Documenting determinants of the divorce transition: Micro-level evidence from Southern Sweden 1922-1967

Martin Bergvall & Maria Stanfors, Centre for Economic Demography and Department of Economic History, Lund University, Sweden

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 labour force participation.[1] One strand of the literature, largely based on William Goode's socioeconomic growth theory[2], 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 as a major explanation for the rise in divorce. Increasing female labour force participation, particularly among married women, disrupted the well-established, highly gendered division of labour 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.[3]

[1] Philips, *Putting asunder*; Stone, *Road to divorce*.
[2] Goode, 'Economic factors'; idem, *World revolution*.
[3] Becker, *A treatise*; Ross and Sawhill, *Time of transition*.

In this study, we analyse individual and household level factors associated with divorce in Sweden in 1922–67. 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 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.

More specifically, we investigate sociodemographic determinants of divorce in one industrial town (Landskrona) and five neighbouring rural parishes in southern Sweden, making use of longitudinal data from the SEDD database covering 20,104 first marriages in 1922–67. 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? What was the relationship between household socioeconomic status (SES) and divorce, and did it change over time? Did dependent children in the household contribute to marital stability during the divorce transition as they do in present-day contexts?

Our findings are interesting and important. Already in a low-divorce context, we find a strong positive association between female independence, measured by woman's occupational status or income, and divorce. In the 1920s and 1930s, when divorce was rare, women who (had) worked as white-collar or skilled manual workers were more likely to divorce, but this

changed over time, and in the 1940s, unskilled women workers were most likely to divorce compared to other occupational groups. This shift implied that more people divorced. Net of wife's employment experience, measured in terms of 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 high-divorce societies but also date further back in time, at least in contexts 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 mainly a consequence of 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.[4] 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.[5] 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.[6]

Figure 1 shows the refined divorce rate for Sweden 1920–2000. It also describes the developments in divorce for Scania, the region in which the study area is situated, and a three-year moving average for divorce in this area, 1922–67. 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[7] and the increase in divorce[8]. Nevertheless, the region followed the general trend in demographic shifts in Sweden during the twentieth century.

[Figure 1 about here]

[4] Sandström, 'Socio-economic determinants'.
[5] After 1970, marriage changed too as cohabitation and out-of-wedlock childbearing became increasingly common.
[6] The options of bilateral and unilateral no-fault divorce were introduced in other countries in the 1970s, including the UK and US in 1969 (for the US, California was the first state to allow no-fault divorce), Belgium in 1974, and Australia in 1975. Sandström and Garðarsdóttir, 'Long-term perspectives'.
[7] Sundbärg, *Ekonomisk-statistisk beskrifning*.
[8] Sandström, 'Socio-economic determinants'.

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.[9] On the other, increasing wages and work opportunities improved living standards for both men and women.[10] For Sweden, relatively late but fast industrialization in the late nineteenth and early twentieth centuries saw a rapid shift to wage work and urbanization, and economic growth in industry and services improved conditions for the working class in cities and reduced class differences. Although this development took place over the period, 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.[11]

In the transition from an agricultural to a more urbanized industrialized society, women (mainly young unmarried women) gained more opportunities to find paid work in the regular labour market, typically in domestic work or light manufacturing industry.[12] Labour force participation rates for married women increased slowly over the first half of the twentieth century but increasing demand for female labour in both industries and services pushed up female-to-male relative wages, especially during the late 1920s and 1940s.[13] Combined with declining fertility and the legal independence women now had from their spouses, the economic and social roles of women changed and challenged the patriarchal household structure.[14] 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

[9] Becker, *A treatise*; Cherlin, *Marriage, divorce, remarriage*.
[10] Bengtsson and Dribe, 'Historical fertility'; Schön, *Sweden's road*.
[11] Olofsson, *Socialpolitik*; Schön, *Sweden's road*.
[12] Stanfors, 'Women in a changing economy'.
[13] Stanfors, *Education, labor force participation*.
[14] Oppenheimer, 'Sociology of women's economic role'.

century saw the height of the sexual division of labour and the *separate spheres* regime.[15] The husband-breadwinner and wife-homemaker model 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 labour force participation decreases marriage stability and represents a move away from marriage.[16] A positive association between married women's labour 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.[17] Still, women's increased economic independence is one of the main explanations for the rise of divorce. Arguments can be divided into those that emphasize the point that women's economic independence disturbs the fundamental logic of the family and disrupts the traditional sexual division of labour[18] 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).[19]

The economic model on marriage, developed by Becker[20], focuses on the sexual division of labour. The model predicts that divorce is less likely in traditional marriages where the husband supports the family economically and the wife is responsible for household production – mainly child rearing. In Becker's framework, the benefits from marriage are

[15] Stanfors and Goldscheider, 'Forest and the trees'.
[16] Becker, Landes, and Michael, 'Economic analysis'; Cherlin, *Marriage, divorce, remarriage*.
[17] Bianchi and Sayer, 'Women's economic independence'.
[18] Becker, *A treatise*.
[19] Ross and Sawhill, *Time of transition*; Ruggles, 'Rise of divorce'.
[20] Becker, 'A theory of marriage'; idem, *A treatise*.

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 labour market and women were long seen as having a comparative advantage in the household. Thus, the traditional household with the husband-breadwinner and wife-homemaker 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 wife's household production (for example, if woman's earnings increase or her household productivity is very low, perhaps because there are few or no children in the household).[21] This also implies that if the labour 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 who support the idea that divorce is related to women's economic independence agree with the specialization and trade model.[22] A positive association between female economic independence and divorce may exist because married women with own income are able to leave an unsatisfactory marriage. Full specialization in household production makes women vulnerable through their dependency on their husband for economic support and may restrict them from resorting to divorce because they cannot afford it.[23] For women who invested little in education or paid employment before marriage, it would also be difficult to get or regain a

[21] Becker, Landes, and Michael, 'Economic analysis'.
[22] Ruggles, 'Rise of divorce and separation'.
[23] Bianchi and Sayer, 'Women's economic independence'; Ross and Sawhill, *Time of transition*.

job. Having labour 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.[24] 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.[25]

Many studies have investigated the impact of the wife's labour force participation on a couple's divorce risks. While there is little evidence for decreasing gains to marriage in line with the specialization model[26], many studies find a positive association between married women's labour force participation and the risk of divorce.[27] These studies mainly focus on determinants after 1970, and although few studies have investigated differences over time, results from the United States suggest that a positive association existed in the low-divorce regime. How and if this association has changed is, however, unclear. Ruggles indicated a

[24] Becker, Landes, and Michael, 'Economic analysis'; Oppenheimer, 'Women's employment'.
[25] Ross and Sawhill, *Time of transition*.
[26] Oppenheimer, 'Women's economic independence'.
[27] Greenstein, 'Marital disruption'; MacDonald and Dildar, 'Married women's economic independence'.

stronger association in the low-divorce regime before the Second World War than in later periods in the United States, while South found that the association has become more prominent since the 1960s.[28]

Because previous studies mainly focused on the rise of female labour force participation in the late 1960s, we do not know what the association looked like in the decades prior to that time, and if there was any difference in the association depending on the status of a woman's occupation and how this changed over time. Thus, we investigate whether there is a historical association between economic independence 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 expansion). We expect women's economic 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 also well established in past literature on divorce.[29] The SES of a household (or of the husband) has been found to reduce divorce risk.[30] A possible explanation for this is that the husband's income or higher status provides financial security and increases the cost of leaving a marriage for the woman (who often does

[28] Ruggles, 'Rise of divorce'; South, 'Time-dependent effects'.
[29] Haskey, 'Social class'; Ono, 'Husbands' and wives' education'.
[30] 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 (pre-1970s), the husband's SES is assumed the main determinant of household SES; Lyngstad and Jalovaara, 'Review of the antecedents'; Oppenheimer, 'Sociology of women's economic role'.

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.[31] It could also be that financial assets (signalled by higher SES) increase the cost of divorce for both partners since the household must be divided. Lower classes might be in a better position to leave because their investment in the marriage is lower.[32] 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.[33]

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 divorce and social class have a positive association when divorce is uncommon, but that the relationship 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.[34] 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 threshold for what is an unsatisfactory marriage, and the cost of supporting two single households after divorce means that only people with higher socioeconomic capital can choose this route. Goode contrasts these low-divorce regimes with high-divorce regimes where wages are higher, and divorce is

[31] Ross and Sawhill, *Time of transition*.
[32] Jalovaara and Lyngstad, 'Review of the antecedents'.
[33] Becker, *A treatise*; Becker, Landes, and Michael, 'Economic analysis'.
[34] Goode, 'Economic factors'; idem, *World revolution*.

an economic and 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.[35]

There is 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.[36] These studies only account for change in class differences over a limited period and relies on cross-sectional data, but the results indicate that divorce in the past had different determinants than in modern societies. However, evidence from Northern Sweden suggests that a reversal in the relationship between SES and divorce occurred in the 1930s.[37]

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 focuses on the relationship between children and divorce. An important factor as to why people get married, children are also assumed to stabilize a marriage. 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.[38] Couples may also

[35] Goode, *World revolution*; Ono, 'Husbands' and wives' education'.
[36] Kalmijn, Vanassche, and Matthijs, 'Divorce and social class'; Philips, *Putting asunder*.
[37] Sandström and Stanfors, 'Growing more equal'.
[38] Becker, *A treatise*; Becker, Landes, and Michael, 'Economic analysis'.

stay together because children require time and money that must be taken from economic activity in a single-person household, a factor that would 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 [39]. 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.[40] However, in the past, when divorce was less common, people were less aware of the consequences of divorce, 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.[41] 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, which makes us assume that it was stronger in the past.[42] 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 more closely connected in the past than today, though this change started in the late 1960s. Another reason is welfare state expansion and increased state support to families in the form of transfers and more importantly childcare for single mothers has made it easier for parents of young children to divorce. While there were improvements in

[39] See Thornton, 'Children and marital stability' for a review.
[40] Thornton, 'Changing attitudes'.
[41] Waite and Lillard, 'Children and marital disruption'.
[42] South and Spitze, 'Determinants of divorce'; Thornton, 'Changing attitudes'.

economic support for single-parent households during our period of study, these were mainly in the form of child allowance aimed at low-income families and not generous.[43] 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 reduces the cost of children and that the negative association grows 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).[44] 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*[45]) 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.[46] The county of Scania, alongside the rest of southern Sweden, is depicted as a forerunner in demographic transitions and patterns of

[43] Olofsson, *Socialpolitik*.
[44] Bengtsson, Dribe, Quaranta, and Svensson, 'Scanian Economic Demographic Database'.
[45] Later renamed Skåne after a merger with the county of Kristianstad in 1997.
[46] Dribe, Helgertz, and van de Putte, 'Social mobility'.

marriage formation.[47] 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 level and that many households in the SEDD lived in Landskrona, the higher rate is reasonable. Cities, in general, have higher divorce rates than rural areas. 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 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. Landskrona is a port town located on the west coast of the county of Scania. In 1900, it was the 12th largest industrial town in Sweden in terms of absolute number of industrial workers, and, although the number of workers increased over time, it was the 21st largest industrial town by 1960. Having gone through an early stage of industrialization during the second half of the nineteenth century, with the construction of small factories and financial institutions as well as the opening of schools and a hospital, the beginning of the twentieth century saw an increasing shift towards large-scale mechanical factories. These were specifically shipbuilding, a sugar refinery and metal workshops, which employed 75 per cent of industrial workers, and a textile industry, which was especially important for the employment of lower-skilled and unskilled women. The

[47] 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. Lundh, 'Geography of marriage'; Sundbärg, *Ekonomisk-statistisk beskrifning*.

parishes in our area of study are all characterized as rural throughout the period. They are geographically compact and most of the area was open farmland. Although the parishes retained their rural character over the first half of the twentieth century, the opening of industries in adjacent towns led to a high share of industrial workers residing in the parishes.[48]

Our sample consists of 20,104 marriages (either formed in the area or referring to individuals that migrated into the area), which we can follow until 1967. We only include first marriages in our sample since higher-order marriages are shown to be shaped by different factors than first marriages and have a higher likelihood of ending in divorce.[49] For some cases of immigration to the area, we are not able to determine if the recorded marriage year is the first marriage. For those individuals where we are unsure, we use wife's age of marriage below 32 to restrict our sample, 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 they belong to the population at risk, i.e., they are married. Our dependent variable is binary, indicating whether a marriage ended in year *t* given that it existed in year *t-1*. A marriage ends if divorce occurs or if one of the spouses dies, at which point the individual is removed from observation. Observations are also censored if an individual migrates out of the area of study for more than one year or if the marriage does not end before the year 1968.

We only include divorce in the sense official marital dissolution in our analysis. Some previous studies use separation (Ruggles) or abandonment (Crvcek) in their measure to capture marital instability and what is sometimes referred to as *poor man's divorce* because it is sometimes assumed poorer people could not afford a divorce and were more likely to live

[48] Dribe, Helgertz, and van de Putte, 'Social mobility'.
[49] Cherlin, *Marriage, divorce, remarriage*; South, 'Time-dependent effects'.

apart while still legally married.[50] Because we aim to study the determinants of divorce and potential change over time, using only registered divorces as a consistent measure is what we need for our analysis. Moreover, prior to 1974, couples in Sweden who filed for divorce were required to separate (*hemskillnad*) for one year before the marriage was officially dissolved, and not all couples who separated were officially divorced.[51] In addition, we do not have official information on legal separation, and could only proxy this with a variable indicating if an individual was married but not living with their spouse, and this does not differentiate between legally separated couples and those in intact marriages with one spouse working and living in a different parish.

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.[52] 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. [53] 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,

[50] Crvcek, 'U.S. marital disruptions'; Ruggles, 'Rise of divorce'.
[51] Sandström, 'Socio-economic determinants'.
[52] The HISCLASS-scheme is an aggregation of the historical international classifications of occupations (HISCO). HISCLASS consists of 12 categories: 1) Higher managers, 2) Higher professionals, 3) Lower managers, 4) Lower professionals, 5) Lower clerical and sales personnel, 6) Foremen, 7) Medium-skilled workers, 8) Farmers and fishermen, 9) Lower-skilled workers, 10) Lower-skilled farm workers, 11) Unskilled workers, and 12) Unskilled farm workers. Van Leeuwen, Maas, and Miles, *HISCO*; Van Leeuwen and Maas, *HISCLASS*.
[53] 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. Bengtsson and Dribe, 'Historical fertility'.

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).[54] The information on occupation comes from multiple sources and is continuously updated where new information is made available, and it is included as a time-varying variable in our analysis.

One of the main independent variables is *wife's occupation*, coded into HISCLASS, which we use 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 labour 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, regarding married women's current occupation and where the information is not updated as regularly or accurately as for men.[55] In that sense, our variable indicates if the wife has or has had an occupation during the period of the marriage. This is like previous research using wife's occupation to measure economic independence when information on employment or income is missing.[56] There is also an issue when using the HISCLASS scheme for women's occupations in that the classification is mainly based on men. The skill profiles of men and women in historical data is not easily comparable, which is one reason why we use a different categorization with fewer categories for women than for men. The variables we use are, however, proxies for some form of economic independence, as women who have or have had

[54] Van Leeuwen and Maas, *HISCLASS*.
[55] See Humphries and Sarasùa, 'Off the record'; Stanfors, 'Women in a changing economy'. As a minor control for such measurement errors, we also estimated models using occupation measured at time of marriage and as the highest occupational status (according to HISCLASS) registered up until 2 years before divorce.
[56] 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, 'Employment and divorce'; Sandström and Stanfors, 'Growing more equal'.

an occupation during marriage may still have a connection to the labour market or a job skill 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. First, we use a variable with three categories: 1) occupation, 2) no occupation, and 3) farmer. The aggregation of women's occupational categories is required due to relatively 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 activity. Second, to see if there are differences in occupational status, we then use a variable with five categories: white-collar/skilled blue-collar worker (HISCLASS 1-7), low-skilled worker, unskilled worker, farmer, and those without a registered occupation. While having more categories makes it harder to estimate the models, it may serve as an indicator for differences dependent on the occupation's status. We also use information on the wife's registered labour income, which is only available for the years 1947–67, as a supplementary analysis.

Our second main independent variable is the SES of the household. We use the husband's occupation as a proxy for the household's SES. During the period, the husband's occupational status was the main determining factor for household SES as the husband-breadwinner model was at its height, and any contribution from the wife's occupation to the status of the household was most likely minimal.

Our third main independent variable is the presence of dependent children. The variable indicates if there is: 1) no child present in the marriage, 2) a child under the age of seven, and

3) children aged seven or older present. 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 during the period of this study. We also include a control for the number of children in the marriage do not control for the ages of the other children.

We also include duration of marriage in years[57], wife's age at marriage, and place of residence (urban/rural) as control variables in our model. Previous research shows that duration and age at marriage are negatively associated with the risk of divorce.[58] 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.[59]

We used discrete-event history analysis models to estimate the risk of divorce. We estimated a basic 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 include models using a pooled sample, where we control for period effects and models using interactions to investigate differences between periods. Because divorce is an unusual outcome, especially in a small sample in a context when it is a rare event, we separated the period of analysis into three distinct periods: 1922–34, 1935–49, and 1950–67. Although there were economic crises and restructuring during the period 1922–67, it was largely a period of high economic growth and expansion in Sweden. Our 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 model is:

[57] Duration of marriage included as a categorical variable does not improve the model and estimates the same relationship in alternative specifications of the model.
[58] South and Spitze, 'Determinants of divorce'.
[59] Lyngstad and Jalovaara, 'Review of the antecedents'.

$$log\left(\frac{\pi(Div_{it})}{1-\pi(Div_{it})}\right) = \beta_0 + \beta_1 Indep_{it} + \beta_2 SES_{it} + \beta_3 Child_{it} + \beta \mathbf{x_{it}} + Period_i \quad (1)$$

where $\pi(Div_{it})$ is the probability of divorce observed in year *t* for marriage *i*. $Indep._{it}$ indicates whether the wife has an occupation registered in year *t,* SES_{it} is the husband's or household socioeconomic status in year *t*, and $Child_{it}$ is the presence of a dependent child. The separate periods are explained above, and $\mathbf{x}_{it}$ is a vector of controls for age at marriage, duration of marriage, and place of residence.

Results

As a first step in documenting the determinants of the divorce transition, 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. Over the whole period, 1922–67, about five per cent of the marriages were dissolved through divorce. Like the trends in the refined divorce rate in Figure 1, there was an increase in the proportion of divorces over time from 1.1 to 4.5 per cent of the marriages.

[Table 1 about here]

In line with increasing female labour force participation in Sweden during the twentieth century, the proportion of married women without an occupation decreased over time. All categories, except for farmers, increased in share, indicating the national trend of urbanization and decline in the agriculture sector.[60] Skilled occupations – which covers all occupations requiring some form of education or specialization – saw the largest increase between periods,

[60] Schön, *Sweden's road.*

but the largest relative increase over time is seen for unskilled workers. Both low and unskilled workers experienced increased demand in industries and services after the late 1920s, as indicated by the increased proportion of women in those occupations in our data.[61] For household SES, skilled occupations increased between periods, and the proportion of farmers and unskilled workers declined.

Marriage with a child under the age of seven remained relatively stable between the periods. Regarding number of children, the fertility trend towards smaller families is evident because the proportion of one or two-child families increased over time while larger families became less common. Average age at marriage was lower in the two later periods compared to the early one and was thus like the national trend in Sweden and other industrialized countries during the first half of the twentieth century.[62] There was also a large difference between the periods in the number of marriages of those residing in Landskrona (indicated as 'urban'), a difference which in the two later periods includes about 80 per cent of all observed marriages. 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 those in the labour force, 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 Figure 2a marriages where the wife had no occupation accounted for 65.3 per cent of all divorces in the first period, 1922–34. In the other categories, women in low-skilled and white-collar/skilled occupations represented 19 and 10 per cent, respectively. Unskilled workers and farmers accounted for only three and two per cent, respectively. Over time, there was a shift in the

[61] Stanfors, *Education, labor force participation*.
[62] Goode, *World revolution*.

distribution as it became more common for marriages where the wife had a registered occupation to end in divorce. When we calculate the risk of divorce by SES for women (Figure 2b), there were few differences between the occupation groups in the period 1922–34. Figure 2b also shows that the rise in risks of divorce in later periods mainly occurred for marriages where the wife had a registered occupation – specifically that of unskilled workers. Divorce risks for the category *no occupation* were consistently lower in all periods, indicating that women's economic independence was an important factor for divorce in the first half of the twentieth century.

[Figure 2 about here]

Contrary to our expectation, the results for men in Figure 2 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 2c is skewed towards the lower skilled in all three periods. Risks by occupation, shown in Figure 2d, indicate that there was a negative gradient in all periods. 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 occurred earlier than 1922. 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.

We used a pooled logistic regression to estimate the relative risk of divorce in 1922–67.[63] Turning to the multivariate results, Figure 3 shows the main results from our analysis using 95 per cent 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

[63] To calculate the difference in risk: If RR > 1, diff = (RR-1)*100, if RR < 1, diff = (1-RR)*100.

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 periods. This indicates that the rise of divorce dates further back than the 1970s.

Focusing on the relative risk of divorce by the wife's occupational status (the reference category being *no* occupation), we find that, in line with our first hypothesis, female economic independence was associated with higher divorce risks. The relative risk of divorce was about 200 per cent higher for marriages where the wife had an occupation according to our classification, and the estimates are robust when including other variables to the model. 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.

[Figures 3 about here]

According to the results, it is apparent that farmers experienced 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 labour and specialization among farm owners, as these families were dependent on joint production in the same way as families prior to industrialization. Moreover, over time with mechanization and agricultural change, many of those belonging to the category *farmer* went on to become 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.[64]

[64] Sandström and Stanfors, 'Growing more equal'.

For the variable indicating household SES, *higher professional* was used as the reference category. Figure 3 shows a negative SES gradient in divorce risks (except for medium-skilled workers) as individuals belonging to couples with lower-skilled SES faced higher divorce risks. Farmers were not significantly different, which supports our argument that these were couples facing more economic barriers to divorce but estimates indicated higher divorce risks compared to the reference category. Interestingly, when controlling for occupational status of both spouses (Models 5–6 in Appendix Table A1), the negative gradient was still observable, but the estimates were reduced in size. This implies that the occupation of both man and woman was important in determining the risk of divorce, right at the start of the divorce transition.

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 risk, there is no statistical difference between SES categories (see confidence intervals in Figure 3).

For our hypothesis regarding the presence of young and dependent children, 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 50 per cent lower divorce risk, which is robust to the inclusion of other variables, compared to having older children. The relative risk of divorce is also higher in marriages with no child, but there is no significant difference in this respect. As most married couples in the present context (eventually) had children, this might be seen as a select

group (or perhaps childlessness was a reason for divorce). The estimates are robust to the inclusion of other variables. Previous research has found either a U-shaped pattern in divorce risks for the number of children or few differences between childless marriages and those with children when controlling for marital duration.[65] We find an indication of that the protective mechanism of having a young and dependent child was strong in marriages during the period.

To investigate differences over time in the determinants of divorce and see if different characteristics were important across the divorce transition, models were estimated using an interaction between period and the main independent variables. First, a model was estimated using variables for wife's occupation (yes/no/farmer) interacted with the period of divorce, including all control variables. Figure 4 depicts the combined interactions estimates using 95 per cent confidence intervals and, as the reference category, women with no occupation in the period 1950–67 (estimates for *farmer* is not included in the figure for ease of interpretation, see Appendix Table A2 for exact estimates). The figure can be interpreted as the change in divorce risks between periods for women with and without an occupation during marriage. Figure 4 indicates that the rise in divorce risk over time is mainly attributed to marriages where the wife had some form of labour market attachment.

[Figure 4 about here]

Then, we estimated the predicted probabilities from three separate logistic regressions using interactions. Interaction effects are presented in Appendix Table A3, and the predicted probabilities of divorce using 90 per cent confidence intervals are reported graphically in Figures 5-6 for easier comparisons. All estimates and their confidence intervals should be

[65] Thornton, 'Children and marital stability'; Waite and Lillard, 'Children and marital disruption'.

compared to each other rather than being different from zero. Estimates are calculated at the mean of all covariates instead of at the reference category or starting value.

[Figures 5 and 6 about here]

Figure 5 indicates that the differences between the groups were small, but again the results support the finding that the increase in divorce risks mainly occurred for marriages where the wife had an occupation or experience. Estimates for both farmers and those with no occupation show no increase between periods in the probability of divorce. While the confidence intervals overlap both between periods and across occupational groups, there is an indication that unskilled women experienced a relatively larger increase in risk between periods, and that the catching up mainly occurred in the period 1935–49. This coincides with when the first sharp increase in divorce rates occurred during the transition (see Figure 1). In Figure 6, we find further support for the emergence of a negative SES gradient over time rather than a reversal. There were only small differences between SES categories in the first two periods (1922–34 and 1935–49). In the last period, *unskilled* men had the highest probability of divorce. As a small sensitivity analysis, we estimated models using wife's occupation registered at marriage and highest status achieved during marriage, which support our findings (results shown in Appendix Figures A1 and A2).

These results provide evidence for our first hypothesis that women's economic independence was important right from the early stage of the divorce transition. Women with an occupation or previous labour 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. Although it is only an indication, the increase in divorce rates during the 1940s coincided with higher risks for unskilled women. Regarding our second

hypothesis concerning SES, 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 risks facing the *unskilled* category.

As for the hypothesis regarding the presence 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 labour 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 labour income, including all key and control variables, and a year dummy. Results are shown in Table 2. Wife's labour 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 1922–67 and discrete-event history analysis to estimate divorce risks for 20,104 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 1922–34, 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 labour, 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 labour 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.[66] 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

[66] Waite and Lillard, 'Children and marital disruption'.

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 1950–67, 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 unskilled occupations became relatively more likely to divorce. While married women's labour force participation was rather low until the mid-to-late 1960s, our result of increasing divorce risks in the 1935–49 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 labour 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.[67] 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 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.

[67] Stanfors, *Education, labor force participation*.

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.

Figure 1. Refined divorce rate in Sweden and Scania, 1920–2000, and the study area, 1922–67.

Notes: Refined divorce rate is calculated as the number of divorces per 1000 married women. Rates are calculated as a three-year average fir the study area, and every tenth year for Sweden and Scania.
Source: Befolkningsrörelsen, 1911–66. Statistics Sweden. SOS. Befolkningsförändringar del 1–3, 1967–90. Statistics Sweden. SOS. Befolkningsstatistik del 1–4, 1991–2003. Statistics Sweden. Folk-och bostadsräkningen. Folkräkningen 1910–60. Statistics Sweden. Folk- och bostadsräkningen. Folk- och bostadsräkningen 1965–90. Statistics Sweden. Officiell Statistik. Statistkdatabasen 2000. Statistics Sweden.

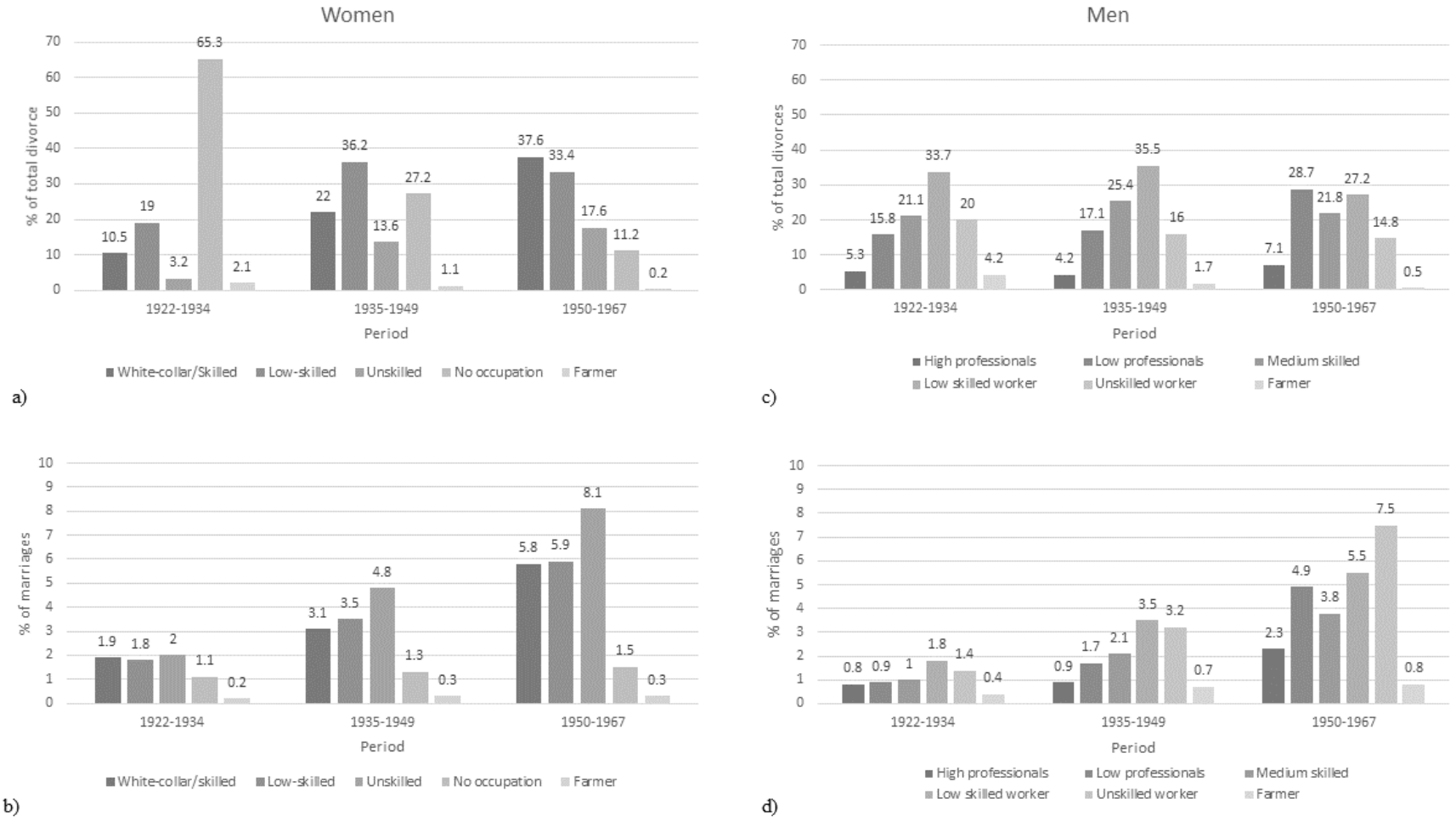

Figure 2. Distribution of divorce by occupational status according to SES.
Notes: Figures 2a and 2b illustrate the distribution of total number of divorces by SES. Figures 2c and 2d illustrate the relative risk, calculated by number of divorces per number of marriages in each SES category.

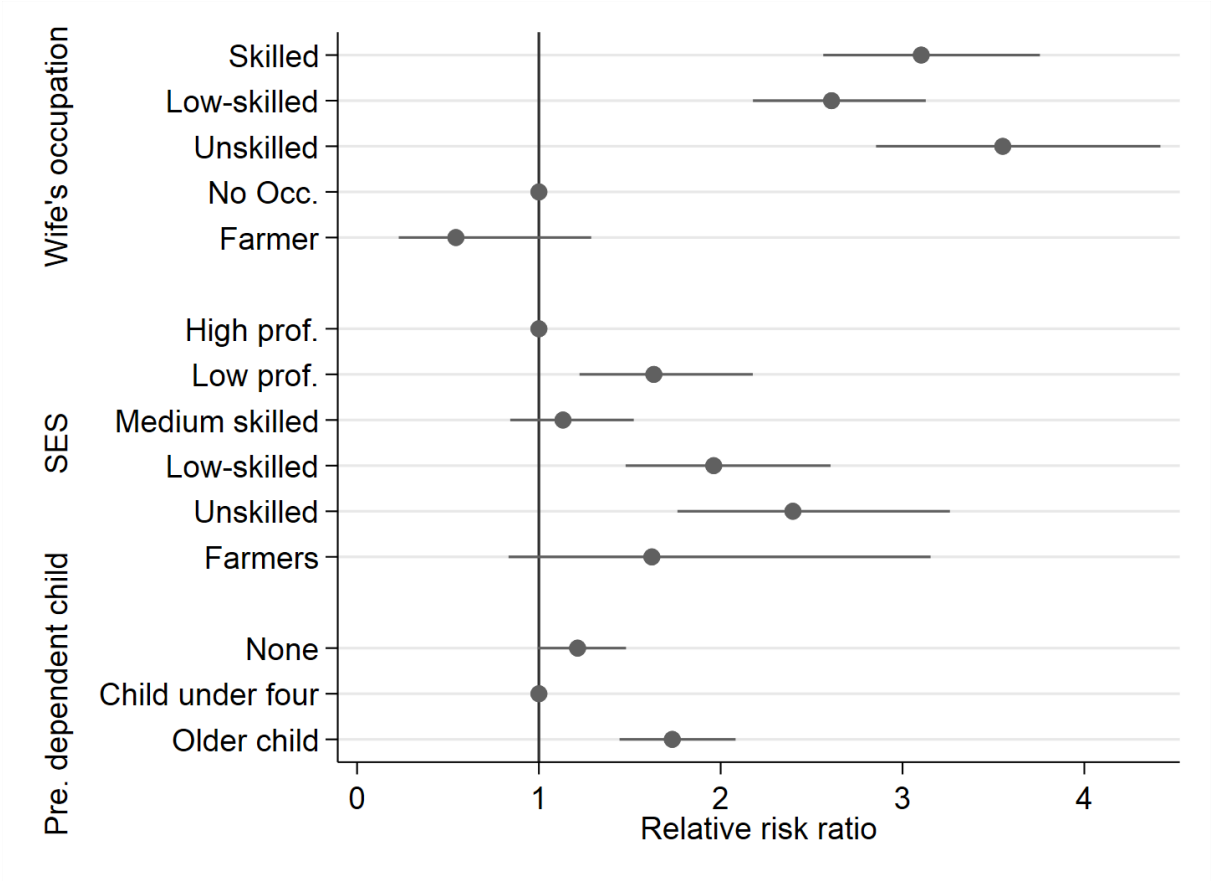

Figure 3. Relative risk of divorce.

Notes: The figure depicts estimated relative risks of divorce from a pooled logistic regression for wife's occupational status, husband's SES, and presence of a dependent child, 1922–67. Exact estimates reported in column 6 in Appendix Table 1. Model includes controls for period of divorce, number of children, place of residence, duration of marriage and wife's age at marriage. Relative risks using 95 percent confidence intervals.

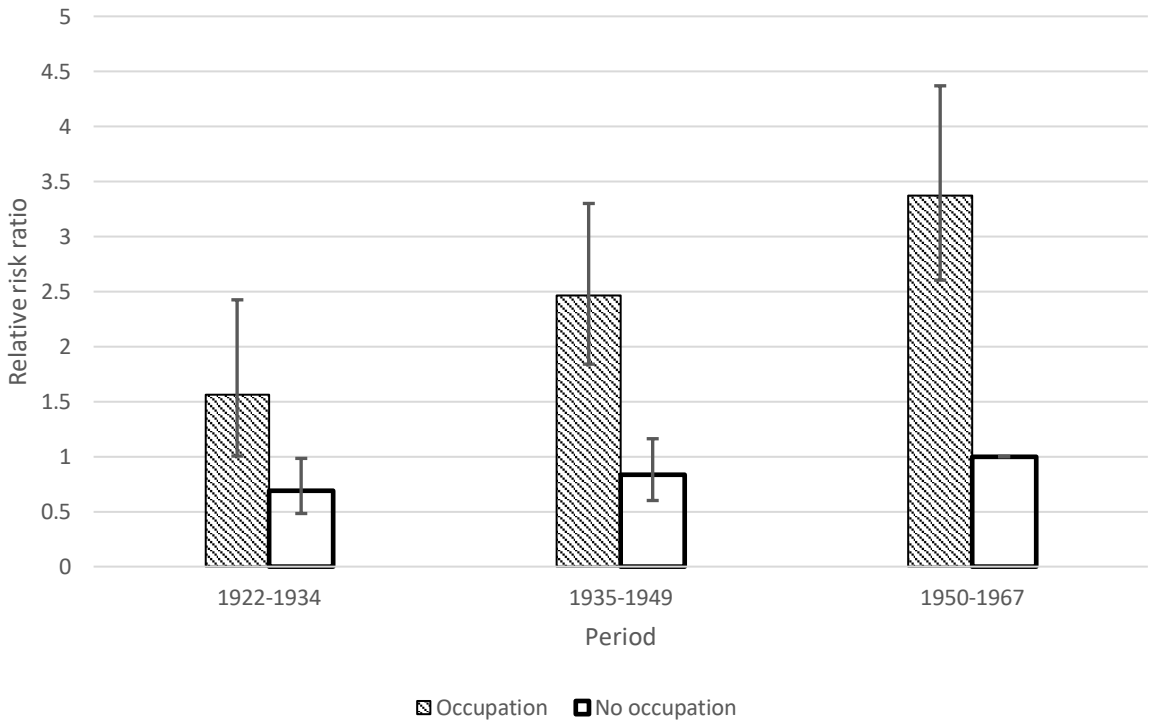

Figure 4. Relative risk of divorce by wife's occupational status.

Note: The figure illustrates the relative risk of divorce from logistic regression using an interaction between dummy variable for wife's occupational status and the period of divorce, 1922–67. Estimates for farmers not included in the figure for ease of interpretation. Model includes controls for husband's SES, presence of a young child, number of children, place of residence, duration of marriage and the wife's age at marriage.

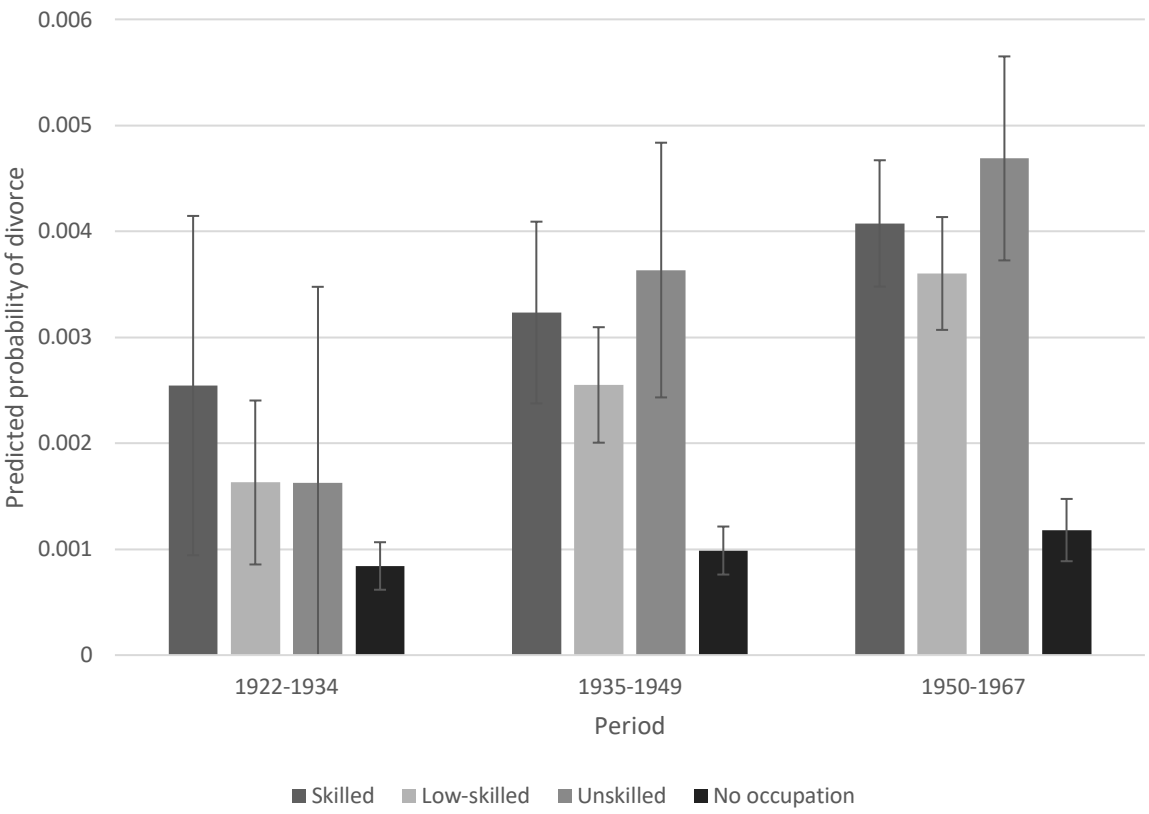

Figure 5. Predicted probabilities of divorce by wife's occupational status (HISCLASS) and period of divorce.

Notes: The figure illustrates predicted probabilities from logistic regression of wife's occupational status according to HISCLASS interacted with period of divorce on the probability of divorce, 1922–67, with 95 percent confidence intervals. Model includes controls for husband's SES, presence of a young child, number of children, place of residence, duration of marriage and wife's age at marriage. Estimated interaction effects are reported in Appendix Table 2.

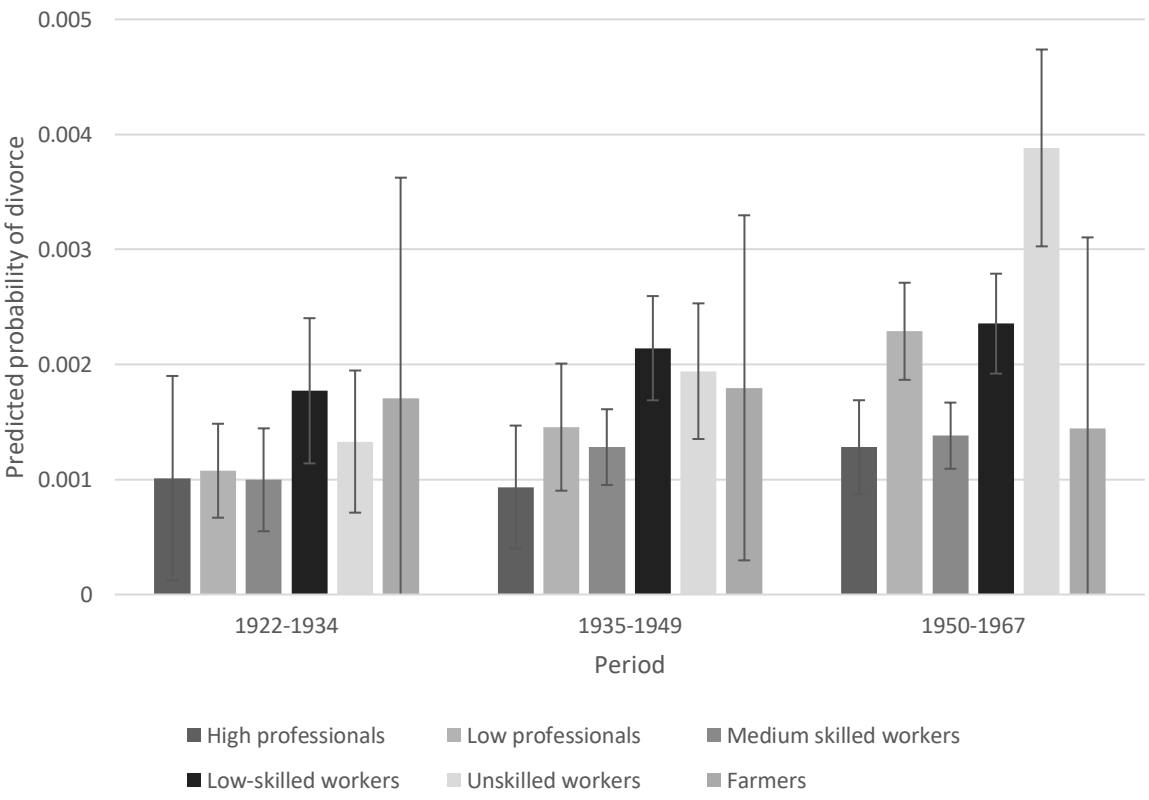

Figure 6. Predicted probabilities of divorce by husband's occupational status (HISCLASS) and period of divorce.

Notes: The figure illustrates predicted probabilities from logistic regression of husband's occupational status according to HISCLASS interacted with period of divorce on the probability of divorce, 1922–67, with 95 percent confidence intervals. Model includes controls for wife's occupational status, presence of a young child, number of children, place of residence, duration of marriage and wife's age at marriage. Estimated interaction effects are reported in Appendix Table 2.

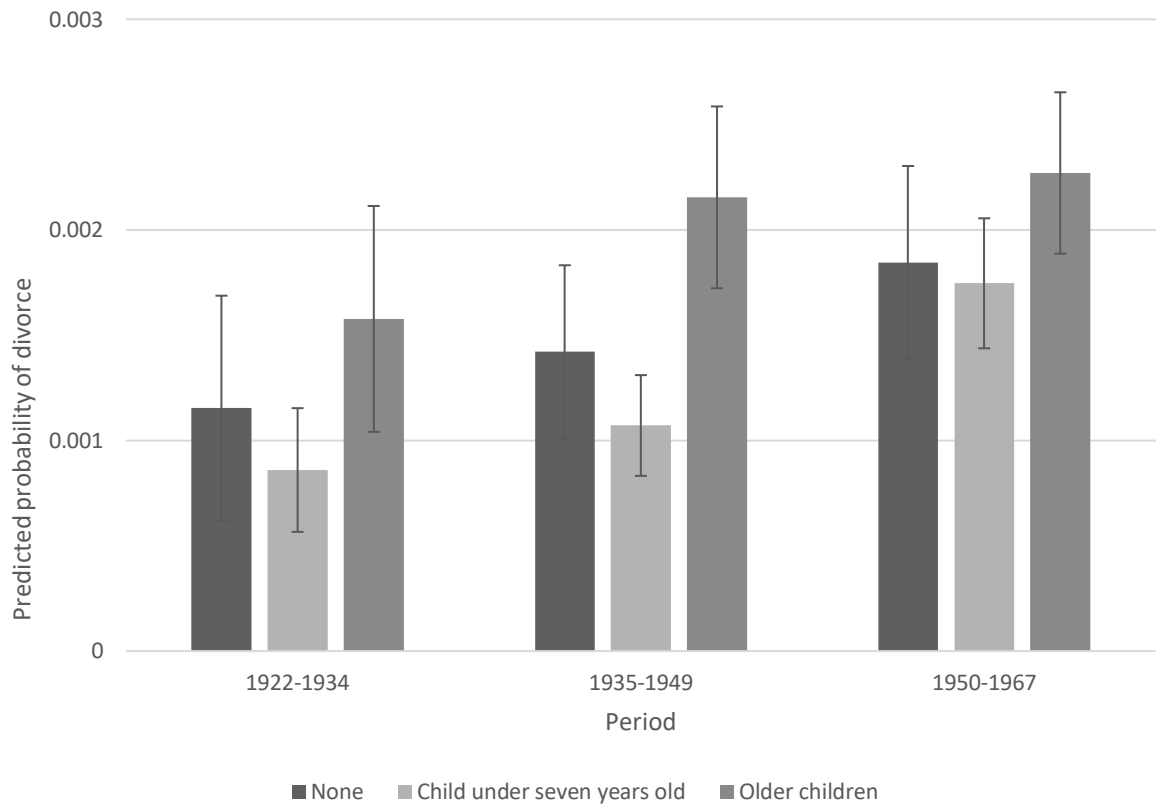

Figure 7. Predicted probabilities of divorce by presence of a dependent child and period of divorce.

Notes: The figure illustrates predicted probabilities from logistic regression of presence of a child under the age of seven interacted with period of divorce on the probability of divorce, 1922–67, with 95 percent confidence intervals. Model includes controls for wife's occupational status, husband's SES, number of children, place of residence, duration of marriage and wife's age at marriage. Estimated interaction effects are reported in Appendix Table 2.

Table 1. Summary statistics

	1922–1934	1935–1949	1950–1967	1922–1967
Divorce	1.12	2.23	4.50	2.82
Widowhood	12.35	11.21	16.16	13.38
Wife's occupational status				
Skilled/Professional	4.50	12.47	26.23	17.08
Low-skilled worker	9.10	21.47	26.83	21.35
Unskilled worker	1.25	4.89	9.56	6.26
Farmer	13.94	7.68	2.98	6.84
No occupation	71.21	53.49	34.38	48.47
Household SES				
High professisonal	7.17	8.99	12.41	10.17
Low professional	19.12	19.99	24.77	21.99
Medium-skilled worker	24.66	27.86	28.03	27.27
Low-skilled worker	20.35	23.68	22.97	22.66
Unskilled worker	17.24	12.93	8.55	11.83
Farmer	11.46	7.68	3.27	6.06
Child under age seven	35.92	35.31	29.92	32.98
Number of children				
None	20.68	23.18	17.85	20.24
One	24.95	32.26	31.51	30.40
Two	20.36	21.87	29.15	24.87
Three or more	34.00	22.69	21.49	24.49
Place of residence				
Landskrona	73.74	77.64	79.96	77.89
Parishes	26.26	22.36	20.04	22.11
Average duration of marriage (years)	16.72 (12.56)	15.65 (12.81)	188.92 (12.91)	17.36 (12.89)
Average wife's age at marriage (years)	25.34 (4.83)	25.25 (4.83)	24.91 (5.00)	25.12 (4.91)
Number of marriages	8,503	12,895	13,250	20,104
Person-years	71,368	116,096	156,565	344,029

Note: The table shows proportions (%), means and standard deviations of all variables included in the analysis.

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

Dependent variable: divorce	Relative risk
Labor income during marriage	
Yes	3.754***
	(0.896)
Wife's occupational status	
Skilled/professional	2.466***
	(0.340)
Low-skilled	2.370***
	(0.317)
Unskilled	2.810***
	(0.420)
No occupation	ref
	ref
Farmer	0.433
	(0.455)
N	183,451
chi2	433.19
p	0.00

Notes: The table shows the relative risks from a logistic regression like Figure 3 and column 6 in Appendix Table 1 for the years 1947–1967 while controlling for wife's income. Model includes controls for husband's SES, presence of child under the age of seven, number of children, place of residence, duration of marriage and wife's age at marriage, and year. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Bibliography

Becker, G. S., ‘A theory of marriage: part I’, *Journal of Political Economy*, 81 (1973), pp. 813–46.

Becker, G. S., *A treatise on the family* (Cambridge, 1991).

Becker, G. S., Landes, E. M., and Michael, R. T., ’An economic analysis of marital instability’, *Journal of Political Economy*, 85 (1977), pp. 1141–87.

Bengtsson, T. and Dribe, M., ‘The historical fertility transition at the micro level: southern Sweden 1815–1939’, *Demographic Research*, 30 (2014), pp. 493–534.

Bengtsson, T., Dribe, M., Quaranta, L., and Svensson, P., *The Scanian economic-demographic database. Version 6.3 (Machine-readable database)* (Lund, 2018).

Bianchi, S. M. and Sayer, L. C., ‘Women’s economic independence and the probability of divorce: a review and reexamination’. *Journal of Family Issues*, 21 (2000), pp. 906–43.

Cherlin, A. J., *Marriage, divorce, remarriage* (Cambridge, 1981).

Cvrcek, T., ‘U.S. marital disruptions and their economic and social correlates, 1860–1948’, *Journal of Family History,* 36 (2011), pp. 142–58.

Dribe, M., Helgertz, J. and Van de Putte, B., ‘Did social mobility increase during the industrialization process? A micro-level study of a transforming community in southern Sweden 1828–1968’, *Research in Social Stratification and Mobility*, 41 (2015), pp. 25–39.

Fokkema, T. and Liefbroer, A. C., ‘Employment and divorce among Dutch women born between 1903 and 1937. *The History of the Family,* 9 (2004), pp. 425–42.

Goode, W. J., ‘Economic factors and marital stability’, *American Sociological Review*, 16 (1951), pp. 802–12.

Goode, W. J., *World revolution and family Patterns* (New York, 1963).

Greenstein, T. N., 'Marital disruption and the employment of married women', *Journal of Marriage and Family,* 52 (1990), pp. 657–76.

Haskey, J., 'Social class and socio-economic differentials in divorce in England and Wales', *Population Studies*, 38 (1984), pp. 419–38.

Humphries, J. and Sarasùa, C., 'Off the record: reconstructing women's labor force participation in the European past', *Feminist Economics,* 18 (2012), pp. 39–67.

Kalmijn, M., Vanassche, S., and Matthijs, K., 'Divorce and social class during the early stages of the divorce revolution: evidence from Flanders and the Netherlands', *Journal of family history*, 36 (2011), pp. 159–72.

Van Leeuwen, M. H. D., and Maas, I., *HISCLASS. A Historical International Social Class Scheme* (Leuven, 2011).

Van Leeuwen, M. H. D., Maas, I., and Miles, A., *HISCO: Historical International Standard Classification of Occupations* (Leuven, 2002).

Lundh, C., 'The geography of marriage: regional variations in age at first marriage in Sweden, 1870–1900', *Scandinavian Journal of History,* 38 (2013), pp. 318–43.

Lyngstad, T. H. and Jalovaara, M., 'A review of the antecedents of union dissolution', *Demographic Research*, 23 (2010), pp. 257–92.

MacDonald, D. and Dildar, Y., 'Married women's economic independence and divorce in the nineteenth-and early-twentieth-century United States', *Social Science History,* 42 (2018), pp. 601-29.

Olofsson, J., *Socialpolitik – varför, hur och till vilken nytta?* (Stockholm, 2007).

Ono, H., 'Husbands' and wives' education and divorce in the United States and Japan, 1946–2000', *Journal of Family History*, 34 (2009), pp. 292–322.

Oppenheimer, V. K., 'The sociology of women's economic role in the family', *American Sociological Review,* 42 (1977), pp. 387–406.

Oppenheimer, V. K., ‘Women's employment and the gain to marriage: the specialization and trading model’, *Annual Review of Sociology*, 23 (1997), pp. 431–53.

Philips, R., *Putting asunder: A history of divorce in western society* (Cambridge, 1988).

Ross, H. L. and Sawhill, I. V., *Time of transition: the growth of families headed by women* (Washington, 1975).

Ruggles, S., ‘The rise of divorce and separation in the United States, 1880–1990’, *Demography*, 34 (1997), pp. 455–66.

Sandström, G., ‘Socio-economic determinants of divorce in early twentieth-century Sweden’, *History of the Family*, 16 (2011), pp. 292–307.

Sandström, G. and Garðarsdóttir, Ó., ‘Long-term perspectives on divorce in the Nordic countries–Introduction’, *Scandinavian Journal of History*, 43 (2018), pp. 1–17.

Sandström, G. and Stanfors, M., ’Growing more equal and growing apart? Socioeconomic status and the rise of divorce in Sweden’, *Lund Papers in Economic Demography* (2020).

Schön, L., *Sweden’s road to modernity: an economic history* (Stockholm, 2010).

South, S. J., ‘Time-dependent effects of wives' employment on marital dissolution’, *American Sociological Review,* 66 (2001), pp. 226–45.

South, S. J. and Spitze, G., ‘Determinants of divorce over the marital life course’, *American Sociological Review,* 51 (1986), pp. 583–90.

Spitze, G., ‘Women’s employment and family relations: a review’, *Journal of Marriage and Family*, 50 (1988), pp. 595–618.

Stanfors, M., *Education, labor force participation and changing fertility patterns. A study of women and socioeconomic change in twentieth century Sweden* (Stockholm, 2003).

Stanfors, M., ‘Women in a changing economy: the misleading tale of participation rates in a historical perspective’, *The History of the Family,* 19 (2014), pp. 513–36.

Stanfors, M. and Goldscheider, F., 'The forest and the trees: industrialization, demographic change, and ongoing gender revolution in Sweden and the United States, 1870–2010', *Demographic Research,* 36 (2017), pp. 173–226.

Stone, L., *Road to divorce. England 1530–1987* (Oxford, 1990).

Sundbärg, G., *Ekonomisk-statistisk beskrifning öfver Sveriges olika landsdelar: emigrationsutredningen V. bygdestatistik* (Stockholm, 1910).

Thornton, A., 'Children and marital stability', *Journal of Marriage and the Family,* 39 (1977), pp. 531–40.

Thornton, A., 'Changing attitudes toward separation and divorce: causes and consequences', *American Journal of Sociology*, 90 (1985), pp. 856–72.

Waite, L. J. and Lillard, L. A., 'Children and marital disruption', *American Journal of Sociology,* 96 (1991), pp. 930–53.

Official publications

Statistiska centralbyrån [Statistics Sweden], *Befolkningsrörelsen år ...*, ser. of 45 vols. covering 1911–66 (Stockholm, 1912–62).

Statistiska centralbyrån, *Befolkningsförändringar år ...*, ser. of 24 vols. covering 1967–90 (Stockholm, 1969–91).

Statistiska centralbyrån, *Befolkningsstatistik år ...*, ser. of 6 vols. covering 1991–2001 (Örebro, 1992–2002).

Statistiska centralbyrån, 'Folkmängden efter region, civilstånd, ålder or kön.' (2021) https://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__BE__BE0101__BE0101A/BefolkningNy/ (accessed on 18 Aug. 2021).

Statistiska centralbyrån, *Folkräkningen år ...*, ser. of 8 vols. covering 1910–60 (Stockholm, 1914–61).

Statistiska centralbyrån, *Folk- och bostadsräkningen år …*, ser. of 6 vols. covering 1965–90 (Stockholm, 1966–91).

Appendix

Figure A1. Predicted probabilities of divorce by wife's occupational status (HISCLASS) at marriage and period of divorce.

Notes: The figure illustrates predicted probabilities from logistic regression of wife's occupational status at marriage according to HISCLASS interacted with period of divorce on the probability of divorce, 1922–67. Model includes controls for husband's SES, presence of a young child, number of children, place of residence, duration of marriage and wife's age at marriage.

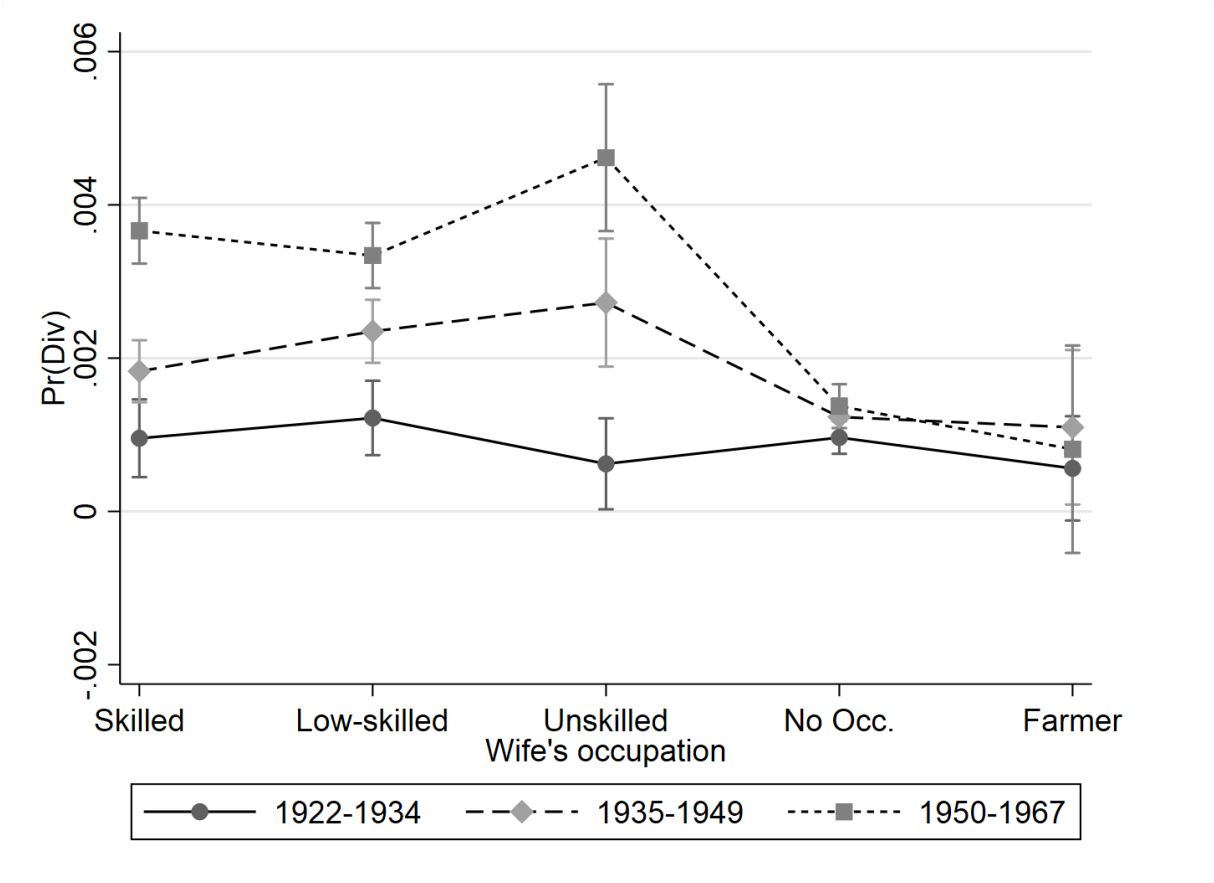

Figure A2. Predicted probabilities of divorce by wife's highest occupational status HISCLASS and period of divorce.

Notes: The figure illustrates predicted probabilities from logistic regression of wife's highest occupational status according to HISCLASS interacted with period of divorce on the probability of divorce, 1922–67. Model includes controls for husband's SES, presence of a young child, number of children, place of residence, duration of marriage and wife's age at marriage.

Table A1. Relative risks ratios of divorce from pooled model including estimates for all variables, 1922–67.

	Control	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Woman's age at marriage	0.931***	0.928***	0.928***	0.934***	0.932***	0.929***	0.929***	0.928***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Duration since marriage	0.966***	0.975***	0.959***	0.964***	0.947***	0.973***	0.957***	0.949***
	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.004)
Urban	3.418***	2.625***	2.614***	3.507***	3.495***	2.793***	2.787***	3.396***
	(0.422)	(0.333)	(0.332)	(0.451)	(0.452)	(0.365)	(0.366)	(0.420)
Period								
1922–34	0.583***	0.841	0.813*	0.561***	0.547***	0.794*	0.770**	0.567***
	(0.069)	(0.101)	(0.098)	(0.067)	(0.066)	(0.095)	(0.093)	(0.068)
1935–49	ref	ref	ref	ref	ref	ref	ref	ref
	ref	ref	ref	ref	ref	ref	ref	ref
1950–67	1.621***	1.232***	1.235***	1.733***	1.743***	1.307***	1.310***	1.634***
	(0.119)	(0.096)	(0.096)	(0.129)	(0.130)	(0.103)	(0.103)	(0.120)
Wife's occupational status								
Skilled/professional		3.194***	3.219***			3.165***	3.186***	
		(0.311)	(0.316)			(0.308)	(0.312)	
Low-skilled		2.919***	2.897***			2.689***	2.678***	
		(0.265)	(0.266)			(0.248)	(0.249)	
Unskilled		4.120***	3.996***			3.683***	3.587***	
		(0.458)	(0.448)			(0.408)	(0.400)	
No occupation		ref	ref			ref	ref	
		ref	ref			ref	ref	
Farmer		0.517	0.508			0.550	0.534	
		(0.218)	(0.215)			(0.242)	(0.236)	
Presence of child								
No child			1.077		1.138		1.070	1.149
			(0.106)		(0.113)		(0.106)	(0.114)
Child < 7 years			ref		ref		ref	ref

			ref		ref		ref	ref
Child > 7 years			1.535***		1.670***		1.525***	1.709***
			(0.146)		(0.158)		(0.145)	(0.161)
Number of children								
One			ref		ref		ref	ref
			ref		ref		ref	ref
Two			0.914		0.884		0.921	0.867*
			(0.079)		(0.076)		(0.079)	(0.074)
Three or more			1.422***		1.294***		1.400***	1.310***
			(0.132)		(0.120)		(0.130)	(0.121)
Household SES								
High professional				ref	ref	ref	ref	
				ref	ref	ref	ref	
Low professional				2.029***	2.013***	1.660***	1.664***	
				(0.296)	(0.295)	(0.244)	(0.245)	
Medium-skilled				1.485***	1.457**	1.154	1.147	
				(0.218)	(0.215)	(0.174)	(0.173)	
Low-skilled				2.624***	2.549***	1.996***	1.963***	
				(0.376)	(0.367)	(0.289)	(0.285)	
Unskilled				3.297***	3.203***	2.426***	2.390***	
				(0.518)	(0.504)	(0.381)	(0.376)	
Farmer				1.422	1.437	1.593	1.617	
				(0.469)	(0.475)	(0.541)	(0.550)	
N	344,029	344,029	344,029	344,029	344,029	344,029	344,029	344,029
chi2	395.90	550.90	576.62	440.60	460.20	590.77	615.81	412.81
p	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes: The dependent variable is divorce. 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. All estimates are based on a discrete-event logistic model, 1922–67. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A2. Relative risks of divorce by wife's occupational status and period of divorce

Occupation*1922–34	1.568**
	(0.352)
Occupation*1935–49	2.471***
	(0.369)
Occupation*1950–67	3.388***
	(0.448)
No occupation*1922–34	0.712*
	(0.129)
No occupation*1935–49	0.836
	(0.141)
No occupation*1950–67	ref
	ref
Farmer*1922–34	0.311
	(0.237)
Farmer *1935–49	0.535
	(0.309)
Farmer *1950–67	0.468
	(0.482)
N	344,029
chi2	588.14
p	0.00

Notes: The table shows the combined relative risk of divorce from logistic regression using interaction between dummy variable for wife's occupational status and the period of divorce, 1922–67. Estimates illustrated in Figure 4. Model includes controls for husband's SES, presence of a young child, number of children, place of residence, duration of marriage and the wife's age at marriage. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A3. Interaction effects

	1922–34	1935–49	1950–67
Model 1: Wife's occupational status			
Skilled/professional	0.87	0.95	1
	(0.32)	(0.21)	ref
Low-skilled	0.63	0.85	1
	(0.19)	(0.17)	ref
Unskilled	0.48	0.93	1
	(0.30)	(0.23)	ref
No occupation	0.71*	0.84	1
	(0.13)	(0.14)	ref
Farmer	0.93	1.37	1
	(1.15)	(1.58)	ref
Model 2: Household SES			
High professional	0.79	0.73	1
	(0.37)	(0.24)	ref
Low professional	0.59	0.87	1
	(0.32)	(0.32)	ref
Medium-skilled	0.91	1.27	1
	(0.49)	(0.46)	ref
Low-skilled	0.95	1.25	1
	(0.49)	(0.44)	ref
Unskilled	0.43	0.68	1
	(0.23)	(0.26)	ref
Farmer	1.50	1.71	1
	(1.38)	(1.34)	ref
Model 3: Presence of child			
No child	1.27	1.26	1
	(0.39)	(0.25)	ref
Child < 7 years	0.49***	0.61***	1
	(0.09)	(0.07)	ref
Child > 7 years	1.41	1.55***	1
	(0.35)	(0.25)	ref

Notes: Model 1 shows the relative risks from a logistic regression of wife's occupational status according to HISCLASS interacted with period of divorce on the probability of divorce, 1922–67. Model 2 shows the relative risks from a logistic regression of husband's occupational status according to HISCLASS interacted with period of divorce on the probability of divorce, 1922–67. Model 3 shows the relative risks from a logistic regression of presence of a child under the age of seven interacted with period of divorce on the probability of divorce, 1922–67. N = 344,029. Models 1-3 include full set of controls and independent variables. Chi-square test of goodness-of-fit indicates that only the specification use in model 3 improves the model significantly.