Documenting Determinants of the Divorce Transition. Micro-Level Evidence from Sweden 1905–1967

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Documenting Determinants of the Divorce Transition. Micro-Level Evidence from Sweden 1905–1967

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Abstract

Divorce increased dramatically during the twentieth century across the western world. There is surprisingly little research on the determinants of divorce during this transition. We investigate micro-level sociodemographic determinants of divorce in Sweden 1922–1967 using longitudinal data at individual and household level from southern Sweden, focusing on the associations between divorce and women's economic independence, household socioeconomic status (SES), and the presence of children in the household. Results suggest that greater equality along class and gender lines changed the returns to marriage and enabled more people to divorce. Thus, divorce risks increased though divorce was still a rare event. Already in a low divorce context, women's economic independence was positively related to divorce and this relationship became stronger over time. As for household SES, a negative gradient in divorce risks emerged as divorce spread to the broader layers of the population. Like today, the presence of dependent children in the household was associated with lower divorce risks. We can document that the primary explanations of divorce in modern contexts are also valid for historical divorce. Women's economic independence was key to the divorce transition although their economic roles were much different from men's during this period.

Keywords: divorce, industrialization, Sweden, twentieth century, micro-level longitudinal data, discrete hazard models

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Introduction

Over the twentieth century, marital dissolution for reasons other than widowhood increased dramatically across industrialized countries, with Sweden being a demographic frontrunner and an early representative of a society with high divorce rates. The divorce transition in Sweden and the western world occurred against the backdrop of industrialization, and other features of modernization, such as secularization, individualization, fertility decline, and the rise of female labor force participation (Philips 1988; Stone 1990). One strand of the literature, primarily based on William Goode's socioeconomic growth theory (Goode 1951, 1963), emphasizes that industrialization and related modernization implied socioeconomic and cultural change through altered modes of production (e.g., the growth of wage work done first by men, then by women) with implications for living standards, gender relations, and family roles. Changing conditions for individuals and households made divorce accessible for broader layers of the population than just the elite. Another strand of the literature emphasizes female independence, particularly among married women, as a major explanation for the rise in divorce. This disrupted the well-established, highly gendered division of labor between spouses, reduced specialization, and the gains to marriage, as it provided women with own income and a chance to support themselves (and their children) and lead an independent life if their marriage was unsatisfactory (Becker 1991; Ross and Sawhill 1975).

In this study, we analyze individual and household level factors associated with divorce in Sweden in 1905–1967. Our case is relevant in that we provide new evidence on the micro-level determinants of divorce during the transition from low to high divorce rates, which is a rarely studied but important period for understanding changing demographic patterns. We focus on married women's economic independence as we document the determinants of divorce against the backdrop of industrialization, which is much more frequently studied. In tandem with the divorce transition, Sweden matured as an industrial economy, married women's employment became more common, and the welfare state expanded in ways that supported individual freedom and reduced class and gender differences. We apply a period perspective, as we are interested in change over time and seeing whether the micro-level factors at work were similar or not across different periods of the divorce transition. This approach implies that the same economic and social forces affect people who married at different times (i.e., belong to various marriage cohorts) simultaneously.

More specifically, we investigate sociodemographic determinants of divorce in one industrial town (Landskrona) and five neighboring rural parishes in southern Sweden, making use of longitudinal data from the SEDD database covering 22,486 first marriages. We seek to answer the following questions by means of estimating multivariate regressions: How did female economic independence and wife's occupational status impact the likelihood of divorce, and did this association change over time? Was there an independent association between household socioeconomic status (SES) and divorce, net of other factors? Did dependent children in the household contribute to marital stability during the divorce transition?

Our findings are interesting and important. Already in a low-divorce context, we find a strong positive association between female independence, measured by the wife's occupational status or income, and divorce. Before the 1940s, when divorce was rare, women who (had) worked and held white-collar or skilled manual occupations were more likely to divorce, but this changed over time, and in the 1950s and 1960s, unskilled women workers were most likely to divorce compared to other occupational groups. This shift implied that more people divorced. Net of wife's occupational status, household (i.e., husband's) SES mattered little in the early part of the divorce transition. Results confirm that a negative association between household SES and divorce was established over time. Like today, the presence of young children (i.e., those under the age of seven) in the household was a protective factor that lowered the divorce risk, all else equal, throughout the period. The results show that the positive relationship between female economic independence and divorce and the negative association between husband's SES and divorce not only are features of modern high-divorce societies but date further back in time, at least in contexts like Sweden where early (though rather rudimentary) welfare state arrangements emphasized principles of individualism and egalitarianism along class and gender lines. The development of these determinants over time implies that the divorce transition was highly related to female independence and that the opportunity to divorce spread to unskilled men and women as Sweden matured into an industrial economy.

Background

In Sweden, as in many other countries, divorce was uncommon at the turn of the last century and most marriages ended with the death of one spouse. A reform of the divorce law in 1915 introduced bilateral no-fault divorce. Previously, divorce was only granted in cases where one of the spouses had committed a fault, such as adultery, crime, or abandonment. The 1915

reform allowed separation and divorce if both spouses agreed on irretrievable breakdown and irreparable differences. Fault-based reasons still allowed one of the spouses to apply for divorce unilaterally, though this became uncommon. Already in the 1930s, most divorces were no-fault (Sandström 2011). Unilateral no-fault divorce (granting divorce without any reason, thereby further liberalizing the divorce law) was introduced in 1974. The legal context for divorce is thus the same during the period of our study. This period covers the transition from a low-divorce regime until the start of the new regime at much higher levels of divorce.[1] The early reform to bilateral no-fault divorce makes Sweden (along with the other Nordic countries) a forerunner in allowing for the possibility of divorce (Sandström and Garðarsdóttir 2018).

Figure 1 shows the refined divorce rate for Sweden 1910–2000. It also describes the developments in divorce for Scania, the region in which the study area is situated, across the same years, and a three-year moving average for divorce in this area, 1905–1967. All measures indicate the same development pattern with an increase in divorce until the end of our study period in 1967. Regarding the trend over time, it is important to note that there were two periods of a more marked increase in divorce during the decades of our study. The first period of increase started around 1940 and continued into the 1950s. The other marked increase started around 1960. By the late 1960s, divorce had become more socially acceptable and an increasingly normal part of the marriage cycle, and the divorce rate jumped in the mid-1970s. Compared to other regions, southern Sweden (including Scania) was an early starter in terms of demographic processes such as fertility decline and the increase in divorce (Sandström 2011; Sundbärg 1910). Nevertheless, the region followed the general trend in demographic shifts in Sweden during the twentieth century.

[Figure 1 about here]

The rise of divorce is attributed to multiple factors and trends that affected the conditions for marriage. On the one hand, decreasing mortality and fertility led to new expectations and possibilities for family members (Becker 1991; Cherlin 1981). On the other, increasing wages and work opportunities improved living standards for both men and women (Bengtsson and Dribe 2014; Schön 2010). For Sweden, relatively late but fast industrialization in the late nineteenth and early twentieth centuries implied a rapid shift to wage work and urbanization,

[1] After 1970, marriage changed too as cohabitation and out-of-wedlock childbearing became increasingly common.

and economic growth improved conditions for the working class and reduced class differences. Although this development took place over the long period that we study, the major improvement for men and women occurred during the 1940s with expansion in the industrial and the service sectors, and the discussion about welfare reform highlighted differences between social groups in Swedish society (Olofsson 2007; Schön 2010).

In the transition from an agricultural to a more urbanized industrialized society, women (mainly young unmarried women) gained more opportunities to find paid, typically in domestic service or light manufacturing industry (Stanfors 2014). Labor force participation rates for married women increased slowly, from very low levels, over the first half of the twentieth century but increasing demand for female labor in both industries and services pushed up female-to-male relative wages, especially during the late 1920s and 1940s (Stanfors 2003). Thus, the economic and social roles of women changed and challenged the male breadwinner model (Oppenheimer 1977). However, industrialization and the rise of wage work in the nineteenth century separated women's productive roles from those of men, and the first half of the twentieth century saw the height of the sexual division of labor and the *separate spheres* regime (Stanfors and Goldscheider 2017). The husband-breadwinner and wife-homemaker configuration that had dominated upper-class families during early industrialization also became the norm in middle and working-class families.

Theoretical Considerations and Previous Research

A recurring explanation in the literature for the rise of divorce is that of women's economic independence, with emphasis placed on the fact that increased female labor force participation decreases marriage stability and represents a move away from marriage (Becker et al. 1977; Cherlin 1981). A positive association between married women's labor force participation and divorce is supported by historical trend data, but evidence for this association at the individual level is ambiguous, primarily limited to modern periods, and varies across geographical contexts (Bianchi and Sayer 2000). Still, women's increased economic independence is one of the main explanations for the rise of divorce. Arguments can be divided into those that underline the point that women's economic independence disturbs the fundamental logic of the family and disrupts the traditional sexual division of labor (Becker 1991) and those that emphasize that greater economic independence enables women to opt out of an unsatisfactory marriage and leave their husbands (even when they have children) (Ross and Sawhill 1975; Ruggles 1997).

The economic model on marriage, developed by Becker (1973), focuses on the sexual division of labor. The model predicts that marriage is stable and divorce is less likely in traditional marriages where the husband supports the family economically and the wife is responsible for home production (including child rearing). In Becker's framework, the benefits from marriage are highest for both individuals when each spouse specializes in either market or home production and produces different goods and services that are traded within the household. Intra-household specialization is a rational choice, as men have a comparative advantage in the labor market and women were long seen as having a comparative advantage in the household. Thus, the traditional household based on the husband-breadwinner and wife-homemaker configuration maximizes the gains to marriage and the exit cost of leaving a marriage, which in turn promotes marital stability. Deviation from these economic roles will decrease the benefits from marriage and make alternatives more attractive. A marriage is at risk of divorce if the husband cannot provide enough income; if the potential wage of the woman increases; or if there is less demand for the wife's home production (for example, if her earnings increase or her household productivity is very low, perhaps because there are few or no children in the household) (Becker et al. 1977). This also implies that if the labor market conditions for women relative to men improve over time, the opportunity cost of household production will increase, more married women will choose to work, and more households will face lower gains from marriage and an increased risk of divorce.

Not all support the idea that divorce is related to women's economic independence agree with the specialization and trade model. A positive association between female economic independence and divorce may exist because married women with their own income are able to leave a troubled marriage (Bianchi and Sayer 2000; Ross and Sawhill 1975). Full specialization in home production makes women vulnerable through their dependency on their husband for economic support and may restrict them from getting a divorce because they cannot afford it. For women who invested little in education or paid employment before marriage, it would also be difficult to get or regain a job. Having labor market experience or access to own income would decrease the wife's dependency on the husband and mean that she could support herself after divorce, and thus she could leave an already unhappy marriage. This also means that other forms of income, such as transfers and public services such as subsidized childcare, would increase the woman's ability to leave the marriage because it would reduce her dependence on her husband.

Reduced specialization and economic independence are difficult to separate from each other because they both expect women's economic activity to increase the risk of divorce. Further, they both suffer from the issue of reversed causality (Becker et al. 1977; Oppenheimer 1997). Married women might start working because their husband is a poor provider or in anticipation of divorce, especially as divorce becomes more common. It might also be an issue of selection in that couples that violate the male breadwinner norm are also more prone to break the norm against divorce, which means that those in a marriage where the wife is gainfully employed (when this was rare) might have different attitudes (Ross and Sawhill 1975).

Many studies have investigated the impact of the wife's labor force participation on a couple's divorce risks. While there is little evidence for decreasing gains to marriage in line with the specialization model (Oppenheimer 1997), many studies find a positive association between married women's labor force participation and the risk of divorce (e.g., Greenstein 1990; Spitze 1988). These studies mainly focus on determinants of divorce after 1970, though results from the United States suggest that a positive association existed earlier in the low-divorce regime (e.g., MacDonald and Dildar 2018; Ruggles 1997). How and if this association has changed is, however, unclear because longitudinal micro-level data for longer historical periods are rare. Using different types of data, Ruggles (1997) indicated a stronger association in the low-divorce regime before the Second World War than in later periods in the United States, while South (2001) found that the association has become more prominent since the 1960s.

Because previous studies mainly focused on periods after the rise of female labor force participation in the late 1960s/early 1970s, we do not know what the association looked like in the decades prior to that time, and whether it changed over time. We investigate whether the association between female economic independence, measured by wife's occupational status, and divorce. We assume that women from different social classes gradually gained access to divorce simultaneously, but that changing conditions for women regarding work, wages, and welfare support improved the situation most distinctly for those in the lower stratum (who gained most from both increasing wages and welfare state expansion). We expect women's independence to increase the risk of divorce. We further expect this relationship to grow stronger over time, since the potential for improvement in women's

economic conditions enable more women, especially in lower status occupations, to end unsatisfactory marriages as they become less dependent on their husband's income for economic security.

A negative social class gradient in divorce risk is well established in past literature on divorce (e.g., Haskey 1984; Ono 2009). Higher household (or husband's) SES has been found to reduce divorce risk.[2] A possible explanation for this is that the higher status or income provides financial security and increases the cost of leaving a marriage for the woman (especially if she does not work for pay). We would then expect that divorce is more prevalent among lower SES groups – even more so in the past when few women had their own income (Ross and Sawhill 1975). It could also be that financial assets (signaled by higher SES) increase the cost of divorce for both partners since household assets (including real estate) must be divided. Men and women belonging to lower social classes might be in a better position to leave an unsatisfactory union because they have made less investments. A third explanation is that economic resources reduce marital stress or make it easier for the marriage to endure instability and having more resources would then imply less uncertainty (Becker 1991; Becker et al. 1977).

It is not clear if the negative association between SES and divorce has historical roots. It may be that there is no important relationship between economic resources and divorce during the early part of the divorce transition. Social stigma may have hindered all but the most troubled marriages from ending in divorce – independent of SES. However, it is often assumed that social class and divorce are positively associated when divorce is uncommon, but that the association changes over time during the transition from low to high divorce rates.

The hypothesis of a historical positive gradient was put forth by William Goode as part of the socioeconomic growth theory (Goode 1951, 1963). The argument is that in low-divorce regimes there are legal, economic, and social barriers preventing all but marriages in the upper social classes from divorce. Apart from administration fees and the legal requirements of cause for divorce (so called *fault divorce*), social stigma towards divorce may increase the

[2] SES is often measured using occupation, education, or income. In general, the SES of a household is measured by a combination of husband's and wife's education or occupation. In research on historical divorce (before the 1970s), the husband's SES is assumed the main determinant of household SES (see Lyngstad and Jalovaara 2010 for a review).

threshold for what is an unsatisfactory marriage, and the cost of supporting two single households after divorce means that only people with socioeconomic capital can choose this route. Goode contrasts these low-divorce regimes with high-divorce regimes where wages are higher, and divorce is less expensive and easier to get and a socially acceptable option available to spouses in all social classes. A transition between these two regimes occurs as these barriers to divorce weaken gradually over time in parallel with divorce spreading from the upper to the lower classes, and the association between SES and marriage instability is expressed by a negative social class gradient (Goode 1963; Ono 2009).

There is, however, limited evidence that the relationship between social class and divorce has changed or been different under certain conditions. A few studies on historical divorce have found a higher risk of divorce for upper social strata in the nineteenth century (e.g., Kalmijn et al. 2011; Phillips 1988). These studies only account for a change in class differences over a limited period and relies on cross-sectional data and indicate that divorce in the past had different determinants than in modern societies. Evidence based on longitudinal data covering marriage cohorts from Northern Sweden indicate a positive association between SES and divorce with the middle class, not the elite, featuring the highest divorce risks among those who married 1880-1919. However, this association changed with couples married in the 1920s, and the working class caught up with the higher social strata regarding divorce risks (Sandström and Stanfors 2020).

Based on the above, we expect lower SES to increase divorce risk during the period we study. We also expect the relationship to be weaker (or non-existent or even reversed) in the early phase of the transition and increase over time as divorce becomes more common.

A large part of the literature on determinants of divorce in post-1970 contexts focus on the relationship between children and divorce. An important factor as to why people get married, children are also assumed to stabilize a marriage.[3] According to Becker's economic models of marriage and divorce, children are considered a marriage-specific investment that increases the cost of divorce, as they are worth more inside than outside a marriage (Becker 1991; Becker et al. 1977). Couples may also stay together because children require time and money that must be taken from economic activity in a single-person household, a factor that would

[3] Mirroring this, childlessness may contribute to a higher divorce risk among the childless.

be more important without the presence of welfare support for single households (where childcare and child benefits reduce the cost). In sociological literature, common children are assumed to strengthen the bond between spouses and increase the gains from family life (Brines and Joyner 1999; Thornton 1977). Children may also reduce the divorce risk for an unhappy marriage if spouses stay together for the sake of the children, or if parents consider the adverse effects for children of divorce (Thornton 1989). However, in the past, when divorce was less common, people were less aware of the consequences of divorce, while at the same time parenthood (especially fathering) was less engaged, and it is unknown if children were as important then in terms of their association with divorce.

Previous research shows that the negative association between children in the household and divorce mainly concerns younger children (i.e., under seven years old, which typically equals pre-compulsory school age), and that the stabilizing effect is reduced for older children (Waite and Lillard 1991). While children can increase marital tension by being demanding and costly in terms of time and money, the presence of young children seems to encourage greater marital stability because they need support in terms of money and care. Studies indicate that the negative association between children in the household and divorce has grown weaker since the 1970s (South and Spitze 1986; Thornton 1989), which makes us assume that it was stronger in the past. One reason for why there would be a change in the association between presence of dependent children and divorce over time is that marriage and childbearing was much more closely connected in the past than today, though this change started around 1970. Another reason is welfare state expansion and increased government support to families in the form of transfers and more importantly services such as subsidized childcare for single mothers has made it easier for parents of young children to divorce. While there were improvements in economic support for single-parent households during our period of study, these were mainly in the form of a child allowance aimed at low-income families and not generous in economic terms (Olofsson 2007). For this reason, we focus on the presence of a young dependent child in the household in our analysis. We expect that the presence of young children reduces divorce risk, but also that social policy and improved economic support to families reduced the cost of children and that the negative association between children and divorce therefore became weaker over time.

Data and Method

The data used come from the Scanian Economic-Demographic Database (SEDD), administered by the Centre for Economic Demography (CED) at Lund University, Sweden (see Bengtsson et al. for a description). They contain individual-level longitudinal information for everyone who was born or died in one industrial town (Landskrona) and five rural parishes (Halmstad, Hög, Kågeröd, Kävlinge and Sireköpinge). All parishes are in Malmö County (*Malmöhus*[4]) in Scania in southern Sweden. The SEDD is constructed using yearly information from parish and civil registers and is updated with occupational information from censuses undertaken every ten years. The database also includes information on in- and out-migration, which makes possible a precise estimate of the population of risk in all years.

Although the SEDD is not a statistically representative sample of the Swedish population regarding fertility patterns and occupational structure, it captures the sociodemographic characteristics of areas in southern Sweden (Dribe et al. 2015). The county of Scania, alongside the rest of southern Sweden, is described as a forerunner in demographic transitions and patterns of marriage formation (Lundh 2013; Sundbärg 1910).[5] Compared to other regions in Sweden during the nineteenth and early twentieth centuries, the marriage rate and fertility were lower and age at marriage higher. As seen in Figure 1, the refined divorce rate in the area saw an increasing trend over time like both Sweden and Scania but at a higher level, indicating that the area was a forerunner in the divorce trend. Considering that the divorce rates in Scania were higher than the national divorce rate and that many households in the SEDD were urban (living the city of Landskrona), and cities generally have higher divorce rates than rural areas, the higher rate is reasonable. Over the period studied, refined divorce rates increased from around two to seven in the area, with the major increase occurring during the 1940s.

Regarding economic development, the industrial (port) town of Landskrona fits the overall pattern in terms of its share of industrial workers when compared with other cities of varying sizes and industrial profiles over the twentieth century. In 1900, it was the 12th largest industrial town in Sweden in terms of number of industrial workers – in 1960, it was the 21st

[4] Later renamed Skåne after a merger with the county of Kristianstad in 1997.
[5] Sundbärg divides Sweden into three sub-regions: North, East, and West, where Malmöhus belongs to the West in terms of demographic behavior. Although Sundbärg attributed differences to religious behavior, Lundh finds that economic and social conditions, such as the availability of farmland and difference in wage levels, were more important in explaining demographic differences across the country.

largest industrial town. Having gone through an early stage of industrialization during the second half of the nineteenth century, with the setup of small factories and financial institutions, the early twentieth century saw an increasing shift towards large-scale enterprises. These included a shipyard, a sugar refinery, and metal workshops, which employed 75 percent of the industrial workers. There was also textile industry, of importance for the employment of low-skilled women. The parishes in our area of study are all characterized as rural. Although they retained their rural character, industrial expansion in Landskrona and other nearby cities led to a high share of industrial workers residing in the parishes at the end of the period of study (Dribe et al. 2015).

Our sample consists of 22,486 marriages (either formed in the area or referring to individuals that migrated into the area), of which 918 ended in divorce during the period of observation. We only include first marriages and exclude higher order marriages from the analysis due to selection bias because mechanisms leading to higher order divorce could be different from those for first marriages. In some cases of in-migration to the study area, we are not able to determine if the recorded marriage year is a first marriage or not. For those individuals, we only include couples where the wife is younger than 32, as the majority of first marriages were formed before that age.

The dataset is constructed as a 'person years file' where an individual contributes with one observation for each year (s)he belongs to the (married) population at risk. Individuals enter the risk set when they marry while being under observation, or they enter when they move into the study area as a married couple. Individuals are followed until divorce, which is the main event of interest, death (of either partner), out-migration, or up until 35 years of marriage[6], whichever occurred first.

We only include formal divorce in the analysis. Some previous studies also include separation (Ruggles 1997) or abandonment (Crvcek 2009) to capture marital instability among the poor who could not afford a divorce and were thus more likely to live apart while still legally married. In our aim to study the determinants of divorce and potential change over time, only formally registered divorce is the most consistent measure. Moreover, prior to 1974, couples in Sweden who filed for divorce were required to separate (*hemskillnad*) for one year before

[6] We censor individuals after 35 years of marriage because after that, divorce is extremely rare. This censoring, however, does not change the conclusions.

the marriage was officially dissolved, but not all couples who separated were officially divorced.

We use occupational information as measures of economic independence and household SES. We only include occupations that were registered during the period of the marriage. The SEDD includes data on occupation which are taken from tax-poll registers (*mantalslängder*), the parish registers and censuses, and are coded according to the HISCLASS-6-scheme that classifies occupations as historically comparable categories based on skill level, degree of supervision, and whether the occupation was manual or non-manual (Van Leeuwen and Maas 2011; Van Leeuwen et al. 2002). HISCLASS-6 contains six categories: 1) higher professionals, 2) lower professionals, 3) medium-skilled workers, 4) farmers and fishermen, 5) lower-skilled workers, 6) unskilled workers. [7] This is commonly used when studying periods where there is either insufficient or no information on income or education, and when making comparisons between countries over time. Except for farmers, who rarely fit into the class scheme over a long period of time, these classes fit into a status hierarchy from lowest (unskilled workers) to highest status (managers and professionals). The information on occupation comes from multiple sources and is continuously updated where new information is available. It is included as a time-varying variable in our analysis.

We use wife's occupation, coded into HISCLASS, as a proxy for economic independence. Of note, this is not a measure of her employment status but can be seen as an indicator of her employment experience or connection to the labor market. A well-recognized shortcoming and a data-related issue with using this measure is that wife's occupation might be incorrect in some years due to poor registration, when the information is not updated as regularly or accurately as for men (see Humphries and Sarasùa 2012, Stanfors 2014).[8] In that sense, the variable indicates if the wife has or has had an occupation during the period of the marriage.[9] There is also an issue when using the HISCLASS scheme for women's occupations in that the classification is mainly based on men because their skill profiles differ much in historical

[7] The re-categorization of the HISCLASS-scheme depends on the quality of the data and the incidence of the outcome, which leads to differences in divorce (an unusual outcome) requiring larger aggregates.
[8] As a minor control for such measurement errors, we also estimated models using occupation as the highest occupational status (according to HISCLASS) registered up until 2 years before divorce. Results are robust to whatever measure we use (see Appendix Figure A1).
[9] This is in line with previous research using wife's occupation to measure economic independence when information on employment or income is missing, see Fokkema and Liefbroer (2004) and Sandström and Stanfors (2020) for details.

data. This is one reason why we use a different categorization with fewer categories for women than for men. Acknowledging these shortcomings, we believe that wife's occupation proxies economic independence, as women who have or have had an occupation during marriage have labor market experience, some skills, and perhaps also a connection to the labor market that will increase their chances of gaining an income in the event of divorce.

In our analysis, we use two separate categorizations of wife's occupation to proxy for female independence. First, we distinguish between those with a recorded occupation and those without. The aggregation of women's occupational categories is required due to few observations in each category, as married women in most cases did not have an occupation during our period of study. This also has a bearing in theory, as the main difference should lie between marriages in which the woman is highly dependent on the husband and those where she has some form of economic independence. Second, to see if there are differences in occupational status, we then use a categorical variable including white-collar/skilled blue-collar worker, low-skilled worker, unskilled worker, and those without a recorded occupation.[10] While having more categories makes it harder to estimate the models, it may serve as an indicator for differences based on occupational status. We also use information on the wife's registered labor income, which is only available for the years 1947–1967, as a supplementary analysis.

Another main independent variable is household SES, proxied by the husband's occupation. During the period that we study, the husband's occupational status was the main determining factor for household SES as the husband-breadwinner model was at its height.

Our third main independent variable indicates whether there was a young dependent child in the household. We use the age of seven as a cut-off, as this was the age for starting school (compulsory since 1842 and free of charge) in Sweden throughout the period of this study. We include a control for the couple's total number of children (whether they live at home or not).

[10] There are too few women with 'farmer' as their recorded occupation to allow for analysis.

We also control for duration of marriage[11], wife's age at marriage, and place of residence (urban/rural). Previous research shows that duration and age at marriage are negatively associated with the risk of divorce (South and Spitze 1986). A consistent finding in the literature is that couples living in cities are more likely to divorce. The difference in divorce rates between cities and rural areas is attributed to less stigma, more employment opportunities, and a larger marriage market providing alternatives to an existing marriage (Lyngstad and Jalovaara 2010).

We used discrete-event history analysis models (logit) to estimate the likelihood of divorce.[12] We estimated a model including a measure of wife's occupational status, household SES, presence of young children, a period measure, marital duration, age at marriage, and place of residence. We also estimate models where we control for period effects and models using interactions to examine differences between periods. Because divorce is an unusual outcome (because of small sample in a context where it was a rare event), we separated the period of analysis into 1905–1934, 1935–1949, and 1950–1967. Although there were economic crises and restructuring, the period that we study was largely one of high economic growth and expansion in Sweden. Periodization was made to encompass different regimes of the divorce transition in Sweden to capture the determining factors in different phases of the divorce transition.

Our basic model is:

$$log\left(\frac{\pi(Div_{it})}{1\text{-}\pi(Div_{it})}\right) = \beta_0 + \beta_1 Wife'sOcc_{it} + \beta_2 SES_{it} + \beta_3 Child_{it} + \beta \mathbf{X_{it}} + Period_i \quad (1)$$

where $\pi(Div_{it})$ is the probability of divorce observed in year *t* for marriage *i*. *Wife's Occ*$_{it}$ indicates wife's occupation in year *t, SES*$_{it}$ is the husband's or household socioeconomic status in year *t*, and *Child*$_{it}$ denotes the presence of a young child in the household. We control for period and other factors ($\mathbf{X}_{it}$ being a vector of controls for age at marriage, duration of marriage, the couple's total number of children, and place of residence). To explore change over time, we use interactions between period and main independent variables in the form of:

[11] Duration of marriage is accounted for by year dummies. Divorce risk over marital duration is described in Appendix Figure A2. Other functional forms produced similar results.

[12] Specifically, we estimated a GLM using a log-link, which produces relative risk ratios. This simplifies the interpretation, as difference in risk can be calculated: If RR > 1 → diff = (RR-1)*100. If RR < 1 → diff = (1-RR)*100.

$$log\left(\frac{\pi(Div_{it})}{1-\pi(Div_{it})}\right)=\beta_0 + \beta_1 Wife'sOcc_{it}+\beta_2\ Period_i + \beta_3 Wife'sOcc \times\ Period_i + \beta\mathbf{x_{it}} \quad (2)$$

Results

As a first step in documenting the determinants of the divorce transition in southern Sweden, we have provided descriptive results for the variables in our models and a discussion on the distribution of divorces according to SES. Table 1 shows distributions and means (by person-years) for the variables used in the analysis. About three percent of marriages ended in divorce during the period, 1905–1967, but there was a steady increase over time (from 1.95 to 4.43 percent).

[Table 1 about here]

In line with increasing female labor force participation in Sweden during the twentieth century, the proportion of married women with no recorded occupation decreased over time. All occupational categories increased in share, indicating the national trend of industrialization (Schön 2010). The increasing demand for labor in industry and services implied a demand for unskilled workers that increased most rapidly though skilled occupations – which covers all occupations requiring education or specialization – saw the largest absolute increase over time. As for household SES, there was a general upgrading as skilled occupations increased while the proportion of households headed by farmers and unskilled workers declined.

About half of all marriages had a child under the age of seven throughout the period of study though the trend towards smaller families is evident because the proportion of one or two-child families increased over time while larger families became less common. Urbanization following with industrialization is evident in the increasing share of the married population residing in Landskrona compared to the rural parishes. Average age at marriage remained stable across the period studied. The descriptive statistics of our sample indicate that the general trend was like the Swedish aggregate trends of increased female economic independence, increased skill levels among both men and women based on their recorded occupation, and fewer children per family.

Figure 2 shows, separately for men and women, the distribution of divorce by SES and the non-parametric risk of divorce for the SES categories in each period. In 1905-1934,

marriages, where the wife had no recorded occupation, accounted for 43 percent of all divorces. In the other categories, women in low-skilled and white-collar/skilled occupations represented 33 and 15 percent, respectively. Unskilled workers accounted for only seven percent of divorces. Over time, there was a shift in the distribution as it became more common for marriages where the wife had a registered occupation to end in divorce. When we calculated the risk of divorce by SES for women (Figure 2C), there were few differences between the occupational groups in 1905–1934. In the later periods, the rise in risks of divorce mainly occurred for marriages where the wife had a recorded occupation – specifically that of unskilled workers. Divorce risks for the category that had no recorded occupation were consistently lower across periods, indicating that women's economic independence was an important factor for divorce already in the first half of the twentieth century.

[Figure 2 about here]

Contrary to our expectation, the results for men (Figure 2B and 2D) indicate that there was no reversal in the SES gradient for men over time. Instead, there is a development towards an increasingly negative gradient across periods. The distribution of divorce in Figure 2B is skewed towards the lower skilled across periods. Divorce risks by SES, shown in Figure 2D, indicate that there was a consistent negative SES gradient throughout the period that we study. This could mean that household SES was not as important as expected at the beginning of the divorce transition in our area of study, or that the hypothesized reversal had already occurred earlier than 1905. It may also be an indication that lower social classes led the divorce transition, at least during the years of our study, rather than caught up with it.

Turning to the multivariate results, Figure 3 shows the main results from a logistic regression using 95 percent confidence intervals. Complete results are presented in Appendix Table A1. As expected, wife's age at marriage and duration of marriage were negatively associated with the likelihood of divorce, while living in Landskrona increased the likelihood of divorce. The risk of divorce increased over time, with statistically significant differences in risk between 1905–1934 and 1935–1949, but not between 1935–1949 and 1950–1967 when accounting for the wife's SES. Focusing on the relative risk of divorce by the wife's occupational status (having a recorded occupation being the reference category), we find that, in line with expectations, female economic independence was associated with higher divorce risks. The relative risk of divorce was about 200 percent higher for marriages where the wife had a

recorded occupation, and the estimates are robust when controlling for other variables. Results indicate that unskilled workers were more likely to divorce than white-collar/skilled workers, and that low skilled were less likely; however, all categories experienced higher divorce risks compared to those with no recorded occupation.

[Figure 3 about here]

Figure 3 shows a negative household SES gradient in divorce risks (except for medium-skilled workers) as individuals in lower-skilled SES households faced higher divorce risks compared to those in households headed by higher professionals. Interestingly, when controlling for occupational status of both spouses (Models 5–6, see Appendix Table A1), the negative gradient was still noticeable, but the estimates were reduced in size. This implies that both spouses' occupation was important in determining the risk of divorce, right at the start of the divorce transition. Farmers experienced very low, insignificant, risks of divorce. This could be explained by the rural/urban difference in divorce rates, as this group mainly lived outside Landskrona. It might also be due to a high degree of division of labor and specialization among farm owners, as these families were dependent on joint production in the same way as most families were prior to industrialization. Moreover, over time, with mechanization of agriculture, more farmers became owners of large-scale farms and business enterprises that were difficult to divide up in the event of divorce due to a large amount of capital being tied to the land.

There is an indication that all SES categories were more likely to divorce compared to households where the husband belonged to the category higher professionals. This category contains groups such as nobility, professors, and medical doctors, whom we expect to have enough economic and social capital to divorce in a low-divorce regime according to the social growth hypothesis; however, these results indicate that it was the lower classes that divorced early in the transition. Although the estimates indicate differences in divorce risks, there is no statistical difference between SES categories (as shown by confidence intervals in Figure 3).

Regarding the presence of young dependent children in the household, as in modern contexts, having a young child reduced the risks of divorce. The presence of a child under the age of seven indicated a 25–30 percent lower divorce risk, which is robust to the inclusion of other variables, compared to having older children. The results indicate that the protective mechanism of having a young child was strong. We also found that having two children

significantly reduced divorce risks compared to having no children, but there were no significant differences between childless or having one or three or more children. There is an indication of a U-shaped pattern, supported by previous research (Thornton 1977).

To investigate if these determinants of divorce changed across the divorce transition, we estimated models using interactions between period and the main independent variables. First, we estimated a model using variables for wife's occupation (yes/no) interacted with the period of divorce, including all control variables. Figure 4 shows the relative risk ratios using 95 percent confidence intervals (see Appendix Table A2: Model A for exact estimates) and can be interpreted as the change in divorce risks between periods for women with and without a recorded occupation during her years as married (indicating that she had some form of labor market attachment or experience). We found that those with a recorded occupation had significantly higher divorce risks in all three sub-periods, even in 1905–1934 when female independence was limited, and married women's labor force participation was low. Figure 4 indicates that the rise in divorce risk before 1950 was mainly related to marriages where the wife had a recorded occupation but differences between the two groups were smaller in 1950–1967 than in 1934–1949. This trend over time coincides with the rise of divorce depicted in Figure 1, where divorce rates doubled during the 1940s but levelled off during the 1950s. This may imply that having an occupation (or labor market experience) was more important at the early stages of the divorce transition than later.

[Figure 4 about here]

Then, to explore SES differences, we estimated the predicted probabilities (rather than the relative risk for ease of interpretation[13]) from three separate logistic regressions using interactions. Interaction effects are presented in Appendix (Table A2), while the predicted probabilities of divorce using 95 percent confidence intervals are reported graphically in Figures 5-7. Estimates are calculated at the mean of all covariates instead of at the reference category or starting value.

Figure 5 shows that there were differences according to wife's occupation, both across time and within the three sub-periods. We find support for the finding that the increase in divorce risks over time mainly occurred for marriages where the wife had a recorded occupation at

[13] Predicted probability is the probability of an event occurring, in this case divorce, dependent on levels of a variable, whereas relative risk ratios compare likelihoods of an event occurring.

some point during marriage. Those with no recorded occupation show no or only a minor increase over time in the probability of divorce, while white-collar/skilled workers and lower skilled workers were more likely to divorce in the 1940s compared to the earlier but not the later period. However, unskilled women experienced the largest increase in divorce risks over time as the likelihood of divorce almost doubled for this group. These results imply that the trend in Figure 4, where only having a registered occupation was considered, does not capture in what way female independence mattered. It appears the first sharp increase in divorce rates during the transition (see Figure 1) occurred for all marriages where the wife had a recorded occupation, but that mainly unskilled workers saw increasing divorce risks in the period after divorce had become more common. This also corresponds to the period when the welfare state expanded and offered support to women through employment, services, and income support (of greater relevance for the lower social strata).

[Figure 5 about here]

In Figure 6, we find further support for the emergence of a negative SES gradient based on household status over time rather than a reversal. There were only small SES differences in 1905–1934, but in 1950-1967, those belonging to households headed by unskilled men had the highest probability of divorce. Like for women's SES, there are differences in the development over time. The probability of divorce does not change for higher professionals and medium-skilled workers. Low-skilled workers were more likely to divorce in 1935–1949, when divorce rates increased sharply, compared to other periods, but lower professionals and unskilled workers saw increasing divorce risks between all periods.

[Figure 6 about here]

These results provide evidence in line with the expectation that women's economic independence was important right from the early stage of the divorce transition. Women with an occupation or previous labor market experience were consistently found to have higher divorce risks than women with no occupation. We also found evidence of the increase in divorce risks over time mainly for this group. The increase in divorce rates during the 1940s coincided with higher risks for all women with an occupation, but unskilled women experienced continued higher divorce risks compared to other groups. Regarding hypothesized relationships between household SES and divorce, we found few or no differences between occupational groups, but we did find an increasingly negative gradient in the risk of divorce over time, mainly because of higher divorce risks for the unskilled.

As for the impact on marital stability of a young child in the household, Figure 7 shows the predicted probabilities of divorce, across periods, dependent on the presence of a child under the age of seven. Results show that having a young child was associated with lower probabilities of divorce in all periods. Those in marriages both with and without a young child experienced increased divorce risks over time. Interestingly, the difference between the two groups decreases between the last two periods due to an increase in divorce risks for those with a young child (this group experienced the largest relative change between periods). This might be a sign of divorce becoming easier (in an economic as well as in a normative sense) for those with a young child in the last period.

[Figure 7 about here]

So far, we have shown that marriages where the wife had an occupation recorded had higher risks of divorce across the divorce transition. To investigate the association between women's economic independence and divorce further, we use data on labor income from tax registers available from 1947. Before that, wife's income was jointly declared with her husband's income. Between 1947 and 1967, we can use this information to estimate the relative risk of divorce, net of occupation. We estimate a logistic model using a dummy variable indicating if the wife had any labor income, including all key and control variables, and a year dummy. Results are shown in Table 2. Wife's labor income has a positive and significant association to divorce risk net of other factors. Compared to the previous estimates, the relative risks associated with wife's occupation are lower but exhibit the same relationship with unskilled workers having the highest risk of divorce. These results offer even more support for the hypothesis that women's economic independence was an important determinant during the divorce transition.

[Table 2 about here]

Concluding Discussion

We set out to investigate the determinants of divorce and how these changed during the transition from a low to a high divorce society. The literature offers explanations as to how and why divorce emerged and spread across industrialized societies, but few studies have investigated determinants at the individual and household level during industrialization and as living conditions changed and enabled broader layers of the population to lead their lives in new ways. Such studies are rare for contexts before 1970 and thus we lack knowledge about

transitional societies. We used micro-level data for southern Sweden 1905–1967 and discrete-event history analysis to estimate divorce risks for 22,486 marriages. We thus document the determinants of divorce in a low-divorce regime transitioning to a high-divorce regime against the backdrop of industrialization and modernization. The period that we study was characterized by structural change from agriculture to industry, urbanization, economic growth, and growing economic opportunities, not least for married women. The period that we study also feature the start of the expansion of the Swedish welfare state. These developments dramatically improved the conditions for families, especially for the lower social strata, where women gained the opportunity to become independent.

It appears the rise of divorce was possible due to economic development that made women and men less dependent on marriage. New jobs for women and better jobs for men improved working conditions and wages so that individuals could afford to leave unsatisfactory marriages. While decreasing stigma might be a factor, it seems more plausible based on the results from our analysis that the divorce transition was mainly an economic phenomenon. Thus, we have expanded our knowledge on how divorce spread in society and on which groups saw this as an option in a context where the barriers to divorce were high but decreasing.

We tested three hypotheses related to women's economic independence, household SES, and the presence of dependent children. In line with the theoretical frameworks by Becker, and Ross and Sawhill, wife's economic independence and the presence of dependent children were important factors throughout the divorce transition. While household SES seems to have meant little before the 1940s, a negative SES gradient developed over time. Not even in the period 1905–34, when we expect high barriers to divorce, do we find support for a positive SES gradient, as proposed by Goode in his influential study.

One possible explanation for this is that a positive SES gradient in divorce risks existed earlier and that the reversal was already underway at the start of our study period. Kalmijn and co-authors found a positive gradient among divorces in the Netherlands in the nineteenth century, and Sandström and Stanfors found a reversal of the gradient in northern Sweden during the 1920s and 1930s. Northern Sweden was, however, later than southern Sweden in terms of both demographic processes and industrialization. The timing of industrialization might be important, as the important factors, such as a shift to wage labor, higher wages, and

urbanization was already underway in Sweden in the 1920s. The period in our study covers the maturity of the Swedish industrial economy, rather than its industrial expansion, and divorce might already have been economically viable even for the lower socioeconomic stratum. In Landskrona, the industry had a high demand for lower- and unskilled workers, which made it easier for both men and women to find jobs. Moreover, as our result comes from a population living in or near an industrial town in southern Sweden, we interpret our findings as the determinants among forerunners in the divorce transition, for whom industrialization and the modernization process occurred early and rapidly.

Our results offer strong support for the independence hypothesis. Net of other factors, marriages where the wife had some form of occupation or experience of holding an occupation had higher divorce risks throughout the period of study. We also find that the rise in divorce risks before the 1970s mainly applied to these marriages, as divorce risks were consistently low for women without occupation or experience. While this association is known to exist in high-divorce contexts, we show that economic independence was important across the transition from low to high divorce rates even when controlling for the husband's SES. This finding is important because previous literature usually highlights the husband's status as the determining factor in historical contexts, whereas our results indicate that the woman's status or occupation was equally important even when female labor force participation was low.

We also found strong support for our hypothesis that the presence of young and dependent children reduced divorce risks and found indications that their importance relative to having older or no children did grow weaker over time. Throughout the periods of our study, marriages with a child under the age of seven had significantly lower risks of divorce, indicating that, like modern contexts, young children served as protective factors to facing divorce (Waite and Lillard 1991). In the last period, 1950–67, we find an indication of convergence in divorce risks for these couples, which might be related to welfare benefits, such as child allowance and maternal leave, reducing the cost of having a young child even in single-mother households. Combined with women's economic independence through better jobs and wages, the decreased economic and time constraints of having younger children made it easier to be a single mother. While young dependent children still acted as a strong protective factor in the period 1950–1967, efforts by the welfare state to support families (and single mothers) might have reduced individuals' economic dependency on marriage.

There is also an indication of that the rise in divorce rates in Sweden during the 1940s occurred while women in all occupations became relatively more likely to divorce, but especially low-skilled and unskilled workers. While married women's labor force participation was rather low until the mid-to-late 1960s, our result of increasing divorce risks in the 1935–1949 period coincides with a period of improvement for women's employment opportunities. In the 1940s, women started moving into the public sphere and at the same time, the welfare state expanded to support workers and families. The 1960s increase in female labor force participation in Sweden came about because of shorter working hours, the introduction of leave schemes, and day care facilities, which gave married women more time to work (Stanfors 2003). In that sense, the women with occupation or experience that we are looking at were forerunners, which adds to our conclusion that the divorce transition was mainly due to women becoming able to leave unsatisfactory marriages. This is further supported by the finding that divorce risks continued to increase in the 1950s for unskilled women while they levelled off for the more skilled. This may support the arguments by Ruggles that the association between women's independence and divorce risks is mainly due to poor women gaining the opportunity to leave an unsatisfactory marriage. As we find similar results for SES, this supports Goode's argument that the divorce transition occurred mainly because those in lower status groups were able to dissolve their marriage when they gained the economic means to do so.

Our investigation of the determinants of divorce during the transition from a low to a high-divorce society suggests that the rise of divorce occurred as broader layers, particularly workers and those in poorer households, gained the opportunity to end their dysfunctional or unhappy marriages. Findings suggest that the determinants of divorce documented for modern contexts applied earlier contexts, already at the start of the divorce transition or developed early on in concert with industrialization, at least in Sweden. We can not only document that the primary explanations of divorce in modern contexts have long tap roots but also show that women's economic independence was key to the divorce transition although women's economic roles were much different from men's during this period.

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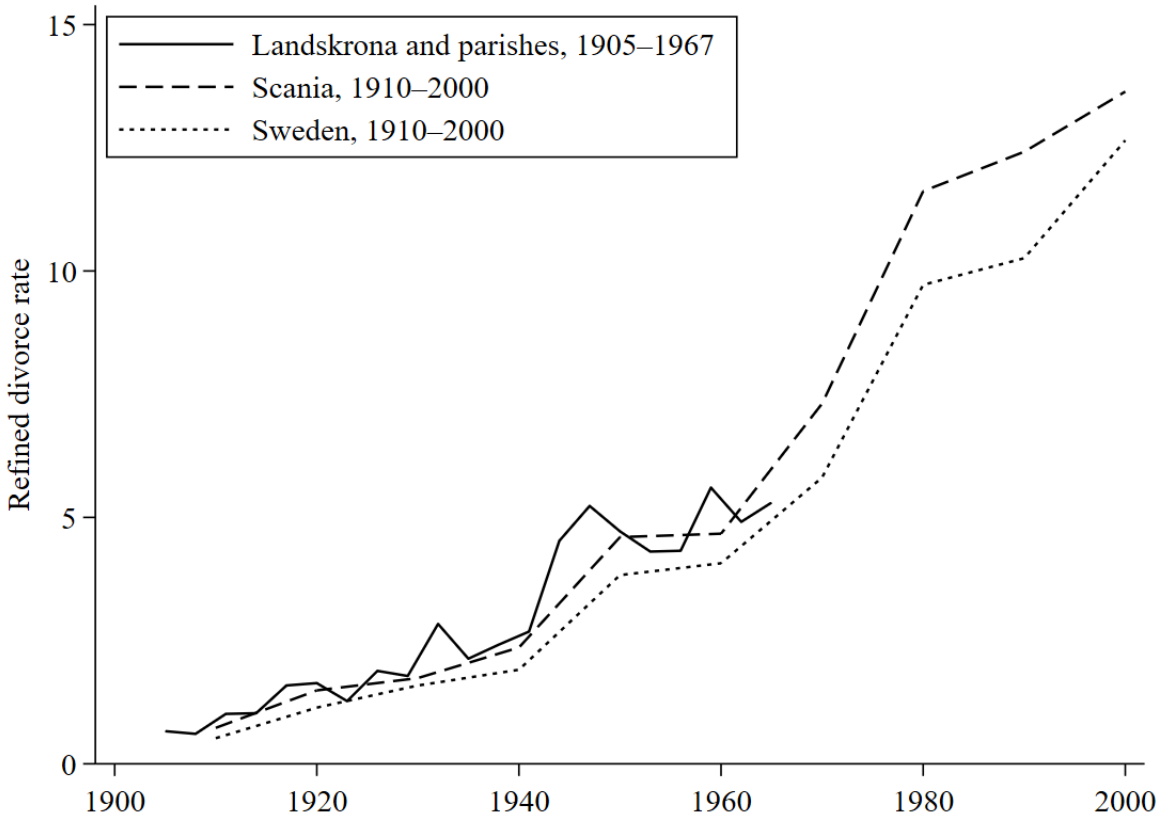

Figure 1. Refined divorce rates in Landskrona and the parishes, 1905–1967, and in Sweden and Scania, 1910–2000.

Notes: The refined divorce rate is calculated as the number of divorces per 1,000 married women. Rates are calculated as a three-year average for the study area, and every tenth year for Sweden and Scania.

Source: Befolkningsrörelsen, 1911–1966. Statistics Sweden. SOS. Befolkningsförändringar del 1–3, 1967–1990. Statistics Sweden. SOS. Befolkningsstatistik del 1–4, 1991–2003. Statistics Sweden. Folk-och bostadsräkningen. Folkräkningen 1910–1960. Statistics Sweden. Folk- och bostadsräkningen. Folk- och bostadsräkningen 1965–1990. Statistics Sweden. Officiell Statistik. Statistkdatabasen 2000. Statistics Sweden.

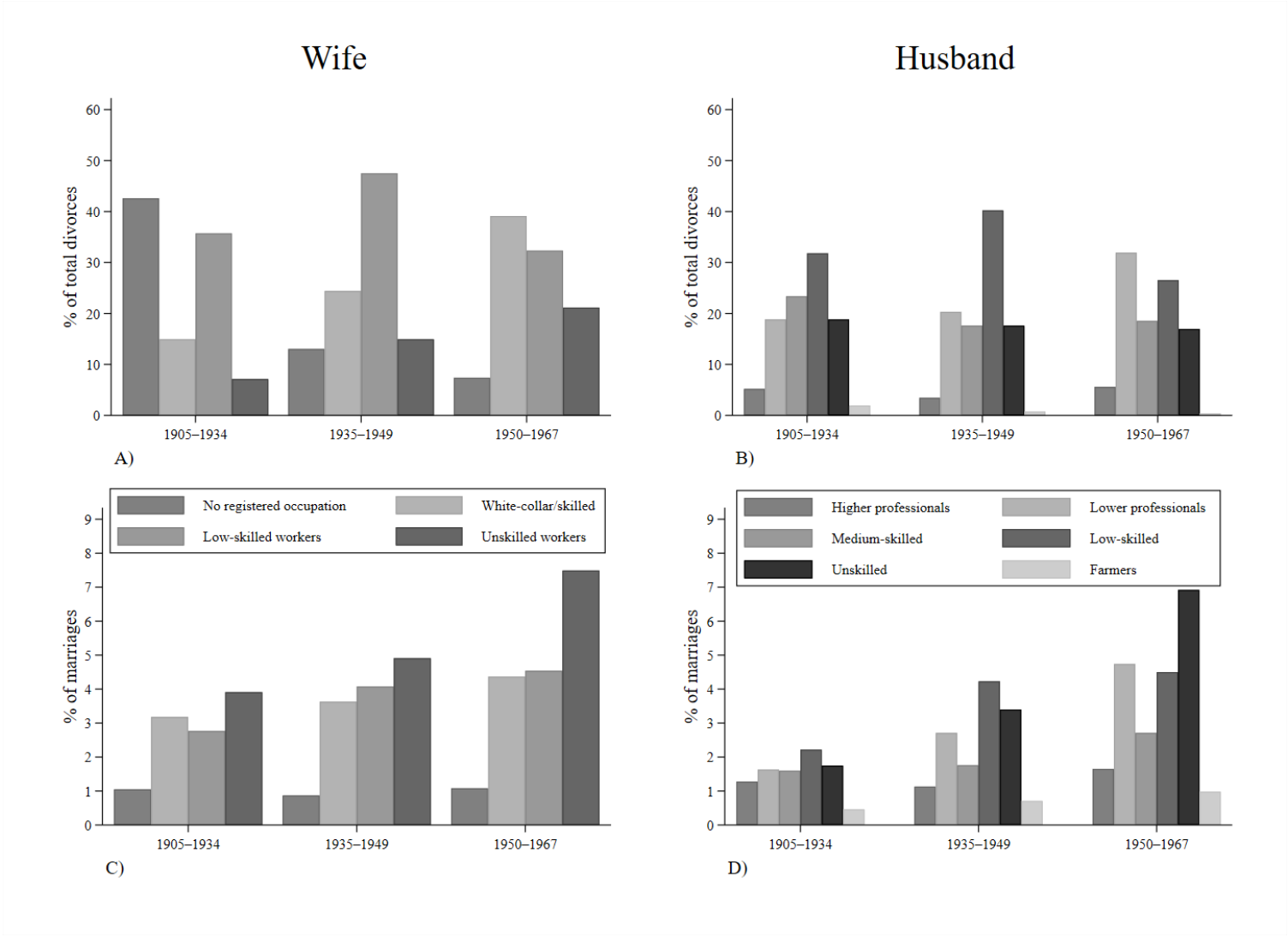

Figure 2. Distribution of divorce by occupational status according to women's and men's SES.

Notes: Figures 2AB illustrate the distribution of the total number of divorces by SES. Figures 2CD illustrate the relative risk, calculated by the number of divorces per number of marriages in each SES category.

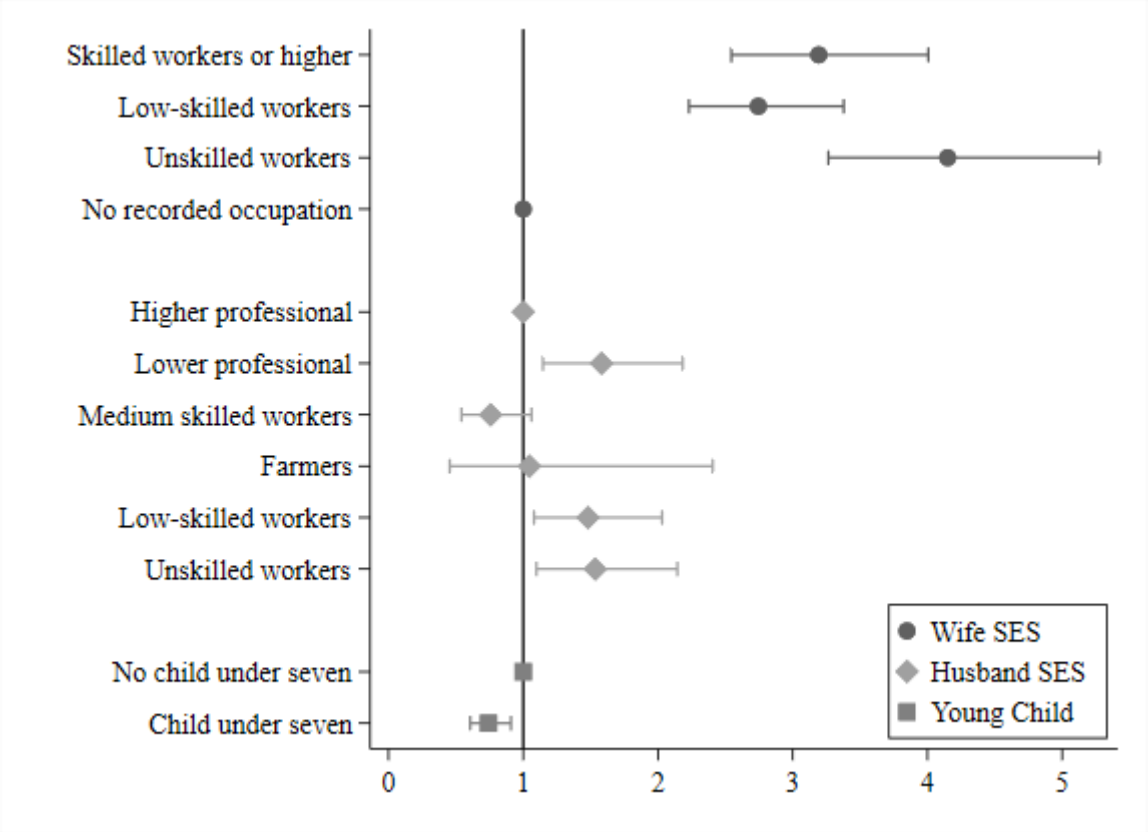

Figure 3. The relative risk of divorce for wife's and husband's SES and the presence of a young child.

Notes: The figure illustrates relative risks of divorce (using 95 per cent confidence intervals) from a logistic regression for the wife's occupational status, husband's SES, and the presence of a child under the age of seven, 1905–1967. Exact estimates are reported in Table A1, column 6, in Appendix. The model controls for the period of divorce, number of children, place of residence, duration of the marriage, and wife's age at marriage.

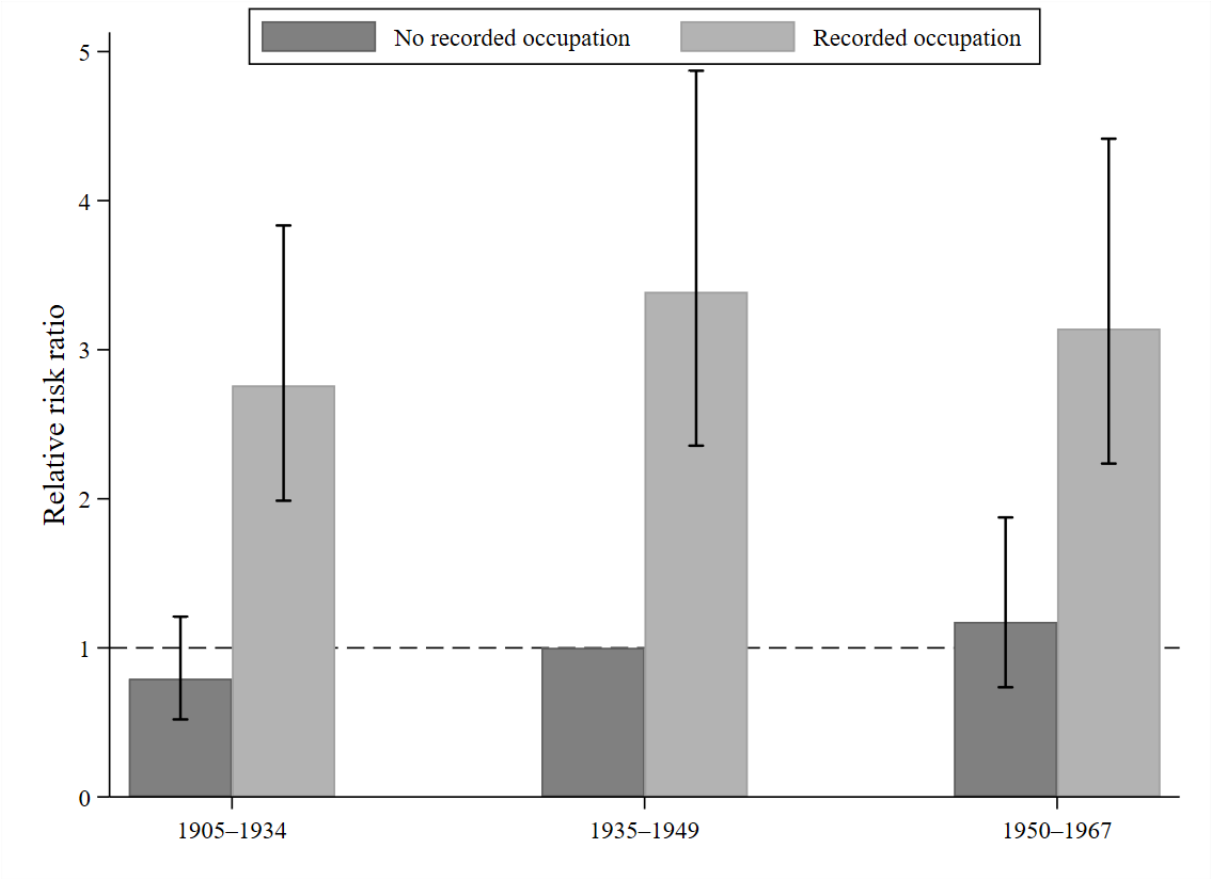

Figure 4. The relative risk of divorce by wife's occupational status.

Note: The figure illustrates the relative risk of divorce from logistic regression using an interaction between a dummy variable indicating that the wife had a recorded occupation and the period of divorce, 1905–1967, using 95 per cent confidence intervals. The model controls for the husband's SES, presence of a child under the age of seven, number of children, place of residence, duration of the marriage and the wife's age at marriage.

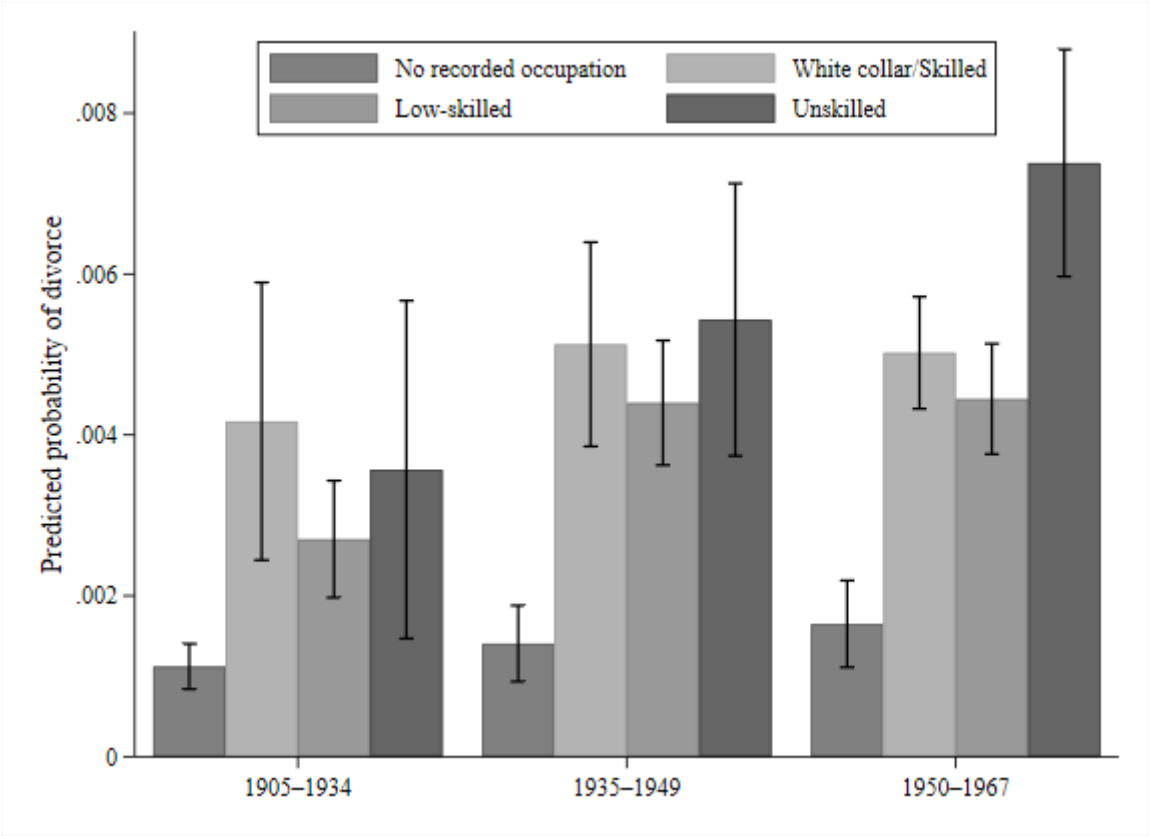

Figure 5. Predicted probabilities of divorce by wife's SES in three periods, 1905–1967.

Notes: The figure illustrates predicted probabilities from a logistic regression on wife's SES interacted with the period of divorce on the likelihood of divorce, 1905–1967, using 95 per cent confidence intervals. See Figure 4 for model specification. Estimated interaction effects are reported in Appendix Table A2.

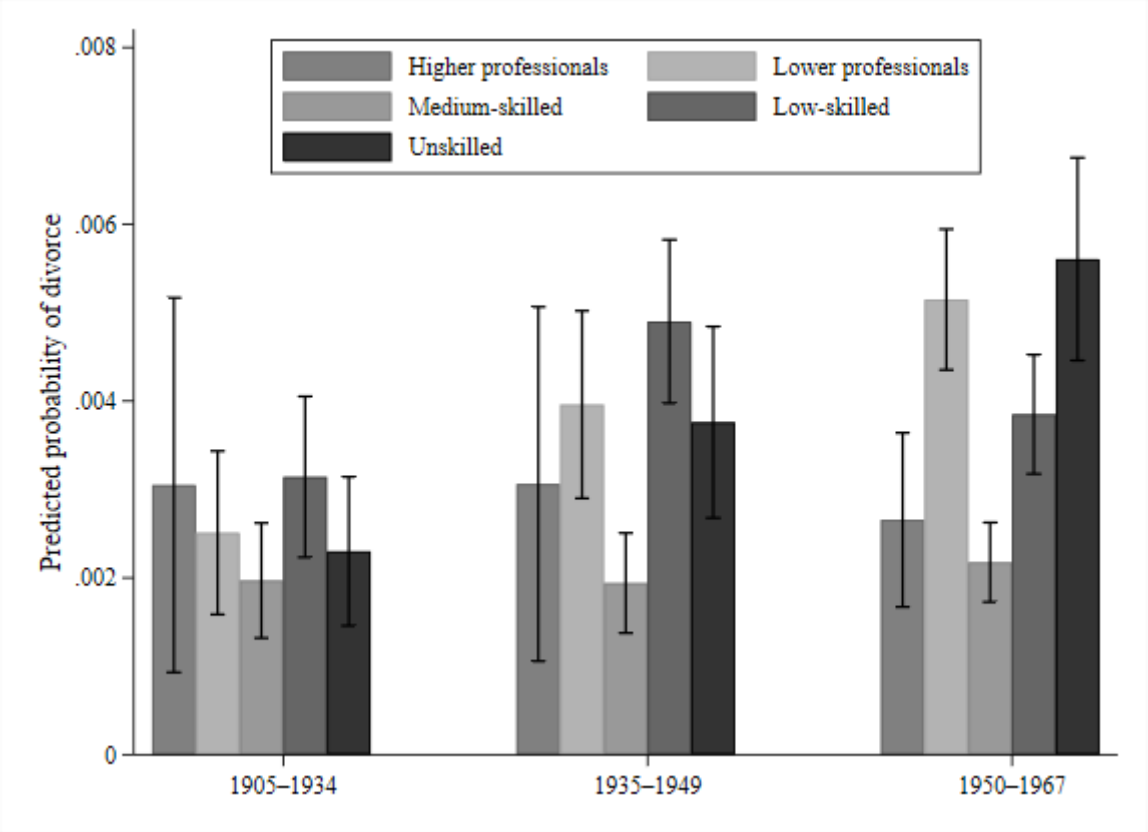

Figure 6. Predicted probabilities of divorce by husband's SES in three periods, 1905–1967.

Notes: The figure illustrates predicted probabilities from a logistic regression on the husband's SES interacted with the period of divorce on the likelihood of divorce, 1905–1967, using 95 per cent confidence intervals. See Figure 4 for model specification. Estimated interaction effects are reported in Appendix Table A2.

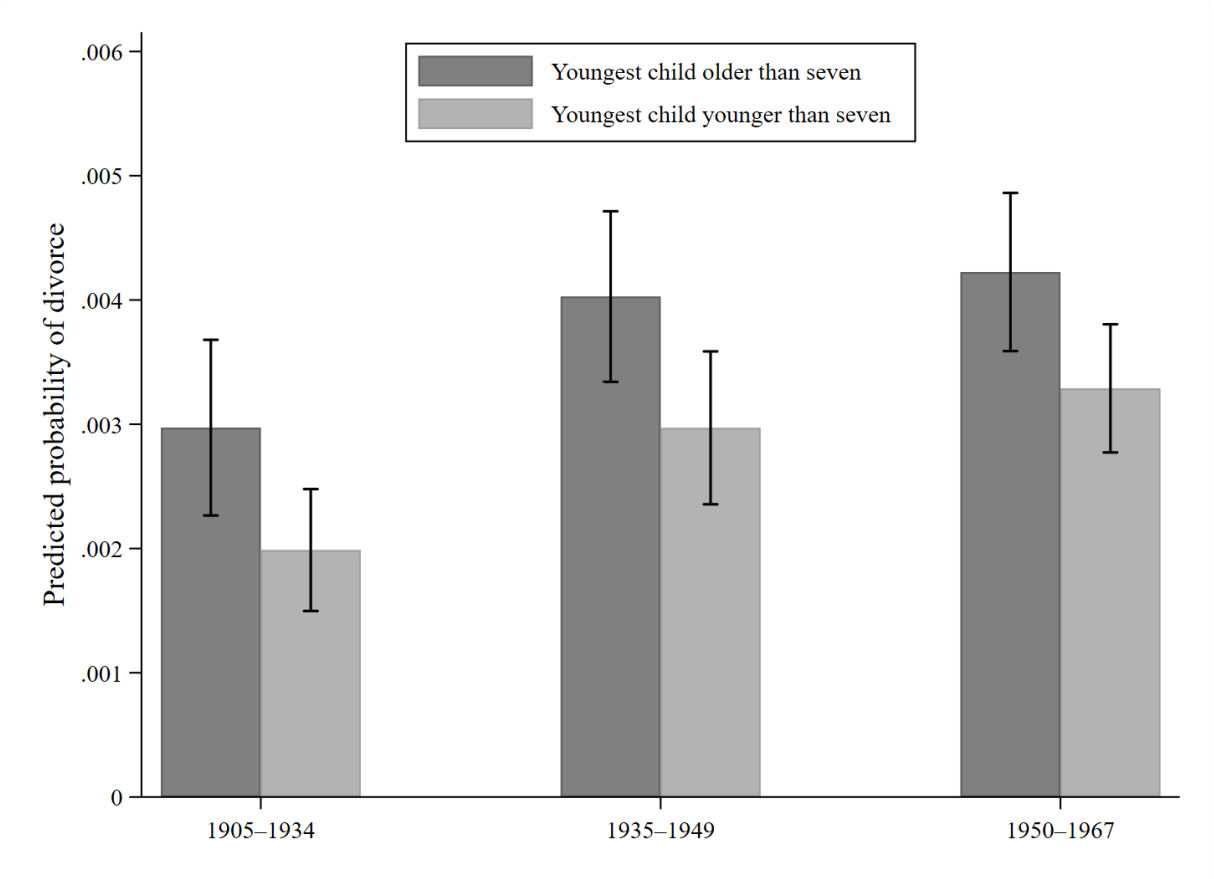

Figure 7. Predicted probabilities of divorce by the presence of a young child in three periods, 1905–1967.

Notes: The figure illustrates predicted probabilities from a logistic regression on the presence of a child under the age of seven interacted with the period of divorce on the likelihood of divorce, 1905–67, using 95 per cent confidence intervals. See Figure 4 for model specification. Estimated interaction effects are reported in Appendix Table A2.

Table 1. Summary statistics: proportions (%), means and standard deviations of variables included in the analysis.

	1905–1934	1935–1949	1950–1967	1905–1967
Divorce	1.95	3.03	4.43	2.90
Wife's occupational status				
White-collar/skilled worker	4.70	15.24	29.04	16.50
Low-skilled worker	15.07	31.89	28.44	24.21
Unskilled worker	1.95	6.63	10.32	6.26
No recorded occupation	78.28	46.24	32.20	53.03
Household SES				
High professional	6.01	7.82	12.11	8.77
Low professional	19.77	19.95	24.65	21.67
Medium-skilled worker	26.40	28.54	27.76	27.43
Low-skilled worker	22.88	25.57	23.37	23.71
Unskilled worker	17.64	14.56	9.93	13.96
Farmer	7.31	3.56	2.18	4.46
Child under age seven	48.51	39.22	35.54	41.30
Number of children				
None	11.26	19.07	16.18	15.01
One	17.62	31.81	30.57	25.97
Two	20.19	25.33	31.79	25.84
Three or more	50.93	23.79	21.46	33.18
Place of residence				
Landskrona	76.13	79.06	80.84	78.63
Parishes	23.87	20.94	19.16	21.37
Average wife's age at marriage (years)	24.24 (3.33)	24.07 (3.28)	23.39 (3.27)	23.73 (3.31)

Average duration of marriage (years)	17.86 (12.17)	16.64 (12.77)	16.76 (11.31)	17.02 (11.81)
Number of marriages	7,884	8,600	11,305	22,486
Person-years	140,985	89,766	141,573	372,324

Notes: Percentage of divorce, wife's age at marriage, and duration of marriage are calculated based on the number of marriages. Other proportions are calculated based on person-years.

Source: Scanian Economic-Demographic Database (SEDD).

Table 2. Relative risks of divorce, controlling for wife's labor income 1947–1967.

	Relative risk
Labor income during the marriage	
Yes	2.39***
	(0.256)
Wife's occupational status	
Skilled/professional	2.30***
	(0.389)
Low-skilled	2.25***
	(0.378)
Unskilled	3.17***
	(0.580)
No recorded occupation	Ref
	Ref
Person-years	126,436
chi2	425.28

Notes: The table shows the relative risks from a logistic regression (see Figure 3 and Table A1, column 6 (in Appendix)) for the years 1947–1967, controlling for the wife's labor income. The model also includes controls for husband's SES, presence of a child under seven, number of children, place of residence, duration of marriage and wife's age at marriage, and calendar year. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix

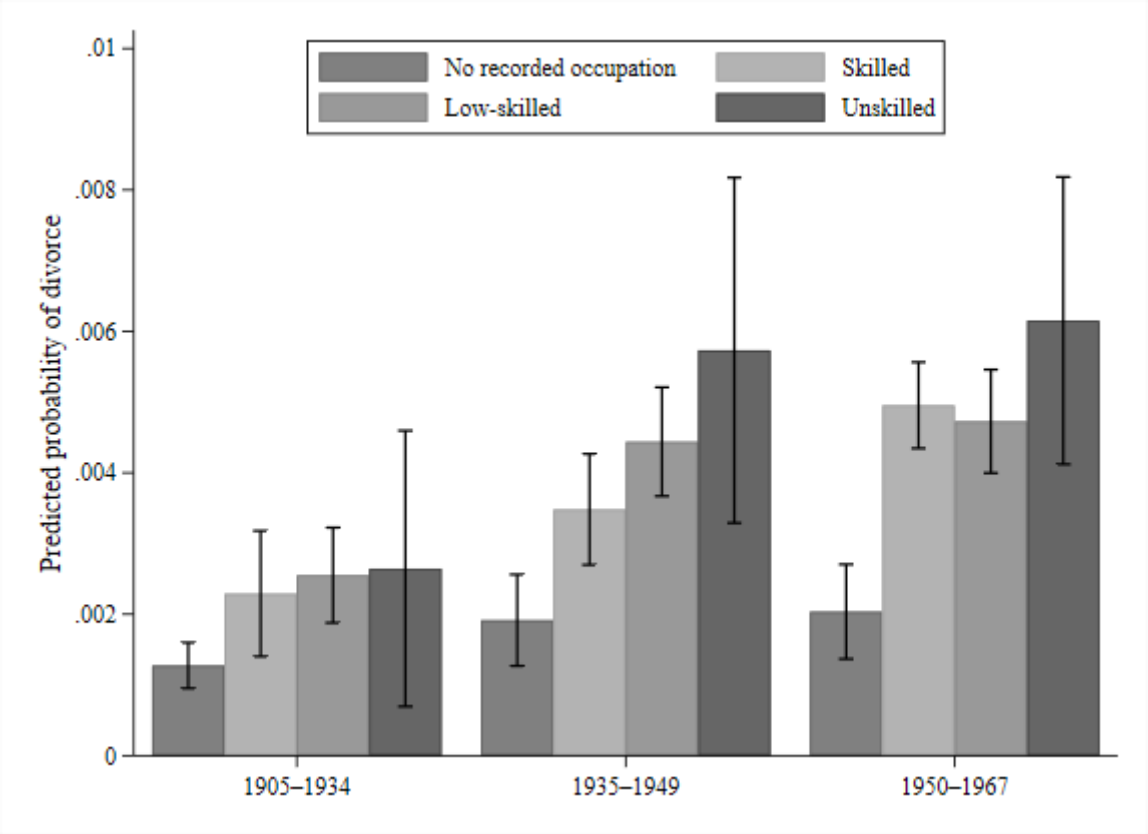

Figure A1. Predicted probability of divorce for wife's highest achieved SES in three periods, 1905–1967.

The figure illustrates predicted probabilities from a logistic regression on wife's highest achieved SES (before divorce) interacted with the period of divorce on the likelihood of divorce, 1905–1967, using 95 per cent confidence intervals. See Figure 4 for model specification.

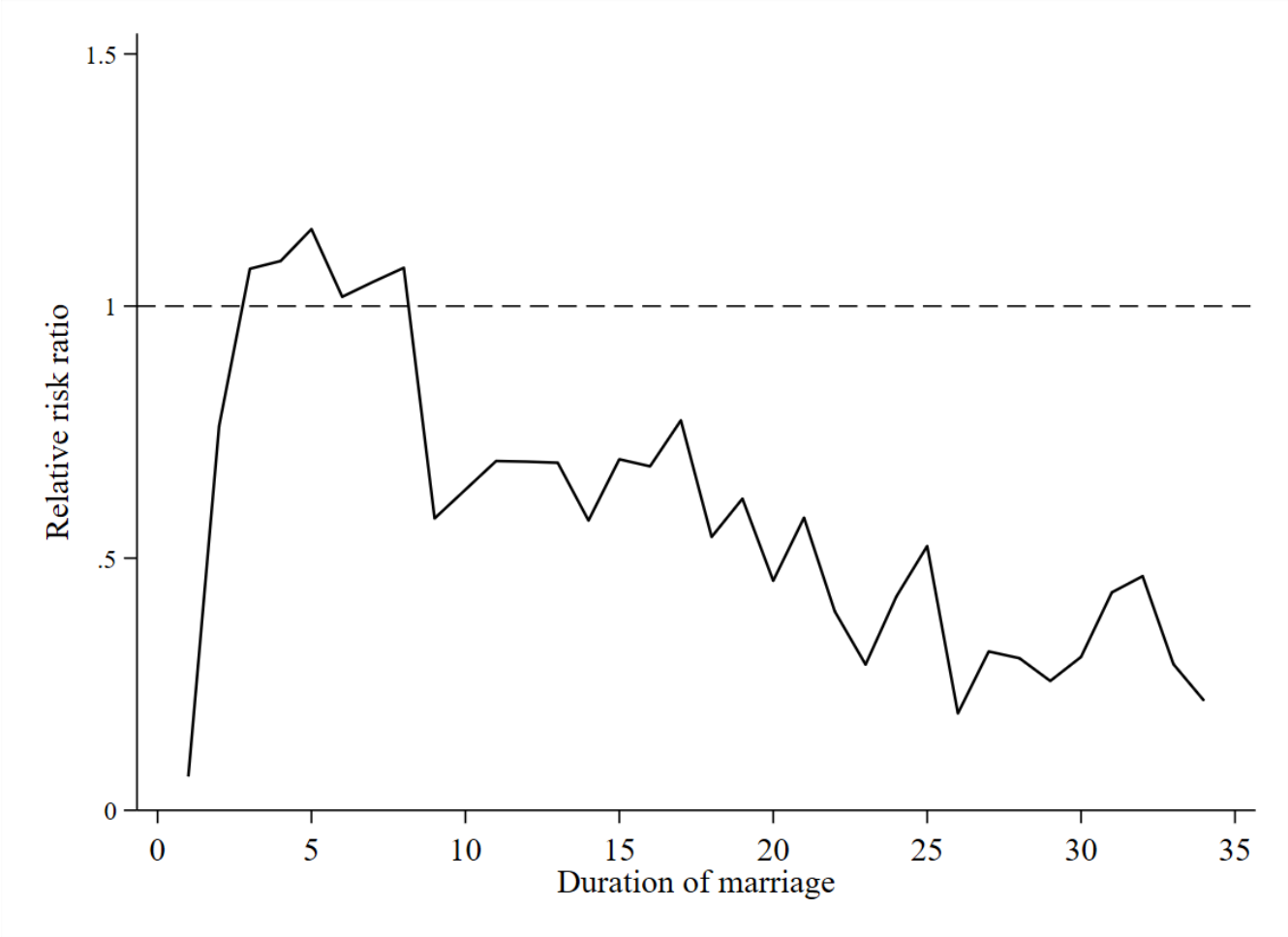

Figure A2. Relative risk of divorce across duration of the marriage.

Notes: Duration of marriages is included as a categorical variable in all models.

Table A1. Full results from logistic regression models on the risk of divorce, 1905–1967.

	Control	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	RR	RR	RR	RR	RR	RR	RR	RR
Woman's age at marriage	0.91***	0.90***	0.89***	0.91***	0.90***	0.90***	0.89***	0.90***
	(0.010)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Duration since marriage								
Urban	3.63***	2.92***	2.90***	3.72***	3.67***	2.99***	2.97***	3.57***
	(0.498)	(0.408)	(0.406)	(0.530)	(0.524)	(0.437)	(0.435)	(0.492)
Period								
1905–34	0.48***	0.69***	0.71***	0.48***	0.50***	0.68***	0.70***	0.51***
	(0.049)	(0.072)	(0.076)	(0.049)	(0.053)	(0.072)	(0.075)	(0.054)
1935–49	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
1950–67	1.20**	1.02	1.06	1.24***	1.27***	1.04	1.07	1.24***
	(0.093)	(0.082)	(0.085)	(0.096)	(0.100)	(0.084)	(0.087)	(0.096)
Wife's occupational status								
Skilled/professional		3.37***	3.27***			3.28***	3.19***	
		(0.389)	(0.383)			(0.376)	(0.370)	
Low-skilled		2.85***	2.77***			2.81***	2.74***	
		(0.298)	(0.294)			(0.295)	(0.291)	

Unskilled		4.43***	4.29***			4.27***	4.15***	
		(0.547)	(0.533)			(0.520)	(0.508)	
No occupation		Ref	Ref			Ref	Ref	
Presence of child under seven								
Yes			0.74***		0.70***		0.74***	0.69***
			(0.077)		(0.072)		(0.077)	(0.071)
No			Ref		Ref		Ref	Ref
Number of children								
None			Ref		Ref		Ref	Ref
One			0.95		0.98		0.96	0.97
			(0.110)		(0.112)		(0.111)	(0.111)
Two			0.73**		0.71**		0.73**	0.71***
			(0.095)		(0.093)		(0.096)	(0.093)
Three or more			1.00		0.95		1.00	0.95
			(0.142)		(0.135)		(0.142)	(0.136)
Household SES								
High professional				Ref	Ref	Ref	Ref	

Low professional				2.01***	1.95***	1.61***	1.58***	
				(0.329)	(0.319)	(0.264)	(0.260)	
Medium-skilled				1.02	0.98	0.77	0.76	
				(0.172)	(0.166)	(0.133)	(0.130)	
Low-skilled				2.02***	1.95***	1.51**	1.48**	
				(0.329)	(0.317)	(0.243)	(0.238)	
Unskilled				2.23***	2.15***	1.57***	1.58**	
				(0.385)	(0.369)	(0.269)	(0.262)	
Farmer				1.23	1.23	1.04	1.05	
				(0.518)	(0.518)	(0.445)	(0.445)	
N	271,235	271,235	271,235	271,235	271,235	271,235	271,235	271,235
chi2	387.51	546.01	586.97	434.27	476.21	578.34	613.09	434.05

Notes: The first column only includes the control variables: woman's age at marriage, duration of marriage, urban/rural residence, and period. Column (1) also includes wife's occupational status. Column (2) adds the presence of a dependent child and number of children. Column (3) includes control variables and husband's SES. Column (4) adds the presence of a dependent child and number of children. Column (6) includes all variables. Column (7) includes control variables, presence of a dependent child, and number of children in the household. Robust standard errors in parentheses. Statistical significance indicated by * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A2. Relative risk ratios from interaction models

	1905–1934	1935–1949	1950–1967	
Model A: Dummy				
No recorded occupation	0.79	ref	1.17	
	(0.171)		(0.280)	
Recorded occupation	2.76***	3.39***	3.14***	
	(0.463)	(0.628)	(0.545)	
Model B: Wife's status				
White-collar/Skilled	3.74***	3.67***	3.06***	
	(0.925)	(0.783)	(0.555)	
Low-skilled	2.42***	3.14***	2.71***	
	(0.452)	(0.611)	(0.500)	
Unskilled	3.20***	3.89***	4.51***	
	(1.046)	(0.918)	(0.876)	
No recorded occupation	0.8	ref	1.17	
	(0.171)		(0.280)	
Model C: Husband's status				
High professional	1.00	ref	0.87	
	(0.485)		(0.334)	
Low professional	0.82	1.30	1.95***	
	(0.329)	(0.469)	(0.403)	
Medium-skilled	0.64	0.63	0.82	
	(0.254)	(0.233)	(0.179)	
Low-skilled	1.03	1.61	1.45*	
	(0.392)	(0.561)	(0.303)	
Unskilled	0.75	1.23	2.12***	
	(0.300)	(0.452)	(0.459)	
Farmer	0.64	0.94	1.31	
	(0.433)	(0.741)	(0.983)	

Model D: Young child				
No young child	0.74**	Ref	1.05	
	(0.106)		(0.110)	
Young child	0.67**	0.74**	0.78**	
	(0.118)	(0.108)	(0.096)	

Notes: The table shows the relative risk of divorce from logistic regression models on A) wife having a registered occupation, B) wife's SES, D) husband's SES, and D) the presence of a child under the age of seven, 1905–1967. All models include full set of controls and independent variables (see Figure 4 for model specification). Statistical significance indicated by * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

CENTRE FOR ECONOMIC DEMOGRAPHY

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