Family Commitment among Fast-Track Professionals in Sweden, 1991–2005

A Longitudinal Register-Based Study of How Continued Childbearing and Union Stability Vary Among Groups of High-Achieving Women and Men

Maria Stanfors

Center for Economic Demography and Department of Economic History Lund University, Sweden Maria.Stanfors@ekh.lu.se

Abstract

This paper studies family commitment among fast-track professionals and explores how continued childbearing and union stability vary among high-achieving men and women. The focus is on three particular fast-track professional groups (e.g., lawyers, medical doctors and Ph.D.s), that face quite different career structures and work environments that may affect family life. The determinants of having a second or a third birth are analyzed multivariately using longitudinal data on couples from different population registers in Sweden, 1991–2005. Union dissolution is also considered, by a simultaneous analysis of the impact of the variables on having a birth and dissolving the partnership, using a multinomial logit model. The results indicate that career choice affects higher-order fertility: physicians are more likely to continue childbearing than the other two professional groups studied. Female physicians are also less likely to separate. Professional orientation affects family life in line with hypotheses about work-family conflicts that exist in different fields and how these can be mediated. One strategy for women is to find employment in the public sector. Another may be to find an equal and understanding partner. There is also the option of union dissolution, which is manifested in a highly gendered way. The results indicate that the couple context is very important as it reflects the relative power balance within the couple.

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Introduction

This paper studies family commitment among families headed by either a male or female fast-track professional in Sweden during the period 1990–2005. Continued childbearing and union stability is analyzed for couples of which at least one of the spouses has a Ph.D. or a degree in medicine or law. The determinants of having a second or a third birth are analyzed multivariately using longitudinal data on couples from different registers. Union dissolution is also considered, by a simultaneous analysis of the impact of the variables on having a birth and dissolving the partnership, using a multinomial logit model.

When it comes to gender equality, Sweden, together with its Scandinavian neighboring countries, is seen as a forerunner in international comparison. Women's progress in education and the labor market has been comprehensive during the last 40 years (Stanfors, 2003). Women now make up more than half of all students in higher education; they have equally high labor force participation rates as men; the majority of women work, even if they have children; and the gender wage gap has narrowed substantially. Today, a rather equal proportion of women and men are continuing for high-status degrees and enter fast-track professions as law, medicine and university teaching.

Generally, high levels of education and career orientation among women are related to delayed and reduced involvement in family life, indicating that professional gains may be offset by familial losses. Since this is not the case for men, there is an issue of gender inequality affecting women's overall accomplishment and well-being more than men's. Recent evidence from the Scandinavian countries, give us, however, reason to believe that the correlations between women's education, career and fertility are neither simple nor straightforward negative (e.g. Esping-Andersen, 2007). It is also overly simplistic to just study women since family-related issues are the result of mutual decision-making and couple interaction. Actually, in a previous study on Swedish data, Dribe & Stanfors (2008) show that couples, in which both partners are academic graduates and potentially have high-powered careers are more likely to continue childbearing than other couples. In order to improve our understanding further, this study endeavors to explain differences with respect to continued childbearing and union stability within the group of highly educated professionals, with respect to gender and professional orientation, from a couple perspective.

The paper is organized as follows: a brief discussion on some theoretical considerations and previous research is followed by a presentation of data, variables and methods before turning to the empirical results and a concluding discussion of their implications.

Background

Education, career choice and fertility

Much interest has been devoted to the association between education and fertility, especially between that of educational *level* and fertility. Most studies have dealt with women only and assumed a negative relationship between women's education and fertility (see e.g. Dribe & Stanfors, 2009b; Gustafsson, 2001; Rindfuss, Morgan & Offutt, 1996, for reviews). This hypothesis is based on theoretically anticipated relationships between education and fertility as well as the interrelationship of career orientation, labor force participation and fertility (Becker, 1991). Apart from the direct costs associated with a child, there are also indirect costs, of which the most notable are the opportunity costs of mother's time (Mincer, 1963). Children result in forgone earnings, reduce the rate of return to investments in education,

reduce chances of advancement, and depress women's lifetime income. Therefore extensive female labor force participation and childbearing is often supposed to be incompatible because women have the main responsibility for bearing and rearing children. As long as fathers are not expected to give up too much of their working time for child care, male labor force participation will not conflict to the same extent as female labor force participation, and the higher earnings of working men can be expected to be positively related to fertility (e.g. Butz & Ward, 1979). The neo-classical economic model of women's education, employment and fertility predicts that higher education and higher female labor force participation result in higher opportunity costs of childbearing and the greater the opportunity costs, the lower the fertility (Becker, 1991; Cigno, 1994). Hence, childbearing can be expected to be more deferred, or even deterred, among qualified and work-oriented women because, for them, childbearing is a costly interruption in their careers.

More recently it has been shown that educational orientation may be a more important determinant of fertility than educational level (Hoem, Neyer & Andersson, 2006a, 2006b; Lappegård, 2002; Lappegård & Rönsen, 2005; Van Bavel, 2009). If there are systematic differences when it comes to career tracks, work demands and perceived work-life balance between occupations or employment sectors, the investment in different kinds of higher education may be decisive for the individual's range of choices. It could be expected that childbearing is put off the most among those who follow fast-track career tracks, have demanding jobs and perceive high economic costs of childbearing and difficulties combining career and family. ¹

In Sweden, there is a long-standing high degree of educational as well as occupational segregation (Stanfors, 2003, chapter 6). Although women, more than men, have changed their educational and occupational choice over time, many women, irrespective of educational level, choose to get an education and work in typically feminine fields, such as teaching, health care, and other person-related service. Many women also favor the public sector that is often considered more "family-friendly" to work in. In international comparison, there are relatively small shares of women holding top positions, irrespective of sector. On the other hand, men are dominating the fields of science, and technology. They are crowded in the private sector and are overrepresented in top positions.

This potentially illustrates a response to the economic detrimental effects of children on careers that have received a lot of attention (eg. Joshi, 1998). Skill depreciation is more of a problem in some occupations than in others. Expertise, firm-specific and technological skills tend to depreciate faster than general skills. Human capital loss due to career breaks should therefore more of a problem in the private than in the public sector. Those who have an education and work in an occupation/sector in which skill depreciation is a problem can be expected to have fewer children than those who face less of an atrophy rate. Moreover, the steeper earnings profiles among private sector employees exacerbate the effects on lifetime earnings in relation to the public sector. In order to cope, (potential) parents choose occupations that accommodate family responsibilities (Polachek, 1981). Following this reasoning, many women have chosen to work in the public sector in order to combine work

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¹ Since firm's recruitment of staff into career tracks often focus on finding relatively young candidates, individuals facing such career opportunities most likely will put off childbearing in order not to miss out on that chance. According to the New Home Economics (e.g. Becker, 1991), a complicating aspect is that of child quality, an output of reproductive work that becomes more important as incomes and standards of living increases. Particularly the rich substitute high child quality for many children and the highly educated, high income-earners that do have children, presumably invest the most in their offspring.

and family without being severely punished in terms of wage development (Nordli Hansen, 1997; cf. Hoem, Neyer & Andersson, 2006a, 2006b).

There are, however, few studies that have considered how career choice affects fertility. This is surprising since differences between occupations with respect to training periods, work conditions, schedules and potential wages, together with other career characteristics, are important and influence men's and women's opportunities to have children and be involved in childrearing. The studies available deal mainly with the situation in the United States and analyze census or special survey data. Examples hereof are the studies of gender differences in childbearing among academics (Mason & Goulden, 2004; Perna, 2001) and doctors (Boulis, 2004) that come to the common conclusion that women in the professions analyzed are less likely to have children than other women or their male peers. These results do not inform us whether, or to what extent, men and women in different professions have children at different rates. Cooney & Uhlenberg (1989), analyzing the situation in 1980, for women only, find that female doctors have more of a family commitment and are more likely to have children than are female lawyers and post-secondary teachers.² In a study using data from the 2000 Census, Wolfinger, Mason & Goulden (2008) update and improve on Cooney & Uhlenberg (1989) as they analyze both men and women multivariately in order to explain differences in fertility by profession. They confirm that physicians have the highest rate of birth events, followed by attorneys and academics. Men have, within each profession, more birth events than women than women. The factors that explain fertility variation by profession for men (i.e. marital status, income, and spousal employment) only partially account for differences by profession for women. The authors acknowledge that this may be related to the more complex relation between family and career for women documented by many (eg. Avellar & Smock, 2003; Bram, 1985; Budig & England, 2001; Goldin & Katz, 2008; Hewlett, 2002; Macunovich, 1996ab; Noonan & Corcoran, 2004; Waldfogel, 1997, 1998).

Differences between the professions

This study follow on previous research by Cooney & Uhlenberg (1989), and Wolfinger, Mason & Goulden (2008), and focus on men and women with either a Ph.D. or a university degree in law or medicine. All three are educational fields and professions that women have made substantial inroads into during the last 30 years. In 1977, women made up 17 per cent of all getting Ph.D.s, 24 per cent of all law school graduates, and 35 per cent of those graduating from medical school that year (see Figure 1a). In 1982, law school surpassed medical school with a share of 45 per cent female graduates and has since then been the field, among the three in focus of investigation, with the largest share of women graduating. In 2007, 63 per cent of all graduating from law school were women. 60 per cent of all graduating from medical school were women, whereas "only" 47 per cent of those being rewarded a Ph.D. that year were women. This is interesting since Ph.D. is the degree which has increased the most over time in actual numbers, illustrating educational expansion as well as inflation in Sweden since 1977 (Figure 1b). The increase in graduates from law and medical school, on the other hand, has been quite limited.

There are differences in the professional development that follow upon a degree in law or medicine alternatively receiving a Ph.D. that may affect involvement family life, in general, and parenthood, in particular. Law school is a four year university education and medical school comprises five years. Entry is highly restricted and only students with top grades are

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² It should, however, be noted that Boulis (2004) finds, drawing on data from 1990 and 2000, that female doctors are less likely to have children than their male colleagues.

admitted. After graduation, a more or less compulsory two-year training period as a clerk or an intern follows. The selection process to this training is very competitive, especially for law students, which leads to a heavy work load for students throughout law school. Many testify that there is a particular culture and work ethic that permeates the program. For law graduates as well as graduates from medical school, it is often seen as a defining moment in terms of career opportunities when and where you get your internship.

The majority (60 per cent in 2007) are in the age span 25–29 when they graduate from law school, the average age being slightly higher for men than for women. This means that the majority of law graduates are approaching 30 when they have finished their training as a clerk. After that they have several career options, of which one is to join a law firm and spend five to ten years to make partner, which is often challenging and highly demanding when it comes to work hours. A failure to make partner implies a significantly slower career development and perhaps a move to another law firm. However, not all law graduates aspire to have high-powered corporate careers, some settle with less competitive careers for example in the bank sector or in administration. A third option is to follow the career track in the Swedish national courts administration and aim to become a district attorney or a judge. This is also relatively competitive, as are all professional careers, but much less so than the private law firms, since it follows a more bureaucratic and standardized schedule for promotion longstanding in the public sector. There are however, important wage differences that follow with the career choices. Whereas the average monthly wage for male lawyers aged 35-44 in the private sector was 52,700 SEK in 2007 (bonuses, perks, etc., not included), the corresponding wage for male lawyers and district attorneys in the same age span, working in the public sector is 45,100 SEK. Their female peers made less, 46,300 SEK in the private sector and 41,800 SEK in the public sector. It should be noted that the female-to-male wage gap is smaller in younger ages and significantly less in the public sector than in the private sector, especially when bonuses, fringe benefits and other perks are considered (cf. Granqvist, Selén & Ståhlberg, 2004). In sum, this means that aspiring law professionals must wait until their mid-30s in order to reach a career position that is good for childbearing and childrearing. Those working in the private sector may have to postpone childbearing somewhat more than those working in the public sector, since they have a less secure position in the company hierarchy.

The average age for leaving medical school is also 25–29, the average age again being slightly higher for men than for women. This means that the majority of graduates from medical school are also approaching 30 when they have finished their internship. After that they may continue as internists or go on with additional training for some specialties. All doctors are regularly employed during their residencies, the overwhelming majority in publicly run hospitals or health care centers. Wages, although subject to individual variation, improve with each step up the hierarchical ladder. In 2007, the average monthly wage for male doctors 25-34 years old was 36,000 SEK. In the age spans 35–44 and 45–54, the average wage was 49,400 and 60,000 SEK, respectively. Due to limited supply of doctors and high demand for their competence, medical graduates can expect to rank among the top earning professional groups not only among those employed in the public sector but in society as a whole. There is nevertheless a gender wage gap among physicians as well, to some extent determined by internal segregation and different orientation with respect to men's and women's specialization. Whereas the average monthly wage for male doctors aged 25–34 in

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³ Doctors employed in the private sector are to a large extent self-employed and have their own practices. The allocation of such licences has been highly controlled and limited by the Swedish National Board of Health and Welfare. Doctors with their own practices are generally aged 45+.

2007 was 36,000 SEK, the corresponding wage for their female peers was 33,500 SEK. It should be noted that the female-to-male wage gap for physicians, of about 10 per cent, irrespective of age, is less than that for privately employed lawyers but larger than that for lawyers in the public sector. In sum, this means that many graduates from medical school will reach a rather secure position, both income-wise, around 30 that is conducive for childbearing. Work-wise, job stability is good, although terms of contracts may vary. Irregular hours and night calls may be demanding, especially for parents with young children, but solved partly through the provision of childcare, to some extent available even at odd hours of the day.

Men and women that go to graduate school in order to get a Ph.D. are generally about the same age as law and medical school graduates, i.e. 25-29 years old. Graduate school is supposed to take about four years but historically few have made it on schedule, because they have been involved in teaching or other side projects. Thus, only about 10 per cent of all Ph.D.s are rewarded to people under 30. In 2007, 41 per cent of all male Ph.D.s were 30-34 years and 37 per cent of all female Ph.D.s were in that age span. It is also quite common to be older than 40 when receiving a Ph.D. (in 2007 25 per cent of all men and 36 per cent of all women were over 40). The majority of Ph.D. students are employed on fixed-term contracts. After graduate school, they may either stay in academia or seek work elsewhere. The public sector, especially government, is employing a large part of the Ph.D.s, except for those with a degree in the fields of science and technology that to a high degree find employment in the research-intensive industry. To a large extent, this has a gender bias in line with the pattern of gender-based occupation discussed above. In academia, Ph.D.s may continue as post-docs or assistant professors, to a large extent on short fixed-term contracts, in order to pursue an academic career. Since the Swedish academic system has no tenure track, there is great variability among academic careers and the challenge to publish or perish within a six-year period is not applying to all (cf. Wolfinger, Mason & Goulden, 2008). For example, promotion from assistant to associate professor is only associated to individual accomplishment in doing research – it is not associated to tenure. On the other hand, many full-time teachers have open-ended contracts early on, whereas others have casual contracts for long but the same few opportunities for career advancement. All full professors are, however, on permanent contracts. It should however be noted that although not assured full job security, all academic staff is covered by the same social insurance benefits, and basically the same unemployment benefits, irrespective of contract and position. In comparison to law and medical school graduates, Ph.D.s staying on in academia make less money. In 2007, the average monthly wage for male university teachers aged 35-44 was 31,700 SEK. The equivalent female wage was 28,200 SEK. There is also a more limited wage gain over time, especially for the majority who does not become full professors. In 2007, the average monthly wage for university teachers aged 45-54 was 37,800 SEK for men and 31,800 SEK for women. On the other hand, work in academia is highly flexible. In sum, Swedish Ph.D.s face a multitude of career options, very much depending on their field of research. For many, it may be an option to start a family already as a Ph.D. student. Those who move on to work in the private sector may want to postpone childbearing somewhat more than those who work in the public sector, since they face somewhat more competition and have good opportunities for advancement in the company hierarchy. Within academia, there are, of course, also potential differences in childbearing due to individual career orientation.

Based on the differences in career structure and professional development that follow upon a degree in law or medicine alternatively receiving a Ph.D., physicians are expected to have the highest fertility, followed by Ph.D.s and men and women with a law degree are expected to

have the lowest fertility among the three groups studied. In general, a stronger involvement in family life, in general, and in parenthood, in particular is expected for those who are employed in the public sector.

Career and family compatibility in different contexts

In the early economic models of fertility (Becker, 1991; Willis, 1973), the effect of husband's income on fertility is positive because his time use is assumed to be unaffected by either childbearing or childrearing, while the higher his wage the more children (and other goods) the family can afford. The effect of female wages is, on the contrary, negative because child care competes with time in the labor force (Mincer, 1963). Empirical studies have also confirmed a positive income effect of male wages, and a negative price effect of female wages, on period fertility, but mainly in contexts characterized by the male breadwinner model (e.g. Butz & Ward, 1979; see also Stanfors 2003). Studies of more recent times for a number of industrialized countries, however, show a positive correlation between female labor force participation and fertility (e.g. Ahn & Mira, 2002; Andersson, 2000; Brewster & Rindfuss, 2000; Engelhardt, Kögel, & Prskawetz, 2004). These results indicate that not only men's income, but also that of women, is now positively related to fertility in contexts where the dual-earner model has become the norm, and this has also been confirmed by time-series studies using data on male and female wages (e.g. Stanfors, 2003).

Features like parental leave, child benefits and subsidized child care reduce the negative price effect of women's wages on fertility, and instead boost the income effect. In this setting, it may well be that women's education, employment and earnings have positive effects on continued childbearing and family size. Higher income enables a couple to buy goods and services in order to cope with both career and family (cars, housing, home services, etc.). Moreover, as Ermisch (1989) points out, high earnings enable people to purchase child care of a certain quality, which is of vital importance in the reconciliation of career and family. Once parenthood and employment are not alternatives at odds with each other, but possible to combine, the negative effect of female labor force participation and female wages is expected to be greatly reduced, and even reversed into a positive (income) effect. In Sweden, public child care is of high quality and fees are highly subsidized, especially for high income earners since there is a maximum fee unrelated to income. Coverage is extensive - 81 percent of all children aged 1–5 were in public day care in 2008 - and therefore, dual-career couples are able to spend more of their income on other goods and services that may help them combine career and family.

With an increasing number of dual-earner households in most industrialized countries, and a growing share of dual-career couples, the interest in career-family compatibility has grown (e.g. Blossfeld & Drobnic, 2001; Hewlett, 2002; 2003; Moen, 2003; Spain & Bianchi, 1996). The literature, however, has largely focused on women. Few studies bring men in, either in their own right or as part of a couple. Having a career *and* a family is often seen as incompatible, at least for women. Both career and family demand commitment, time and energy, and the demands are usually most articulate during the time when both career advancement and family formation are supposed to take place. For women more than for men, the demands of a high-powered career, the asymmetries of male-female relationships, and the difficulties of conceiving later in life is supposed to undermine the possibility of combining career with family. It seems reasonable that this challenge is accentuated among dual-career couples who need to manage two careers and a family. Although women have increased their education and labor force participation, they have to a large extent retained the responsibilities for child care. For women on a career track, family formation is often associated with taking

up a second career as "supermom", and assuming main responsibility of housework. For men, on the other hand, both career and time devoted to housework are usually less influenced by their role as fathers. However, during the last decades the effects of parenthood on time allocation in Sweden seem to have started to converge between men and women (Dribe & Stanfors, 2009a).

It seems natural to expect that the degree of career-family compatibility to a large extent depends on the relation between the spouses in the couple. In traditional neoclassical economic models the division of household labor is assumed to be determined by the comparative advantages in market work and housework, and spouses specialize according to these comparative advantages (see, e.g. Becker, 1991). To account for differences in preferences between spouses different kinds of bargaining models have been developed, where the bargaining power of each spouse is assumed to be determined mainly by their relative resources and their respective threat points (e.g. Chiappori, 1992; Konrad & Lommerud, 1995; Lundberg & Pollak, 1996; Manser & Brown, 1980; McElroy & Horney, 1981). There are two kinds of threat situations that are of interest for this study. One is the threat of exiting the partnership through separation; the other is to withhold a cooperative equilibrium within the partnership with repeated negotiation. Resources of importance are education, income, occupational prestige, etc., which are used to negotiate a favorable division of labor. Empirical studies have also supported that a lower income gap between the spouses favors a more equal division of labor. Highly educated men also appear to do more housework, which may seem contradictory. One explanation could be that they have more gender equal values when it comes to household division of labor and women's careers. Usually, women also do more housework even when they have the same, or higher, income and education level as their husbands. This has been explained by norms and values concerning proper male and female behavior, and that people are "doing gender" to compensate for atypical spousal relationships, for example when women have higher education or income than their spouses (Brines 1994; West & Zimmermann 1987). Nevertheless, couples, in which the woman has a comparatively strong position (equal or higher education and/or income) is expected to have a more equal division of household labor, even though it cannot be expected to be completely equal. All other things equal, it is expected that couples where the husband is highly educated have a more equal division of labor. In both cases, this should also facilitate the career of women, because of a greater compatibility between market work and family life.

Across countries, there is considerable variation in polices and institutions which may affect the possibilities to combine work and family. In many countries policies only deal with the reconciliation of women's double roles, whereas in other countries, like Sweden, institutional arrangements has a broader scope and addresses gender equality issues alongside the work—family balance for all parents (cf. McDonald, 2000). Institutions differ across countries when it comes to maternal/parental leave schemes, wages and working conditions of mothers/parents, the provision and pricing of childcare, and whether families or individuals are the subjects of taxation. All components are important, but most likely it is the combined effect of all these factors taken together that determines the degree of compatibility of family and career. Sweden is often seen as a forerunner when it comes to family- and work related policies, and Swedish women were among the first to combine work and family on a broader basis. On an aggregate level, it seems as if the institutional arrangements in Sweden are more supportive of childbearing (see e.g. Billari & Kohler, 2004) than are conservative and liberal

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⁴ In most cases, however, the effect seems to be small, and also more pronounced for women than for men (Evertsson & Nermo, 2007; Shelton & John, 1996).

models with a more traditional approach to family and gender roles. Due to its universalistic and general design, all couples potentially benefit from the Swedish welfare state and its opportunities to combine work and family. In reality, however, the actual combination of work and family is a result of choices made at the individual and couple level concerning both career and childbearing (cf. Hakim, 2000).

Hypotheses about continued childbearing

From the discussion above a number of hypotheses are generated concerning the fertility behavior of men and women belonging to the professional groups studied; Ph.D.s, law and medical school graduates. All couples in Sweden face a comparatively advantageous situation in terms of family-work compatibility, mainly as a consequence of generous parental leave benefits that compensate for income loss, and extensive public provision of child care which reduces opportunity costs of having children following frequent and sustained career breaks. Based on the differences in career structure and professional development that follow upon a degree in law or medicine alternatively receiving a Ph.D., couples in which at least one spouse is a physician are expected to be most likely to have either a second or a third birth once they have started childbearing. They are followed by couples with at least one Ph.D., and couples with at least one spouse with a law degree are expected to be least likely to have either a second or a third birth among the three groups in focus of this study.

In general, a stronger involvement in family life, in general, and in parenthood, in particular is expected for those who are employed in the public sector because work conditions there are often considered more flexible, and more tolerant towards absence and career breaks. Work in the public sector is expected to be associated with greater compatibility of family and career compared to the private sector. Although this holds regardless of educational status, it could be expected to be more important for professional groups. Thus, all other things equal, couples in which at least one spouse belong to the professional groups under study, and he/she is employed in the public sector can be expected to be more likely to have either a second or third birth than similar couples with a doctor, lawyer, Ph.D. working in the private sector. In a similar way, it is expected to find a higher degree of stability in these partnerships.

Considering spouse characteristics as well, the hypothesis is that couples in which both partners have higher education, even with a career orientation or work in the private sector, are not less likely to have a second or a third birth, once they have started to have children, compared to other couples. Because men with higher education generally appear to have more gender equal attitudes towards division of housework, and be more in favor of women's careers, the compatibility between career and family might even be greater in couples in which both partners have higher education, compared to couples where the spouse has lower education. This should promote continued childbearing, especially for women in the professional groups in focus of this study. This should also promote union stability among these couples.

Couple income is expected to be positively related to continued childbearing because it makes it easier to meet the various demands of a larger family in terms of housing and desired consumption levels. A higher share of household income earned by the woman should also be connected to a stronger bargaining position of the woman in the household. In Sweden, however, where transfers from the welfare state through child allowances, parental leave benefits, and childcare subsidies are many and generous, the income contribution of each spouse does not necessarily determine his/her threat point. The way that a relatively stronger bargaining situation on behalf of the women affects childbearing and union stability is,

however, not completely clear. On the one hand, a stronger position of the woman could promote continued childbearing and lower risks of union dissolution through negotiations that lead to a more egalitarian division of labor in the household, which in turn would make it easier to combine work and family for both parties. On the other hand, a stronger bargaining position of women is often expected to lead to lower union stability because the women have better fall-back positions and face of lower net costs in case of separation.

Data and methods

Data

The data used come from the Swedish population registers maintained by Statistics Sweden. From a dataset consisting of all individuals in the birth cohorts 1942–89 who resided in Sweden at any time from 1961 onwards, heterosexual couples (married or cohabiting without being formally married) who are in their first partnership are selected. These couples are then followed from the birth of the first child (the registers only have information on non-marital cohabitation when the cohabitants have common children) to woman's age 45, the dissolution of the partnership, emigration, or the end of the study period in 2005. The data are derived from the multigenerational register (*Flergenerationsregistret*) which contains information on biological and adopted children to all index persons in the sampling frame (all individuals in birth cohorts 1942–89 who resided in Sweden at some point in time after 1960). Due to frequent missing information on adoption dates for adopted children, only biological children are included in the analysis. Since the study only includes couples in their first partnership with children, the number of children previously born is always the same for men and women in the couples.

From 1990 onwards the Swedish population registers record non-marital cohabitation when there are common children (*RTB-families*). To make sure that the entire history of the couple is considered, from the birth of the first child onwards, only couples experiencing their first births after 1989 are included in the sample. For the individuals in these couples we have linked register-based information on place of residence, income, education (level and field), branch of employment, as well as demographic events (deaths, external migration, and changes in civil status).

Methods

As there is no information on non-marital cohabitation when there are no common children, it is not possible to follow non-marital partnerships (cohabitation) before the birth of the first child. Therefore, this study is not about the transition to partnership or the transition into parenthood, but instead it focuses on what happens in the union after the birth of the first child. Most likely there are important selection mechanisms in this process, implying that the couples actually formed might be selected among the more family oriented individuals, and the extent to which this kind of family orientation differ between subgroups (by education, income, etc.) observed differences in higher order fertility between groups might partly be a result of this kind of selection (see Kravdal, 2001, 2007; Kreyenfeldt, 2002). However, given the aim of this study – to analyze continued childbearing and union stability among couples in which at least one of the spouses has a Ph.D. or a degree in medicine or law – this is not a major concern, because the focus of the study is on the family life of actually formed partnerships with at least one child born, and not on underlying educational differences in fertility more generally.

Most of the register-based information is available once a year while the demographic information is available on a monthly basis. Even though, in principle, it is possible to construct a dataset for fertility analysis that is continuous with monthly precision in terms of the events studied and the starting time of partnerships, such an approach creates a large number of tied observations because a majority of birth intervals are between two and three years, and thus most couples share a rather limited number of birth intervals. For this reason a discrete approach is chosen in the multivariate analysis, studying the probability of having a birth, or experiencing a separation, during the year conditioned on the values of the covariates at the beginning of the year. Multiple births during a year (i.e. twins or two separate births within the same calendar year) are counted as one delivery, but the number of previous births takes multiple births into account. For example, in the case of a twin birth as second birth only one birth event is created as an end point of the interval from the first to the second birth, and the interval between the second and third birth is not included, because it happened at the same time as the second birth. Thus, the interval 3–4 follows immediately upon the 1–2 interval.

Given the discrete approach, multinomial logit models of the transformed probability of having a birth or experiencing partnership dissolution during the year are estimated. Models are estimated separately for each birth interval (i.e. first to second births, and second to third births).

Variables

To study differences between couples in which either the man or the woman has a Ph.D. or a degree in medicine or law, a variable indicating the educational status and the professional orientation is constructed according to both the highest educational level obtained and the field of education. In order to add a dimension of potential career-family compatibility, distinction is made between those who are employed in the private sector or government owned corporations, because work conditions and demands in these occupations are expected to be different from occupations in public administration or non-governmental organizations. A private sector career track is assumed to be more competitive and less compatible with family responsibilities than a career in the public sector, irrespective of professional orientation. Thus, *own professional orientation* is divided into six different categories: law degree, working in the public sector; law degree, working in the private sector; medical doctor, working in the public sector; and Ph.D. working in the private sector.

In order to control for spousal educational status, a variable is constructed according to both the highest educational level obtained and, to some extent, the field of education. Also here sector of employment is taken into consideration, if only for those with the highest level of education. *Partner's educational status* is divided into four categories: (1) Low education that is high-school education two years or less and basic education (up to nine years), all fields. (2) Medium education that is high school and post-high school education less than three years (universities, community colleges, nursing schools etc), all fields. Medium education also comprises individuals with university education three years or more in fields of teaching, humanities and arts, farming and forestry, health and social work (except medical doctors), and services. (3) High education, employed in the public sector which includes individuals with a post-graduate degree (Ph.D., Ph.Lic.) in all fields, university education three years or more in fields of medicine, social sciences, law, business administration, science, mathematics, computer and technology. Employment outside private companies or government owned corporations (i.e. state or municipality administration, non-governmental

organizations, other occupations). (4) High education, employed in the private sector which includes the same levels and fields of education as in (3), but with employment in private companies or government owned corporations.

In the analysis the sample is limited by the exclusion of couples for whom there is no information on educational status (two percent of the sample), and the sample is also truncated at eight years since previous birth. Tables 1a and 1b show the distribution of the covariates used in the analysis, by gender.

Table 1a about here Table 1b about here

Some differences by gender should be noted. The first is the differences in composition with respect to professional orientation. Among the men that belong to the three professional groups studied, almost half of the sample (46.5 per cent) holds a Ph.D. The two other professional groups are equally large (27.4 per cent are lawyers and 26.3 per cent are physicians). For women, the relative size of the three different professional groups is more even: a law degree is the most common (38.9 per cent), followed by being a physician (32.0 per cent) and holding a Ph.D. (29.1 per cent). It should also be noted that it is more common for women to be employed in the public sector, irrespective of professional orientation. This gender differences is especially striking in the case of lawyers where it is obvious that male lawyers to a much larger extent aim for corporate careers in the private sector whereas women follow the career track of the national courts administration. Another difference by gender to be noted is the partner's educational status. Whereas half of all men belonging to the three professional groups studied, have a partner with medium-level education only 26.6 per cent of the women that belong to the same professional groups have that. The majority of women (66.4 per cent) are instead in a union in which the partner also has higher education. The corresponding figure for men is 44.7 per cent. This clearly illustrates a high degree of homogamy with respect to educational status but also the fact that female hypogamy is much less common than male hypogamy.

Couple income is included to capture potential income effects on fertility. Total income include wages for employees and self-employed as well as benefits paid in connection to work, i.e. parental leave, pensions, unemployment benefits, and payment from sickness insurance. To enable comparisons over time, and thus eliminate the impact of inflation, we relate the annual income to the so called price base amount (hereafter simply called base amount) of the year. The base amount is set for each calendar year on the basis of changes in the Consumer Price Index (*KPI*). Its main purpose is to adjust different kinds of public benefits (pensions, student aid, sickness insurance, etc.) to account for inflation. In 2005, the base amount was 39,400 SEK and for the total population 20–64 the median income was about 220,000 SEK, which corresponds to about 5.5 base amounts. The 25th percentile corresponded to about 3.5 base amounts and the 75th percentile to about 7.5 base amounts. We also include a variable measuring the share of couple income earned by the woman as a proxy for her relative bargaining position in the partnership.

As a result of the compositional differences noted above, a much larger share of women than men are in couples with high total income. Whereas 90.7 per cent of the women that belong to the professional groups studied are in couples where the total income exceeds 12 base amounts, 82.0 per cent of the men are in the same situation. There is especially a notable difference with respect to the top income category (i.e. that exceeding 16 base amounts) in

which a significantly larger share of women (64.5 per cent) than men (56.1 per cent) are to be found. There is also a significant difference with respect to the woman's share of couple income: in the sample of male professionals, the woman's share of couple income is a mean 38.6 per cent whereas in the sample of female professional, the equivalent share is 45.9 per cent. This clearly illustrates that women professionals are in a stronger relative position in their couple context than are women in unions with men belonging to the professional groups studied.

In addition to these main variables, a number of covariates with a possible impact on continued childbearing are controlled for. A set of controls of standard demographic characteristics is included: civil status, man's age, woman's age, time since last birth, age of woman at first birth, and cohort. In addition, the character of the place of residence is controlled for, to capture more general differences in fertility levels between geographical areas (cf. Costa and Kahn, 2000; Compton and Pollak, 2004). The categorization of municipalities from the Swedish Association of Local Authorities and Regions (SKL), which is common in regional analyses, is used. It captures both population density and character of the municipality. A variable measuring the country of birth of the spouses is also included, distinguishing two groups: one in which both partners are born in Sweden, and another in which the combination of the partners' country of origin can be whatever else.

Tables 2 and 3 provide some descriptive measures relating to the births in the two samples of men and women with different professional orientation used in the analysis. Clearly a large majority of the births studied are second births, which is not surprising since the two-child norm is well-established and strong in Sweden. Higher order births are much less common. In the sample of men holding either a Ph.D. or a degree from law or medical school, the mean age at childbirth of the woman in the couple is 33.1 for second births, and 35.3 for third births. In the sample of women holding either a Ph.D. or a degree from law or medical school, the mean age of woman at childbirth is slightly higher: 33.5 for second births, and 35.9 for third births. Among women professionals, Ph.D.s stand out as being older at childbirth in relation to physicians and lawyers, especially in the case of second births. The general impression is also that women professionals working in the public sector are slightly younger at childbirth than peers working in the private sector, especially in the case of third births. It is known that women in high-power couples are older when giving birth at all parities than women in other couple contexts (Dribe & Stanfors, 2008). The fact that women belonging to the professional groups Ph.D., lawyer, and physician themselves, are older at childbirths than women partnered with men belonging to these professional groups, not only reflects the late motherhood of the well-educated but also the postponement of childbearing due to career reasons and the relatively stronger position of the woman in the partnership.⁵

Table 2 about here Table 3 about here

The mean birth intervals are between approximately 2.5 and 3.2 years for the sample of male as well as female professionals. Overall, there are no major differences in birth intervals between couples with respect to professional orientation. There are not either major differences between couples in which it is the man or the woman who belongs to the three professional groups studied. It should especially be noted that couples in which both partners

⁵ This could be compared to the finding that among couples in which the spouses have different degrees of educational power, the mean age of mother, irrespective of parity, is higher in cases where the woman has higher educational power than the man (Dribe & Stanfors, 2008).

are highly educated in general do not have shorter birth intervals than other couples (Dribe & Stanfors, 2008). They do not seem to reduce their birth intervals by much despite being older when reaching each parity.

Results

Tables 4 and 5 display the multinomial logit estimates of birth and separation for second and third births separately (panels A and B), for men and women, respectively. In general, it seems clear that physicians have the highest chances of having a birth, followed by Ph.D.s and lawyers. This is true in both birth intervals, for men as well as for women. For third births it actually becomes more clear that doctors are the most likely to continue childbearing once they have started a family. Employment in the public sector seems to be highly conducive to continued childbearing, especially for women professionals, since women of all categories have higher relative risks of having a second or a third birth if they work in the public sector. The only exception is women Ph.D.s, where the relative risk of having a second birth is the same in relation to the reference category (physicians working in the public sector), irrespective of sector of employment. For men, on the other hand, professionals working in the private sector have higher chances of having a birth. It is important to note that the relationship between education/professional status and childbearing does not depend on couple income, since regression without controls for income generate identical results.⁶

Table 4 about here Table 5 about here

When considering the educational status and sector of employment of the partner as well, it becomes obvious that, in line with previous findings (Dribe & Stanfors, 2008), couples where both have high educational status have higher chances of having a birth, which reflects that pursuing a higher education and a career is widely perceived as something compatible with family in Sweden. This is extremely obvious in the case of professional women, where the relative risks of having a second as well as a third birth increase substantially with the partner's educational status. In this respect, it also becomes obvious that spouses that are highly educated men in private sector employment have higher chances of continued childbearing. In their role as professionals, men being lawyers, doctors as well Ph.D.s, have higher relative risks of having a birth when employed in the private sector and in their role as partner, the relative risks of having a second as well as a third birth are the highest for couples with a woman professional and a highly educated partner working in the private sector.

This is interesting considering compatibility. The private sector is generally seen as less family-friendly than the public sector. In Sweden, the public sector served as forerunner when it came to work arrangements and conditions that helped the combination of work and parenthood and reduced the economic effects of career breaks. Much of the compatibility enhancing work arrangements in Sweden are, however, granted by law (e.g. parental leave and minimum parental leave benefits, the right to work reduced hours, temporary absence in order to care for a sick child, job retention) so they should apply equally to all, irrespective of sector of employment. In the 1990s it also became more common for private sector companies to launch different programs for their professional employees aiming to increase the compatibility of parenthood and career. Vital components of such programs were granting, by contract, more flexible work schedules and opportunities to work from home, offering additional income compensation to parents on leave and guaranteeing them job continuation

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⁶ Results not shown, but available for presentation at request.

⁷ The only exception to this being third births for Ph.D.s.

and continuous on-the-job training. This should have reduced the differences in work-family compatibility between sectors of employment. Nevertheless, programs supporting work-family compatibility do not eradicate competition, fast-track career ladders, hard work ethos, and negative effects on career and wage development of taking time off from work. It is apparent that such differences are still present, especially between the public and the private sector. The public sector offers more of regulated employment, more bureaucratic procedures of promotion, and hierarchical career-ladders where a person can stop and step aside for a while without being severely punished, neither career- nor wage-wise. This is true for doctors, attorneys and judges, as well as for academic staff, and makes the Swedish situation for these professional groups quite different from that in the United States, especially for women.

For separations the picture is different to that of continued childbearing. For men, lawyers and Ph.D.s, who have lower risks of having a second or a third birth compared to physicians, also have lower relative risks of separation in relation to the reference group. The results when it comes to separation are not as significant and straightforward as that of childbearing. For women on the other hand, those groups that are less likely to continue childbearing seem to be more likely to separate (although the results are not statistically significant). For all groups except for Ph.D.s employed in the private sector, it seems as the lower births risks are balanced by a higher risk of separating. Considering the partner's educational status, the results show that couples with at least one professional, holding a Ph.D., or a degree from law or medical school, and where the partner is highly educated have lower separation risks than couples where the partner has lower education (cf. Dribe & Stanfors, 2008).

The general impression is that physicians are the most family committed since they are most likely to continue childbearing and, among women, also the least likely to separate. Why couples where the woman is a doctor and partnerships with a professional woman and a highly educated partner nevertheless manage to commit to family life can, at least partly, be explained by more egalitarian attitudes and practices towards household division of labor and specialization in these couples. In households, in which both spouses have a high level of education and career involvement, both partners have strong fall-back positions, and access to economic resources and there is a basis for repeated negotiations. Moreover, competing preferences and stress can be mediated due to a higher degree of understanding for each others' workload. When it comes to childrearing, couples with higher educational status and skills share more of the total parental leave benefits, with greater involvement of fathers, than those with lower educational status and skills (cf. Sundström and Duvander, 2002) and they make more use of public childcare. There seems, however, to be significant differences when it comes to what kind of partnerships men and women, belonging to the three professional groups studied here, are involved in.

Recapitulating Tables 1a and 1a, women with a Ph.D. or a degree from law or medical school are more likely to be partnered with an equally highly educated man, and they are likely to make a larger contribution to household income. Men with a Ph.D. or a degree from law or medical school, on the other hand, are often partnered with a woman with a lower level of education, working in the public sector and making less of a contribution to household income even measured in relative share. It may be that higher risks of continued childbearing and lower risks of separation among professional men is a function of a more traditional household division of labor where their primary role is to earn income, a role that also gives them an edge in intra-household negotiations in relation to their partners. For professional women, it may be the case that either family life with children, although not so many, is working well or, if it is not working, there is an obvious way of exit from the game through

separation, which is possible since a higher female income contributes not only to a stronger bargaining position, but also to a lower cost of divorce for a woman (e.g. Becker 1991). This is at least to some extent supported by the result that in couples in which the woman earns a higher share of household income both the risk of having a second birth and of separating is elevated.

Turning to childbearing by couple income, there is a clear positive income effect for second births for both men and women. For men in the professional categories studied, the impact of income on birth risks is rather linear, but for women it is more curvilinear. Couples with very low incomes have generally lower probabilities of experiencing a second birth compared to middle income couples. In the highest income groups, the probability of having a second birth is more than 50 percent higher than among middle income couples. For third births, the patterns are different, with a more complex relationship between income and childbearing and less significant results. When it comes to separation, those with higher income are less likely to experience a separation than those with middle or low income. The tendency is more articulate among men, at third birth parity, than among women.

Looking briefly at some of the control variables, living in the metro city areas is associated with having the lowest risk of continued childbearing and, in general, the highest risk of separation for all, which is in accordance with previous findings (e.g., Kulu, Vikat, and Andersson, 2007). Metro suburbs are conducive to continued childbearing, at least to second births, and union stability. Couples in smaller cities and more rural areas ("Other") have the highest risks of a second and a third birth. Although big city areas have the most dynamic labor markets, especially for the well-educated, they are crowded and housing is often expensive. Moreover, many people move to these areas in order to work or study and the move brings them away from kin and social networks. Difficulties in finding adequate housing for a bigger family and assistance to take care of children after regular day care hours may be factors inhibiting continued childbearing in big cities whereas good opportunities to find housing and family services make the more family-oriented move to suburbs and other areas.

Couples where both spouses are born in Sweden have the highest risks of second births. But the relationship between immigrant or intermarried status and union stability is less clear. In the case of women belonging to the three professional categories studied, couples in which at least one partner is foreign-born have higher risks of separating, irrespective of parity, but for men the relationship seems to be the opposite.

In line with findings of many previous studies, formally married couples show the strongest family commitment. They have are much more likely to continue childbearing, once they have started, than are cohabiting couples, and this is valid for both samples including men and women fast-track professionals. Married couples are generally considered more child-oriented than those in informal unions. This has to do with selection because even if non-marital cohabitation is widespread in Sweden, lifelong cohabitation is not common because many cohabiting couples decide to formalize their unions and marry once they have entered parenthood (Bernhardt, 2002). Whereas about two-thirds of all first births are born to cohabiting parents, second and higher order birth, to a higher degree, take place within marriage. The results also show that married couples are much less likely to separate compared to cohabitating couples.

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⁸ Similar as for educational status, the income effect does hardly change at all if we do not control for educational status. Results not shown, but available for presentation at request.

Concluding discussion

In research dealing with the interaction between work and family in contemporary societies there is a strong view that family life is incompatible with having career ambitions, at least for women. Most of the research has also been studying women only and often found corroborating evidence for the rather negative connections between professional life and family life, although there are different views in the literature as well.

This study has sought to improve our understanding of how a professional working life, and the different conditions that may imply, is associated with continued childbearing and union stability. By focusing on family commitment among couples in which either the man or woman has a Ph.D. or a degree in medicine or law, a couple perspective is added in order to not only investigate women and to take consideration of dynamics and power relations within the partnership. The determinants of having a second or a third birth are analyzed multivariately using longitudinal data on couples from different Swedish registers for a 15 year period, which improves on studies concentrating on single year Census data. Union dissolution is also considered, in order to account for potential selection bias.

A number of hypotheses were set up. The first was that, based on differences in career structure and professional development that follow upon a degree in law or medicine alternatively receiving a Ph.D., couples in which at least one spouse is a physician were expected to be most likely to have either a second or a third birth once they have started childbearing, followed by couples with at least one Ph.D. Couples with at least one spouse with a law degree were expected to be least likely to have either a second or a third birth among the three groups in focus of this study. This is clearly the case, for men as well as for women. Generally, physicians – men as well as women – show more of family commitment than the other professional groups.

It was also expected that public sector employment would be more conducive to continued childbearing than employment in the private sector because work conditions in the public sector are often considered more flexible and more tolerant towards absence and career breaks and that this could be more important for professional groups. The results indicate that employment in the public sector seems to be a strategy for women who wish to combine professional life with continued childbearing. Women belonging to all three professional categories studied have higher relative risks of having a second or a third birth if they work in the public sector. For men, on the other hand, professionals working in the private sector have higher chances of having a birth. Women working in the public sector are nevertheless also more likely to experience a separation. This could also be related to the more family-friendly and tolerant working conditions that make it possible for single mothers to manage both work and children. The gendered aspects of working conditions continue with the fact that men employed in the private sector also are less likely to separate. None of these results are dependent on couple income.

It was hypothesized that couples, in which both partners have higher education, would have similar but not lower risks of having a second or a third birth compared to other couples. The results confirm that couples where both have high educational status have higher chances of having a birth, which reflects that pursuing a higher education and a career is widely perceived as something compatible with family in Sweden. For women, the relative risks of having a second as well as a third birth increased substantially with the partner's educational

status. It was also obvious that highly educated men in private sector employment increased the risks of continued childbearing, as partners to professional women, and they also lowered the risks of separation. Women as partners to professional men increased the risks of continued childbearing with higher education and with public sector work in particular. In a similar way, they also reduced the risks of separation.

Couple income was expected to be positively related to continued childbearing. The results show a positive income effect for second births for both men and women. For men in the professional categories studied, there was almost a linear relationship, but for women it was not altogether straightforward. A higher share of household income earned by the woman was expected to be related to a stronger bargaining position of the woman in the household. The finding that couples, in which the woman earns a higher share of household income, face higher risks of having a second birth as well as of separating was taken as a toll for the fact that two different outcomes are possible alternatives in situations where the woman has a stronger bargaining situation.

The findings thus indicate that career choice affects higher-order fertility: physicians are more likely to continue childbearing than the other two professional groups studied and their partnerships are also more stable. Professional orientation also affects childbearing in a highly gendered way, in line with hypotheses about work-family conflicts that exist in different fields and how these can be mediated. One strategy for women is to find employment in the public sector. Another may be to find an equal and understanding partner and exercise one's power of negotiation. If family life does not work out, there is a potential way out through separation. The general impression is, nonetheless, that family commitment is strong, especially among physicians and for men – continued childbearing goes in many cases hand in hand with union stability even among highly educated professionals with potential fast-track careers.

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Figure 1a. Per cent female Ph.Ds and graduates from law school and medical school, 1977–2007.

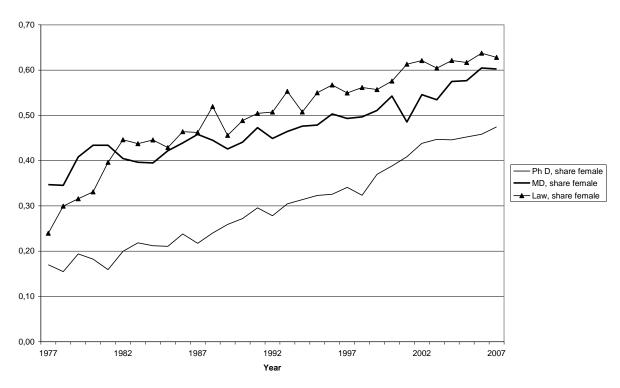
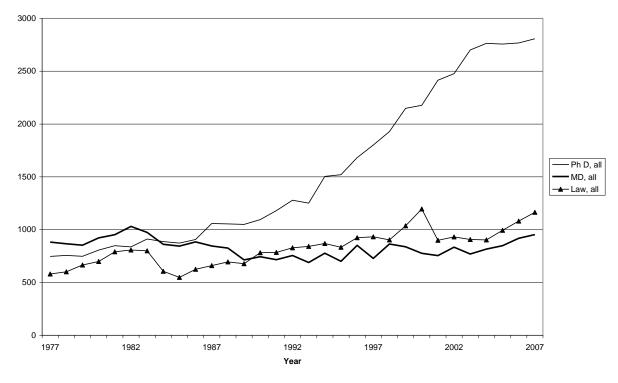


Figure 1b. Total number of graduates: Ph.Ds and graduates from law school and medical school, 1977–2007.



Source: Statistics Sweden.

Table 1a. Descriptive statistics of the sample (men).

Education/professional orientation	%	Previous births	%
Lawyer, employed in public sector	10.8	1	41.8
Lawyer, employed in private sector	16.6	2	45.5
Physician, employed in public sector	24.4	3	12.7
Physician, employed in private sector	1.86	Total	100.0
Ph.D., employed in public sector	27.6	Place of residence	%
P. D., employed in private sector	18.9	Metro cities	26.4
Total	100.0	Metro suburbs	24.9
Partner's educational status		Big cities	35.5
Low education	5.9	Other	13.2
Medium education	49.5	Total	100.0
High education, employed in public sector	28.6	Country of birth	%
High education, employed in private sector	16.1	Both partners Swed-born	75.2
Total	100.0	Other	24.8
Couple income (base amounts)	%	Total	100.0
No income	0.49	Cohort (man)	%
>2	1.04	1946-1959	30.0
2-4	0.90	1960-1964	35.7
4-6	1.46	1965-1969	26.2
6-8	2.42	1970-1974	7.5
8-10	4.07	1975-	0.6
10-12	7.60	Total	100.0
12-14	11.70		
14-16	14.18	Woman's age (mean)	34.6
16+	56.14	Man's age (mean)	37.2
Total	100.0	Woman's age at first birth	30.6
Civil status	%	Wom. share of couple inc.	38.6
Cohabiting	18.2		
Married	81.8	Births	12398
Total	100.0	Separations	904
Time since last birth	%	Observations	93005
0.0-0.9	25.6		
1.0-1.9	23.1		
2.0-2.9	16.4		
3.0-3.9	11.5		
4.0-5.9	14.8		
6.0-7.9	8.6		
Total	100.0		

Note: Birth histories have been truncated at eight

years since last birth.

Source: Statistics Sweden, see text.

Table 1b. Descriptive statistics of the sample (women).

Education/professional orientation	%	Previous births	%
Lawyer, employed in public sector	23.0	1	44.1
Lawyer, employed in private sector	15.9	2	45.3
Physician, employed in public sector	30.3	3	10.7
Physician, employed in private sector	1.7	Total	100.0
Ph.D., employed in public sector	19.3	Place of residence	%
P. D., employed in private sector	9.8	Metro cities	27.4
Total	100.0	Metro suburbs	27.7
Partner's educational status		Big cities	32.1
Low education	7.0	Other	12.9
Medium education	26.6	Total	100.0
High education, employed in public sector	31.5	Country of birth	%
High education, employed in private sector	34.9	Both partners Swed-born	78.0
Total	100.0	Other	22.0
Couple income (base amounts)	%	Total	100.0
No income	0.4	Cohort (woman)	%
>2	0.8	1946-1959	14.2
2-4	0.6	1960-1964	35.2
4-6	1.1	1965-1969	35.2
6-8	1.9	1970-1974	13.6
8-10	3.2	1975-	1.8
10-12	5.4	Total	100.0
12-14	9.4		
14-16	12.8	Woman's age (mean)	35.0
16+	64.5	Man's age (mean)	36.7
Total	100.0	Woman's age at first birth	31.1
Civil status	%	Wom. share of couple inc.	45.9
Cohabiting	18.4		
Married	81.6	Births	8339
Total	100.0	Separations	571
Time since last birth	%	Observations	60695
0.0-0.9	27.1		
1.0-1.9	23.4		
2.0-2.9	16.5		
3.0-3.9	11.1		
4.0-5.9	13.9		
6.0-7.9	7.9		
Total	100.0		

Note: Birth histories have been truncated at eight years since last birth.

Source: Statistics Sweden, see text.

Table 2. Age of woman in couple at birth by parity and professional orientation.

	2nd births		3rd births	
Men	Mean	St.dev	Mean	St.dev
Lawyer, employed in public sector	32.52	0.0651	35.02	0.0582
Lawyer, employed in private sector	32.88	0.0526	35.45	0.0431
Physician, employed in public sector	32.26	0.0433	34.56	0.0386
Physician, employed in private sector	34.25	0.1980	36.18	0.1525
PhD, employed in public sector	33.83	0.0415	35.72	0.0361
PhD, employed in private sector	33.66	0.0505	35.57	0.0391
Total	33.12	0.0220	35.30	0.0185
Births	9339		2730	
Women	Mean	St.dev	Mean	St.dev
Lawyer, employed in public sector	32.78	0.0489	35.50	0.0448
Lawyer, employed in private sector	33.28	0.0560	36.11	0.0513
Physician, employed in public sector	33.08	0.0471	35.45	0.0414
Physician, employed in private sector	33.03	0.2443	36.17	0.1768
PhD, employed in public sector	34.56	0.0551	36.33	0.0518
PhD, employed in private sector	34.56	0.0777	36.49	0.0623
Total	33.48	0.0248	35.85	0.0219
Births	6442		1712	

Note: Birth histories have been truncated at eight years since last birth.

Table 3. Birth intervals (years) by parity and professional orientation.

	2nd births		3rd births	
Men	Mean	St.dev	Mean	St.dev
Lawyer, employed in public sector	2.41	0.0211	3.20	0.0256
Lawyer, employed in private sector	2.44	0.0183	3.31	0.0200
Physician, employed in public sector	2.38	0.0148	3.06	0.0167
Physician, employed in private sector	2.85	0.0655	3.58	0.0640
PhD, employed in public sector	2.67	0.0145	3.27	0.0161
PhD, employed in private sector	2.58	0.0182	3.33	0.0186
Total	2.52	0.0076	3.24	0.0083
Births	9339		2730	
Women	Mean	St.dev	Mean	St.dev
Lawyer, employed in public sector	2.36	0.0177	3.15	0.0214
Lawyer, employed in private sector	2.42	0.0224	3.38	0.0260
Physician, employed in public sector	2.40	0.0163	3.05	0.0183
Physician, employed in private sector	2.43	0.0787	3.54	0.0800
PhD, employed in public sector	2.66	0.0209	3.14	0.0242
PhD, employed in private sector	2.63	0.0299	3.38	0.0319
Total	2.47	0.0090	3.18	0.0130
Births	6442		1712	

Note: Birth histories have been truncated at eight years since last birth.

Table 4. Relative risks from multinomial logit estimates of experiencing a birth or divorce, 1991-2005.

A. Men, previous births=1					B. Men, previous births=2				
	Birth		Separation			Birth	S	eparation	
Education/prof. orientation	RR	P> z	RR	P> z	Education/prof. orientation	RR	P> z	RR	P> z
Lawyer, public sector	0.796	0.000	0.604	0.008	Lawyer, public sector	0.615	0.000	0.183	0.186
Lawyer, private sector	0.818	0.000	0.789	0.148	Lawyer, private sector	0.716	0.000	0.149	0.957
Physician, public sector	1	r.c.	1	r.c.	Physician, public sector	1	r.c.	1	r.c.
Physician, private sector	1.000	0.999	1.467	0.205	Physician, private sector	1.345	0.037	0.468	0.186
Ph.D., public sector	0.819	0.000	0.816	0.156	Ph.D., public sector	0.795	0.000	0.151	0.008
Ph. D., private sector	0.856	0.000	0.772	0.126	Ph. D., private sector	0.761	0.000	0.159	0.068
Partner's educational status					Partner's educational status				
Low education	1	r.c.	1	r.c.	Low education	1	r.c.	1	r.c.
Medium education	1.082	0.198	0.749	0.084	Medium education	1.193	0.073	0.183	0.326
High education, empl. public	1.015	0.814	0.644	0.023	High education, empl. public	1.538	0.000	0.211	0.127
High education, empl. private	1.055	0.436	0.430	0.001	High education, empl. private	1.121	0.303	0.229	0.240
Couple income (base am.)					Couple income (base am.)				
No income	0.437	0.000	0.000	0.000	No income	0.515	0.214	1.085	0.810
>2	0.678	0.008	0.269	0.012	>2	0.882	0.702	0.534	0.242
2-4	0.660	0.007	0.643	0.286	2-4	1.176	0.590	0.604	0.782
4-6	0.738	0.019	0.805	0.505	4-6	1.204	0.463	0.471	0.401
6-8	1	r.c.	1	r.c.	6-8	1	r.c.	1	r.c.
8-10	1.107	0.284	0.971	0.911	8-10	0.947	0.778	0.381	0.716
10-12	1.218	0.022	0.714	0.189	10-12	1.012	0.945	0.364	0.321
12-14	1.371	0.000	0.525	0.013	12-14	1.009	0.959	0.342	0.487
14-16	1.506	0.000	0.657	0.096	14-16	1.048	0.776	0.345	0.197
16+	1.586	0.000	0.960	0.858	16+	1.044	0.787	0.327	0.474
Wom. Share of couple inc.	1.007	0.000	1.010	0.000	Wom. Share of couple inc.	1.001	0.719	0.003	0.017
Man's age	1.072	0.067	0.900	0.317	Man's age	1.195	0.018	0.114	0.005
Man's age sq.	0.999	0.019	1.001	0.375	Man's age sq.	0.998	0.012	0.001	0.004

Woman's age	4.252	0.000	2.008	0.003	Woman's age	2.205	0.000	0.263	0.901
Woman's age sq.	0.982	0.000	0.993	0.022	Woman's age sq.	0.985	0.000	0.004	0.828
Wom. age at first birth	0.427	0.000	0.369	0.000	Wom. age at first birth	0.837	0.104	0.244	0.922
Wom. age at first birth sq.	1.008	0.000	1.011	0.000	Wom. age at first birth sq.	1.006	0.001	0.004	0.898
Time since last birth					Time since last birth				
0.0-0.9	0.167	0.000	0.288	0.000	0.0-0.9	0.089	0.000	0.248	0.000
1.0-1.9	1.015	0.746	0.598	0.006	1.0-1.9	0.620	0.000	0.195	0.006
2.0-2.9	1	r.c.	1	r.c.	2.0-2.9	1.000	r.c.	1	r.c.
3.0-3.9	0.575	0.000	0.692	0.085	3.0-3.9	1.217	0.002	0.173	0.021
4.0-5.9	0.208	0.000	0.659	0.183	4.0-5.9	1.146	0.075	0.183	0.010
6.0-7.9	0.051	0.000	0.481	0.171	6.0-7.9	1.213	0.100	0.241	0.013
Place of residence					Place of residence				
Metro cities	1	r.c.	1	r.c.	Metro cities	1	r.c.	1	r.c.
Metro suburbs	1.189	0.000	0.686	0.011	Metro suburbs	1.031	0.609	0.140	0.009
Big cities	1.073	0.036	0.723	0.011	Big cities	1.054	0.350	0.129	0.016
Other	1.140	0.003	0.813	0.197	Other	1.119	0.108	0.162	0.117
Country of birth					Country of birth				
Both partners Sweden-born	1	r.c.	1	r.c.	Both partners Sweden-born	1	r.c.	1	r.c.
Other	0.609	0.000	0.953	0.689	Other	0.960	0.456	0.133	0.637
Cohort (man)					Cohort (man)				
1946-1959	1	r.c.	1	r.c.	1946-1959	1	r.c.	1	r.c.
1960-1964	1.012	0.760	0.852	0.283	1960-1964	1.091	0.177	0.142	0.185
1965-1969	1.030	0.502	0.731	0.065	1965-1969	1.274	0.001	0.175	0.081
1970-1974	1.086	0.163	0.558	0.017	1970-1974	1.304	0.021	0.447	0.000
1975-	0.974	0.853	1.231	0.569	1975-	1.461	0.408	1.101	0.277
Civil status					Civil status				
Cohabiting	1	r.c.	1	r.c.	Cohabiting	1	r.c.	1	r.c.
Married	1.154	0.000	0.305	0.000	Married	1.238	0.000	0.108	0.000

Number of obs	38831	Number of obs	42334
Wald chi2(76)	166074.34	Wald chi2(124)	1626.11
Prob > chi2	0	Prob > chi2	0
Pseudo R2	0.1575	Pseudo R2	0.0783
Log pseudolikelihood	-19870.563	Log pseudolikelihood	11463.708

Table 5. Relative risks from multinomial logit estimates of experiencing a birth or divorce, 1991-2005.

A. Women, previous births=1					B. Women, previous births=2				
	Birth		Separation			Birth		Separation	
Education/prof. orientation	RR	P> z	RR	P> z	Education/prof. orientation	RR	P> z	RR	P> z
Lawyer, public sector	0.829	0.000	1.339	0.105	Lawyer, public sector	0.602	0.000	1.202	0.313
Lawyer, private sector	0.777	0.000	1.062	0.783	Lawyer, private sector	0.488	0.000	1.315	0.167
Physician, public sector	1	r.c.	1	r.c.	Physician, public sector	1	r.c.	1	r.c.
Physician, private sector	0.803	0.129	1.528	0.374	Physician, private sector	0.870	0.459	2.988	0.000
Ph.D., public sector	0.795	0.000	1.097	0.642	Ph.D., public sector	0.739	0.000	1.294	0.180
Ph. D., private sector	0.794	0.000	0.816	0.455	Ph. D., private sector	0.547	0.000	0.799	0.399
Partner's educational status					Partner's educational status				
Low education	1	r.c.	1	r.c.	Low education	1	r.c.	1	r.c.
Medium education	1.061	0.388	1.516	0.074	Medium education	1.266	0.075	0.806	0.313
High education, empl. public	1.259	0.001	0.941	0.811	High education, empl. public	1.494	0.002	0.610	0.036
High education, empl. private	1.314	0.000	1.013	0.962	High education, empl. private	1.507	0.002	0.708	0.126
Couple income (base am.)					Couple income (base am.)				
No income	0.417	0.007	0.255	0.199	No income	1.151	0.831	0.000	0.000
>2	1.001	0.998	1.263	0.673	>2	0.994	0.990	1.737	0.527
2-4	0.694	0.135	0.946	0.926	2-4	1.166	0.729	2.532	0.206
4-6	1.043	0.814	0.589	0.365	4-6	0.671	0.388	1.955	0.332
6-8	1	r.c.	1	r.c.	6-8	1	r.c.	1	r.c.
8-10	1.303	0.050	1.025	0.949	8-10	0.708	0.244	0.720	0.585
10-12	1.359	0.013	0.760	0.456	10-12	0.851	0.539	0.992	0.988
12-14	1.515	0.000	0.740	0.397	12-14	1.059	0.812	0.974	0.958
14-16	1.684	0.000	0.750	0.420	14-16	1.080	0.747	0.759	0.587
16+	1.739	0.000	0.901	0.754	16+	1.084	0.728	0.889	0.807
Wom. Share of couple inc.	1.004	0.000	1.005	0.151	Wom. Share of couple inc.	1.000	0.852	1.005	0.226
Man's age	1.024	0.585	0.954	0.713	Man's age	1.039	0.681	0.844	0.296
Man's age sq.	0.999	0.247	1.001	0.704	Man's age sq.	0.999	0.432	1.002	0.364

Woman's age	6.895	0.000	2.188	0.023	Woman's age	2.996	0.000	0.835	0.646
Woman's age sq.	0.976	0.000	0.992	0.067	Woman's age sq.	0.981	0.000	1.002	0.767
Wom. age at first birth	0.301	0.000	0.398	0.003	Wom. age at first birth	0.700	0.013	1.184	0.630
Wom. age at first birth sq.	1.014	0.000	1.009	0.040	Wom. age at first birth sq.	1.009	0.000	0.997	0.563
Time since last birth					Time since last birth				
0.0-0.9	0.125	0.000	0.289	0.000	0.0-0.9	0.073	0.000	0.251	0.000
1.0-1.9	0.817	0.000	0.525	0.004	1.0-1.9	0.481	0.000	0.462	0.002
2.0-2.9	1	r.c.	1	r.c.	2.0-2.9	1	r.c.	1	r.c.
3.0-3.9	0.595	0.000	0.799	0.386	3.0-3.9	1.097	0.249	1.305	0.228
4.0-5.9	0.243	0.000	0.926	0.826	4.0-5.9	1.053	0.587	1.961	0.002
6.0-7.9	0.054	0.000	0.634	0.448	6.0-7.9	1.119	0.442	1.935	0.023
Place of residence					Place of residence				
Metro cities	1	r.c.	1	r.c.	Metro cities	1	r.c.	1	r.c.
Metro suburbs	1.180	0.000	0.769	0.153	Metro suburbs	1.003	0.963	0.800	0.175
Big cities	1.000	0.991	0.978	0.892	Big cities	1.052	0.476	0.806	0.184
Other	1.164	0.006	1.213	0.341	Other	1.041	0.656	0.718	0.141
Country of birth					Country of birth				
Both partners Sweden-born	1	r.c.	1	r.c.	Both partners Sweden-born	1	r.c.	1	r.c.
Other	0.625	0.000	1.450	0.014	Other	1.023	0.756	1.307	0.087
Cohort (woman)					Cohort (woman)				
1946-1959	1	r.c.	1	r.c.	1946-1959	1	r.c.	1	r.c.
1960-1964	1.121	0.061	0.912	0.654	1960-1964	1.346	0.016	0.758	0.150
1965-1969	1.175	0.011	0.648	0.053	1965-1969	1.590	0.000	0.641	0.044
1970-1974	1.308	0.000	0.336	0.001	1970-1974	1.797	0.000	0.322	0.001
1975-	1.352	0.016	0.265	0.015	1975-	2.102	0.063	0.187	0.117
Civil status					Civil status				
Cohabiting	1	r.c.	1	r.c.	Cohabiting	1	r.c.	1	r.c.
Married	1.140	0.001	0.303	0.000	Married	1.308	0.001	0.409	0.000

Number of obs	26759	Number of obs	27468
Wald chi2(76)	3876.26	Wald chi2(124)	16275.96
Prob > chi2	0	Prob > chi2	0
Pseudo R2	0,1708	Pseudo R2	0,0900
Log pseudolikelihood	-13396.064	Log pseudolikelihood	-7200.229