Rankin, Robert P. and Jerry S. Maneker. 1988. "Correlates of Marital Duration and Black-White Inter-marriage in California" *Journal of Divorce* 11:2:51-67.
- Schmitt, Robert C. 1969. "Age and Race Differences in Divorce in Hawaii" *Journal of Marriage and the Family* 28:48-50.
- Schwertfeger, Margaret M. 1982. "Interethnic marriage and divorce in Hawaii: A panel study of 1968 first marriages" *Marriage and Family Review* 5:49-59.
- Smock, Pamela J. 1993. "The Economic Costs of Marital Disruption for Young Women Over the Past Two Decades" *Demography* 30:3:353-371.
- Spanier, Graham B. 1983. "Married and Unmarried Cohabitation in the United States: 1980" *Journal of Marriage and the Family* 45:277-288.
- Spickard, Paul. R. 1989. *Mixed Blood Inter-marriage and Ethnic Identity in Twentieth-Century America*. Madison: University of Wisconsin Press.
- Stevens, Gillian and Michael K. Tyler. 1998. "Ethnic and Racial Inter-marriage in the United States: Old and New Regimes" paper presented at the PAA conference. April 4: Chicago.
- Sung, Betty Lee. 1990. "Chinese American Inter-marriage" *Journal of Comparative Family Studies* XXI:3:337-352.
- Teachman, Jay D. 1986. "First and Second Marital Dissolution: A Decomposition Exercise for Whites and Blacks" *Sociological Quarterly* 27:571-590.

Teachman, Jay D. and Karen A. Polonko. 1990. "Cohabitation and Marital Stability in the United States" *Social Forces* 69:1:207-220.

Tinker, John N. 1982. "Intermarriage and Assimilation in a Plural Society: Japanese-Americans in the United States" *Marriage and Family Review* 5:61-74.

Tucker, M. Belinda and Claudia Mitchell-Kernan. 1990. "New Trends in Black American Interracial Marriage: The Social Structural Context" *Journal of Marriage and the Family* 52:209-218.

Tzeng, Jessie M. and Robert D. Mare. 1995. "Labor Market and Socioeconomic Effects on Marital Stability" *Social Science Research* 24:329-351.

Waite, Linda J. and Lee A. Lillard. 1991. "Children and Marital Disruption" *American Journal of Sociology* 96:4:930-953.

White, Lynn K. 1990 "Determinants of Divorce: A Review of Research in the Eighties" *Journal of Marriage and the Family* 52:904-912.

Wineberg, Howard. 1988. "Duration Between Marriage and First Birth and Marital Stability" *Social Biology* 35:91-102.