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Interpreting Divorce Rates, Marriage Rates, and Data on the Percentage of Children with Single Parents

Research Brief

Paul R. Amato

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The United States federal government releases data on rates of marriage and divorce in most years, along with information on the percentage of children living with two parents and single parents. Stories based on these statistics often appear in the media. Many people, however, are confused by these data—how these numbers should be interpreted and what they mean for trends in family life. The goal of this Research Brief is to help people understand how these various rates and statistics are calculated and should be interpreted.

Data on family statistics come from two primary sources: vital statistics and surveys. Total counts of marriages and divorces are reported by state and county offices to the federal government and are summarized in publications from the Centers for Disease Control and Prevention National Center for Health Statistics. Funding for the collection and publication of detailed marriage and divorce statistics was suspended in January 1996 and, as a result, some states no longer report this information. Consequently, surveys have become increasingly important to fill in the gaps from incomplete vital statistics data. One important data source, the Current Population Survey

(which began in the 1940s), is a monthly survey of about 50,000 households conducted by the U.S. Census Bureau for the Department of Labor Bureau of Labor Statistics. The March supplement to this survey contains questions on marital status and other family characteristics. During the last decade, the American Community Survey (ACS), which is conducted by the U.S. Census Bureau, has become an especially important data source. Each year the ACS samples about three million households in the United States. The recent addition of questions on marriage and divorce makes the ACS one of the main sources of information on current rates of marriage and divorce.



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Divorce Rates

As noted earlier, federal funding for the collection and publication of detailed marriage and divorce statistics was suspended in 1996. As a result, several states do not submit vital statistics on divorce on a regular basis. For example, in 2004, California, Georgia, Hawaii, Indiana, and Louisiana did not report this information. For this reason, there is no complete count of how many divorces occur in the United States annually.

Despite this limitation, the U.S. Census Bureau uses data from participating states to calculate the crude divorce rate, which is the number of divorces per 1,000 people in the population. This measure is less than optimal because the denominator includes children and single adults who are not at risk of divorce. Moreover, the crude divorce rate is affected by the age structure of the population. (For example, changes in the proportion of children in the population will affect the divorce rate, even if the underlying divorce trend is stable.) And, as noted earlier, the crude divorce rate excludes data from states (including large states such as California) that do not report divorce data to the federal government.

The U.S. Census Bureau uses data from participating states to calculate the crude divorce rate, which is the number of divorces per 1,000 people in the population. For this reason, the rate does not have a clear interpretation. Moreover, the crude divorce rate is affected by the age structure of the population.

Nevertheless, the crude divorce rate provides a rough indication of changes in divorce over time. For example, the rate rose from 2.2 in 1960 to 5.3 in 1981—a 141% increase. The rate then dropped gradually to 3.6 in 2007—a 32% decline (U.S. Census Bureau, 2010, Table 78). A study by Heaton (2002) found that the rise in age at first marriage since the 1980s and, to a lesser extent, increased education appear to be responsible for this decline. An advantage of the crude divorce rate is that it can be compared with rates in other countries. For example, Eurostat publishes an annual yearbook that includes crude divorce rates for all European countries (Eurostat, 2009).

A better measure—the refined divorce rate—is the number of divorces per 1,000 married women. This rate is preferable to the crude divorce rate because the denominator includes only those people at risk of divorce. The federal government has not published information on the refined divorce rate for many years. Nevertheless, in 2008 the annual ACS added a question on divorce (and marriage) during the previous year. The addition of this question (which will continue in subsequent surveys) makes it possible to calculate a refined divorce rate for the United States, including states that do not report information on divorce statistics to the federal government. An analysis of this item indicates that the refined divorce rate ranged from a low of 14.3 in North Dakota to a high of 34.5 in Washington, DC, with a national average of 19.4 (National Center for Family and Marriage Research, 2010). An advantage of the refined divorce rate is that it has a clear interpretation. That is, dividing the rate by 10 yields the percentage of marriages that end in divorce every year. Currently, this figure is about 2%. A possible limitation of relying on the ACS is that surveys (in general) appear to underestimate the frequency of divorce when compared with vital statistics (Martin and Bumpass, 1989). When the federal government releases vital divorce statistics for 2008, it should be possible to assess the extent and importance of any bias.

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Although the refined divorce rate is valuable, many people want to know the percentage of marriages that eventually end in divorce. To answer this question, one must adopt a cohort approach. That is, the question can be answered only with respect to a specific marriage cohort (people who married in a given year or set of adjacent years). People who married in 1990, for example, may have a different lifetime probability of divorce than people who married in 2000. Because the refined divorce rate is a period rate (based on the number of divorces in a particular year across different cohorts), it cannot answer this question. Consider couples who married in 1970. By using a cohort approach and collecting retrospective marital history data in 2010, the percentage of these unions that had ended in divorce within the first 40 years of marriage could be calculated. (After 40 years, the likelihood of divorce is small.) A limitation of the cohort approach arises when it is applied to recent marriages. For example, for couples who married in 1990, information is only available on the first 20 years of marriage. The problem of incomplete information becomes more challenging when even more recent marriages are considered.

To account for this limitation, projections about the percentage of recent marriages that are likely to end in divorce must be made based on current trends. Demographers use life table methods to reflect outcomes for a synthetic cohort of people who experience duration-specific divorce risks in a given year. That is, they examine the percentage of people married for one year who divorced in the previous year, the percentage of people married for two years who divorced in the previous year, and so on. These duration-specific rates are combined through life table methods to yield the cumulative proportion of couples projected to divorce. These estimates show what the likelihood of divorce would be if the duration-specific rates of divorce in a given year were to remain unchanged into the future.

A refinement to the cohort method was introduced by Schoen and Canudas-Romo (2006) who incorporated timing effects of divorce into their analysis. Their analysis indicates that the probability of a marriage ending in divorce increased linearly throughout the 20th century and reached a plateau in the 1990s, with the most recent estimate (for the year 2000) indicating that 45% of marriages would end in divorce. If we take into account the fact that a small percentage of marriages end in permanent separation rather than divorce, then the overall rate of union disruption is slightly less than 50%. In other words, the commonly cited statistic that about half of all marriages end in disruption (divorce or permanent separation) appears to be reasonably accurate.

It is important to note that these estimates are not based on the ratio of divorces to marriages in a given year—a common misconception. Currently there are about two marriages for every divorce. One cannot use this information to calculate the probability of divorce, however, because the population of individuals who marry in a given year differs from the population of individuals who divorce in a given year. Consequently, the ratio of divorces to marriages provides no information about the eventual likelihood of dissolution for any marriage cohort.

Marriage Rates

Comparable to the crude divorce rate, the crude marriage rate is the number of marriages in a given year per 1,000 people in the population. The crude marriage rate in the United States rose from 8.5 in 1960 to a high of 10.6 in the early 1980s. Since then, this rate has dropped to 7.3 in 2007—a 31% decline (U.S. Census Bureau, 2010, Table 78). Like the crude divorce rate, the crude marriage rate has important limitations. First, because the denominator includes people who are not “at risk” of getting married (such as children and already married individuals), this

figure does not have a clear interpretation. Second, the crude marriage rate does not provide information on the percentage of Americans who eventually will marry. Using a cohort perspective (as described earlier), demographers project that the percentage of adults who eventually will marry is close to 90% (Cherlin, 2009). This percentage represents a decline from several decades ago, when the projected figure was 95%. Nevertheless, this decline is not nearly as steep as the decline suggested by the crude marriage rate. The rising age at first marriage accounts for this apparent discrepancy. Because young adults are delaying marriage until older ages, the crude marriage rate has been declining. But because the great majority of young adults eventually marry (albeit at older ages), the overall level of marriage has declined much less dramatically.

The Percentage of Children Living with Single Parents

Every year the U.S. Census Bureau publishes information on the percentage of children living with two parents, single mothers, single fathers, and neither parent. For example in 2005, 67% of children lived with two parents, 23% lived with single mothers, 5% lived with single fathers, and 5% lived with neither parent (U.S. Census Bureau, 2010, table 69). Comparing these data with earlier years indicates that the percentage of children living with a single parent has increased substantially since 1960. Most of this information comes from the March supplement to the Current Population Survey.

Until recently, these data had two major limitations. The first limitation is that the “two parent” category included two biological (or adoptive) parents as well as one biological parent living with a stepparent. Consequently, the percentage of children living with two parents is larger than the percentage of children living with two biological (or adoptive) parents. The

second limitation is that prior to 2007, the Census Bureau defined a single parent as an unmarried parent, irrespective of whether the parent was living with the other biological parent. In other words, a child living with a biological mother and a biological father was counted as living with a single parent if the child’s parents were not married. Consequently, prior to 2007, official reports of the percentage of children living with a “single parent” underestimated the percentage of children living with two biological parents. This was a growing problem because most of the increase in nonmarital births during the last couple of decades has been due to the rise in the number of children born to cohabiting but unmarried couples (Bumpass and Lu, 2000).

To rectify the latter problem, the Census Bureau changed its definitions in 2007, so that children living with two biological but unmarried parents were counted as living in two-parent households. Due to this redefinition, the percentage of children reported to be living with two parents increased from 67% to 71% between 2005 and 2007. More recent data, which also includes information on stepparents, provides a more complete picture of children’s living arrangements. The 2009 Current Population Survey (March) indicated that 69.8% of children lived with two parents, 62.5% of children lived with two biological parents, and 59.7% lived with two married biological parents (U.S. Census Bureau, 2009). Correspondingly, 26.2% of children lived with a single parent. In addition to the Current Population Survey, the American Community Survey will provide annual information on this topic into the foreseeable future.

Conclusion

The federal government and social scientists have generated a great deal of information on rates of marriage, divorce, and single parenthood. Much of this information, however, is difficult for the typical observ-

er to interpret, and a good deal of confusion appears to exist among the general public. Some of the major sources of confusion include:

- (1) It is unclear how divorce and marriage rates are calculated and how they should be interpreted.
- (2) Confounding annual period rates (which reflect the number of marriages and divorces in a particular year) with cohort projections (which reflect the lifetime probabilities of marriage and divorce for individuals born in particular years) has led to the erroneous conclusion that the probabilities of marriage and divorce have declined dramatically in recent decades.
- (3) Misinterpreting federal data on the percentage of children living with two parents, which (until recently) counted stepfamilies as two-parent families and cohabiting couples with biological children as single-parent families. This confusion has led to either over or under estimates of the percentage of children residing with two biological parents.

The goal of this Research Brief has been to facilitate the interpretation of data on marriage, divorce, and single parenthood. Despite the fact that the federal government withdrew financial support for the compilation of vital statistics on marriage and divorce several years ago, recent improvements to the American Community Survey, combined with new information available from other federally funded national surveys, should make it possible to accurately monitor future trends in marriage, divorce, and single parenthood.

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