

**Love, Marriage, then the Baby Carriage?  
Marriage timing and childbearing in Sweden**

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**ABSTRACT**

Some scholars claim that marriage is an outmoded institution, decoupled from the childbearing process in Sweden. Indeed, more than half of all Swedish children are born outside of marriage. However, it is likely that the presence of children is still linked to marriage, as the vast majority of children born to cohabiting couples will experience the marriage of their parents. The temporal ordering of childbearing and marriage may be informative as to the meaning of marriage. Marriage timing is structured around four possible meanings of marriage as a *Family Forming*, *Legitimizing*, *Reinforcing* and *Capstone* institution. An analysis of register data covering those born in Sweden between 1950 and 1977, residing in Sweden, and unmarried and childless at age 18 ( $N = 2,984,757$ ) reveals that *Family Forming* marriage (prior to a birth) is the dominate marriage type across cohorts, although there is an emerging trend toward *Capstone* marriage (after the birth of two or more children). Results demonstrate a continued link between childbearing and marriage, although the ordering of these events may be changing for some subpopulations.

Keywords: Marriage, Childbearing, Sweden, Population Register Data

## 1. INTRODUCTION

Marriage is a core institution of family life. Even in Sweden where cohabitation is normatively considered a suitable union for childbearing and cohabiting couples are granted nearly the same legal rights and responsibilities as married, a majority of Swedes have favorable views of marriage and will eventually marry (Bernhardt 2002; Bernhardt 2004; Bjornberg 2001; Ohlsson-Wijk 2011; Wiik, Bernhardt and Noack 2008). Lifelong cohabitations are rare in Sweden, particularly once a couple has shared children (Bernhardt 2002). Increasingly, however, marriage occurs at later ages, nearly all marriages are preceded by a lengthy period of cohabitation, and cohabiting couples are slower to formalize their unions through marriage (Bracher and Santow 1998; Duvander 1999; Heuveline and Timberlake 2004; Wiik, Bernhardt and Noack 2008). Furthermore, childbearing is increasingly likely to occur outside of marriage: more than half of all children in Sweden are born outside of marriage, although nearly 84% of those are born to cohabiting couples (Bernhardt 2004; Duvander 1999). It is likely, however, that the presence of children is still linked to marriage, as the vast majority (81.6%) of children who are born to cohabiting couples will experience the marriage of their parents (Heuveline and Timberlake 2004).

Despite this evidence, some claim that marriage is an outmoded institution, decoupled from the childbearing process (Heuveline and Timberlake 2004; Kiernan 2001; Rindfuss and VandenHeuvel 1990). This paper contributes to the broader literature on the meaning of marriage and presents evidence assessing claims regarding the reduced salience of marriage for childbearing in Sweden. Marriage timing in relation to childbearing is structured around four possible meanings of marriage as a *Family Forming*, *Legitimizing*, *Reinforcing* and *Capstone* institution. Where marriage is a *Family Forming* institution, marriage is a necessary prerequisite

for childbearing and should occur prior to a first conception. *Legitimizing* marriage, which closely follows a first conception or birth, indicates that while marriage is not normatively necessary for conception and birth, it is still closely linked to the first birth itself. Marriage some time after the first birth but before subsequent births indicates that, while marriage is not a prerequisite for childbearing, there is added symbolic security and stability to be gained from *Reinforcing* a union through marriage. Finally, where marriage occurs after second or higher order births, it may be considered the *Capstone* of family life; family building is complete and now the couple will label their achievement through marriage.

Using population registers, I describe patterns of marriage relative to childbearing for all Swedish women and men born between 1950 and 1977, residing in Sweden, and unmarried and childless at age 18, paying particular attention to differences by socioeconomic status. I demonstrate the prevalence of each of the four typologies of marriage relative to childbearing in order to explore the relevance of marriage and to shed light on how the meaning of marriage may have changed over time in Sweden.

## **2. THEORETICAL BACKGROUND**

Union formation and parenthood are interrelated processes. Social norms and social policy dictate that a child's parents are the primary parties responsible for the care, socialization and support of their children. Furthermore, norms emphasize that stable, committed unions (either marital or cohabiting) are the most appropriate context for bearing and raising children (Hobcraft and Kiernan 1995; Roussel 1989). Within unions, both parents have direct access to the child for both socialization and the transfer of resources. Furthermore, time resources and parental support to children can more easily be balanced by two residential parents. Children benefit

from this access: a wide range of empirical evidence suggests that children fare better in two-parent families (for examples see: Ginther and Pollak 2004; McLanahan and Sandefur 1994; McLanahan 2004; Thomson, Hanson and McLanahan 1994; Wu 1996).

As a consequence, union formation is an integral part of the procreation process and “individual desires for children [seem to] influence union formation and its timing,” as partners strive create the economic and social conditions for childbearing (Baizán, Aassve and Billari 2004, p. 537). Bennett and colleagues (1995) and Lichter and Graefe (2001) show that pre-union childbearing increases the likelihood of forming an informal union. Premarital pregnancies and births also increase the risk of marriage, particularly among cohabiting couples (Berrington 2001; Goldscheider and Waite 1986; Manning and Smock 1995), however this relationship may vary within populations (Harknett and McLanahan 2004; Manning 1993).

Historical, social and demographic data covering the early 20<sup>th</sup> century suggest a stigmatization of childbearing outside of unions, and outside of marriage more specifically. In general, sex was only sanctioned within marriage and a premarital pregnancy led to marriage (Axinn and Thornton 2000). In the latter half of the 20<sup>th</sup> century, however, the experience and ordering of these family life-course events has become more heterogeneous. For example, in Sweden, more than half of all births and two-thirds of first births occur outside of marriage, and by-and-large these births are to cohabiting parents (Bernhardt 2004). More broadly, births to cohabiting parents in Europe and the United States are on the rise: in the 1970s, fewer than one in ten births occurred to non-married cohabiting couples in Northern, Central, Eastern and Anglo-Saxon Europe; by the beginning of the 21<sup>st</sup> century, approximately half of all births in Scandinavia, one-third in France, over one-quarter in the UK and Austria, and just under one-

fifth in the Netherlands, Hungary, Russia and the United States were to cohabiting couples (Bernhardt 2004; Duvander 1999; Kennedy and Bumpass 2008; Perelli-Harris et al. 2009a).

This rise in non-marital births can be attributed to a number of factors: ideational change and shifts toward individualism and secularism associated with the Second Demographic Transition (Bumpass 1990; Lesthaeghe 1995; Lesthaeghe and Van de Kaa 1986; Van de Kaa 2002), increasing economic independence of women and the declining economic status of men (Becker 1991; Goode 1963; Oppenheimer 1994), and the increasing acceptability of childbearing within cohabiting unions (Bumpass 1990; Casper and Bianchi 2002; Heuveline and Timberlake 2004).

Some have suggested that marriage may no longer be an integral part of the childbearing process. As cohabitation becomes a less selective intimate union and family form, scholars suggest that it may become an alternative to or indistinguishable from marriage (Heuveline and Timberlake 2004; Kiernan 2001; Rindfuss and VandenHeuvel 1990). At this stage in the evolution of family forms, cohabitation becomes a culturally approved union type in which to bear and rear children and there is greater institutional support for cohabiting unions (Heuveline and Timberlake 2004). Both individuals and their children increasingly spend a larger proportion of their lives in cohabiting unions. Sweden has been identified as one context where cohabitation has reached this stage in the evolution of family life.

Even if marriage no longer uniformly *precedes* childbearing, it would be unreasonable to conclude that it is no longer *linked to* childbearing. It is possible that marriage may take on new symbolic meanings, distinct from union formation and the desire to have children. At the same time that recent cohorts of Swedish young adults express overwhelming support for childbearing and rearing within cohabitation, married and unmarried young people express positive feelings

about the marital union (Bernhardt 2002; Bernhardt 2004). Marriage is associated with romance and demonstrates that a couple is “really serious about the relationship” (Bernhardt 2004, 3). “Seriousness” may be associated with a longer-term commitment, security and stability for these couples. While bridal pregnancies, where marriage is preceded by pregnancy (i.e. “shotgun” marriages) may be less common, childbearing may still create incentives for couples to reinforce their existing union by adding a legal dimension to the union through marriage. In this case, marriage and childbearing might occur in tandem. Alternatively, where marriage follows childbearing, it may symbolize the *Capstone* of the family building process. Whereas marriage used to be “something to which one routinely accedes” and “the foundation of adult personal life, ...[now it may be] something to be achieved through one’s own efforts” (Cherlin 2004, p. 855).

Different meanings of marriage vis-à-vis childbearing can be identified by exploring the childbearing context in which a marriage occurs. Parity and age of a firstborn child may be key characteristics distinguishing new meanings ascribed to the institution of marriage. Here I propose four categories of marriage: *Family Forming*, *Legitimizing*, *Reinforcing* and *Capstone* marriage.

### **3. THE MEANING OF MARRIAGE**

#### **3.1. *Family Forming marriage***

Marriages that occur prior to childbearing conform to socio-historical family formation norms in the Western world (Axinn and Thornton 2000). For these couples, marriage represents an expression of permanency and a long-term commitment. Marriage is both a legal and symbolic step that should take place prior to other family formation behaviors. In particular, such an expression is necessary for the transition to parenthood. I classify marriages as *Family Forming*

if they occur before the conception of a child, with conception defined as 7 months before a birth.<sup>2</sup>

### **3.2. *Legitimizing marriage***

Where marriage occurs in tandem with or shortly after the beginning of childbearing, it is likely that these marriages are *Legitimizing* unions. Historically, legitimate births occurred only within marriage, thereby transferring filial rights and obligations to both parents. Marriages taking place after conception but before a birth conform to this historical standard. In Sweden today, however, filial rights and responsibilities are transmitted to parents regardless of their marital status (Bøe 2010; Waaldijk 2005; Ytterberg and Waaldijk 2005). Consequently I identify marriages occurring after a conception (7 months prior to a birth) as well as those occurring in the 12 months after a birth in the *Legitimizing* marriage category. Although marriage is not normatively necessary for conception and, in some cases, a birth, the marriage is still closely linked to the birth of the couple's first child.

### **3.3. *Reinforcing marriage***

Where marriage occurs a year or more after a first birth but before subsequent births it may be taken as an indication of *reinforcement*. For these couples, the transition to parenthood may be an explicit expression of seriousness and commitment. These couples do not see marriage as necessary for childbearing. However, the legal nature of the marital contract may provide an added sense of security, stability or permanency of the union. The introduction of a child into the union changes the couples' circumstances in such a way that marriage becomes desirable.

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<sup>2</sup> The period of conception is typically defined as 7 months before birth because prior to this (8 to 9 months before a birth), an individual would likely not yet know that they have conceived.

Because of strong preferences and norms about child spacing (Andersson 1999; Andersson 2004a; Hoem 1993), marriages taking place when couples have an “only child” aged 12 to 60 months are considered *Reinforcing* marriages.

### **3.4. *Capstone marriage***

Marriage may also occur sometime after the completion of childbearing. This type of marriage may be viewed as the *Capstone* of family life: now that the family is complete, the couple will marry (Cherlin 2004). *Capstone* marriage, too, demonstrates long-term commitment, as well as broader family and economic stability. With respect to childbearing, *Capstone* marriage is not associated with the mere expectation or presence of children, as with *Family Forming*, *Legitimizing* or *Reinforcing* marriage, but rather with achieving a desired family size. The long-term commitment of these unions is considered self-evident, demonstrated by childbearing. The *Capstone* marriage demonstrates an achievement and is a symbol of success (Cherlin 2004; Cherlin 2009; Edin and Kefalas 2005). I identify *Capstone* marriages as those which occur once an lone child reaches 5 years old, when the risk of a subsequent birth falls dramatically, suggesting the child will be an “only child” (Andersson 2004a), or marriages occur after a second or higher order birth.

### **3.5. *Cohort change***

Over the past half century, period marriage rates in Sweden have fluctuated. Rates began to decline in the 1960s, particularly among never-married, childless individuals (versus couples with children and the divorced). This early decline is attributed to the emergence of informal cohabitation as an increasingly important family form (Andersson 1998; Ohlsson-Wijk 2011).

The rate of decline was most pronounced in the 1960s, easing somewhat from 1972 to 1998, with some periods that countered the trend in the 1970s and in 1989 (Agell 1982; Andersson 1998; Hoem 1991; Ohlsson-Wijk 2011)). Since 1998, there has been a notable increase in marriage rates. Some of this increase is due to the Millennium Effect (a preference for marrying in the year 2000) (Andersson 2004b) and compositional changes in the population with respect to educational attainment and childbearing (Ohlsson-Wijk 2011). However, net of these factors there is clear evidence of increased first marriage risks, particularly among women 29 years and older (Ohlsson-Wijk 2011).

Fluctuation in marriage rates is due to both preferences for the institution itself (quantum) and preferences for the timing and context of marriage (tempo). Increasingly marriage occurs later in life, after establishing a joint household and after the birth of a child. Across Europe, there is a uniform trend toward later marriage, which contribute (at least in part) to falling period marriage rates (Kiernan 2000; Ohlsson-Wijk 2011; Raley 2000; Sobotka and Toulemon 2008; Trost 1978). Furthermore, marriage is no longer the central institution of family formation as in the mid-20<sup>th</sup> century; the majority of partnerships in Sweden, and an increasing share of partnerships in the Western World more generally, begin as cohabitation rather than direct marriage (Axinn and Thornton 2000; Heuveline and Timberlake 2004; Kiernan 2001; Sobotka and Toulemon 2008; Wiik 2009). Still, there is evidence that cohabitation is not a replacement for marriage, as there are few life-long cohabitations within a Nordic context (Bernhardt 2002; Heuveline and Timberlake 2004; Noack 2010) and each union type seems to be independently valued, suggesting that each may serve different purposes over the family life-course (Björnberg 2001; Noack 2001; Wiik, Bernhardt and Noack 2009). Finally, the timing and incidence of marriage relative to childbearing has also changed over the period. The share of extra-marital

births has increased in all Western countries and, again, Sweden can be considered a “forerunner” of this trend (Andersson 1998; Kennedy and Bumpass 2008; Perelli-Harris et al. 2009a; Sardon 2006; Sobotka and Toulemon 2008). By 1980 in Sweden, the average age of first marriage was later than the average age of first birth for women (Statistics Sweden 2002). Despite this reversal, there is evidence to suggest that pregnancy and childbearing may still be a trigger for marriage (Baizán, Aassve and Billari 2004; Blom 1994; Bracher and Santow 1998; Duvander 1999; Finnas 1995; Holland 2011; Manning and Smock 1995). Indeed, unmarried women with one child have the highest risk of marriage as compared to women at higher parities and women without children (Andersson 2004b).

These trends have emerged across time and across cohorts. Although we are limited in our ability to discuss changes across cohorts because we cannot follow the most recent cohorts to the end of their childbearing years, comparing cohorts at similar ages will provide insight into the meanings more recent cohorts attach to the marital institution.

### **3.6. *Within-population heterogeneity***

Even if one of the four typologies of marriage is found to be dominant, it is likely that all four marriage patterns may exist simultaneously within a population. Indeed, there is evidence that the symbolic meaning of marriage may differ by class, norms, and values. Consequently it is important to capture differences in marriage behavior between men and women, over time, and across socioeconomic and attitudinal characteristics (Baizán, Aassve and Billari 2004; Oppenheimer 1988; Sweeney 2002). Educational attainment is a key marker for (dis)advantage across the life-course. It is an excellent proxy for human capital and socioeconomic status, as well as a strong predictor of future economic attainment. A broad range of research has

demonstrated that educational attainment is associated with patterns of family formation (Cherlin 2009 (marriage and marriage market sorting); Goldscheider, Turcotte and Kopp 2001 (union formation); Hoem, Neyer and Andersson 2006a (completed fertility); Hoem, Neyer and Andersson 2006b (childlessness); see also: Kravdal 1999 (marriage); Perelli-Harris et al. 2009b (non-marital childbearing); for a review of the literature see: Thomson, Winkler-Dworak and Kennedy 2009). This relationship may be direct, via postponement of family formation due to longer enrollment periods (Kravdal 1994; Thalberg 2009), increased independence of women (Becker 1991), the increased importance of educational attainment for economic outcomes over the life-course, and via increased educational homogamy leading to stratification in economic and family life (Oppenheimer 1994; Schwartz and Mare 2005). So too, educational attainment may operate indirectly through divergent values and norms, such as gender egalitarianism and individualism, that may be associated with the acceptance of new family behaviors (Blossfeld and Huinink 1991; Hobcraft and Kiernan 1995; Lesthaeghe and Surkyn 1988; Lesthaeghe and Van de Kaa 1986; Van Bavel 2010; Van de Kaa 2002). As such, education provides a good proxy for social differences in preferences for, proclivity toward, and the timing of family behaviors, giving us insight into how and if marriage behaviors vary within the broader Swedish population.

## **4. DATA AND METHODS**

### **4.1. *Data***

Data for these analyses come from Swedish administrative registers. The database “Sweden in Time: Activities and Relations (STAR)” includes data for all persons residing in Sweden at any

time from 1947 to 2007.<sup>3</sup> Many events, including marriage, are recorded only from 1968. STAR includes information on births, civil status changes from 1968,<sup>4</sup> education, employment and income, and foreign-born status.

All individuals born in Sweden between 1950 and 1977 were identified. These birth cohorts were selected in order that full information on civil status changes from age 18 could be obtained (the 1950 birth cohort was 18 in 1968 when the civil status registers began) and to capture full information on all family life-course events up to at least age 30 (the 1977 birth cohort was age 30 in 2007). Demographic characteristics were merged with registers on educational attainment.

From the multigenerational register the children of the 1950 to 1977 birth cohorts were identified and their birth information merged onto the analysis file. Only the children from first childbearing partnerships were included. It should be noted that a disproportionate number of children were not linked in the multigeneration file to an identified father. Such children could have resulted from artificial insemination or a sexual relationship with an unidentified man, including a man not living in Sweden. It can be determined that they are not children living with cohabiting fathers, as routines for identifying cohabiting fathers at the birth of a child are well established (Thomson and Eriksson 2010). This means that the total number of children born to men in Sweden may be underestimated. The births are likely, however, not to have been known to the fathers and therefore could not influence their propensity to marry (another woman). Because there is no dwelling register in Sweden, I can only link cohabiting romantic partnerships

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<sup>3</sup> STAR was created by Statistics Sweden for a consortium of research projects at the Swedish Institute for Social Research (SOFI) and the Stockholm University Demography Unit (SUDA). The database is maintained at Statistics Sweden and is available only by remote online access.

<sup>4</sup> The civil status register include information on marriage and divorce (opposite-sex couples), registered partnership formation and dissolution (same-sex couples), and widowhood.

if the couple shares a birth. Once a birth occurs, registers contain an annual measure that captures the street address of the parents.<sup>5</sup> Because I am interested only in marriage prior to or within first childbearing partnerships, I use the indicator of parental residential status for the firstborn child to identify if and when an individual dissolves a first childbearing partnership (Thomson and Eriksson 2010).

The final analysis data file includes all women and men born in Sweden between 1950 and 1977 who were unmarried and childless at age 18, for a total of 1,437,173 women and 1,547,584 men. For a subsample of individuals whom I can observe until age 40 (born between 1950 and 1967), I test for differences in marriage types by educational attainment. Individuals for whom educational level is missing in the STAR database are omitted from this secondary analysis; this group constitutes less than 4% of women and men aged 40 across the three groups of cohorts. The subsample for the analysis of marriage differentials by education comprises 866,460 women and 923,967 men.

#### **4.2. *Methods***

In order to test for evidence of the four theoretical meanings of marriage proposed above, I categorize marriages conditioned on parity and age of firstborn child. I differentiate marriages that take place for individuals who have: (a) no children and are at least 8 months prior to a birth (*Family Forming* marriages); (b) conceived a child (7 or fewer months prior to a birth) or one child 12 months old or younger (*Legitimizing* marriages); (c) one child 13 to 60 months old (*Reinforcing* marriages); (d) one child more than 60 months old or two or more children (*Capstone* marriages).

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<sup>5</sup> Unless it indicates a single family home, the street address does not uniquely identify dwelling units (i.e., the street address does not include apartment number).

I tabulate types of marriages that have occurred by age 30, 40 and 50 for all individuals born between 1950 and 1977. For individuals born between 1950 and 1957 I have information on the experience of marriages prior to each of the ages of interest. For subsequent birth cohorts, I am unable to assess marriages for all ages: for the 1958 to 1967 birth cohorts I can observe marriages at age 30 and 40, but for the 1968 to 1977 birth cohorts I can only observe marriages at age 30. These tabulations correspond to the experience of marriage prior to or within a first childbearing union by each age and are not an indication of whether the marriage is still intact.

In the first set of tabulations, I present types of marriages experienced as a proportion of all individuals at 10 year age intervals for those born between 1950 and 1957 (Table 1). I distinguish those who have not (yet) experienced a marriage prior to or in a first childbearing partnership by parity and whether the first childbearing union is still intact. Those without children can be considered “at risk” for all four types of marriage; those with children and whose first childbearing union is still intact are still “at risk” for *Legitimizing*, *Reinforcing* or *Capstone* marriage, depending on parity and the age of the firstborn child; and those who have dissolved their first childbearing partnership are no longer “at risk” for any of the four types of marriage defined here.

Subsequent tabulations take account of changes across cohorts at ages 30 and 40. Here I present each type of marriage as a proportion of all marriages prior to or in first childbearing partnerships (Tables 2 and 3). Finally, to capture differences in the context of marriage by educational attainment, I present cross-tabulations of the categories of marriages experienced by age 40 by education status: compulsory (primary and lower secondary education), secondary (upper secondary and less than two years of post-secondary education) and tertiary (more than two years of post-secondary education) (Table 4).

The data are considered to be a true population: all tabulations correspond to the full Swedish population born between 1950 and 1977, and unmarried and childless at age 18. Because no sample is drawn there is no sampling error and it is not appropriate to conduct statistical hypothesis testing based on sampling theory (Berk, Western and Weiss 1995). The analysis and interpretation is concerned with the magnitude of difference across age and cohorts, and between educational subgroups within the population.

## 5. RESULTS

### 5.1. *The 1950 and 1957 Birth Cohorts*

Table 1 presents union and childbearing status at ages 30, 40 and 50 for women and men of the Swedish 1950 to 1957 birth cohorts. By age 30, about a quarter of women were unmarried and without children, 12% had one or more children in an intact non-marital union, and an additional 12% had at least one child, but experienced the dissolution of that first childbearing union. A little more than half of the women of these cohorts experienced a marriage before or in a first childbearing partnership by the age of 30. *Family Forming* marriage, whereby the marriage takes place prior to the conception of a first child, was the most commonly experienced type of marriage by the age of 30 (26.5% of all women). A further 16% of women entered *Legitimizing* marriages, which took place after a conception or within twelve months of a first birth. *Reinforcing* and *Capstone* marriages were both less common, constituting 5.5% and 4% of women, respectively.

As the women of the 1950 to 1957 cohorts aged, a decreasing proportion experienced neither a first birth nor a marriage: 11.6% of women at age 40 and 10.4% of women at age 50 were unmarried and childless. Shares of unmarried cohabiting women who experienced only a

first birth declined, consistent with a strong two-child norm in Sweden (Andersson 1999; Hoem 1990; Thomson and Hoem 1998). Interestingly, shares of unmarried cohabiting women with two or more children also declined over the period, suggesting that non-marital cohabitation with children may be largely a transitional family form for these cohorts. Indeed, the share of women whose first childbearing union dissolved without a marriage increased across the life course (to nearly 18% at age 50), as did shares of women experiencing a post-conception marriage: at age 50, 18.1% of women have experienced a *Legitimizing* marriage, 7% a *Reinforcing* marriage and 10.8% a *Capstone* marriage. The share of women who experienced a *Family Forming* marriage rose as well, to 30.7% at age 40 and to 31.5% at age 50.

Men of the 1950 to 1957 birth cohorts formed families at older ages than their female counterparts. More than two in five men had not yet experienced marriage or childbearing by age 30. Similar shares (12.5%) had at least one birth in an intact union, although a larger proportion had only experienced one birth. Fewer men than women experienced the dissolution of their first childbearing union by age 30 (8.7% of men versus 12% of women). More than one third of the men of these cohorts experienced a marriage prior to or in a first childbearing union by age 30; as with women, the largest proportion of marriages could be categorized as *Family Forming* (18.3% of men), followed by *Legitimizing* (11.2%), *Reinforcing* (4.3%) and *Capstone* marriages (2.6%).

Declining proportions of men were unmarried and childless (18.2% at age 50) or in co-residential non-marital partnerships with children (5.6% at age 50) over the life course. The proportion of men who experienced the dissolution of their first child bearing union rose with age, from 14% at age 40 to 16.2% at age 50. By age 50, about 60% of men experienced a

marriage prior to or in a first childbearing partnership: about 27% experienced a *Family Forming* marriage, 15.4% *Legitimizing* marriage, 7% *Reinforcing* marriage and 10.8% *Capstone* marriage.

Tables 2 (Women) and 3 (Men) depict the changing composition of marriages prior to or within first childbearing unions over the life-course and across cohorts. The first column of each table corresponds to the marriages of the 1950 to 1957 birth cohorts discussed above. For both men and women, the share of *Family Forming* marriages constituted a (narrow) majority of all marriages at age 30, but declined to about a 45% share by age 40 and 50. So too did *Legitimizing* marriage, the second most common marriage type, decline as a share of all marriages from about 30% at age 30 to about a quarter by age 40 and 50. The finding of the striking expansion of the share of *Capstone* marriages across the life course for both men and women is unsurprising, since it, by definition, requires progression from one to two (or more children) or that an only child reach age 5, events that are less likely to occur at younger ages.

## **5.2. Cohort Changes**

Tables 2 and 3 also present women's and men's marriages in or before first childbearing unions by age 30 and 40, for more recent cohorts. At age 30, about 52% of women from the earliest cohorts (1950 to 1957) experienced a marriage, as compared to 44% of the 1958 to 1962 cohorts, 38% of the 1963 to 1967 cohorts, 30% of the 1968 to 1972 cohorts and 25% of the most recent cohorts (1973 to 1977). At age 40, it is possible to compare the share of marriages across only three groups of birth cohorts, born between 1950 and 1967. The gap between the earliest cohorts (66% married in or prior to a first childbearing union) and the 1958 to 1962 (57.4% married) and 1963 to 1967 (51.4% married) cohorts was largely maintained when comparing shares at age 30 and 40. This suggests that the lower incidence of marriage may be in part due to quantum rather

than tempo shifts; there is little evidence to suggest that later cohorts' marriage rates fully "catch up" to those of earliest cohorts, at least by age 40. This pattern was also evident for men (Table 3): at age thirty about 36% of men from the earliest cohorts (1950 to 1957) experienced a marriage prior to or within a first childbearing partnership, while only 16% of the most recent cohorts (1973 to 1977) married; at age 40, nearly 60% of the earliest cohorts married as compared to 48% and 43.5% of men in the 1958 to 1962 and 1963 to 1967 cohorts, respectively.

While there were fewer marriages prior to or within first childbearing partnerships observed across cohorts at each age, assessing the share of each of the four categories of marriage as a function of all marriages is still insightful for understanding how the meaning of marriage may be changing. At age 30 for women and men across all cohorts, the largest share of marriages constituted *Family Forming* marriages. A smaller share of individuals born between 1958 and 1962 formed *Family Forming* marriages by age 30 as compared to the 1950 to 1957 cohorts; however, among those born after 1968, larger shares of *Family Forming* marriage were observed. There were uniformly smaller shares of *Legitimizing* marriages observed across cohorts, from about 30% of marriages of the earliest cohorts to 16% (women) and 17% (men) of marriage of the most recent cohorts. The share of *Reinforcing* marriages at age 30 remained stable across cohorts (approximately 11%). The share of *Capstone* marriage increased from only about 7% of the marriages of the 1950 to 1957 cohorts to 14% of women's and 11% of men's marriages in the subsequent cohorts (1958 to 1962). However, in later cohorts the proportion of *Capstone* marriages at age 30 was reduced somewhat, constituting only 11.5% of women's and 9.4% of men's marriages among the latest cohorts (1973 to 1977).

At age 40, shares of those who experienced a *Family Forming* marriage were similar across cohorts. The pattern of smaller shares of *Legitimizing* marriage observed across cohorts at

age 30 was still evident ten years later: while about 27% of women and men who married did so immediately preceding or following a birth in the 1950 to 1957 cohorts, only 22% of women and 21% of men of the 1963 to 1968 entered *Legitimizing* marriages. As at age 30, shares of *Reinforcing* marriages at age 40 were stable across cohorts, with a little over 1-in-10 marriages conducted between a first and second birth. Finally, the share of *Capstone* marriages became larger in later cohorts, from about 16% of women's and 17% of men's marriages among the earliest cohort to nearly 20% of marriages among the 1963 to 1967 cohorts.

### **5.3. *Within Population Heterogeneity: Educational differentials***

Table 4 presents educational differences in marriages previous to or in first childbearing unions at age 40 by sex and cohort. There was a clear, positive educational gradient in the proportion experiencing a marriage by age 40. For instance, nearly three-quarters of women with a tertiary education in the earliest cohorts experienced a marriage, compared with two-thirds of those with a secondary degree and about 60% of those with only compulsory education. This positive gradient was evident for both women and men, across each of the three groups of cohorts observed. As with the pooled results, the overall share of individuals married by age 40 in each education category declined across cohorts.

Differences in the types of marriages entered across education status were evident. The greatest diversity in marriage context was found among those with only compulsory education. While *Family Forming* marriage constituted the largest share of marriages for compulsory educated women and men across cohorts (roughly a third of marriages), large shares entered into *Legitimizing* (ranging from 24 to 29% across gender and cohort) and *Capstone* (ranging from 21 to 28% across gender and cohort) marriages as well. About 1-in-8 women and 1-in-7 men

entered into a *Reinforcing* marriage. At the other end of the educational spectrum, the vast majority of the marriages of tertiary educated women and men occurred before or immediately after a first birth. Across the cohorts observed, fully 75 to 80% of marriages were either *Family Forming* or *Legitimizing* marriages. *Reinforcing* marriage was less common among the highly educated (fewer than 1 in 10 marriages). So too did *Capstone* marriage constitute a smaller share of marriages for those with a tertiary education, ranging from around 10 to 15% of marriages before or in a first childbearing union.

Cross-cohort trends in the distribution of marriages described above were largely consistent within each educational group. *Family Forming* constituted the largest share of marriages across each of the education categories and shares of this type of marriage were largely stable across cohorts for all education categories, except among men with a tertiary education for whom the proportion of *Family Forming* marriages increased across cohorts from about 56% of marriage among the earliest cohorts (1950 to 1957) to 62% of marriages among the latest cohorts (1963 to 1967). There was evidence of reduced shares of *Legitimizing* marriage and larger shares of *Capstone* marriages across cohorts for those women with a secondary or tertiary degree and men of all educational levels. There was a nonlinear trend among women completing only compulsory education: there was an increase in the share of *Legitimizing* marriage and a decrease in the share of the *Capstone* marriage between the middle (1958 to 1962) and latest (1963 to 1967) cohorts observed. Shares of *Reinforcing* marriage were largely stable across cohorts for all education categories.

## 6. DISCUSSION

The most important contribution of this paper is to demonstrate the changing nature of the link between marriage and childbearing in Sweden. In reacting to trends toward later (and indeed less) marriage, some scholars have suggested that marriage is increasingly decoupled from childbearing and may be becoming an outmoded institution with respect to family life, particularly within Scandinavian contexts (Heuveline and Timberlake 2004; Kiernan 2001; Rindfuss and VandenHeuvel 1990). However, the results presented here suggest that marriage is still a salient institution in Swedish family formation, although there is evidence of increased diversity and divergence in the meaning of marriage across cohorts and subpopulations.

Among those who marry, *Family Forming* marriage continues to be the most common marital experience. That is to say, for the largest share of those who marry, marriage is an expression of permanency and long-term commitment that should be made prior to having children. For men and women born between 1950 and 1967, just under half of all marriages within first childbearing partnerships can be categorized as *Family Forming* marriages and in later cohorts *Family Forming* marriage remains the most common marital experience.

Across cohorts there is evidence that *Capstone* marriage, whereby individuals marry after an “only child” is at least 5 years old or after a second or higher-order birth, constitutes an increasingly important marital context. For this growing proportion of individuals, marriage is a secondary expression of commitment and stability, occurring after childbearing. This may suggest that increasingly the label “marriage” is only placed on a partnership once individuals have expressed their commitment through childbearing. At the same time, there is evidence of the waning prominence of *Legitimizing* marriage; a decreasing share of individuals formalize their unions just after a conception or in the year following a first birth. Taken together, these trends have led to greater diversity in the pool of marriages in Sweden and may indicate

divergence in the meaning of marriage: for some, marriage is a prerequisite for childbearing, for others marriage comes only after the completion of childbearing.

This divergence is further evident when exploring subpopulation variation in the ordering of family-life course events of those who marry in Sweden. There is a strong negative gradient in marriage entry and differential marriage patterns across educational groups. Marriage is much more common among the highly educated and those marriages are more closely tied to a first birth. There is evidence of a greater diversity of experience in the ordering of family life-course events for those with compulsory or secondary education. These subpopulations are more likely to enter marriage sometime after a first birth or once family building is complete and, particularly among the lowest educational category in the most recent cohorts, marriage prior to or in a first childbearing union is not a majority experience.

In addition to changes in the ordering of family life-course events, underlying all of these results are changes in the quantum and tempo of marriage. There is clear evidence of smaller shares of married or previously married individuals at age 30 across cohorts. Moreover, there is little evidence for a recovery in marriage rates, as the magnitude of cross-cohort differences in the shares of “ever married” at age 30 are largely unchanged at age 40. At the same time, there is evidence of changes in the timing of family formation. The proportion of women having children prior to a first marriage by age 30 has grown only marginally across cohorts, from 24% of the 1950 to 1957 birth cohorts to 28% of the 1973 to 1978 cohorts; the share of men experiencing a premarital birth by age 30 is stable across cohorts at about 20%. Much more dramatic growth is evident in the share of those experiencing neither marriage nor childbearing: from 24% and 42% of women and men of the earliest birth cohorts to 47% and 64% of the latest

cohorts observed (full tabulations not shown, but available upon request). This can be taken as evidence of increasing postponement of family formation among more recent cohorts.

In order to differentiate quantum, tempo, and ordering changes and their implications for the meaning of marriage in Sweden, it will be important to follow the marital and childbearing behavior of most the recent cohorts into middle-age. Of course, it is not yet possible to assess the marriage behavior of later cohorts at age 50. On the one hand, it is notable that between age 40 and 50, the distributions of marriages for the 1950 to 1957 cohorts do not change greatly. As such, we may be confident that we are gaining a reasonable picture of marriages prior to or within first childbearing unions at least through age 40 for cohorts born between 1950 and 1967. On the other hand, as younger cohorts increasingly postpone union and family formation, it may be difficult to capture post-childbearing marriage types, in particular *Capstone* marriage which is only observed at older parental ages, after progression to parity two or after an “only child” reaches age 5. This may limit our ability to detect changes in the meaning of marriage vis-à-vis childbearing among younger cohorts. Unfortunately, this limitation can only be resolved by waiting for later cohorts to complete their childbearing and formalize or dissolve first childbearing unions.

A distinct advantage of using register data is having nearly complete and comparable information on the entire population of Sweden. These data are ideal for describing the relationship between marriage and childbearing and how this relationship has changed over time at the macro-level. But this coverage comes at the cost of limited information on socio-cultural and background characteristics. As a result, I am limited in my ability to delve more deeply into how the context of marriage varies across subpopulations and to explore causal mechanisms underlying the observed changes over time. Findings on variation in marriage context with

respect to educational attainment provide some insights into how the meaning of marriage might vary across socioeconomic status and associated norms and values. Future qualitative and survey research will need to draw on a richer set of individual and couple characteristics to further explore individual-level differentiation in the risk and timing of marriage.

While these analyses are limited to individuals experiencing marriage within a first childbearing union, it is possible that their partners have already experienced a marriage or a birth in a prior union. Indeed, the framework used to evaluate marriage prior to or within first childbearing unions excludes an additional and important marriage type: marriages within step-families including both first marriages in higher order unions after the dissolution of a first childbearing union, and second and higher order marriages. These marriages are less frequent at the population level than marriages prior to or within first childbearing unions. Moreover, the meanings attached to these marriages may be more complex and the link to childbearing may be less straightforward, particularly when there are differences between partners' previous marital and childbearing histories. Still, assessing the meaning of marriage for step-families will contribute to our understanding of the changing nature of the institution and it merit further investigation.

The four-part marriage framework employed here emphasizes the interrelationships between marriage and childbearing. It is a unique theoretical innovation and is enlightening with respect to the nature of marriage in Sweden. Applying the framework to additional country contexts is an essential next step in order to deepen our understanding the nature of the institution of marriage. Given the diversity in the family life-course, the continued salience of marriage despite wide-spread acceptance of other family forms, and these results suggesting a

broadening range of meanings attributed to marriage, the Swedish context is a very useful starting point for broader comparative studies of the institution of marriage.

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## 9. TABLES

**Table 1.** Women's and men's union and parity status at 10 year age intervals, Swedish 1950-57 birth cohort (% , except where noted)

	Women			Men		
	Age 30	Age 40	Age 50	Age 30	Age 40	Age 50
Unmarried						
No children	23.8	11.6	10.4	42.3	21.2	18.2
Unmarried co-residential partnership with children						
1 child in current union	6.5	2.1	1.4	8.0	2.8	1.8
2+ children in current union	5.8	4.0	2.9	4.5	4.9	3.8
First childbearing partnership dissolved	12.0	16.3	17.8	8.7	14.0	16.2
Married						
Family Forming	26.5	30.7	31.5	18.3	25.3	26.8
Legitimizing	15.8	18.0	18.1	11.2	15.1	15.4
Reinforcing	5.5	7.0	7.0	4.3	6.9	7.0
Capstone	4.0	10.3	10.8	2.6	9.9	10.8
Total %	100.0	100.0	100.0	100.0	100.0	100.0
Total N	394,015	394,015	394,015	433,434	433,434	433,434

Source: Swedish administrative registers, Sweden in Time: Activities and Relations (STAR) database, 1968 - 2007.

**Table 2.** Women's marriages in or before first childbearing unions by age and cohort (% , except where noted)

	1950-57	1958-62	1963-67	1968-72	1973-77
Age 30					
Family Forming	51.2	47.4	49.9	57.6	60.9
Legitimizing	30.5	26.6	25.4	19.2	16.3
Reinforcing	10.7	11.7	11.9	10.8	11.3
Capstone	7.7	14.3	12.7	12.4	11.5
Total married <i>N</i>	204,429	107,644	107,844	79,100	62,009
Total married %	51.9	44.0	37.8	29.7	25.0
Age 40					
Family Forming	46.5	44.3	46.2	-	-
Legitimizing	27.3	24.4	22.2	-	-
Reinforcing	10.6	11.8	11.8	-	-
Capstone	15.7	19.4	19.8	-	-
Total married <i>N</i>	260,103	140,244	146,410	-	-
Total married %	66.0	57.4	51.4	-	-
Age 50					
Family Forming	46.8	-	-	-	-
Legitimizing	26.8	-	-	-	-
Reinforcing	10.4	-	-	-	-
Capstone	16.0	-	-	-	-
Total married <i>N</i>	265,730	-	-	-	-
Total married %	67.4	-	-	-	-

Source: Swedish administrative registers, Sweden in Time: Activities and Relations (STAR) database, 1968 - 2007.

**Table 3.** Men's marriages in or before first childbearing unions by age and cohort (% , except where noted)

	1950-57	1958-62	1963-67	1968-72	1973-77
Age 30					
Family Forming	50.2	48.4	51.4	59.4	61.9
Legitimizing	30.8	27.8	26.0	18.7	17.3
Reinforcing	11.8	12.0	12.0	11.5	11.4
Capstone	7.2	11.7	10.6	10.4	9.4
Total married <i>N</i>	157,966	78,691	76,771	52,104	41,018
Total married %	36.4	29.9	25.2	18.4	15.6
Age 40					
Family Forming	44.3	45.3	47.3	-	-
Legitimizing	26.5	24.3	20.8	-	-
Reinforcing	12.0	12.4	12.2	-	-
Capstone	17.3	18.1	19.8	-	-
Total married <i>N</i>	247,728	126,732	132,387	-	-
Total married %	57.2	48.1	43.5	-	-
Age 50					
Family Forming	44.6	-	-	-	-
Legitimizing	25.7	-	-	-	-
Reinforcing	11.7	-	-	-	-
Capstone	17.9	-	-	-	-
Total married <i>N</i>	259,904	-	-	-	-
Total married %	60.0	-	-	-	-

Source: Swedish administrative registers, Sweden in Time: Activities and Relations (STAR) database, 1968 - 2007.

**Table 4.** Educational differences in marriages previous to or in first childbearing unions at age 40, by sex and cohort (% , except where noted)

	Women			Men		
	Compulsory	Secondary	Tertiary	Compulsory	Secondary	Tertiary
<b>1950-1957</b>						
Family Forming	37.4	41.9	54.2	35.5	41.3	55.8
Legitimizing	29.1	28.2	25.9	27.1	26.8	25.5
Reinforcing	12.8	12.0	8.3	14.4	13.1	8.2
Capstone	20.7	17.9	11.7	22.9	18.8	10.5
Total married <i>N</i>	30,320	127,751	91,526	47,336	129,284	59,847
Total married %	59.5	66.9	72.0	51.9	59.3	68.9
<b>1958-1962</b>						
Family Forming	33.6	38.8	52.6	34.1	41.5	59.4
Legitimizing	24.2	25.3	23.8	26.0	24.8	22.3
Reinforcing	13.8	13.2	9.9	14.9	13.5	8.7
Capstone	28.4	22.7	13.7	25.0	20.2	9.7
Total married <i>N</i>	10,968	74,473	50,650	17,759	74,957	30,120
Total married %	49.1	57.4	64.8	42.7	49.1	60.3
<b>1963-1967</b>						
Family Forming	35.5	40.1	54.4	35.6	42.3	62.0
Legitimizing	26.0	23.5	20.5	25.1	21.7	17.6
Reinforcing	13.0	13.2	10.1	14.2	13.3	9.0
Capstone	25.5	23.2	15.1	25.2	22.7	11.4
Total married <i>N</i>	7,355	80,913	53,794	11,892	83,823	33,467
Total married %	38.8	50.8	60.4	34.6	44.1	56.4

Source: Swedish administrative registers, Sweden in Time: Activities and Relations (STAR) database, 1968 - 2007.

Note: Individuals for whom educational attainment is missing from the STAR database are omitted from the table. This group constitutes less than 4% of women and men aged 40 across the three cohorts.