This article was downloaded by: [Univ of Wisconsin-Madison]

On: 7 June 2010

Access details: Access Details: [subscription number 919920619]

Publisher Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK

Marriage & Family Review

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t792306931>

Education, Values, and Cohabitation in Sweden

Elizabeth Thomson^{ab}, Eva Bernhardt^a

^a Department of Sociology, Stockholm University, Stockholm, Sweden ^b Department of Sociology, University of Wisconsin-Madison, Madison, Wisconsin, USA

Online publication date: 17 March 2010

To cite this Article Thomson, Elizabeth and Bernhardt, Eva(2010) 'Education, Values, and Cohabitation in Sweden', Marriage & Family Review, 46: 1, 1 – 21

To link to this Article: DOI: 10.1080/01494921003648431

URL: <http://dx.doi.org/10.1080/01494921003648431>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Education, Values, and Cohabitation in Sweden

ELIZABETH THOMSON

Department of Sociology, Stockholm University, Stockholm, Sweden

and

Department of Sociology, University of Wisconsin-Madison, Madison, Wisconsin, USA

EVA BERNHARDT

Department of Sociology, Stockholm University, Stockholm, Sweden

We used data from the Swedish Young Adult Panel Study to investigate effects of educational attainment and enrollment in higher education on the formation of new cohabitations. In the Swedish context virtually all new unions are cohabitations, that is, cohabitation is an alternative to being single rather than to marriage. Our analyses are based on a random sample of 658 single, childless adults aged 22, 26, or 30 years at the time of the first survey in 1999; this sample was then reinterviewed in 2003. Our model incorporates several pathways from education to union formation and cohabitation in particular: competing opportunities and resources afforded by education, competing activities and the partnership market associated with enrollment, and values or preferences associated with educational experiences. We found that the risk of cohabitation over the 4-year period was not associated with prior educational attainment or ongoing enrollment. With one exception, cohabitation was also unrelated to attitudes toward family and work. Women who placed high value on demanding careers were more likely to enter new cohabiting partnerships than were other women. In a relatively family-friendly, gender-egalitarian welfare state, such women are more attractive as partners. That is, resources associated with education appear to matter more than opportunity costs. On the other hand, an analysis of educational differences between those who already had a child or were in a union at the first survey produced the expected

Address correspondence to Elizabeth Thomson, Department of Sociology, Stockholm University, S-106 91 Stockholm, Sweden. E-mail: elizabeth.thomson@sociology.su.se

educational differential. We conclude that in the contemporary Swedish context, educational differentials in cohabitation are found primarily in the very early years of adulthood and/or matter more for the stronger commitments of formal marriage and childbearing.

KEYWORDS *education, family values, Sweden, transition to adulthood, union formation*

INTRODUCTION

Education is a critical component of the transition to adulthood, intertwined with leaving the parental home, achieving economic independence, and forming a family of one's own (Corijn, 2001). Education enables youth to become economically independent, providing resources, such as employment, income, social networks, and problem-solving skills, to support the search for a partner and to cohabit or marry. On the other hand, education offers social and economic opportunities that reduce incentives to cohabit or marry, especially for women. Education is also associated with attitudes and values that may influence the desirability of living with a partner or the choice between cohabitation and marriage.

The degree to which education implies opportunity costs for the formation of an intimate union or to which education influences attitudes and values related to cohabitation and marriage depends of course on societal contexts. Where social policies and practices facilitate the reconciliation of study, work, and family life and promote gender equality, the opportunity costs of educational enrollment or attainment are relatively low. Educational resources therefore play a greater role in finding a partner and deciding to live together. Furthermore, enrollment in higher education may provide better opportunities to meet prospective partners than would be the case in many work environments. In such a context the relationship between educational attainment and cohabitation or marriage should be positive.

The ideological pathway from education to cohabitation or marriage also depends on the societal context. In a society that places high value on individual choice and gender equality and where cohabitation is widely approved, education may not produce variation in the values and attitudes that influence desirability of coresident living or the choice between cohabitation and marriage. Even in these societies, however, education may generate values that place work and economic success above developing an intimate partner relationship.

In Sweden generous supports for higher education and gender equality, together with values that support individual choice, strongly reduce the potential opportunity costs of and ideological barriers to cohabitation found

in other contexts. The fact that in Sweden virtually all couples cohabit before or instead of marrying and—as in other contexts—cohabitation requires a less serious commitment than marriage suggests that structural or ideological forces associated with education may have little to do with entry into a cohabiting union. In this study we use data from the Swedish Young Adult Panel Study (1999–2003) to identify mechanisms through which educational enrollment and attainment do or do not influence the risk of cohabitation.

EDUCATION AND THE TRANSITION TO ADULTHOOD

Until recent decades most young adults—particularly young men—postponed entry into adult work and family roles until they had completed their education. During the prosperous decades of the 1950s and 1960s in northern and western Europe, family transitions occurred relatively quickly once education was completed (Liefbroer, 1999). In the latter decades of the 20th century many observers identified a “de-standardization” such that the events in the transition to adulthood are less clearly defined, more spread out in time, and their sequencing more varied (Buchmann, 1989). Cohabitation and living independently without a partner before moving into a couple relationship both constitute new stages in the life course and can be seen as one component of many in a process through which individual behavior is determined less by tradition and institutional arrangements and is more open to individual choice.

In the “choice framework” developed by Liefbroer (1999) and others, young adults aspire to achieve certain goals, and the degree to which they are successful depends on their resources and on the structural constraints that they face. Cook and Furstenberg (2002) point out that the choice sets available to young adults in Europe and other wealthy countries differ considerably in terms of work and family institutions. In particular, country differences are observed in the expansion of the educational system, the increased labor force participation of women, and the difficulty for young people to establish themselves on the labor market with permanent jobs (Liefbroer, 1999). The “latest-late” transitions in Italy, for example, are consistent with a weak state, small business, extended schooling, and parental support, contrasted with the Swedish model in which the state, industry, and unions provide a safety net for early independence and experimentation (Cook & Furstenberg, 2002).

Young people also face different rates of cultural change in terms of decrease in normative controls, from the church and from parents, and increased individualization (i.e., increased freedom for the individuals to decide for themselves how to organize their lives). The growing importance of individual autonomy as a central value in life is regarded as a crucial component of the so-called second demographic transition but is not evenly

distributed across the European landscape or across segments within any given society. Swedish society is often described as one of the forerunners in this process (Lesthaeghe, 1995; Van de Kaa, 1995). In every society, however, the highly educated are those first and most likely to hold individualistic ideals. The specific choices young people make in the transition to adulthood are therefore responsive to both structural and ideological forces, both of which are associated with education.

THEORETICAL PATHWAYS FROM EDUCATION TO COHABITATION OR MARRIAGE

Educational enrollment presents structural constraints as well as opportunities for family formation. On the one hand, enrollment competes for time and energy and reduces economic resources that could otherwise be devoted to family life. On the other, student life may provide better opportunities for meeting and getting to know potential mates than does the typical workplace.

Educational attainment also has structural dimensions in that improvements in labor market position and earnings may improve one's position in the partnership market and facilitate finding a suitable residence and having resources for a stable family life. Whether this is true for women as well as men depends on the degree of compatibility between family and work and the political and structural conditions facilitating (or obstructing) their combination (Bernhardt, 1993). In a breadwinner-housewife system the earnings potential of highly educated men make them better equipped to support a family and therefore more attractive as potential partners, whereas their female counterparts face significant opportunity costs of forming unions and having children. In dual-earner systems where social institutions significantly reduce conflicts between family and work life for women, considerable advantage is afforded to couples in which both partners contribute economically and in the household (Oppenheimer, 1988). In such contexts, higher education should facilitate the entry of both men and women into cohabitation or marriage.

The influence of educational attainment on family formation depends as well on an ideological dimension. In the process of acquiring education, individuals are exposed to alternative ideas and preferences to those acquired in their families of origin. In particular, education may produce attitudes and values that place work, leisure, or other activities above family life as a source of self-esteem and well-being. As noted above, such new ideas and preferences are the focus of considerable theory and research on the second demographic transition. Lesthaeghe (1995), for example, links individual autonomy in ethical, religious, and political domains to family formation in Western nations. Culture in general, and values or attitudes in

particular, at least partially guide family formation choices (Lesthaeghe & Moors, 2002; Moors, 1997).

The degree to which the structural or ideological dimensions of educational enrollment or attainment influence cohabitation—as opposed to the stronger commitments of marriage and childbearing—is not clear. Cohabitation seems to be a less selective state than marriage, not requiring the traditional underpinnings for establishing an independent household, such as completed education, adequate income, and stable employment (Hobcraft & Kiernan, 1995; Kravdal 1999). In a study of American men, Sassler and Goldscheider (2004) argue that although minimum prerequisites for marriage might be rising, there appear to be few such requirements for cohabitation.

In contemporary Sweden the formation of a cohabiting union among young adults is in most cases the first step in the family formation process, followed by marriage and childbearing. Very few couples today marry without having cohabited (Oláh & Bernhardt, 2008). On the other hand, cohabitation does not always, and often does not, lead to marriage or childbearing. For many young couples, living together may be regarded as an alternative to being single (Rindfuss & VandenHeuvel, 1990) and thus not taken as seriously as when testing a relationship for marriage or childbearing. A survey of Swedish and Norwegian couples, for example, found that cohabitators were less serious about and less satisfied with their relationship than were married respondents (Wiik, Bernhardt, & Noack, 2009). Thus we might expect educational enrollment and attainment to have relatively modest effects on cohabitation, whether through structural or ideological pathways.

RESEARCH ON EDUCATION, ATTITUDES/VALUES, AND COHABITATION OR MARRIAGE

Empirical studies in Sweden and elsewhere generally show that enrollment, at least in full-time education, has a negative effect on both cohabitation and marriage (Baizán, Aassve, & Billari, 2003, 2004; Blossfeld & Huinink, 1991; Bracher & Santow, 1998; Coppola, 2004; Hoem, 1986; Thornton, Axinn, & Teachman, 1995). Because educational enrollment is a time-limited activity, the net effect is that of delay rather than of lowering the likelihood of ever cohabiting or marrying (Goldscheider & Waite, 1986; Liefbroer & Corijn, 1999).

Net of enrollment, educational attainment is usually positively associated with union formation, more so for marriage than for cohabitation (Goldscheider, Turcotte, & Kopp, 2001; Kravdal, 1999; Martin, 2004). In the United States educational attainment (net of enrollment) is positively associated with marriage and negatively with cohabitation; the two effects are counterbalancing so that education is not associated with union formation *per se*

(Thornton et al., 1995). Duvander (1999) and Moors and Bernhardt (2009) showed that educational attainment has a positive effect on the transition from a cohabiting union to marriage in Sweden. Using models that allowed steps in the family-building process to be associated with unobserved common factors, Baizán and colleagues (2003, 2004) found stronger negative effects of educational enrollment and attainment on the risk of marriage than on the risk of cohabitation in Sweden, Germany, and Spain. In Sweden the risk of marriage among cohabiters was inversely associated with enrollment but not associated with educational attainment.

In general, differences in effects of women's and men's education on union formation are more similar in dual-breadwinner welfare states than in single-breadwinner regimes. Bracher and Santow (1998) found that in Sweden, often considered one of the most gender-equal societies in the world, the correlates of union formation (almost always cohabitation) for women were largely indistinguishable from those for men. Once women graduated from university, they moved into cohabiting unions or transformed their cohabiting unions into marriage at a higher rate than women with lower education, similar to results for men. Liefbroer and Corijn (1999) reported parallel results for Dutch and Flemish men and women with regard to union formation (cohabitation and marriage combined). Coppola (2004), comparing Italy and Spain, found that high educational levels improved men's marriage chances more than women's, consistent with the single-breadwinner model of both welfare states. In the United States educational attainment increases the risk of marriage but decreases the risk of cohabitation for both women and men (Goldscheider & Waite, 1986; Thornton et al., 1995). Enrollment, on the other hand, was more strongly negative for women's union formation (cohabitation or marriage) than for men's.

Although several studies demonstrate that values and attitudes influence cohabitation and marriage, few have considered their relationship to educational differences. Barber (2001), for example, found that positive attitudes toward careers and luxury goods reduced the risk of childbearing before marriage (net of attitudes toward children *per se*) but did not have strong effects on marital childbearing. She interprets these results in terms of the greater difficulty of combining single than married parenthood with work that produces a high income. Moors and Bernhardt (2009) found that familistic attitudes and career ambitions *both* increased the marriage risk for female cohabiters with no parallel effects for men. Clarkberg, Stolzenberg, and Waite (1995) reported that the choice between cohabitation and marriage was influenced by attitudes and values toward work, family, use of leisure time, money, and sex roles as well as by values and attitudes toward marriage itself. They argued that cohabitation is attractive as an alternative to marriage, not only because it is tentative but because it accommodates a different style of life and allows for flexibility and freedom

from traditional gender-specific marital roles. Sassler and Schoen (1999) find that persons expressing positive attitudes about marriage are significantly more likely to marry and that such favorable assessments accentuate the positive effects of economic attributes (including education) on marriage odds.

MODELING EDUCATIONAL EFFECTS ON COHABITATION

Figure 1 summarizes the potential pathways through which educational attainment and enrollment are hypothesized to influence cohabitation during the young adult years. Direct negative effects of enrollment on the risk of cohabitation arise when study limits material resources and time needed to develop and maintain a coresident partnership. We consider as well the possibility that enrollment provides better opportunities than work to meet new partners and that the constrained economic circumstances of students might increase their incentives to co-reside, producing a positive pathway toward cohabitation. Educational attainment may also have both positive and negative effects on cohabitation, net of current enrollment. First, the better educated are more likely to enter occupations that are more demanding of time and energy and could constrain opportunities for developing an intimate relationship. On the other hand, the resources produced by those occupations should facilitate the formation and maintenance of partnerships. Depending on institutions that do or do not facilitate the combination of work and family responsibilities, effects are similar or different for men and women. Third, education may shift individuals' preferences toward work and leisure rather than toward family life. Again, however, the strength of this pathway from women's and men's education may depend on the nature of the welfare regime.

To distinguish the possible opposing effects of educational enrollment and attainment on union formation, it is necessary to observe preference

FIGURE 1 Educational pathways toward union formation.

structures and useful to observe ongoing activities associated with educational attainment and enrollment. For example, if educational attainment lowers interests in family life but also provides resources to form a union, we might find direct positive effects of education on the risk of cohabitation once we have controlled for attitudes toward partnership or parenthood. If educational enrollment competes with cohabitation but facilitates partner search, we might find direct negative effects of education only when controlling for having a nonresident partner. To observe these alternative pathways requires panel data in which attitudes and the availability of partners is observed before the period at risk of union formation. In the following sections we use just such a data set to estimate effects of educational enrollment and attainment on cohabitation in Sweden.

DATA AND METHODS

The Young Adult Panel Survey, directed by Eva Bernhardt and carried out by Statistics Sweden (www.suda.su.se/yaps), is based on random samples from population registers of men and women born in 1968, 1972, and 1976. During spring 1999, 67% of those sampled completed and returned a mailed questionnaire for a total sample of 2,273. Information was gathered on retrospective union and birth histories, childhood experiences and attitudes toward family, childbearing, employment, and related life domains. In spring 2003 the original sample was sent a follow-up questionnaire to obtain information on life events since the first survey and to reassess attitudes. The follow-up response rate was 78% ($n = 1,761$). Our analysis is based on respondents who were not cohabiting or married at the time of the 1999 interview and who had never had a child.¹ The 1999 sample consisted of 512 men and 384 women, of whom 69% and 80%, respectively, also participated in the 2003 interview ($n = 351$ and 307, respectively).

The risk of cohabitation was estimated from reports in 2003 of the respondent's first new union after the 1999 interview. In our sample 320 new unions were formed between the two surveys, of which only three were direct marriages. We treat those three cases as having cohabited at the month of marriage. Educational attainment is measured at the 1999 interview: compulsory or lower secondary, upper secondary, lower post-secondary and upper post-secondary.² Educational enrollment is based on enrollment at the time of the 1999 survey and total months of enrollment between surveys, as reported by the respondent in 2003. We classify respondents as having been enrolled for less than 24 months between surveys (including enrollment at the time of the survey), 24 months or more, or not enrolled at any time. We do not, unfortunately, know the exact months of enrollment so we cannot specify it as a time-varying covariate.

The Young Adult Panel Survey is particularly rich in indicators of attitudes toward family and work. We conducted exploratory factor analyses, beginning with the full set of items under consideration to identify six distinct attitudinal domains: benefits of a coresident union, benefits of marriage, costs of marriage, benefits of parenthood, costs of parenthood, career achievement orientation, and job “comfort” orientation. Items representing each domain are specified in the Appendix.

Our measure of attitudes toward forming a new union incorporates both perceived benefits and perceived costs. The questions were formulated to produce a positive relationship between each possible outcome of union formation because they ask whether particular conditions would be better or worse if living with a partner. Each response therefore places the respondent along a continuum that can be combined to estimate whether the respondent believes that she or he would be worse or better off if cohabiting or married. On the other hand, statements about conditions associated with marriage or parenthood were framed in terms of agreement. Those who are most favorable would therefore agree with statements framed in positive terms and disagree with statements framed in negative terms. These response patterns produce two separate scales that are not perfectly negatively correlated (i.e., benefits versus costs of marriage or parenthood). We found a single dimension underlying the importance of work in general, occupational and economic success, and importance of job characteristics associated with high-prestige occupations. But other job characteristics, such as security, coworkers, and flexibility, formed a second dimension, which we labeled work “comfort.”

Several questions included a “don’t know” response that was chosen by significant proportions of respondents, with smaller proportions offering no response. We compared two methods for including such responses in our analysis. First, we assigned the “don’t know” responses to the middle value of the item’s response scale and computed a scale score for persons who had valid or “don’t know” responses for at least half the items in the scale. Second, we used multiple imputation (Rubin, 1987; StataCorp, 2009), generating 10 samples of imputed values for “don’t know” responses or nonresponses.³ We report further on these alternatives below.

Our analyses also include several control variables that could underlie or suppress associations between education or attitudes and union formation. Childhood experiences include mother’s education (four levels), whether the respondent’s father had higher or lower education, number of siblings (none, one, two, three or more), whether the parents had separated before the respondent turned age 16, childhood residence (metro, non-metro and non-rural, rural), and whether at the time of the 1999 interview the respondent had left her or his parental home. Adult experiences include metropolitan residence, having a non-coresident intimate partner, and ever having lived with a partner, all observed at the first interview.⁴

RESULTS

Table 1 presents descriptive statistics for educational attainment and enrollment as well as for the control variables measured in 1999, separately for women and men who participated in both waves of the panel survey. Distributions are similar for men and women, with three exceptions. Women were more likely to have left home, have experienced a prior union, and/or

TABLE 1 Education, Childhood, and Adult Experience, Swedish Young Adults 1999

Variables	Categories	Women (%)	Men (%)
Age	22	51.8	50.1
	26	33.6	33.1
	30	14.7	16.8
Educational attainment at interview	Basic, lower secondary	17.6	26.5
	Upper secondary	50.5	45.3
	Lower post-secondary	23.8	24.2
	Upper post-secondary	8.1	4.0
	None	41.4	51.6
Enrollment 1999–2003	Enrolled 1999 or <24 months between interviews	38.1	32.2
	Enrolled 24 + months between interviews	20.5	16.2
	≤9 years	20.5	22.5
Mother's education	Upper secondary	28.0	32.5
	Tertiary, no degree	23.8	21.9
	Tertiary, degree	21.8	11.4
	Unknown	5.9	11.7
	Less than mother	25.7	22.2
Father's education	Same as mother	43.0	44.7
	More than mother	20.2	16.8
	Unknown	11.1	16.2
	None	8.5	11.1
Siblings	One	37.5	41.6
	Two	36.2	29.9
	Three or more	17.9	17.4
	No	72.3	79.2
Parents separated	Yes	24.4	18.0
	Unknown	3.3	2.9
	Metro	23.8	19.9
Childhood residence	Non-metro, non-rural	59.6	56.7
	Rural	16.6	23.4
	No	7.2	15.1
Left parental home	Yes	92.8	84.9
	No	65.2	76.9
Ever in coresident union	Yes	34.9	23.1
	No	60.3	67.0
Metro residence	Yes	39.7	33.1
	No	48.2	61.3
Current nonresident partner	Yes	51.8	38.8

Note: Respondents to 1999 and 2003 surveys, both parents born in Sweden, 307 women, 351 men.

have a current nonresident partner than were men of the same age. Women's earlier age at union formation and childbearing is also consistent with the fact that our sample of childless single persons includes a higher proportion of men than of women.

Table 2 provides information about nonresponse and estimated scores for dimensions of family attitudes and values that may be associated with earlier or later union formation. For each scale we present in the first column the percentage of respondents who did not answer or answered "don't know" to at least one of the items in the scale. Column 2 shows a more conservative estimate of nonresponse—the percentage who did not answer or answered "don't know" to more than half the items in the scale. These are the cases excluded when we applied the first method for dealing with missing data. The third and fourth columns provide estimated means and standard deviations from scales using the first method; columns five and six are estimated means and standard deviations from the multiple imputations with valid scores for all respondents. The estimated means are almost identical; as expected, the standard deviations are somewhat larger with multiple imputations. The last two columns present Cronbach's alpha for respondents who provided either a valid or "don't know" (coded 3) response to all items in the scale and the average alpha across the 10 imputations; the estimates are virtually identical.

TABLE 2 Attitudes Toward Partnership, Marriage, Parenthood, and Work, Swedish Young Adults

	DK, NA Responses		>1/2 valid, DK = 3		Multiple Imputation		Cronbach's Alpha	
	1+	>1/2	Mean	SD	Mean	SD	Valid, DK = 3	Mean MI
Attitude scales: Women								
Partnership	2.3	1.6	3.18	0.39	3.18	0.40	.51	.52
Marriage benefits	13.4	3.6	2.88	0.73	2.87	0.75	.61	.61
Marriage costs	22.1	8.1	2.29	0.89	2.22	0.98	.57	.57
Parenthood benefits	41.0	1.6	3.16	0.72	3.16	0.76	.84	.84
Parenthood costs	8.1	3.6	2.76	0.83	2.75	0.85	.68	.67
Work achievement	5.5	0.3	4.21	0.47	4.22	0.47	.68	.70
Work "comfort"	4.6	0.3	4.25	0.71	4.26	0.72	.63	.66
Attitude scales: Men								
Partnership	2.0	1.7	3.01	0.48	3.01	0.48	.68	.65
Marriage benefits	19.7	4.3	2.84	0.73	2.82	0.74	.62	.64
Marriage costs	27.9	12.0	2.63	0.96	2.58	1.12	.65	.69
Parenthood benefits	49.6	4.8	3.33	0.68	3.36	0.73	.79	.81
Parenthood costs	9.7	4.8	3.12	0.79	3.12	0.83	.69	.70
Work achievement	5.1	0.0	4.14	0.57	4.15	0.57	.77	.78
Work "comfort"	7.7	1.1	4.04	0.71	4.05	0.72	.55	.59

Note: Respondents to 1999 and 2003 surveys, both parents born in Sweden, 307 women, 351 men.

DK, Don't Know; MI, Multiple Imputation; NA, No Answer; SD, Standard Deviation.

On average, the young men and women in our sample expressed relatively neutral (score of 3, in the middle of the scale) attitudes toward being in a coresidential union. Because they use a different scale, we cannot compare these values with respondents' views of marriage, but we can say that the average anticipated benefits of marriage are greater than the anticipated costs, as is the case for benefits and costs of parenthood. The differences are not so great for men, who expressed higher perceived costs of marriage and parenthood than did women. Both men and women place high value on work achievement as well as on work "comfort," but women scored higher on the latter dimension.

Estimates of scale reliability are generally good, though in some cases are not as high as would be desirable. This means that estimates of structural relationships between attitudes and the risk of cohabitation are downwardly biased. In addition, some of the attitude scales appear to be more reliable for men than for women or vice versa. We consider these issues in making inferences from the hazard regression estimates.

In Tables 3 and 4 we present estimates of relative risks of cohabitation derived from Cox proportional hazard models estimated over 10 multiple imputations. The first column presents estimates of bivariate associations. Coefficients for model 1 are presented in the second column, including effects of respondent's educational attainment and enrollment, age, and childhood experiences. Model 2 in column 3 adds adult experiences; model 3 in column 4 adds measures of attitudes toward partnership, marriage, parenthood, and work.⁵

Among single, childless Swedish women, neither educational attainment nor enrollment influenced the risk of forming a new partnership between interviews. Women who were age 30 and/or who had not left their parental home at the initial interview were least likely to form a new cohabiting union. Those who had a nonresident partner relationship or whose mothers had lower secondary education (in comparison with mothers with only primary or higher education) were most likely to do so. With one exception, the risk of cohabitation was unrelated to attitudes toward family and work. Contrary to predictions from a work-family conflict perspective, women who placed high value on demanding careers were more likely to enter a cohabiting union than were other women.

Neither did we find effects of educational attainment or enrollment on the risk of new cohabitation for men (Table 4). Men's attitudes toward family and work were not at all associated with cohabitation. The absence of attitude effects cannot be attributed to measurement error as the coefficients are generally close to zero and the scale measuring career attitudes was less reliable for women (where the association was significantly different from zero) than for men. As for women, men who remain in the parental home are less likely and those who had a nonresident partnership in 1999 more likely to enter a new cohabitation between interviews.

TABLE 3 Effects of Education, Attitudes, and Control Variables on the Relative Risk of Union Formation Between Interviews: Women

Variables	Categories	Bivariate	Model 1	Model 2	Model 3
Age	22	[1.00]	[1.00]	[1.00]	[1.00]
	26	0.87	0.84	0.69	0.72
	30	0.52	0.52	0.40	0.40
Educational attainment at interview	Basic, lower secondary	[1.00]	[1.00]	[1.00]	[1.00]
	Upper secondary	1.19	1.02	1.09	1.17
	Lower post-secondary	1.32	1.21	1.26	1.29
	Upper post-secondary	0.64	0.75	1.01	0.96
Enrollment 1999–2003	None	[1.00]	[1.00]	[1.00]	[1.00]
	Enrolled 1999 or <24 months between interview	1.06	0.88	0.89	0.93
	Enrolled 24+ months between interviews	0.90	0.76	0.78	0.72
Mother's education	≤9 years	[1.00]	[1.00]	[1.00]	[1.00]
	Upper secondary	1.70	1.68	1.73	1.69
	Tertiary, no degree	1.44	1.43	1.32	1.28
	Tertiary, degree	1.33	1.20	1.18	1.10
Father's education	Unknown	1.38	1.18	1.53	1.58
	Same as mother	[1.00]	[1.00]	[1.00]	[1.00]
	Less than mother	1.01	0.86	0.96	1.00
	More than mother	0.89	0.82	0.89	0.93
Siblings	Unknown	0.97	0.88	0.77	0.79
	None	[1.00]	[1.00]	[1.00]	[1.00]
	One	1.15	1.01	0.81	0.87
	Two	0.98	0.87	0.79	0.87
Parents separated	Three or more	0.89	0.76	0.72	0.69
	No	[1.00]	[1.00]	[1.00]	[1.00]
	Yes	1.32	1.45	1.28	1.32
Childhood residence	Unknown	0.95	1.06	1.22	1.18
	Metro	[1.00]	[1.00]	[1.00]	[1.00]
	Non-metro, non-rural	0.98	0.96	0.70	0.70
Left parental home	Rural	1.04	1.11	0.77	0.72
	No	[1.00]	X	[1.00]	[1.00]
	Yes	2.17	X	2.26	2.07
Ever in coresident union	Yes	[1.00]	X	[1.00]	[1.00]
	No	0.63		0.62	0.64
Metro residence	No	[1.00]	X	[1.00]	[1.00]
	Yes	0.71	X	0.68	0.63
Current nonresident Partner	No	[1.00]	X	[1.00]	[1.00]
	Yes	1.66	X	1.56	1.51
Attitude scales					
	Partnership	1.06	X	X	1.05
	Marriage benefits	1.12	X	X	1.12
	Marriage costs	0.89	X	X	0.83
	Parenthood benefits	1.10	X	X	1.09
	Parenthood costs	0.99	X	X	1.07
	Work achievement	1.50	X	X	1.67
	Work "comfort"	0.98	X	X	0.82

Note: Female respondents to 1999 and 2003 surveys, both parents born in Sweden ($n = 307$). Bold indicates $p < .05$, two-tailed test. [1.00] designates fixed odds for the omitted category.

TABLE 4 Effects of Education, Attitudes and Control Variables on the Relative Risk of Union Formation Between Interviews: Men

Variables	Categories	Bivariate	Model 1	Model 2	Model 3
Age	22	[1.00]	[1.00]	[1.00]	[1.00]
	26	0.92	0.89	0.77	0.76
	30	1.01	0.98	0.84	0.83
Educational attainment at interview	Basic, lower secondary	[1.00]	[1.00]	[1.00]	[1.00]
	Upper secondary	1.21	1.31	1.17	1.21
	Lower post-secondary	1.51	1.83	1.49	1.46
Enrollment 1999–2003	Upper post-secondary	0.97	1.18	1.26	1.20
	None	[1.00]	[1.00]	[1.00]	[1.00]
	Enrolled 1999 or <24 months between interview	0.82	0.78	0.71	0.70
Mother's education	Enrolled 24 + months between interviews	0.96	0.93	0.84	0.83
	≤9 years	[1.00]	[1.00]	[1.00]	[1.00]
	Upper secondary	0.98	0.89	1.08	1.09
Father's education	Tertiary, no degree	0.79	0.74	0.85	0.86
	Tertiary, degree	0.93	0.92	1.31	1.35
	Unknown	1.01	1.43	1.28	1.32
Siblings	Same as mother	[1.00]	[1.00]	[1.00]	[1.00]
	Less than mother	0.77	0.77	0.73	0.69
	More than mother	0.92	0.89	0.86	0.87
Parents separated	Unknown	0.86	0.66	0.86	0.80
	None	[1.00]	[1.00]	[1.00]	[1.00]
	One	1.64	1.74	1.48	1.49
Childhood residence	Two	1.60	1.68	1.24	1.23
	Three or more	2.10	2.36	2.03	2.06
	No	[1.00]	[1.00]	[1.00]	[1.00]
Left parental home	Yes	0.88	0.87	0.88	0.84
	Unknown	1.00	1.28	2.41	2.39
	Metro	[1.00]	[1.00]	[1.00]	[1.00]
Ever in coresident union	Non-metro, non-rural	1.20	1.19	0.87	0.93
	Rural	1.33	1.27	0.94	0.99
	No	[1.00]	X	[1.00]	[1.00]
Metro residence	Yes	3.09	X	2.66	2.64
	Yes	[1.00]	X	[1.00]	[1.00]
	No	0.77		0.82	0.82
Current nonresident partner	No	[1.00]	X	[1.00]	[1.00]
	Yes	2.71	X	2.57	2.72
Attitude scales	Partnership	1.07	X	X	1.22
	Marriage benefits	0.92	X	X	0.98
	Marriage costs	0.90	X	X	0.99
Work achievement	Parenthood benefits	0.96	X	X	0.93
	Parenthood costs	0.86	X	X	0.88
	Work achievement	0.98	X	X	0.86
Work "comfort"	Work "comfort"	0.91	X	X	1.03

Note: Male respondents to 1999 and 2003 surveys, both parents born in Sweden ($n = 351$). Bold indicates $p < .05$, two-tailed test. [1.00] designates fixed odds for the omitted category.

The fact that we found no effect of educational attainment or current study on the formation of new cohabitations was surprising. Earlier research using retrospective histories up to 1999 found negative effects of education and enrollment on entry into a first union, again almost always cohabitation (Hong, 2005). More than half of the women and almost a third of the men had formed a first union by age 22. By age 30 percentages were 75% and 60%, respectively. Although we include in our sample respondents with previous unions who were single in 1999, we may be missing the “action” in union formation with observations that begin at later ages.

To investigate this possibility, we conducted an analysis of selection into our sample (childless, single in 1999 at ages 22, 26, or 30). Net of age, mother's education, parental separation, and sibship size, educational enrollment was positively associated with being in the sample for both men and women (i.e., negatively associated with being in a union or having had a child). Women who had attained an upper secondary degree were most likely to be single and childless, whereas men's educational attainment was not associated with the likelihood of being in the sample (analyses available on request). Of course, educational attainment and enrollment could be a result of not having begun the family building process early in adulthood rather than the reverse.

We tested the hypothesis further by limiting our panel analysis to the youngest cohort sampled, age 22 at the time of first interview. Neither for women nor men did we find significant effects of educational attainment or enrollment in 1999 on the risk of forming a new cohabitation. As for the full sample of single, childless women, those who were age 22 and placed high value on demanding careers were more likely than other women to enter a cohabiting union. In addition, new cohabitations were more likely for the younger women who had positive views of partnership. The latter association was, however, not significant in the full model. No effects of educational attainment or enrollment or of attitudes toward work and family life influence the risk of a cohabiting union among 22-year-old men (analyses available on request).

DISCUSSION AND CONCLUSIONS

Union formation occurs relatively early in Sweden, compared with many other European countries (Liefbroer & Goldscheider, 2007). Between ages 20 and 30 the overwhelming majority of young adults in Sweden start their first (and sometimes their second) coresidential union. It seems that finding a partner and moving in together is high on the agenda of Swedish young adults. Contrary to expectation, our analysis shows that neither educational attainment nor enrollment influenced the formation of a new cohabiting union between the two surveys. We believe this is a most remarkable finding,

possibly indicating that in a country like Sweden, arguably the most advanced in the second demographic transition, educational pathways toward union formation have undergone a radical change.

Because we control for the potential positive effects of educational enrollment on opportunities to find a partner, the absence of enrollment effects on cohabitation suggests that in the Swedish context there is no or little conflict between the demands of study and those of a coresidential partnership. Furthermore, we found no evidence of an indirect effect of educational attainment on cohabitation through attitudes and values. The fact that career-oriented women were more likely to enter a new cohabitation than those attaching less importance to advancement and salary offers additional evidence that cohabitation generates no opportunity costs for women or men.

A possible explanation for this last finding is that women with high work ambitions, who prefer jobs with good possibilities to advance, high salaries, and so on, are more attractive on the partner market. For a family to have two incomes is now the rule rather than the exception in Sweden, and most Swedish men, at least in the younger generations, no longer expect to be the main breadwinner (Bernhardt & Goldscheider, 2007). Note that our results cannot arise from a preference of career-oriented women for marriage, as might be the case in a context where marriage is one of the alternatives to cohabitation. In Sweden, the choice is living together or not.

It is important to keep in mind that we analyzed new cohabitations for young adults who were already at least 22 years old. Our selection analysis showed that for women both educational attainment and educational enrollment increased the likelihood of being single and still childless in 1999 (and thus included in the sample). For men, only enrollment mattered. That is, we found significant educational effects on *early* cohabitation and childbearing in Sweden. Thornton and colleagues (1995) reported a similar pattern in the United States where negative effects of enrollment on cohabitation and on marriage disappeared by age 23, just beyond the age at which we first observe single, childless Swedes.

Other studies demonstrated that educational enrollment or attainment does matter for later and more “serious” stages in family formation, that is, marriage and childbearing (Baizán et al., 2004; Duvander, 1999; Goldscheider et al., 2001; Hoem, 1993; Hoem, 1986; Moors & Bernhardt, 2009). Especially in Sweden, but also to some degree in other contexts, cohabitation itself may neither impose opportunity costs associated with marriage and childbearing nor require the resources that higher educational attainment provides. Furthermore, in Sweden, but perhaps not in other contexts, widespread approval of cohabitation removes any ideological impediments to cohabitation that might be associated with education.

Sweden has often been identified as a forerunner in family change, suggesting that we might expect declines in the implications of education for cohabitation in other countries where cohabitation has increased and

become more widely accepted. No longer must one flout authority and family to live with a partner before marriage. Thus the pathway from education to individualism to cohabitation has disappeared. The resources and opportunity costs associated with educational enrollment and attainment may, however, continue to be salient in countries with less extensive support for the reconciliation of family and work life.

ACKNOWLEDGMENTS

An earlier version of this article was presented at the meetings of the International Union for the Scientific Study of Population, Tours, France, July 2005. Our analyses were supported by grants from The Swedish Research Council and the Swedish Council for Working Life and Social Research as well as by our home institutions. Data collections were supported by the Swedish Social Science Research Council, Brown University, and the Swedish Research Council's Committee on Longitudinal Research. We are very grateful to Kamilla Krawiec for able research assistance.

NOTES

1. Although some of the respondents conceived a child before cohabiting, we consider childbearing and cohabitation to be mutually endogenous processes and are unable in the short period of observation to identify causal relationships between them.
2. Four respondents who did not provide information on educational attainment in 1999 were assigned the modal response, upper secondary education.
3. Using the multivariate normal distribution produced a very small number of cases with imputed values outside the range of responses; these values were recoded to the nearest in-range value (1,5) before scales were constructed.
4. Two respondents did not answer the question on whether they had previously cohabited or married; they were assigned the modal experience no prior cohabitation or marriage.
5. STATA's implementation of multiple imputations for Cox models does not produce goodness-of-fit statistics for the models as a whole; new methods are under development in order to provide appropriate estimates (StataCorp, 2009).

REFERENCES

- Baizán, P., Aassve, A., & Billari, F. (2003). Cohabitation, marriage, first birth: The interrelationship of family formation events in Spain. *European Journal of Population*, 19(2), 147–169.
- Baizán, P., Aassve, A., & Billari, F. (2004). The interrelations between cohabitation, marriage and first birth in Germany and Sweden. *Population and Environment*, 25(6), 531–561.
- Barber, J. S. (2001). Ideational influences on the transition to parenthood: Attitudes toward childbearing and competing alternatives. *Social Psychological Quarterly*, 64(2), 101–127.
- Bernhardt, E. (1993). Fertility and employment. *European Sociological Review*, 9(1), 25–42.

- Bernhardt, E., & Goldscheider, F. (2007). Gender and work-family balance. In E. Bernhardt, C. Goldscheider, F. Goldscheider, & G. Bjerén (Eds.), *Immigration, gender and family transitions to adulthood in Sweden* (pp. 95–114). Lanham, MD: University Press of America.
- Blossfeld, H.-P., & Huinink, J. (1991). Human capital investments or norms of role transition? How women's schooling and career affect the process of family formation. *American Journal of Sociology*, 97(1), 143–168.
- Bracher, M., & Santow, G. (1998). Economic independence and union formation in Sweden. *Population Studies*, 52(3), 275–294.
- Buchmann, M. (1989). *The script of life in modern society: Entry into adulthood in a changing world*. Chicago: Chicago University Press.
- Clarkberg, M., Stolzenberg, R. M., & Waite, L. J. (1995). Attitudes, values, and entrance into cohabitational versus marital unions. *Social Forces*, 74(2), 609–634.
- Cook, T. D., & Furstenberg, F. F., Jr. (2002). Explaining aspects of the transition to adulthood in Italy, Sweden, Germany, and the United States: A cross-disciplinary, case synthesis approach. *Annals of the Association of Political and Social Science*, 580, 257–287.
- Coppola, L. (2004). Education and union formation as simultaneous processes in Italy and Spain. *European Journal of Population*, 20, 219–250.
- Corijn, M. (2001). Transition to adulthood: Socio-demographic factors. In M. Corijn & E. Klijzing (Eds.), *Transitions to adulthood in Europe* (pp. 1–25). Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Duvander, A.-Z. (1999). The transition from cohabitation to marriage. A longitudinal study of the propensity to marry in the early 1990s. *Journal of Family Issues*, 20(5), 698–717.
- Goldscheider, F., & Waite, L. J. (1986). Sex differences in the entry to marriage. *American Journal of Sociology*, 92(1), 91–109.
- Goldscheider, F., Turcotte, P., & Kopp, K. (2001). The changing determinants of women's first union formation in industrialized countries: The United States, Canada, Italy and Sweden. *Genus*, LVII(2), 107–134.
- Hobcraft, J. N., & Kiernan, K. E. (1995). Becoming a parent in Europe. In *European Association for Population Studies/International Union for the Scientific Study of Population, Evolution or Resolution in European Population*, European Population Conference Proceedings, Vol. 1, Plenary Sessions, Milan, September 4–8, 1995 (pp. 27–61). Milan: Franco Angeli.
- Hoem, B. (1993). The compatibility of employment and childbearing in contemporary Sweden. *Acta Sociologica*, 36(2), 101–120.
- Hoem, J. M. (1986). The impact of education on modern family-union initiation. *European Journal of Population*, 2(2), 113–134.
- Hong, Y. (2005). Parental separation and first union formation among young adults in Sweden. Paper presented at the Nordic Demographic Symposium in Aalborg, Denmark, 28–30 April.
- Kravdal, Ø. (1999). Does marriage require a stronger economic underpinning than informal cohabitation? *Population Studies*, 53, 63–80.
- Lesthaeghe, R. (1995). The second demographic transition in Western countries: An interpretation. In K. O. Mason & A.-M. Jensen (Eds.), *Gender and family change in industrialized countries* (pp. 17–62). Oxford: Clarendon Press.

- Lesthaeghe, R., & Moors, G. (2002). Life course transitions and value orientations: Selection and adaptation. In R. Lesthaeghe (Ed.), *Meaning and choice: Value orientations and life course decisions* (pp. 1–44). The Hague/Brussels: NIDI/CBGS Publication, Monograph 37.
- Liefbroer, A. (1999). From youth to adulthood: Understanding changing patterns of family formation from a life course perspective. In L. J. G. van Wissen & P. A. Dykstra (Eds.), *Population issues. An interdisciplinary perspective* (pp. 53–85). New York: Kluwer Academic/Plenum Publishers.
- Liefbroer, A., & Corijn, M. (1999). Who, what, where, and when? Specifying the impact of educational attainment and labor force participation on family formation. *European Journal of Population*, 15, 45–75.
- Liefbroer, A., & Goldscheider, F. (2007). The transition to adulthood: How unique is Sweden in the European context? In E. Bernhardt, C. Goldscheider, F. Goldscheider, & G. Bjerén (Eds.), *Immigration, gender and family transitions to adulthood in Sweden* (pp. 203–227). Lanham, MD: University Press of America.
- Martin, S. P. (2004). Delayed marriage and childbearing: Implications and measurement of diverging trends in family timing. In K. Neckerman (Ed.), *Social inequality* (pp. 79–119). New York: Russell Sage.
- Moors, G. (1997). The dynamics of values-based selection and values adaptation. With an application to the process of family formation. IPD-Working Paper 1997–4. Brussels, Belgium: Vrije Universiteit Brussel.
- Moors, G., & Bernhardt, E. (2009). Splitting up or getting married? Competing risk analysis of transitions among cohabiting couples in Sweden. *Acta Sociologica*, 52(3), 227–247.
- Olàh, L. S., & Bernhardt, E. (2008). Sweden: Combining childbearing and gender equality. *Demographic Research*, 19, 1105–1144.
- Oppenheimer, V. K. (1988). A theory of marriage timing. *American Journal of Sociology*, 94(November), 563–591.
- Rindfuss, R., & VandenHeuvel, J. (1990). Cohabitation: A precursor to marriage or an alternative to being single? *Population and Development Review*, 16(4), 703–706.
- Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. New York: Wiley.
- Sassler, S., & Goldscheider, F. (2004). Revisiting Jane Austen's theory of marriage timing: Changes in union formation among American men in the late 20th century. *Journal of Family Issues*, 25(2), 139–166.
- Sassler, S., & Schoen, R. (1999). The effect of attitudes and economic activity on marriage. *Journal of Marriage and the Family*, 61(1), 147–159.
- StataCorp. (2009). *Stata: release 11. Statistical software*. College Station, TX: StataCorp LP.
- Thornton, A., Axinn, W. G., & Teachman, J. D. (1995). The influence of educational experiences on marriage and cohabitation in early adulthood. *American Sociological Review*, 60(5), 762–774.
- Van de Kaa, D. (1995). The second demographic transition revisited: Theories and expectations. In G. C. N. Beets, J. C. van den Brekel, R. L. Cliquet, G. Dooghe, & J. de Jong Gierveld (Eds.), *Population and family and the low countries 1994: Late fertility and other current issues* (pp. 81–126). The Hague, Netherlands: NIDI/CBGS.
- Wiik, K. A., Bernhardt, E., & Noack, T. (2009). A study of commitment and relationship quality in Sweden and Norway. *Journal of Marriage and the Family*, 71(3), 465–477.

APPENDIX Attitudes Toward Family and Work, Swedish Young Adults 1999

Partnership

Different living arrangements have different consequences.

How do you think your life would be today if you lived with

a cohabiting partner or spouse?

Contacts with my friends would be ...

Possibilities to invest wholeheartedly in education/job/career would be ...

My freedom to do what I want would be ...

My general well-being would be ...

My standard of living would be ...

1 = much worse

...

5 = much better

Marriage benefits

Here are some reasons for and against marriage. What is your view?

People ought to get married for the sake of their children.

People ought to get married for economic reasons.

It is tradition to get married.

It is romantic to get married.

The wedding ceremony shows that one is really serious about the relationship.

1 = don't agree at all

...

5 = agree completely

Marriage costs

Here are some reasons for and against marriage. What is your view?

When married, one is more inclined toward traditional gender roles.

The married are under greater pressure to conform.

As married, it is more difficult to break up from an unsatisfactory relationship.

1 = don't agree at all

...

5 = agree completely

Parenthood benefits

What is your view of the following statements?

To have children is part of what gives life meaning.

Something is missing if a couple never has children.

Here are some statements about children and family.

What do you think?

I enjoy children.

I think I can be satisfied with my life if I am a good parent.

Spending time with the family is more rewarding than work.

To have children is confirmation of a good partner relationship.

To become a parent can influence one's life in many ways.

What is your view of the following? If (when) I have children ...

my relationship to my partner will improve

my life will be more meaningful

1 = don't agree at all

...

5 = agree completely

People have different opinions about what is important in life.

Can you tell us how important it is to you to achieve the following?

To have children

1 = unimportant

...

5 = very important

Parenthood costs

To become a parent can influence one's life in many ways.

What is your view of the following? If (when) I have children...

I can no longer do what I want

I (we) will have economic problems

I will have little time for my friends

1 = don't agree at all

...

5 = agree completely

(Continued)

APPENDIX Continued

Work achievement		
What does a good job mean to you?		
that I can think and act independently		
that it offers good possibilities to advance		
that I can be proud of my work		
that I get a high salary and/or other benefits		
People have different opinions about what is important in life.		
Can you tell us how important it is to you to achieve the following?		
to do well economically		
to be successful in my work		
1 = unimportant	...	5 = very important
How important is work in your life?		
1 = one of least important	...	5 = one of most important
Work comfort		
What does a good job mean to you?		
that I have many good work mates		
that I have a secure employment with a regular income		
that I can take parental leave and/or work part-time without facing difficulties at work		
1 = unimportant	...	5 = important