## Note

## Research Grant Summaries

Section 1110 of the Social Security Act provides for a cooperative research grants program. Under this program, the grants are given by the Social Security Administration to nonprofit organizations for research in the broad area of Social Security. To provide readers with an overview of the purpose and findings of the research conducted under this program, the Executive Summary from completed research reports will be published in the **Bulletin**. A summary from a recent project is printed below.

## **Determinants of Divorce**

by Lee A. Lillard and Linda J. Waite\* Grant No. 10-P-98299-0-01 (Modeling Divorce With the Panel Study of Income Dynamics) Recent research has projected that about two-thirds of all first marriages are likely to end in separation or divorce (Martin and Bumpass 1989). This research also finds that second and later marriages are no more likely—but also no less likely—than first marriages to disrupt. This historically remarkable prevalence of marital breakdown points to the importance of understanding the social processes underlying the dissolution of marriages.

The research reported here focuses on improving understanding of the determinants of divorce. Although separation often acts as a precursor to divorce, and some minority of couples separate but do not divorce, the legal dissolution of the marriage often marks the beginning of eligibility for various social programs. This research focuses exclusively on divorce,

although some information is presented on the timing of separation and divorce for the sample.

## Special Features of the Research

The research reported here has a number of features that increase its utility for both development and implementation of public policy and for improving the understanding of the social process of divorce.

First, especially appropriate and up-to-date data on divorce trends and patterns are used. The data come from the Panel Study of Income Dynamics (PSID) and include the 1985 Special Supplement on Marital and Fertility Histories. The PSID provides extensive and contemporaneous information on individual couples over an 18-year period.

Second, the study compares alternative empirical models of the divorce process. Using the above micro data, the results for a series

<sup>\*</sup> Lee Lillard and Linda Waite are Co-Directors, Center for Aging Studies at the RAND Corporation, Santa Monica, California.

of different models—from models that include only a few predictors of divorce to those that include a wide range of predictors—are estimated and compared. Regression-like Weibull models are estimated using hazard and survival functions to incorporate all relevant data on marital durations (including censored observations) and duration-varying regressors such as presence and ages of children and unemployment of the husband.

Third, the research compares the robustness of predictions from different models about the effect of explanatory factors. Alternative sets of regressors in the model are compared. The sets of regressors include, in particular, the variables available for use in the Social Security Administration's (SSA's) Microsim program and a more comprehensive set of variables available in the PSID data. These comparisons will provide a better understanding of-and suggest areas of caution in interpretingsimulation and forecast results.

Fourth, separate models are presented for divorce among those persons in first marriages and for those in second and later marriages to allow for differences in the process leading to divorce in these two types of marriages. Also presented are separate models for white and for nonwhite (predominately black) couples because many marriage and family-building patterns of the two groups differ in important ways.

The research presented here was conducted using PSID data. The PSID began in 1968 with 5,500 households. The sample has been resurveyed each year since that time to collect a set of basic data including marital status and changes in it, family composition, numerous demographic and behavioral variables, and data on special survey topics.

In 1985, the PSID interview included a special Head and Wives' Interview, which obtained a detailed marital history and fertility history (and work history) for the head of household (single female head, single male, or husband of couple), for wives (if an intact couple), and for others in the family. The marital history includes the dates of all marriages, separations, and divorces.

The research begins with every couple that was observed married between 1968 (the initial interview in the PSID) and 1985, the year in which the PSID obtained a detailed retrospective marital history. Couples were classified as those for whom the marriage was the respondent's first and those for whom the marriage was the respondent's second or later marriage. This study includes more than one marriage per individual for those observed in several marriages.

The outcome studied in all models is the disruption of the couple through divorce. Members of the PSID sample (male or female) who separate are retained in the sample until the final observation or until they legally divorce. Although the modeling is focused exclusively on divorce, it is known that couples often separate before divorce. sometimes for extended periods. Separation or divorce occurred among 25 percent of the couples in the sample. Of these couples. almost all (81 percent) divorced during the observation period 1968-85.

However, the vast majority (84 percent) of divorces were preceded by a period of separation. So, most of the couples who disrupted their marriage separated and then divorced. The long-term separations include only 5 percent of the sample and 19 percent of those

disrupted. Nearly 75 percent of all couples in the sample who disrupt their marriage proceed fairly expeditiously from separation to the legal dissolution of their marriage, divorcing within a year of their first separation, but 25 percent appear to drag this process out, sometimes over a very long period. Couples who remain married but separated are included in the analysis and may be responsible for some differences between models of divorce and models of disruption that include both separation and divorce.

Substantial differences by race in the period between separation and divorce were also found, with nonwhite couples much more likely than white couples to wait years between separation and legal divorce; in fact, nearly 25 percent of nonwhite couples that eventually divorce remain separated for 5 vears or more before they dissolve the marriage legally. Only 2.5 percent of white couples wait this long. The larger gap between separation and divorce for nonwhites than for whites in the sample may affect the results of other factors correlated with race, both in this study and in other studies.

The statistical model used in this research uses proportional Weibull hazards in continuous time, incorporating both time-invariant and time-varying predictors of divorce. This model is described in detail in the full report.

One of the most important experiences shared by spouses is the bearing and rearing of children. Children constitute the primary example of marital-specific capital, an asset worth more in the relationship than outside it. As such, presence of children is associated with reduced chances of divorce for couples.

The models used for this research include a series of seven variables that measure the presence of children of various ages. These variables allow for the identification of couples that just had their first child, couples that just had a second or later child, couples whose first child is a preschooler. the number of preschoolers after the first present in the interval, the number of school-aged children (ages 6-12), the number of teenagers (ages 13-18), and the number of adult children older than 18. The results show clearly and consistently that couples that just had a first child are much less likely to divorce than other couples, with smaller-but still significantprotective effects of a first preschooler. Each preschool-aged child after the first also significantly reduces the chances of divorce for its parents. Each child aged 6-12 has a smaller but still significant protective effect, as does each child aged 13-18. Only after age 18 do children cease protecting their parents against the risk of divorce.

Also measured is the timing of the first birth relative to marriage to identify couples who either married when pregnant or entered marriage with a child (of the wife and perhaps of the husband) born before the wedding. Some researchers argue that a premarital pregnancy cuts short marital search and may mean that the quality of the match is reduced as a result. Others argue that premarital pregnancy may thrust a young couple into roles for which they are ill prepared, decreasing the chances of a successful transition. The results of this study show no significant effect of either a premarital birth or a premarital conception followed by a marital birth on chances of divorce, holding constant a wide range of other factors.

This analysis points to the importance of readiness for marriage, especially the age of the husband and wife when they wed, as predictors of divorce. Couples in which the wife was younger than age 20 are significantly more likely to divorce than are couples in which the wife was at least age 20 at marriage. Holding constant the age of the wife, couples in which the husband was young—under age 22—show more instability.

The results also suggest that although nonwhite couples show higher divorce rates than whites, once one holds constant the education, income, and labor-force activity of the spouses, whites shows significantly higher chances of divorce than nonwhites. Some portion of this racial effect results from the higher propensity of nonwhite couples to separate but not divorce, or to wait years between the two events. Distinguishing separated from intact couples among the legally married is thought to reduce this racial effect.

The results fail to show significant effects in several cases where they were expected. Husband's experience of unemployment in the last year has no significant effect on chances of divorce, nor does a premarital birth or a premarital pregnancy. Also found were unexpected effects of women's employment over the last year, with wives who worked no weeks much more likely to divorce than those who worked part of the year. This finding deserves additional research attention.

The results also point to the importance of the differences between first and later marriage, at least in part because remarriages are affected by characteristics that do not even exist in first marriages. For example, the duration of the first marriage negatively affects the chances that a person who is remarried divorces the later spouse. And a birth between marriages increases chances that divorce ends the later marriage. But no significant effect of a previous divorce on chances of divorce in the current marriage is found and no effect of the number of children brought to the current marriage is observed. The results also show some differences in patterns of effects between first and later marriages. For example, the employment activity of the wife appears to have less impact on chances of divorce in later marriages than in first marriages. Other researchers are uraed to distinguish between those married for the first time and those who have remarried.

Many of the results reported here are new, in part because previous studies have often failed to distinguish between first and later marriages and have not examined the process of divorce separately for nonwhite and white couples. The project has been successful both in improving one's understanding of the process that leads some couples to legally dissolve their marriage and in providing estimates of the impact of characteristics of couples on chances of divorce. which will be useful for microsimulations of divorce.

Final reports of completed research grants projects are in the Social Security Administration Library, 571 Altmeyer Building, 640l Security Boulevard, Baltimore, Maryland 21235, and in the Library of the Office of Research and Statistics, Room 206, Van Ness Centre, 4301 Connecticut Avenue, NW., Washington, DC 20008. Copies of the full reports may be obtained through interlibrary loans. To facilitate processing, please include the author(s) name and the title and grant number of the requested report.