Social background, social mobility, and becoming a parent in Sweden

Johan Carlsson Dahlberg
Magister in thesis in Demography
Interdisciplinary Magister Program in Demography
Department of Sociology, spring term 2010
Supervisor: Gunnar Andersson

Abstract: The purpose of this study is to examine what effect social background may have on the timing of becoming a parent in Sweden. By applying event-history techniques to data from the Swedish level of living survey (LNU) we try to separate the direct from the indirect effect of social background on timing of first childbearing. Few previous studies have focused on characteristics of social background and analysis of intergenerational effects on the age of becoming a parent. In this study, we show that the risk of becoming a parent is different for those who are mobile than for the socially non-mobile. The effect of social background on the propensity of becoming a parent is not just indirect via persons own educational careers. When we control for own educational level much of the impact of social background on the propensity of becoming a parent remains. We clearly show the existence of a significant direct effect of social background on the propensity to become a parent.

TABLE OF CONTENTS

Social background, social mobility, and becoming a parent in Sweden

> For one who starts at the bottom to arrive at the top, it is necessary to run fast and not to be encumbered with baggage. Thus, while an ambitious man can be served by a good marriage, /…/ his own children, particularly if they are numerous, almost inevitably slow him down. (Dumont 1890, quoted by Greenhalgh, 1988, p. 630-631)

Draw on ideas that can be traced back to Thomas Malthus, Arsène Dumont argued that small family size was favorable for upward social mobility. According to Dumont's theories, individuals have a natural desire to climb the social ladder and in this desire become less likely to have children. Not only the encouragement of upward mobility, but also the threat of downward mobility provokes fertility limitation (Kasarda et al. 1986). Even if Dumont's theories have been shown to have little empirical support (Westoff et al. 1961), theories connecting social mobility to reproductive behaviors have continued to arise. In the field of economy, the negative effect of family size on the social status of children is known as the quality-quantity trade-off, described in the work of Gary Becker (1981, 1991). Even if some studies has confirmed the relationship between fewer or no siblings and upward social mobility in post-industrial societies (Blake 1985, 1989, Powell and Steelman 1993) recent work casts doubt on the trade-off between child quality and child quantity within the family (Black et al. 2005, Guo and VanWey 1999, Downey 1995).

The main focus when studying social background and reproductive behaviors has usually been family size and sib spacing. Much less common are studies linking social background to the timing of becoming a parent. The decision when to have a child may have tremendous implications on both parents and children. Studies in the US have shown a strong statistical association between the age at which a woman has her first child and economic and social indicators of her later well-being. Most studies find that women who bear children at early ages are subsequently less likely to complete high school, less likely to participate in the labor force, and more likely to have low earnings than women who do not have children at early ages (Furstenberg et al. 1987, Hoffman 1998).

The main focus, when studying the timing of becoming a parent, has not surprisingly been on the generation who actually is in the reproductive ages. Different variables referring to the index family (family of destination) have been studied. Variables referring to the family of origin are much less commonly used in trying to explain the variation in timing of entry into parenthood. However, stratification research is mainly interested in the question to what extent the varying behaviors of the second generation (i.e. family of destination) is determined by the behavior of the first generation (i.e. family of origin) instead of only that of the second generation itself (Breen and Rottman 1995). By applying this type of focus we may be able to answer the question: to what extent is the timing of becoming a parent determined by the individuals' family of origin and to what extent is it influenced by his or her current family situation.

One of the most frequently used variables to explain postponement of childbearing is educational level (SCB 2002a). It should not be hard to realize that this variable is highly affected by social background. While educational level is one of the most influential variables on the timing of becoming a parent (connection c, Figure 1), educational level itself is highly correlated with social background (Jonsson1988, 2001 Jonsson and Erikson 1997a, 1997b) (connection b).

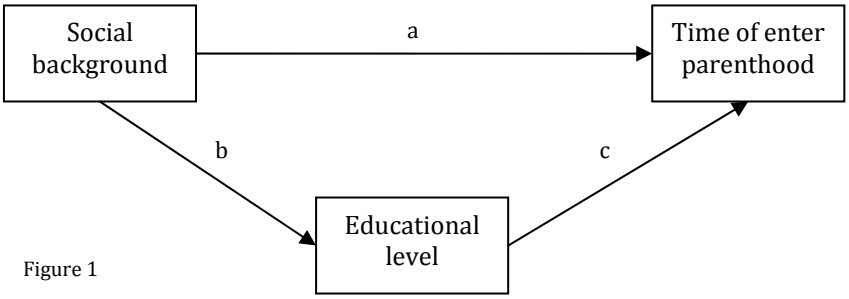


Figure 1

The purpose of this paper is to examine what effect a person's social background (connection a) and possible social mobility (connection b+c) may have on the timing of becoming a parent controlled for some other known variables that effect the timing of entry into parenthood. In other words, we aim at separating the direct effect (connection a) from the indirect effect (connection b + c) of social background on time of entry into parenthood in Sweden.

THEORETICAL FRAMEWORK – why does social background affect fertility?

The first issue we have to consider when studying a possible relation between social background and the timing of becoming a parent is the basic question why social background should affect the timing of becoming a parent. Why should the process of mobility or immobility affect reproductive behavior?

In order to understand how social background and social mobility may affect fertility behaviors, we must know what we mean by social background and social mobility, two terms that are closely related. In this study social background is defined by the individuals' parents' occupations (Erikson and Goldthorpe 2002). Social mobility is limited to intergenerational social mobility, i.e., social mobility between generations. An individual who in adulthood does not share social class with his or her parents are by definition social mobile. A person belonging to the same social class as his or her parents are non-mobile (Breen and Goldthorpe 2001).

It is important for the understanding of this study to stress the close relationship between social background and social mobility. If we study a possible effect of social background on fertility and control for own adult social class, we more or less automatically also examine social mobility's effect on fertility.

In a review of the literature on social mobility and fertility Bean and Swicegood (1979) establish four main explanations for how social mobility may affect fertility. Each of these four theoretical perspectives involves different predictions of the impact of social background and social mobility on fertility. Based on these predictions about the relationship between social background, social mobility and fertility, we can define four hypotheses that can help us analyse the relation between social characteristics and the timing of becoming a parent.

The *social isolation* perspective predicts that both the upward and downward mobile will have higher fertility than the non-mobile. The reason for this is that mobile individuals or couples is less integrated into the new social class than the non-mobile and receives little social support from the former social class. Individual and couples who has fewer and weaker social ties will, according to the social isolation perspective, compensate this lack of social support by creating new social ties, partly by having children (Ellis and Lane 1963, Hoffman and Wyatt 1960, Blau and Duncan 1967). We can from this theoretical perspective formulate a hypothesis that describes a possible relation between social background, social mobility and fertility, for both upward and downward mobile people. Expressed in terms of mobility and fertility the hypothesis will be as following;

H1: *Both upward and downward mobile individuals are at higher risk of becoming parents than non-mobile individuals.*

Total opposite to what the social isolation theory stipulates, the *stress and disorientation* perspective states that both upward and downward mobile individuals will have lower fertility than non-mobile individuals. The stress and disorientation perspective comes to the same conclusion as the social isolation perspective about how upward and downward mobility effects the individuals' social situation. According to the stress and disorientation perspective the mobile couples are more stressed and social disorientated due to fewer and weaker social ties than the non-mobile couples. But on the contrary to what the social isolation perspective specifies, the stress and disorientation perspective predicts that the fewer and weaker social ties will lead to lower fertility. Couples who feels that the world around them are stressful, norm-less and chaotic will not be as likely to take the decision to bring a child into the world as a couple who feels that the world around them are established and peaceful (Blau 1956). From this theoretical perspective we may formulate a hypothesis that predicts a low fertility for both upward and downward mobility. The hypothesis will be as following;

H2: *Both upward and downward mobile individuals are at lower risk of becoming parents than non-mobile individuals.*

The next theoretical perspective that describes the potential relation between social mobility and fertility is the so called *status enhancement* perspective which states that the upward mobile individuals will have lower fertility than the non-mobile. The downward mobile individuals will on the other hand have higher fertility than the non-mobile. The reason for this is, according to this perspective, that the desire to improve one's social status is an important motive for restricting family size. Upward mobility is predicted to affect fertility negatively because fewer children permit recourses to be devoted to achieving higher social positions. Opposite to the upward mobile individuals, downward mobile individuals are likely to have higher fertility because they choose to invest their resources in children rather than in activities that will improve or maintain their social status (Westoff 1953). In terms of risk of becoming a parent the hypothesis will be as following;

H3: *Upward mobile individuals are at lower risk of becoming parents than non-mobile individuals and downward mobile individuals are at higher risk of becoming parents than non-mobile individuals.*

The final theoretical perspective that tries to explain the relationship between social mobility and fertility is the *relative economic status* perspective, which usually is described as the work of Richard A Easterlin. According to Easterlin the birth rate does not necessarily respond to the absolute level of economic wellbeing but rather to levels relative to those to which one is accustomed. Easterlin assumes that the standard of living that an individual experience during his or her childhood is the base from which the individual evaluates his or her situation as an adult. Individuals who have improved their income as adults compared to their childhood levels will be more likely to feel that they can afford to marry early, enter parenthood early and have several children. Individuals who have a decreased income as an adult compared to their childhood level will be less likely to marry early, enter parenthood early and have several children (Easterlin 1973, 1975). The fourth and final hypothesis on the relationship between social mobility and timing of becoming a parent will be as following;

H4: *Downward mobile individuals are at lower risk of becoming parents than non-mobile individuals. Upward mobile individuals are at higher risk of becoming parents than non-mobile individuals.*

It should be easy to realize that these four hypotheses partly are contradictions to each other. As shown in Figure 2 only one of the four hypotheses can be entirely true in their predictions on the relationship between social background, social mobility and the risk of becoming a parent.

	Downward mobile	Non mobile	Upward mobile
Social isolation (H1)	+	0	+
Stress/disorientation (H2)	-	0	-
Status enhancement (H3)	+	0	-
Relative economic status (H4)	-	0	+

Figure 2

PREVIOUS RESEARCH

Although intergenerational patterns are more difficult to study because they require information about more than one generation, a number of studies have shown that demographic behaviors appear to be transmitted across generations. E.g. Dronkers and Härkönen (2008) and Gähler et al. (2009) shows that individuals whose parents divorced have a significantly higher risk of divorce. Gupta (2006) shows that the male participation in household work appear to be transmitted across generations. Axinn and Thornton (1993) shows that parental attitudes toward nonmarital cohabitation influence children's cohabiting behavior even after controlling for children's own attitudes. Tiikkaja et al. (2009) and Tiikkaja and Hemström (2008) shows that, although adult class is much more closely related to cardiovascular mortality, childhood class has a significant independent effect on cardiovascular mortality, too.

When it comes to intergenerational patterns of fertility, most studies have examined final family size across generations by examining the impact of number of siblings on ultimate fertility (Murphy and Wang 2001, Murphy and Knudsen 2002, Thornton 1980, Zimmer and Fulton 1980, Axinn et al. 1994, Katner and Kiser 1954). Fewer have examined intergenerational patterns of the timing of becoming a parent. However, there are exceptions:

In a study on New York city women who became mothers for the first time during the first half of the 1970s, Presser (1978) shows that the women's own mother's age at first birth is a strong predictor of the ages of their first birth, when controlled for socioeconomic background.

Using data from a three generations family panel survey conducted in Baltimore, Hardy et al. (1998), shows a significant association in intergenerational timing of age at first childbearing between mothers and their daughters and sons. Intergenerational patterns of age at first birth were also associated with the children's family and personal characteristics during childhood and adolescence, for example economic difficulties during childhood.

Using data from the municipal population register of the Netherlands, Steenhof and Liefbroer (2008) shows a high degree of intergenerational transmission in the age at which people have their first child. The degree of transmission from mothers to children seems to increase for successive cohorts.

Though there are some studies, even fewer have managed to include characteristics of social background or other equivalent information as control variables in the analysis of the intergenerational effects on age at first birth:

Using nationally representative longitudinal data from Great Britain, Manlove (1997) examines fertility patterns of daughters of teen mothers and finds that even after controlling for poor family background and own education, daughters of teen mothers were more likely to have a birth in their teens and into their early 20s. Low social class and large family size were associated with a greater risk of having a first birth at any time and higher social class at birth were associated with a reduced risk of fertility at any age.

Using data from the 1988 American National Survey of Family Growth (NSFG), Kahn and Anderson (1992) shows that daughters of both white and black teen mothers face significantly higher risks of teen childbearing than daughters of older mothers. The intergenerational patterns appear to operate at least in part through the socioeconomic class in which the child grows up.

Using data from an intergenerational panel study of mother-child pairs, Barber (2000) shows an intergenerational influence on the timing of entry into parenthood in the US. A young woman's grandfather's occupation influences her odds of a premarital first birth. Barber finds that young women whose grandfather had an upper blue collar occupation have approximately double the premarital first birth rates of young women whose grandfather had an upper white collar occupation.

Perhaps the best study in which age at becoming a parent and social background is taken into account is Bernhardt's (1989) study on the 1953 Stockholm Metropolitan birth cohort. Using longitudinal data comprising all women belonging to the 1953 Stockholm cohort, Bernhardt shows that social background can be used as an important explanatory variable when predicting an individual's time of entry into parenthood. The effect of the individual's social background on timing of becoming a parent exists independently of the impact of other variables such as the women's own educational career. The study shows that women whose father mainly worked as an unskilled worker during her childhood is more than twice as likely to have become a mother before the age of thirty than an upper middle class daughter. When other factors, such as mother's age at first birth, completed educational level, and current activity (student or non-student) are held constant the daughters to unskilled workers still have a fifty per cent higher first-birth propensity before the age of thirty than upper middle class daughters do.

DATA AND METHOD

The data that is being used in this study comes from the Swedish Level of Living Survey (LNU). LNU is a longitudinal study that was first conducted in 1968, consisting of a nationally representative sample of the Swedish population. The sample for the survey is a random sample of 1/1000 of the Swedish population aged 18 to 75. The survey was repeated in 1974, 1981, 1991 and 2000, with new recruitment of younger individuals and immigrants in order to maintain a representative sample (for details, see http://www.sofi.su.se/LNU2000/english.htm). For the purpose of this study, a data set has been constructed containing respondents aged 18–75 from the LNU study of 2000. The response rate for LNU 2000 was 76.1%.

The basic time variable in this study is **age of index person.** Respondents are included regardless if they ever get a child or not. The age is given in months since the respondent's fifteenth birthday. We follow respondents from age fifteen to a first birth or the time of interview. The respondents are at risk of becoming a parent (for the first time) until the time of the event (onset of pregnancy) or the age at the interview if no event has occurred until then. There is only one possible transition, i.e. becoming a parent (onset of pregnancy), and there are no competing events because a respondent can only leave the group of childless by becoming a parent. The time unit in the main model is month. When analysing some subgroups the time variable will in some cases instead be **time since finishing education**. For summary statistics on the variables used in this thesis see Table 4 in Appendix 1. Our main variables are as follows:

Gender is included in the Models even if we think we should be able to generalize the intergenerational processes for male and female individuals alike. For instance, if we believe that parents' social background affect their children's age at becoming a parent we should expect that parents affect both sons and daughters toward earlier or later childbearing. However men enter parenthood later than women, on average. Therefore, because parents' influences on their children's behavior are likely to decline as the child ages, sons' childbearing behavior may be less affected by parents' preferences (Rossi and Rossi 1990).

Social background is obviously included in the analysis as the primary purpose of this study is to analyse the relationship between social background and age of becoming a parent. In the Swedish Level of Living Survey the respondents were asked what their parents' main occupation was during childhood[1] (LNU 2000). These answers of parents' main occupation were then used to define social background using an index of socioeconomic position that follows the official Swedish socioeconomic index (SEI). Distinctions between self-employed and employees, and between employees with or without subordinates are based on additional information (Andersson, Erikson, and Wärneryd 1981, SCB 1982). The social class of the household rather than that of the individual, i.e., the highest SEI of both parents, are used (Erikson 1984). 26 cases have been excluded from the analysis because the respondent could not be assigned a social background. In its most aggregated form, which is the one used in this study, the classification of social background consists of four groups: (a) Workers (Unskilled manual workers and Skilled manual workers), (b) Lower middle class (Assistant non-manual employees and Intermediate non-manual employees), (c) Upper middle class (Employed and self-employed professionals, higher civil servants and executives), and (d) Self-employed (other than professionals) and farmers. The last category - Self-employed and farmers – may be a bit problematic when it comes to interpretation in terms of social stratification. Especially farmers but also self-employed individuals are more difficult to position in a hierarchic class structure. The unskilled manual worker and the farmer may share some characteristics that would make them equal, but on the other hand great differences divide them. For example, farmers have a freer work, but with greater risks of loss of income, while both farmers and unskilled manual worker may share the experience of physical labor (Erikson and Goldthorpe 1992). Because of problem of positioning farmers and self-employed individuals in a social class structure, the main focus in this study is on the other social backgrounds which are easier to interpret in terms of stratification.

[1] The question in LNU-questioner - Looking back at your childhood – up to age 16 when you (mostly) were at school – what was your father's/mother's (stepfather's/stepmother's) main occupation?

Birth year is included in the analysis of the relationship between social background and timing of becoming a parent, for two reasons. First, to enter parenthood before age 20 was maybe not the same experience in the 1950s as it was in the 1980s. What is considered young and old ages of becoming a parent has changed over the century (SCB 2002b). We therefore have good reasons to include birth cohort in the analysis. Second, as the social mobility has increased in Sweden during the twentieth century it may not be the same experience to move up or down the social ladder in the 1990s as it was in the 1940s (Jonsson and Erikson 1997a). Also the composition of social classes has changed during the twentieth century. The proportion of the population belonging to the working class or farmer was significantly higher in the early 1900s than it is today. Consequently we have a second good reason to include birth year in the analysis. The variable for birth cohort are grouped into six groups (birth year 1925-29, 1930-39, 1940-49, 1950-59, 1960-69, and 1970-81).

The variable for **educational level** is a time-varying covariate and measures the respondent's highest education attained at each month since the fifteenth birthday, as reported by the respondent him/her self[2] (LNU 2000). The variable measures the educational history up until the time of the interview. In many cases the reported educational history is the completed history but in other cases we have no way of knowing if the respondent's educational history will be changed in the future. The classification of educational level consists of three groups: (a) Lower education (Compulsory schooling or Short secondary education), (b) Intermediate education (Secondary education, Vocational Training above High School and short university courses), and (c) High education (University degree). A fourth category, Enrolled in education, is included to indicate if the respondent is currently enrolled as a student. Several studies have shown that Swedish men and women regard having completed an education as one of the most important aspects for their decision to become parents (SCB 2001, Kravdal 1994, Sobotka 2006). Thus, for each time unit (months since fifteenth birthday) the respondent can be assign a value that indicates a highest educational level or a value that indicates that the respondent is still enrolled in education.

[2] The question in LNU-questioner - What type of education have you had or what type are you currently pursuing?

In this study educational level should be understood as a proxy variable for own SEI. As the purpose of this paper is to examine the effects of social background on the timing of becoming a parent controlled for own social position the perfect dataset would contain both the data on social class in family of origin and family of destination. However, this is not the case. The LNU-data, used in this study, only contains information on respondents' own SEI at the time of interview, but these data do not correspond to the risk of becoming a parent at each time unit. Individuals do normally not achieve their final occupational class at the same time they finish their education. Previous research has shown that the final occupational class usually is achieved in the thirties to forties while final educational level is achieved significantly earlier (Härkönen and Bihagen 2010). In this study, current education as derived from reported histories on educational attainment is being used as proxy for own SEI.

Method

Relative risks of becoming a parent are calculated by applying event-history techniques which maximise the LNU data's longitudinal and individual-level information. We use a Cox proportional hazards Model in order to estimate the propensity to first birth. The intensity Model is highly useful when analysing life-course data, as it takes the time that a person is under risk of experience a given event into account. The respondents' risk of becoming a parent is modelled as a function of the respondents' different characteristics at every time unit. When no consideration is taken for interactions of variables the function can be written as follow;

$$h(t)= a_i b_i c_i$$

Where h(t) is the risk of becoming a parent considering the values of covariates a, b and c.

RESULTS

Table 1 reports the outcome of univariate cumulative "survival functions" for different population subgroups. The numbers in Table 1 shows the cumulative proportions that have become parents by ages 20, 30 and 40. We see that fewer men than women have become a parent at each of the three ages. By age 30 more than 70 percent of women have become a parent while the same number for men is 55 percent. By age 40 most of the difference between the percentage of women and men who become parents has vanished. Approximately 83 percent of women have then become a parent while the same number for men is 78 percent. This confirms what we know about gender differences in ages of becoming parent. Previous research has established that, in Sweden, men are on average two to three years older than women when they become parents for the first time but that the final difference in the proportions is relatively small (SCB 2002a). Later cohorts are in general less likely than earlier cohorts to have become parents at the three ages shown in Table 1. The trend toward later entry into parenthood is also in accordance with previous research. However, according to previous statistics (SCB 2002a) the proportions of individuals that are ultimate childless first decreased in Sweden during the first half of the twentieth century and then increased in the later half. We also see this trend in Table 1, as the oldest and youngest cohorts are the ones with the lowest proportions of parents at age 40.

Also educational level seems to have a high impact on when a person becomes a parent. In the statistics shown in Table 1 educational level refer to the highest level of education at the time of interview and not to the time varying variable used in our event history analysis. Because we do not know all respondents ultimate education, in cases of future updates of education, any assumptions about this variable and the propensity of having a first child should be done with some caution. 84 percent of the respondents with low education as their highest education have avoided becoming a parent at age 20. The same number for those who reported University degree as highest education is 98 percent. This is also in line with previous research (SCB 2002a). What is interesting is that those with low education are the ones who become parents to the greatest extent at the ages of twenty and thirty but to the lowest extent at age forty. At thirty years of age, approximately one out of three respondents with low education has not become a

parent while every second respondent who reported high education has avoided parenthood at the same age. At forty years of age, 77-79 percent of respondents have become parents, regardless of their educational level. Previous research (Andersson et al. 2009) has shown that even though educational level affects the timing of becoming a parent, the differences in ultimate childlessness between different education levels are relatively small.

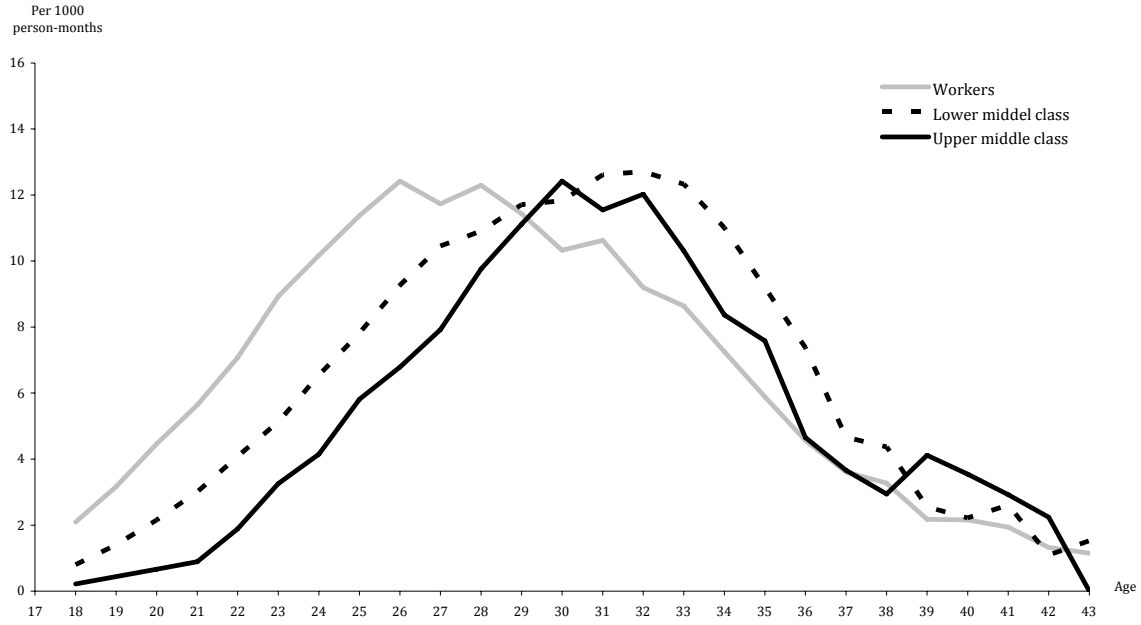
TABLE 1. CUMULATIVE PERCENT THAT HAVE BECOME A PARENT, BY GENDER, BIRTH COHORT, EDUCATIONAL LEVEL, AND SOCIAL BACKGROUND.

	Percent who have become parent by age		
Covariates	Age 20	Age 30	Age 40
Gender			
Female	13.7	70.8	83.7
Male	3.2	55.3	78.2
Birth cohort			
1925-29	12.5	69.0	82.9
1930-39	12.1	74.2	87.1
1940-49	13.5	75.6	86.9
1950-59	9.4	64.7	82.0
1960-69	5.0	59.5	-
1970-81	3.1	-	-
Educational level			
Low education	16.0	67.1	76.6
Intermediate education	3.5	57.8	78.9
High education	1.9	49.5	79.0
Social background			
Working class	12.0	68.7	82.9
Lower middle class	3.5	54.2	80.1
Upper middle class	2.4	47.9	74.1
Self-employed and Farmers	9.1	66.8	82.8

Finally, we can see that social background seems to affect when a person becomes a parent. 88 percent of the respondents with a social background of working class have not yet become a parent at age twenty. The same number for those with social background labeled Lower middle class or Upper middle class is almost 10 percent higher (96.5 percent and 97.6 percent). If we look at the oldest age shown in Table 1, we see that the difference between working class and lower middle class almost has disappeared, while those with social background labeled upper middle class still has not become parent to the same extent. At age forty, close to 20 percent of those born to parents belonging to working class or lower middle class have not become parents. Meanwhile, one in four individuals whose parents belong to upper middle class was still childless at age forty.

Figure 3 shows first-birth intensities (observed births/exposure rate) by age and social background and confirms the relationship between social background and the timing of becoming a parent. The first birth intensities for the social background of Self-employed and Farmers are not shown. The lines in Figure 3 have been smoothed by using central moving averages[3]. Individuals whose parents where skilled or unskilled manual workers have their first birth intensities peak at age 25. The corresponding rate for individuals whose parents were lower or upper middle class does not peak until five to eight years later. From the age of thirty and about five years on individuals whose social background are labeled lower or upper middle class has their highest first birth intensities. After the age of 37 there is relatively little difference between the three groups of social background.

FIGURE 3. OBSERVED OCCURRENCE/EXPOSURE RATES OF FIRST BIRTH, BY SOCIAL BACKGROUND.



Even if these findings points towards a relationship between social background and the timing of parenthood, they may raise as many questions as they answer because we have not controlled for any other covariates, especially educational level. We therefore continue the analysis but now with control for other covariates.

[3] for an explanation of moving average see Newbold et al. 2007 pp. 727-729.

Table 2 shows the relative risk of becoming a parent. In the main model (Model 2) all four covariates are included. Model 1 contains all covariates except the ones that measures educational attainment. This to emphasize the differences between direct and indirect effects of social background on the propensity to become a parent. As can be seen in Table 2, most but not all of the values for the covariates, used in the main model, are highly significant.

According to these results, a person that is currently enrolled in education has a 38 percent lower risk of becoming a parent than an individual which has completed his or her highest education. Almost as influential is gender. Seen to the results of the main model a male is 36 percent less likely to become a parent than a female with the same age, educational level, social background and birth year. Compared to the base category – individuals born between 1925 and 1929 – individuals born in the three next coming decades are at greater risk of becoming a parent, controlled for the other covariates. Persons born in the 1930s are at 27 percent greater risk and persons born in the 1940s are at 49 percent greater risk to become parents than persons in the base category. A person born in the 1950s are at 15 percent higher risk. Those born in the 1960s are at approximately 10 percent lower risk of becoming a parent, compared to those in the base category. The ones born after 1969 are almost at half the risk of becoming a parent. In accordance with previous research (SCB 2002a) these results describe a trend initially toward earlier parenthood followed by a trend of slower transition.

TABLE 2. RELATIVE RISK OF BECOMING PARENT FOR FIRST TIME. BY GENDER. BIRTH YEAR. EDUCATIONAL LEVEL. EDUCATIONAL ENROLLMENT AND SOCIAL BACKGROUND.

Covariates	**Model 1**	**Model 2**
Gender		
Female (ref.)	1	1
Male	0.64***	0.64***
Birth year		
1925-29 (ref.)	1	1
1930-39	1.26**	1.27**
1940-49	1.40***	1.49***
1950-59	1.08	1.15
1960-69	0.90	0.89
1970-81	0.58***	0.53***
Education		
Enrolled in education		0.62***
Lower education (ref.)		1
Intermediate education		1.08*
High education		1.22***
Social background		
Working class (ref.)	1	1
Lower middle class	0.78***	0.81***
Upper middle class	0.62***	0.66***
Self-employed and Farmers	0.95	0.96
N	4 912	4 912
Log likelihood	-25 420.4	-25 475.5
df	12	9
Number of events	3325	3325
Time at risk (months)	794 942	794 942

Notes: * indicates a p value of less than 5%. ** indicates p value of less than 1% and *** indicates statistically significance with the probability of a random effect lower than 1 per thousand (.000).

From the main model (Model 2) we see that those who have Lower education are at lower risk of becoming parents then the ones with Intermediate or High education as their highest completed educational level. To have Intermediate education as highest education increases the propensity of becoming a parent with nearly 10 percent compared with those with low education. The ones with High education as final education have a 22 percent higher propensity of becoming a parent once finished education. To be currently enrolled in education lower the risk of becoming a parent with approximately 40 percent. In short, the variable of education in Model 2 shows that

higher education leads to higher propensity of becoming a parent at comparable ages and once a person has finished his or her education.

Since the purpose of this study is to examine what effect a person's social background may have on the timing of becoming a parent when controlled for own social class (own educational level), both a Model (Model 2) with own educational level and a Model (Model 1) without educational level are included in the analysis. This is to better illustrate the direct and indirect effects of social background on fertility. If all of the effect of social background on the propensity of becoming a parent were indirect through social bias in recruitment to higher education, there would be no or very small differences in the values of relative risks of social background in Model 2.

In Model 1, we can see the effect of social background on the propensity of becoming a parent when we do not control for educational level. The relative risk of becoming a parent is more than 20 percent lower for those with lower middle class background compared to those with working class background. Furthermore, the relative risk of first birth is 38 percent lower for those with upper middle class background compared with those with working class background. When we include own educational level in the Model, the relative risk of becoming a parent for those with lower middle class background is 19 percent lower compared to those with working class background. This gives a decrease with 3 percentage points when we include own educational level in the analysis. Similarly, when we control for education the relative risk of becoming a parent is 34 percent lower for those with the upper class background compared to those with working class background. This gives a decrease in relative risk of 4 percentage points when we include own educational level in the analysis.

As already stated, we should expect no differences in the values of relative risks of social background in Model 2 (i.e. that all relative risks become 1), if we thought that all of the effect of social background on the risk of becoming a parent only existed indirectly through skewed recruitment to higher education. However, these results undoubtedly argue for the existence of a significant direct effect of social background on the propensity to become a parent, even when we control for individuals' own highest level

of education. The log likelihood statistics of the two Models indicates that educational level also is important and statistically significant in its association with first birth risk.

When we test the main model for interactions between various covariates we find significant interactions between both social background and own educational level, and between social background and gender. Consequently we have good reasons to suspect that the effect of social background on the risk of becoming a parent varies depending on the value of educational level and gender and vice versa. Therefore, we continue the analysis by presenting separate Models by social background (Model 3 to 6) and gender (Model 7 and 8) in Table 3.

Models 3-6 in Table 3 give analyses on each of the four levels of social background, separately. This is to better highlight the effect of social background and the timing of becoming a parent. Model 7 and 8 provide analyses on men and women, separately.

Seen to all four social backgrounds, the propensity to become a parent at comparable ages, sex and cohorts are higher among those with high completed education compared with those with low completed education. In Model 3, individuals with working class background who themselves have a university degree are at almost 40 percent higher risk of becoming a parent than individuals with the same social background but who only have low education. Even individuals with the social background of working class with Intermediate education are more likely to have their first child than those with working class background and low education. These results are particularly interesting for this study as they show the difference between mobile and non-mobile individuals from the working class.

TABLE 3. SUBGROUPS - RELATIVE RISK OF BECOMING PARENT FOR FIRST TIME. BY GENDER. BIRTH YEAR. EDUCATIONAL LEVEL. EDUCATIONAL ENROLLMENT AND SOCIAL BACKGROUND.

Covariats	**Model 3** Working class	**Model 4** Lower middle class	**Model 5** Upper Middle class	**Model 6** Self-employed and Farmers	**Model 7** Male	**Model 8** Female
Gender						
Female (ref.)	1	1	1	1		
Male	0.57***	0.75***	0.71**	0.65***		
Birth year						
1925-29 (ref.)	1	1	1	1	1	1
1930-39	1.50**	1.07	6.00	1.06	1.30*	1.27*
1940-49	1.77***	1.04	5.40	1.36*	1.31*	1.56***
1950-59	1.44**	1.03	3.38	0.86	1.00	1.23
1960-69	1.03	0.79	2.55	0.79	0.90	1.03
1970-81	0.80	0.44**	1.20*	0.39***	0.54***	0.70**
Education						
Enrolled in education	0.54**	0.56*	0.53*	0.91	0,64***	0,60***
Lower education (ref. in model 3. 6, 7 and 8)	1	0.75*	0.44***	1	1	1
Intermediate education (ref. in model 4)	1.06	1	1.14**	1.66*	1,13*	0,92**
High education (ref. in model 5)	1.38***	1.24*	1	1.53**	1,36***	0,96
Social background						
Working class (ref.)					1	1
Lower middle class					0.93	0.73***
Upper middle class					0.73***	0.61***
Self-employed and Farmers					1.05	0.88

Notes: * indicates a p value of less than 5%. ** indicates p value of less than 1% and *** indicates statistically significance with the probability of a random effect lower than 1 per thousand (.000).

For those with middle class background, we can see similar patterns. In Model 4 we can see that individuals with lower middle class background but who themselves have university degree has a 24 percent higher propensity of becoming a parent compared to those with the same social background but with Intermediate education. At the same time, those who have lower middle class background, but only low education has a lower propensity of becoming a parent compared with the ones with the same social background but with intermediate education. These results are consistent with those of Model 3, which indicated that upward mobility leads to a higher risk of first childbearing. Model 4 also suggest that downward social mobility leads to lower first birth risks.

The results from Model 5 are not as easily interpreted as those of Models 3 and 4. Model 5 shows that those with upper middle class background but who themselves have not more than low education have a 56 percent lower propensity of becoming parents then those with the same social background but with a university degree (reference category). This confirms the relationship between downward mobility and decreasing propensity of entering parenthood as Model 4 suggested. However, individuals with upper middle class background but with intermediate education have a higher propensity of becoming a parent than those with the same social background but with university degree as their highest educational level. Although it is a smaller step down on the social ladder, the ones with upper middle class background but with intermediate educational level must still be counted as downward mobile. Model 4 suggests that downward mobility would lower the propensity of first birth while the results from Model 5 are not as consistent.

That the results of Models 4 and 5 are not entirely consistent complicates the interpretations of our findings in relation to the hypotheses that were defined in the section on theoretical frameworks. The results of Model 3 to 4 tell us that upward mobile individuals are at higher risk of becoming parents then those who are non-mobile. Two out of four hypotheses containing such a prediction about upward mobility and the risk of becoming a parent. **H1**, based on the social isolation perspective predicted higher risk of becoming a parent for those who are upward mobile. Also **H4**, based on the relative economic status perspective, predicted that upward mobile individuals would be at higher risk of becoming parents than the non-mobile. None of the results in Table 2 and Table 3 contradicts the result that upward mobility would

increase the propensity of becoming a parent. Because we have no evidence that support the statement that upward mobile individuals are at lower risk of becoming parents, we should reject **H2** (stress and disorientation perspective) and **H3** (status enhancement perspective), which both predicts that upward social mobility would lead to lower risk of becoming a parent. By ruling out these two hypotheses, we have narrowed our research down to two possible hypotheses. These hypotheses have the same prediction about upward mobility and fertility but different predictions about downward mobility and fertility. While the **H1**, based on the social isolation perspective, stipulates that the downward mobile individuals would be at higher risk of becoming parents, **H4**, based on the relative economic status perspective, stipulates the opposite effect of downward mobility, namely that downward mobile individuals would be at lower risk of becoming parents.

As already mentioned, the results of Model 4 shows that downward mobility leads to lower risk of becoming a parent. Also in Model 5 we can see that some of those who are downward mobile are at a lower relative risk of becoming parents than those who are non-mobile. Individuals with upper middle class background and with low education have a significantly lower risk of becoming a parent than those who have the same social background but a university degree. These two results might suggest that the **H4** is the correct hypothesis on the relationship between social background and time to become a parent. However, results from Model 5 partly indicate that downward mobility can be associated with higher relative risk of becoming a parent. Individuals with upper middle class background and intermediate education have higher relative risk of becoming parents then those with the same social background but with a university degree as their highest education. This last finding therefore supports **H1** being the correct hypothesis. In the section on theoretical framework we argued that only one of the four hypotheses can be entirely true. Nevertheless, even if most of the results speak in favor of **H4**, looking at all of the results we have obtained, we cannot really decide which of the two remaining hypotheses that best describes the relationship between social background and the risk of becoming a parent. Seen to the information we have on the respondents in the LNU data it is difficult to see how we entirely can resolve such a tie.

Although our main results from Table 3 are not completely unidirectional they gave us an opportunity to consider the **H4** as the most likely hypothesis to be correct in the prediction about the relationship between social background and fertility. It is undeniable difficult to resolve what may be a tie between **H1** and **H4**. A larger data set with better opportunities to study subgroups within the total population may be a solution for future research. Alternatively, to include more control variables that may make it possible to confirm or reject any of the hypotheses would be a strategy to pursue.

As already mentioned, we also carry out separate analysis for men and women (Model 7 and 8 in Table 3). Although not all relative risks differences are significant at conventional levels, these results must be regarded highly interesting. In the main model (Model 2) in Table 2, we saw that higher education increase the propensity of becoming a parent. The results from the analysis done separately for men and women (Model 7 and d 8) shows that higher education seems to have a particularly strong effect on the propensity to become a father. A male with a university degree has a 36 percent higher propensity of become a parent compared to those with low education. Males with intermediate education have a 15 percent higher propensity of become a parent than those in the reference group.

However, when we look at the Model for women, we see that higher education does not seem to have the same positive effect on the propensity to become a mother. On the contrary, the relative risk of become a parent is marginally lower for women who are higher educated. Compared to the reference category (those with low education) the relative risk of becoming a mother is almost 10 percent lower for those with intermediate education. Thus, these results suggest that higher educations have different effects for males and females propensity of becoming a parent. Some of these results are consistent with some previous research on ultimate childlessness. SCB (2002a) have shown that high education of women may lead to higher probability of ultimate childlessness.

If we instead look at the effect of social background, we see that also this variable seems to have different degrees of influences for men and women. In the main model (Model 2) we saw that the lower middle class background reduces the relative risk of becoming a

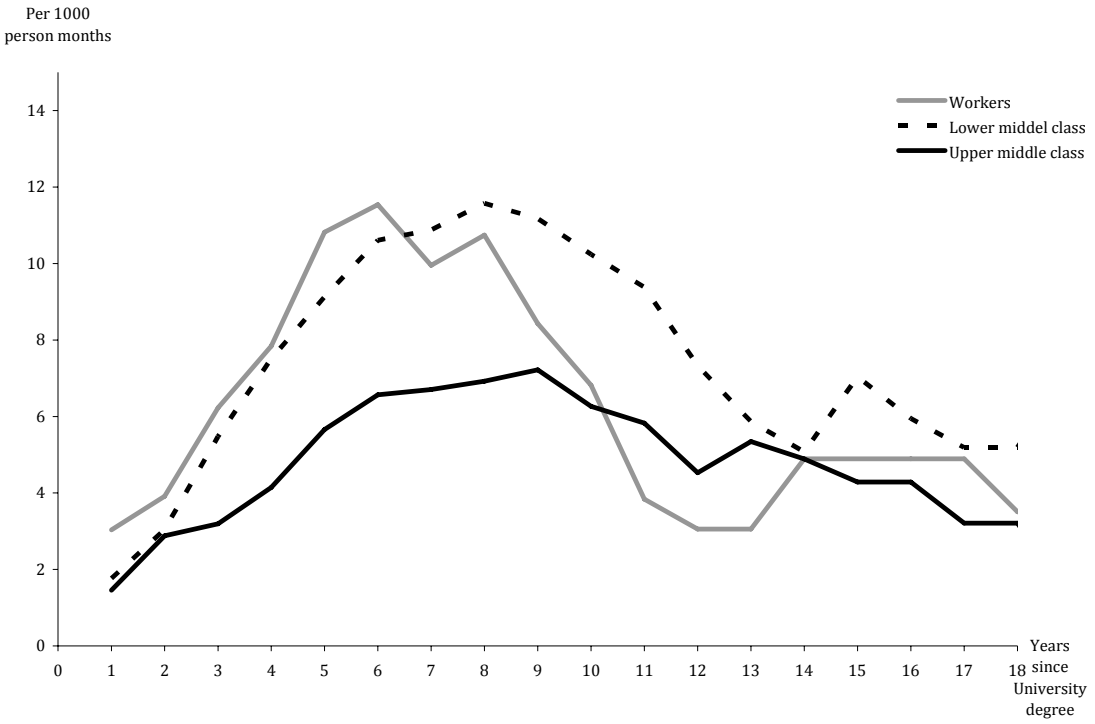
parent by approximately 20 percent. In the separate Model for men (Model 7), we see that the same relative risk is not significant different than that of men with working class background. In contrast, for women (Model 8) the relative risk is about a quarter lower for those with lower middle class background than for those with working class background. Similarly, the negative effect of upper middle class background on the propensity to become a parent seems to be greater for women than for men. The relative risk of becoming a mother is 40 percent lower for women with upper middleclass background than for women with working class background. Men with upper middle class background have a 25 percent lower conditional risk of becoming a father than men with working class background.

The conclusion is that both social background and education have different associations with men's and women's propensity to become a parent. Higher education increases the propensity of becoming a father and slightly reduces the propensity of becoming a mother. A higher social background reduces the first birth risk for both men and women, but to various degrees.

Since this study aims to examine differences in the timing of becoming a parent by social background and social mobility, we should also take a look at the differences in the timing of childbearing since finishing education and not only at the relative risks by social status as done in Table 2. Figures 4 and 5 show the first birth intensities (observed births/exposure rate), by time since finishing education for those with university degrees (Figure 4) and those with low education (Figure 5) as their highest finished education, divided by their social background. This bi-variate rate shows the conditional probability that a person will become a parent at a given duration since finishing education, given that he or she wasn't already a parent at the time. As can be seen on the x-axis the time of exposure is time since finishing education. In order to interpret the image correctly, we should take in account that the average age of university degree varies between the different social backgrounds. This is something we can assume being a factor on the time between achieved university degree and first birth. Individuals with a working class background are on average three years older than those with upper middle class background when they complete their university studies.

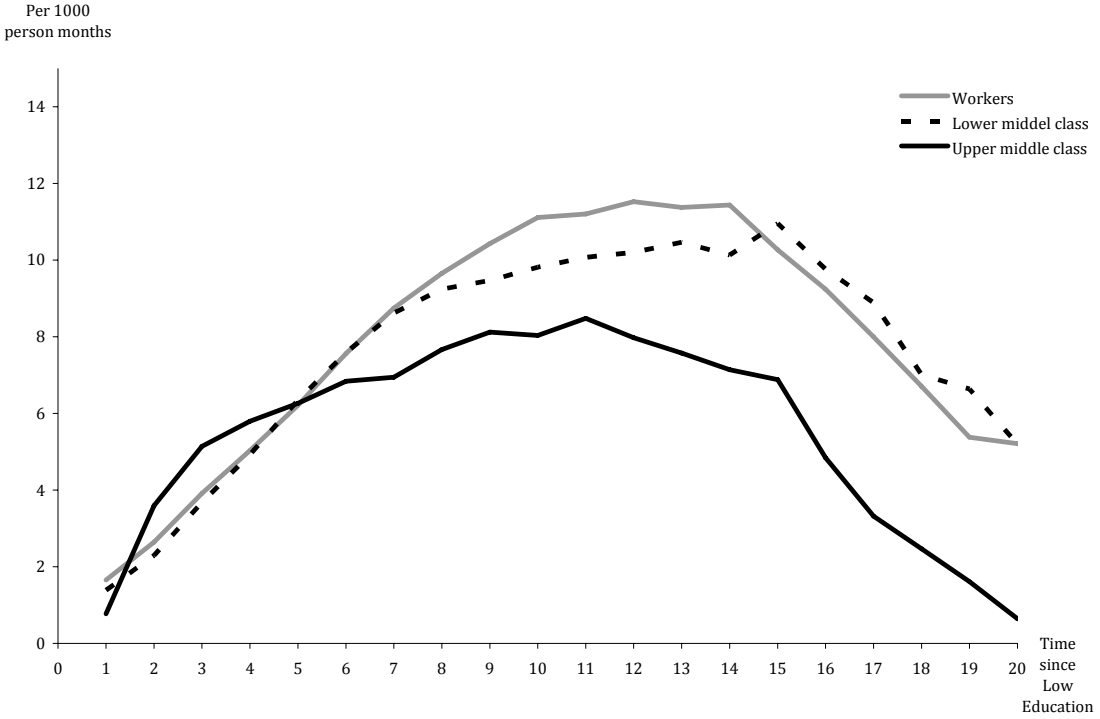
The average age difference between those with working class backgrounds and those with lower middle class background is one year.

FIGURE 4. OBSERVED OCCURRENCE/EXPOSURE RATES OF FIRST BIRTH, BY SOCIAL BACKGROUND. TIME SINCE UNIVERSITY DEGREE.



Individuals whose parents where skilled or unskilled manual workers have their first birth intensities peak 5 years after getting their university degree. The corresponding rate for individuals whose parents were upper middle class is much lower for the first eight years and doesn't peak so clearly. During the first nine years after achieve university degrees those whose parents belonged to the working class or lower middle class are significantly more likely to become parents than those whose parents were upper middle class. For those with working class background the rate drops quite rapidly about ten years after graduation and remains low throughout the observed time. Those with lower middle class background have a birth intensity similar to those with working class background but do not drop as rapid after ten years. Those with upper middle class background have significant lower first birth intensities throughout the whole period.

FIGURE 5. OBSERVED OCCURRENCE/EXPOSURE RATES OF FIRST BIRTH, BY SOCIAL BACKGROUND. TIME SINCE LOW EDUCATION.



In Figure 5 we can see that the risk of becoming a parent is more or less the same for the three groups of social background during the first five years after finishing low education. Five years after finishing low education and throughout the studied time, those whose parents belonged to the working class or lower middle class are significantly more likely to become parents than those whose parents were upper middle class. The first birth intensities peak approximately at the same time for those whose parents belonged to the working class or lower middle class. Those with upper middle class background, have their first birth intensity peak eleven years after finishing low education, while the intensity curve for those whose parents belonged to the working class or lower middle class continues to rise for another four or five years and doesn't peak until about fifteen years after completion of low education.

SUMMARY AND DISCUSSION

This study shows that there is evidence of an intergenerational effect on fertility through social background. Individuals with a working class background become parents more early than individuals with lower or upper middleclass background. Furthermore, individuals with a working class background have a higher risk of becoming parents when they are upward mobile. A step up on society's social ladder seems to lead to higher risk of first childbearing. The higher risk associated with upward mobility exists both compared to those with the same social background and no mobility and compared with those with the same high level of education and other social backgrounds. An individual whose parents were labeled working class has an almost 40 percent higher first birth risk if he or she has a university degree, compared with an individual with the same social background but with low education. At the same time, an individual with working class background and intermediate education has a 6 percent higher risk of becoming a parent, compared to those with the same social background but with low education.

For those with middle class background the effect of upward mobility are similar. Individuals with university degree whose parents belonged to the lower middle class has almost a 25 percent higher risk of becoming a parent compared to those with the same social background but with Intermediate education. At the same time, the ones with lower middle class background who are downward mobile have a 25 percent lower risk of becoming a parent compared to those with the same social background but who has been non-mobile. This could be interpreted as evidence that a step down on society's social ladder seems to lead to lower risk of becoming a parent.

Those with upper middle class background but who themselves have not more than low education have a 56 percent lower first-birth risk than those with the same social background and a university degree. This strengthens our earlier claim that downward mobility leads to lower risk of first childbearing. However, our results also show that those with upper middle class background but with intermediate education have a higher propensity of becoming a parent than those with the same social background but

with university degree. This last result suggests that there is not a straightforward relationship between downward mobility and the propensity of first birth.

In this study we also show that the relationship between social background and the propensity of becoming a parent not just works indirectly through different groups' educational success. When we control for own social class, in form of own education level, much of the impact of social background on the propensity of becoming a parent remains. Our results undoubtedly show the existence of a significant direct effect of social background on the timing and propensity to become a parent.

We have seen that upward mobility seems to be followed by an earlier entrance into parenthood. In terms of time since obtained university degree, the risk of becoming a parent is higher among those with working class background compared to those with upper middle class background. The intensity birth rate peaks much more early after university degree among those with working class background than among those with upper middle class background. If this difference is due to some underlying variation in behavior after graduation, we don't know. Perhaps people of different social backgrounds behave differently when they after finishing education try to establish themself on the labor market. This could have an effect on fertility behavior. Hoem et al. (2006) has shown that fertility also varies between different educational fields within the same educational level. Perhaps individuals from different social classes in varying extent apply and get accepted to different educational fields. From previous research (Erikson and Jonsson 1993, Högskoleverket 2002) we know that the recruitment to some prestigious university educations is very skewed in terms of social background. In addition to the possible variation by different educational fields, individuals might also be affected by the different internal levels of higher education. Possibly social background affects individuals differently depending on the type of university education. Also this we leave for future research to study.

This study has also showed that both education and social backgrounds have different impact on men's and women's propensity to become a parent. Increases in education raise the propensity of becoming a father but reduces the propensity of becoming a mother. A higher social background reduces the propensity to parenthood for both men

and women, but to various degrees. The effect of social background on the propensity of becoming a parent seems to be stronger for women than for men.

We also show that the risk of becoming a parent is essentially the same for those with working class, lower middle class or upper middle class background during the first five years after finishing low education. However, five years after finishing low education, those whose parents were working class or lower middle class are significantly more likely to become parents than those whose parents were upper middle class.

Although we included a measurement for generations, there is interesting possibilities for future research to deepen the analysis of changes over time. With a larger dataset it might be possible to better study changes in the relationship of social background and fertility over calendar time.

Since Sweden has a reputation as one of the world's most egalitarian countries with small differences between classes and relatively high social mobility between generations, it can be of interest in future research to compare the relationship between social background and fertility in Sweden with other developing countries. And in a longer run the analysis might also be extended to a comparison between developed and developing countries.

All of the four theoretical perspectives that were presented in the section on our theoretical framework assumed that the situation in the family of destination affects the reproduction behavior. According to these perspectives, it is the stressfulness and/or rootlessness **in** the new environment, or the satisfaction or dissatisfaction **within** the new environment that affect the individual to postpone the timing of becoming a parent. Another way of understanding social background, social mobility and reproduction behaviors is that it mainly is something in the family of origin that is affecting the reproduction behavior of socially mobile individuals. The socialization perspective views any differences between the behaviours of mobile and non-mobile individuals as due only to socialization in different social classes. The mobile individual has, in contrast with the non-mobile individual, been affected both by the class of origin and the class of destination. Socialization and social control may be two ways that parents influence

their children's behavior. Even if socialization and social control may have the same effect on the child – earlier or later entry into parenthood – there is an important difference between these mechanisms. While socialization affects the child's behavior by influencing how the child itself want to behave, social control get the child to behave in ways the parent find appropriate, independently from how the child itself might prefer to behave. Through socialization parents shape the child's own attitudes, preferences, and intentions (Bengtson 1975). Through social control techniques parents influence their children's behaviour independently of children's own attitudes (Smith 1988). Intergenerational survey data containing information on parent and child's preferences on family and children would give future research the opportunity to verify the relationships between social background and fertility controlled for socialization.

This study uses a relatively simple definition of social mobility. In the literature on social background and social mobility, there is a great discussion on how social mobility should be defined and used in quantitative research. Future studies could benefit from using more complex definitions of a social mobility that might better distinguish the effect of the social mobility from the effects of current social status.

This study has exclusively focused on the relationship between social mobility between generations, so-called intergenerational mobility. Another way to study issues of social mobility is to study social mobility within the generation, so-called intragenerational mobility. Future studies could extend the study on social background, intergenerational social mobility and fertility, control for various aspects of intragenerational mobility.

REFERENCES

Andersson, G., M. Rønsen, L. Knudsen, T. Lappegård, G. Neyer, K. Skrede, K. Teschner, and A. Vikat (2009). "Cohort Fertility Patterns in the Nordic Countries", *Demographic Research*, 20(14): 313-352.

Andersson, L.G., R. Erikson and B. Wärneryd (1981): "Att beskriva den sociala strukturen. Utvärdering av 1974 års förslag till socio-ekonomisk indelning", *Statistisk tidskrift*, 19: 113-136.

Axinn, W. G., M. E. Clarkberg, and A. Thornton (1994). "Family Influences on Family Size Preferences", *Demography*, 31(1): 65-79.

Axinn, W., and A. Thornton. (1993). "Mothers, Children, and Cohabitation: The Intergenerational Effects of Attitudes and Behavior.", *American Sociological Review*, 58(2): 233-46.

Barber, J. (2000). "Intergenerational Influences on the Entry into Parenthood: Mothers' Preferences for Family and Nonfamily Behavior", *Social Forces*, 79(1): 319-348.

Bean, F. D., and C.G. Swicegood. (1979). "Intergenerational Occupational Mobility and Fertility: A Reassessment", *American Sociological Review,* 44: 608-619

Becker, G. (1981). "Altruism in the Family and Selfishness in the Market Place", *Economica*, 48(189): 1-15.

Becker, G. (1991). *A Treatise on the Family*. Cambridge, Massachusetts, Harvard University Press.

Bengtson, V. L. (1975). "Generation and Family Effects in Value Socialization.", *American Sociological Review*, 40: 358-71.

Bernhardt, E. (1989). Social Background, Education and Childbearing Before 30: The Experience of the Stockholm Metropolitan Birth Cohort. Project Metropolitan Research Report No 28. Stockholm.

Black, S.E., P.J. Devereux, and K.G. Salvanes (2005). "The More the Merrier? The Effect of Family Size and Birth Order on Children's Education", *The Quarterly Journal of Economics*, 120(2): 669–700.

Blake, J. (1985). "Number of Siblings and Social Mobility", *American Sociological Review*, 50: 84-94.

Blake, J. (1989). *Family Size and Achievement*, Berkeley, California, University of California Press.

Blau, P. M., (1956), "Social Mobility and Interpersonal Relations" *American Sociological Review* 21(3): 290-295.

Blau, P. M., and O. D. Duncan. (1967). *The American Occupational Structure*. New York: Wiley.

Breen, R., and D.B. Rottman (*1995). Class Stratification: A Comparative Perspective.* New York, Harvester Wheatsheaf,

Breen, R., Goldthorpe, J.H. (2001). "Class, Mobility and Merit: The Experience of two British Birth Cohorts", *European Sociological Review,* 17: 81–101.

Downey, D.B. (1995) "When Bigger Is Not Better: Family Size, Parental Resources, and Children's Educational Performance", *American Sociological Review*, 60(5): 746-761.

Dronkers, J., and J. Härkönen. (2008). "The intergenerational transmission of divorce in Crossnational Perspective: Results from the Fertility and Family Surveys", *Population Studies,* 62(3): 273-288.

Easterlin, R. A. (1973). "Relative Economic Status and the American Fertility Swing.". In Sheldon, E.B. (ed.), *Family Economic Behavior*. Philadelphia: J.B. Lippincott, 170-223.

Easterlin, R. A. (1975). "An Economic Framework for Fertility Analysis", *Family Planning*, 6(3): 54-63.

Ellis, R.A., W.C. Lane (1963). "Structural Supports for Upward Mobility", *American Sociological Review,* 28(5): 743-756.

Erikson, R. (1984). "Social Class of Men, Women and Families", *Sociology*, 18: 500-514.

Erikson, R., and J. O. Jonsson (1993). *Ursprung och utbildning. - Social snedrekrytering till högre studier.* SOU 1993:85. Stockholm: Fritzes.

Erikson, R., and J. H. Goldthorpe (1992). "Individual or Family? Results from Two Approaches to Class Assignment", *Acta Sociologica*, 35: 95-105.

Erikson, R., and J.H. Goldthorpe. (2002). "Intergenerational Inequality: A Sociological Perspective", *Journal of Economic Perspectives,* 16(3): 31-44.

Furstenberg, F.F., J Brooks-Gunn, and S.P. Morgan (1987). *Adolescent Mothers in Later Life*. Cambridge, Cambridge University Press.

Gähler, M., Y. Hong, and E. Bernhardt. (2009). “Parental Divorce and Union Disruption Among Young Adults in Sweden”, *Journal of Family Issues,* 30(5): 688-713.

Greenhalgh, S. (1988). “Fertility as Mobility: Sinic Transition”*, Population and Development Review,* 14(4): 629-674*.*

Guo, G., and L.K. VanWey (1999). “Sibship Size and Intellectual Development: Is the Relationship Causal?”, *American Sociological Review*, 64(2): 169-187.

Gupta, S. (2006). “The Consequences of Maternal Employment During Men's Childhood for their Adult Housework Performance”. *Gender and Society,* 20(1): 60-86.

Hardy, J. B.; N. M. Astone, J. Brooks-Gunn, S. Shapiro, and T. L. Miller (1998). “Like mother, like child: Intergenerational patterns of age at first birth and associations with childhood and adolescent characteristics and adult outcomes in the second generation”, *Developmental Psychology*, 34(6): 1220-1232.

Hoem, J., G. Neyer, and G. Andersson (2006). “Education and childlessness: The relationship between educational field, educational level, and childlessness among Swedish women born in 1955-59”, *Demographic Research,* 14(15): 331-380.

Hoffman, L. W., and F. Wyatt. (1960). “Social change and motivations for having larger families: some theoretical considerations.", *Merrill-Palmer Quarterly,* 6: 234-44.

Hoffman, S.D. (1998). "Teenage Childbearing Is Not So Bad After All ... Or Is It? A Review of the New Literature.", *Family Planning Perspectives,* 30:236-40.

Härkönen, J., and E. Bihagen. (2010) Occupational attainment and career progression in Sweden. Working paper. SOFI, Stockholm University

Högskoleverket (2002). *Studieresultat och bakgrund*. S. Forneng. Statistik & analys.

Jonsson J.O. (1988). *Utbildning, social reproduktion och social skiktning*, Stockholm: Almqvist and Wiksell International.

Jonsson J.O. (2001). *Utbildning som resurs under skoltiden och för framtiden: uppväxtfamilj och skolgång*. In SOU 2001:55 *Barn och ungdomars välfärd*. Forskarantologi från Kommittén Välfärdsbokslut, Stockholm: Fritzes offentliga publikationer.

Jonsson, J.O., and R. Erikson (1997a). "Klasstruktur och social rörlighet under 1900-talet". In Vogel, J., Häll, L. (ed.): Välfärd och ojämlikhet i 20-årsperspektiv 1975-1995. Rapport 91 i serien Levnadsförhållanden, Stockholm: SCB, 491-511.

Jonsson, J.O., and R. Erikson (1997b). “Social snedrekrytering i svensk skola”. In Vogel, J., Häll, L. (ed.): Välfärd och ojämlikhet i 20-årsperspektiv 1975-1995. Rapport 91 i serien Levnadsförhållanden, Stockholm: SCB, 513-527.

Jonung, C. (1997). ”Yrkessegregeringen mellan kvinnor och män” in I. Persson and E. Wadensjö (eds.). *Glastak och glasväggar?,* SOU 1997:137. Stockholm, Fritzes.

Kahn, J. R., and K. E. Anderson (1992). “Intergenerational Patterns of Teenage Fertility”, *Demography*, 29(1): 39-57.

Kantner, J. F., and C. V. Kiser (1954). ”The Interrelation of Fertility, Fertility Planning, and Intergenerational Social Mobility”, *The Milbank Memorial Fund Quarterly*, 32(1): 69-103.

Kasarda, J., J. Billy, and K. West (1986). *Status Enhancement and Fertility.* Orlando, Florida, Academic Press.

Kravdal, Ø. (1994). “The Importance of Economic Activity, Economic Potential and Economic Resources for the Timing of First Births in Norway”, *Population Studies*, 48(2): 249-267.

Li, J. H. (1998). “Gender Differences in Class Mobility: A Comparative Study of the United States, Sweden, and West Germany”, *Acta Sociologica*, 41(4): 315-333.

Manlove, J. (1997). “Early Motherhood in an Intergenerational Perspective: The Experiences of a British Cohort”, *Journal of Marriage and Family*, 59(2): 263-279.

Murphy, M. and, L. B. Knudsen (2002). “The intergenerational transmission of fertility in contemporary Denmark: The effects of number of siblings (full and half), birth order, and whether male or female”, *Population Studies*, 56(3): 235-248.

Murphy, M., and D. Wang. (2001). “Family-level continuities in childbearing in lowfertility societies”, *European Journal of Population,* 17(1): 75-96.

Newbold, P., W.L Carlson, and B. Thorne (2007). *Statistics for Business and Economics.* Pearson education, New Jersey.

Powell, B., and L.C. Steelman (1993). "The Educational Benefits of Being Spaced Out: Sibship Density and Educational Progress", *American Sociological Review,* 58: 367-381.

Presser, H. B. (1978). "Social Factors Affecting the Timing of the First Child.". In W. Miller and L. F. Newman (eds.), *The First Child and Family Formation*. Chapel Hill, North Carolina, Carolina Population Center.

Rossi, A. S., and P. H. Rossi (1990). *Of human bonding: Parent–Child relations across the life course*, New York, Aldine de Gruyter.

SCB (1982). *Socioekonomisk indelning (SEI).* MIS 1982:4. Statistiska centralbyrån, Stockholm. Erikson, R. (1984) "Social class of men, women and families", *Sociology* 18(4): 501–514.

SCB (2002a). Hur många barn får jag när jag blir stor? – Barnafödande ur ett livsperspektiv. L. Persson and G. A. Stenflo. Demografiska rapporter 2002:5.

SCB (2002b). Mammor och Pappor - Om kvinnors och mäns föräldraskap 2001. S. Öberg and T. Israelsson. Demografiska rapporter 2002:7.

Smith, T. E. (1988). "Parental Control Techniques: Relative Frequencies and Relationships with Situational Factors",. *Journal of Family Issues,* 9: 155.

Sobotka, T. (2006). "In Pursuit of Higher Education, Do We Postpone Parenthood Too Long?", *Gender Medicine* 3(3): 183-186.

Steenhof, L., and A. C. Liefbroer.(2008). "Intergenerational transmission of age at first birth in the Netherlands for birth cohorts born between 1935 and 1984: Evidence from municipal registers", *Population Studies*, 62(1): 69-84.

Thornton, A. (1980). "The Influence of First Generation Fertility and Economic Status on Second Generation Fertility", *Population and Environment*, 3(1): 51-72.

Tiikkajaa, S., and Ö. Hemström. (2008). "Does intergenerational social mobility among men affect cardiovascular mortality? A population-based register study from Sweden", *Scandinavian Journal of Public Health*, 36(6): 619-628.

Tiikkajaa, S., Ö Hemström, and D Vågerö (2009). "Intergenerational class mobility and cardiovascular mortality among Swedish women: A population-based register study",. *Social Science and Medicine,* 68(4): 733-739.

Westoff, C. F., R. G. Potter, P. C. Sagi, and E. Michler (1961). *Family Growth in Metropolitan America*. Princeton, *New Jersey,* Princeton University Press.

Westoff, C.F. (1953). "The changing focus of differential fertility research: the social mobility hypothesis", *The Milbank Memorial Fund Quarterly*, 31(1): 24-38.

Zimmer, B. G., and J. Fulton (1980). "Size of family, life chances, and reproductive behavior", *Journal of Marriage and the Family,* 42: 657–670.

Internet source

LNU (2000). KODBOK – Levnadsnivåundersökningen 2000.
http://www.ssd.gu.se/en/catalogue/file/1636 (2010-05-12).
http://www.sofi.su.se/LNU2000/english.htm (2010-05-12)

APPENDIX 1

TABLE 4: SUMMARY STATISTICS OF VARIABLES USED IN ANALYSIS OF SOCIAL BACKGROUND, SOCIAL MOBILITY, AND TIMING OF BECOMING A PARENT IN SWEDEN

Covariates	Individuals	Percentage
Gender		
Female	2 432	49.2
Male	2 508	50.8
Birth cohort		
1925-29	259	5.2
1930-39	627	12.7
1940-49	927	18.8
1950-59	898	18.2
1960-69	1 032	20.9
1970-81	1 197	24.2
Educational level (Highest completed)		
Low education	2 978	60.3
Intermediate education	1 411	28.6
High education	551	11.1
Social background		
Working class	2065	41.8
Lower middle class	1375	27.8
Upper middle class	615	12.4
Self-employed and Farmers	859	17.4
Missing	26	0.5