High levels of union instability and subsequent repartnering increase the complexity of life histories and the resulting family and kin relationships. As divorce and separation have increased in many wealthy countries, stepfamilies are increasingly common. Furthermore, about half of stepfamilies produce additional children, i.e., half-siblings to the partners’ children with previous partners, adding even more complexity to family life. Nonmarital childbearing, at least in the U.S., is also associated with union instability and a high likelihood of parents having children with more than one partner.

A growing body of research exists on the events that place parents at risk of having children with more than one partner and children at risk of acquiring a half-sibling – births out of union, separation or divorce, and repartnering. Only recently, however, has the accumulation of these events been identified as a distinct demographic phenomenon (Carlson & Furstenburg 2006; Gray and Evans 2008; Manlove et al. 2008; Guzzo & Furstenberg 2007; Løpegård and Rønsen 2009).¹

In this paper, we extend this research by focusing on women’s birth histories and taking an explicitly life-course and fertility-centered approach (Løpegård and Rønsen 2009). We estimate the risk of having a second- or higher-order birth with the same partner or with a new partner as competing risks. Such analyses allow us to estimate the likelihood of experiencing births with a different partner even for those who have not (yet) done so. We also consider the phenomenon of childbearing across partnerships in comparative perspective, using data from four countries—two pairs of countries with relatively similar welfare state regimes—in order to better understand contextual influences on childbearing patterns that produce half-siblings.

Previous research

Early research on childbearing with different partners was carried out primarily in the U.S. and was limited to marital childbearing. For example, Thornton (1978) found that white U.S. women who divorced and remarried had about the same total number of children as women who remained stably married, and that the number of children born in first and second marriages was

¹ This concept is similar to “multi-partnered fertility” described by Carlson and Furstenburg (2006). We prefer the term “childbearing across partnerships” because the vast majority of such births occur with no more than two partners. The term “stepfamily fertility” is also rejected because “stepfamily” connotes a coresident partnership.
about the same. The data covered childbearing during the 1950s and 1960s when cohabitation was unusual in the U.S. Because the analysis did not distinguish women whose first marriage was childless from those with children at divorce, we cannot estimate how many women had children with more than one husband, however. Bumpass (1984) estimated that about 30 percent of children whose mother remarried when the child was under 18 acquired a half-sibling within four years of the remarriage. He further showed that about 20 percent of children living with their mothers in 1980 had a half-sibling arising from one or the other parent’s remarriage. Bumpass notes that his analysis likely misses a considerable number of half-siblings born in cohabiting relationships.

More recent research on childbearing in stepfamilies, where at least one partner has a child with a previous partner, includes cohabiters as well as married couples (e.g. Vikat, Thomson & Hoem 1999; Thomson et al. 2002; Holland & Thomson 2010). About half or less of new partnerships produce at least one birth, i.e., a half-sibling to partners’ previous children. But not all single parents form new partnerships, and very few have children outside a coresidential union. Thus, these studies do not fully capture the experience in the population of childbearing with more than one partner.

As noted above, very recent research has focused explicitly on the phenomenon of childbearing with different partners. Carlson and Furstenburg (2006) reported that about a quarter of new parents in the Fragile Families Study (urban U.S. births) reported that they had children from a previous relationship. Estimates for a more representative sample of U.S. fathers, not conditioned on a recent birth, are somewhat lower, about 20 percent (Guzzo and Furstenberg 2007). Gray and Evans (2008) estimated that among cohorts just above childbearing age, between 10 and 17 percent of fathers, and 13 and 20 percent of mothers had a child with more than one partner. The proportion would, of course, be lower, among those still in the childbearing years. In Norway and Sweden, only about 10% of all parents in the childbearing years have a child with more than one partner (Thomson, Lappegård & Carlson 2010). Differences in data and/or methodology may account for the disparities across countries or datasets.

Most of these studies find that childbearing with different partners is associated with socioeconomic disadvantage. The association likely arises primarily from higher rates of non-union childbearing and parental separation among the disadavantaged (Härkönen and Dronkers 2006). Socioeconomic differentials could, however, be moderated by positive socioeconomic selection into repartnering and by social welfare contexts in which non-union childbearing is uncommon and parental separation not so strongly associated with socioeconomic characteristics.

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2 Their estimates vary depending on whether parents with two children born outside marriage are assumed to have had births with only one or more than one partner.
The contexts

The four countries we study are all among the “highest-low” fertility countries with total fertility rates between 1.7 and 2.1 (replacement level) children per woman as of 2001. The U.S. and Australia have lower rates of nonmarital childbearing (about one-third of births were nonmarital in 2000) compared to the two Nordic countries (where about half of births were nonmarital in 2000). This is due in large part to lower rates of cohabitation: In Sweden and Norway, births out of union are relatively rare (5-7 percent) in comparison to the U.S. (17 percent), although Australia (8 percent) is closer to the Scandinavian pattern than the U.S. The U.S. is an outlier in having the highest dissolution rates for both cohabitation and marriage. Most important for our purposes is that parents with children are much more likely to be single and at risk of childbearing with a different partner in the U.S., compared to the Nordic countries and Australia. (Sources include Andersson, 2002a; 2002b; Cherlin 2009; deVaus 2004; Sardon 2006a; 2006b; Sobotka and Toulemon 2008.)

Norway and Sweden are, of course, both social democratic countries with long histories of state support for parenthood (parental leave, public child care, leave for care of sick children and child allowances). Both represent the dual-earner model of family organization, though in this respect Norway is somewhat less egalitarian than Sweden. Transfers are high in the Nordic countries, with a resulting relatively low level of economic inequality. Due to oil reserves, Norway is, however, a much richer country than Sweden. Australia and the U.S. were both established as British colonies and have quite heterogenous populations in terms of ancestry and immigrant or colonial experience, compared to the Nordic countries. Both are classified among the ‘liberal’ welfare states (with a minimal safety net and emphasis on means-tested benefits), and economic inequality is much higher than in the Nordic countries (Smeeding 2005). Despite differences between countries within each pair, the two-by-two design is likely to offer more insight into the phenomenon of childbearing across partnerships than a more arbitrary set of comparative contexts.

Data and Methods

Our data come from nationally-representative surveys in Australia and the United States and from population registers in Sweden and Norway. This means, of course, that the quality of our data is confounded with the type of welfare state regime. The implications of these differences for our analyses and results are considered in the discussion section. In three countries, we observe birth cohorts from 1952 to 1991 or 1991. In the U.S., the oldest women observed were born in 1962. In all cases, women’s birth histories are observed until they reach age 45.

For Australia, we use data from the most recent wave (2008) of the Household, Income and Labour Dynamics in Australia (HILDA) survey, a nationally-representative longitudinal study. HILDA contains detailed information on birth and marriage histories, but information on cohabitation is limited. Respondents report the timing of the respondent’s first cohabitation, any cohabitation prior to a reported marriage and the total number of cohabitations. This means that some of the first births will likely appear as occurring out of union, when they in fact occurred in

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3 Sweden’s TFR has dropped to as low as 1.4 due to shifts in birth timing, but cohort fertility remains at about two children per woman.
cohabiting unions that did not result in marriage. Because we consider women with out-of-union first births to be immediately at risk of conception with another man (see below), we may overestimate childbearing with new partners in Australia.

For the U.S., we use data from the National Survey of Family Growth (NSFG), cycle 7 (continuous survey), conducted by the National Center for Health Statistics. Interviews are conducted 48 weeks of each year, with a new representative sample drawn every year. Samples can be accumulated across years, and new data files are released about every two years. We use data from the 2006-2008 release. Interviews of female respondents gather complete union and birth histories from which we can determine union status and union order for each birth, thus classifying births as occurring with the same or different partners. If a child is born within nine months of the end of a union and before a subsequent union, she is considered to be the child of the previous partner. If she is born 6 months or less before a union and not within nine months of a previous union, she is considered to be the child of the partner who coresided within six months. We also censor open intervals 6 months before the interview as we cannot observe a union after the interview but within six months of the birth. If the first birth is classified as out of union, we assume that the next birth is with a different partner. This decision produces a structural relationship between union status at birth and the birth outcome.

For Norway and Sweden, we use data from the national population registers. Because the registers include only events occurring in Sweden, we exclude women who migrated to Sweden after age 15. We use the multigeneration registers to match every woman with her children and obtain the year and month of the child’s birth. These registers also uniquely identify the father of each child; in a very small number of cases, fathers are not identified, but an unknown father can be presumed not to be the same person as the father of an earlier- or later-born child, whether identified or not. Thus, without reference to marriage or union histories we are able to determine whether a second or higher-order birth is with the same man as the first birth.

We first present comparative descriptive statistics on the proportion of women with two, three, four and five children who have children with more than one partner. We estimate discrete-time competing risks of having a second or higher-order birth with the same father as previous children versus a birth with a different partner. Duration dependence is specified as a linear and squared term for the first or youngest child’s age in years. Censoring occurs at women’s age 45, after the first birth with a different partner or at the last observation. Fixed covariates include the mother’s age at first birth, whether she had a marriage that dissolved prior to the birth, and parity in the first childbearing union. We do not include a control for the mother’s union status at birth because of the imposed relationship in the survey data between non-union births and subsequent birth outcomes.

Measures of social or economic conditions are limited to those that are common to all four data sources, including completed education for the woman and her mother. Indicators of immigrant status vary across countries. In the U.S. we know only if the woman is native-born or not. Australian women were classified as born in Australia, in another English speaking country, or in a non-English speaking country. In Sweden and Norway, we classify immigrants’ country of

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4 We make use of an extract prepared by Kelly Musick, Cornell University, for the Network on Nonmarital Childbearing, Max Planck Institute for Demographic Research.
birth into five groups: other Nordic countries (Sweden for Norway, Norway for Sweden); Western Europe, the U.S., Canada or Australia; Eastern Europe, Asia, Central and South America.

Our analyses provide new information about the prevalence, antecedents and processes of childbearing across partnerships in four Western countries with similar fertility rates, somewhat different patterns of childbearing and partnership behavior, welfare regimes that differ in their support for parenting/children, and quite different levels of inequality. This comparative research will shed light on the nature of contemporary family demography, particularly the complexity that results from ongoing fertility in the context of high union instability. The results have implications for the role of families in rearing and socializing children and for the role of government policy in supporting families in diverse circumstances.

References:


