# Social Mobility and Fertility: Applying Diagonal Reference Models in Historical Studies, Sweden 1905-2015

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**LUND PAPERS IN ECONOMIC DEMOGRAPHY 2023:1**

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# Social Mobility and Fertility: Applying Diagonal Reference Models in Historical Studies, Sweden 1905-2015

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Social mobility can theoretically have an independent impact on fertility. The problem is empirically assessing it, as mobility is a function of both social origin and destination. This paper presents the Diagonal Reference Model (DRM) as a valuable historical method to study social mobility consequences. We use Swedish individual-level longitudinal data with intergenerational links covering 1905 to 2015. We apply DRM to test hypotheses about the association between social mobility and fertility net of social origin and social attainment. The results show a constant but small negative association between upward social mobility and fertility. This relationship was present, especially among the oldest cohorts, suggesting the need for more research on social mobility effects in more historical settings with DRMs.

**Keywords**: diagonal reference models, mobility contrast models, social mobility, fertility

## Funding

This study is part of the research program "Landskrona Population Study", funded by the Swedish Foundation for the Humanities and Social Sciences (RJ).

## Introduction

Socioeconomic status is an important determinant of fertility both in contemporary low-fertility contexts and in high-fertility contexts of historical Western populations and less developed countries today (Clark and Hamilton 2006; de la Croix et al. 2019; Cummins 2013; Dribe and Scalone 2021; Dribe et al. 2017; Skirbekk 2008). In older scholarship, there was also a large interest in the impact of social mobility on fertility net of the influence of social origin and current social status (e.g., Bean and Swicegood 1979; Kasarda & Billy 1985). This interest waned after the 1980s and since then there has been more focus in the literature on the reverse impact, how fertility in one generation can affect social mobility in the next generation, related to the dilution hypothesis (Blake 1989; Bras et al. 2010; Dalla Zuanna 2007; Van Bavel et al. 2011).

Socioeconomic status potentially affects fertility through the demand and supply of children as well as the availability, and cultural and religious acceptance, of methods to control fertility within marriage (Becker 1991; Easterlin and Crimmins 1985; Lesthaeghe and Vanderhoeft 2001). The broader societal context is vital for the costs and benefits of children, which determines the demand, the mortality level and level of natural fertility, which determines the supply, and the perceived costs of fertility control. Both structural and attitudinal change was crucial for fertility decline, but socioeconomic status was also important for the timing of fertility decline and has continued to be important also in post-transitional society (e.g., Dribe et al. 2017; Dribe and Smith 2021).

In addition to socioeconomic status, the experience and expectation of social mobility could have an independent effect on fertility. The problem is to empirically assess such an impact as mobility is a function of both origin and destination. Several models have been suggested in the literature (e.g. Blau and Duncan 1967; Hope 1975) but over time the Diagonal Reference Model (DRM) appears to have become the standard (Sobel 1981, 1985). However, an alternative model, the mobility contrast model (MCM), was recently proposed to better deal with heterogeneous mobility effects (Luo 2022).

This paper aims to apply this class of models to histporical-demographic data and study the association between social mobility and fertility during the entire fertility transition and into post-transitional society. We use individual-level longitudinal data with intergenerational links covering a period from 1870 to 2015. We apply DRM and MCM to these data to test hypotheses about a direct association between social mobility and fertility net of social origin and social attainment. We study an area in southern Sweden consisting of a port town and five rural or semi-urban parishes.

## Background

There are different mechanisms that could explain an impact of social mobility on fertility. Kasarda and Billy (1985) identify four main pathways of such an influence: (1) social isolation, (2) stress and disorientation, (3) status enhancement, and (4) relative economic status.

According to the first pathway, social mobility disrupts social networks and social control, leading mobile individuals to disintegrate in their new contexts, leading to insecurity and different kinds of extreme behavior. Increased fertility is an example of such deviant behavior, resulting from social isolation, in which large families become a compensation for lost social networks. This pathway could also be expected to be important in a context of fertility decline, when social mobility, possibly linked to geographical mobility as well, could be expected to imply less social control over reproduction. Thus, the social-isolation hypothesis predicts a positive association between both upward and downward mobility, on the one hand, and fertility on the other.

However, less social integration and loss of social networks could also led to lower fertility as a result of insecurity and less social support from networks. This is related to the more general hypotheses, put forward most notably by Sorokin (1927), that social mobility have adverse implications for mental health, as a result of psychological strain connected to the new social environment (see Houle and Martin 2011). Hence, mobility would lead to stress and disorientation which would depress fertility (see also Blau and Duncan 1967) but could also imply less support from kin in terms of child care. However, it is not clear that the latter effect would be important net of geographical mobility. In any case, the stress-and-disorientation hypothesis predicts a negative association between social mobility and fertility, regardless of the direction of mobility.

At least since the late nineteenth century, upward social mobility has been linked to low fertility (see, e.g., Blau and Duncan 1967). According to this view, the ambition to advance socially leads individuals and families to have fewer children because large families became increasingly incompatible with career and social advancement in industrial society. Raising children requires both time and money, which hampers prospects of upward social mobility. Kasarda and Billy (1985) stress that this status-enhancement hypothesis is more about aspiration and motivation than about the actual effects of realized mobility on actual fertility. According to this hypothesis, people with the ambition to be upwardly mobile opt for smaller families, while downwardly mobile have higher fertility than the non-mobile.

The last pathway is derived from Easterlin's relative-income hypothesis (e.g. 1978, 1987; see also Macunovich 1998). According to this theory, fertility is partly determined by the perceived relative income individuals face. Relative income is defined as the income of young men relative to their expected income, which is the income of their fathers. If men grow up under conditions where their own earnings are lower than they expect based on what their fathers earned, their relative income will be low which will lead to a range of negative outcomes; delayed marriage and low fertility included. According to the theory, it is the relative size of birth cohorts that determines relative income. Individuals belonging to relatively large cohorts face more competition in the labor market and lower wages, which depress their relative income, while smaller cohorts instead experience high relative income.

The relative-income hypothesis also provides clear predictions about the association between intergenerational social mobility and fertility. High relative income is equivalent to upward intergenerational social mobility (higher status/earnings than the father) and, conversely, low relative income is equivalent to downward social mobility (lower status/earnings than the father). Hence, upward social mobility is expected to be associated with higher fertility through a more optimistic outlook for the future, while the opposite would be the case for downward mobility. The relative-income hypothesis is essentially about income rather than occupation, and it is not clear that non-mobility in terms of occupation necessarily implies persistence also in income as for larger cohorts within-occupation earnings would be lower than for smaller cohorts. Nonetheless, upward or downward intergenerational mobility would have similar predictions for occupation and earnings.

To summarize, the four hypotheses give different predictions on the association between social mobility and fertility. The *social-isolation hypothesis* predicts positive effects on fertility of both upward and downward mobility, while the *stress-and-disorientation hypothesis* predicts negative effects for both upward and downward mobility. The *status-enhancement hypothesis* predicts a negative effect of upward mobility, and a positive effect of downward mobility, while the *relative-income hypothesis* instead predicts a positive effect of upward mobility and a negative effect of downward mobility.

The main methodological challenge is how to empirically identify the effect of social mobility on fertility over and above the influence of origin (O) and destination (D), when social mobility (M) is the result of the difference between the origin and destination (M=D-O). Different models have been used in previous research to assess the mobility effects of different outcomes, but most recent research have used the Diagonal Reference Model (DRM) proposed by Sobel (1981, 1985) (see, e.g. Billingsley et al 2018; van der Waal et al. 2017). In this model the non-mobile are used as the the reference when simultaneously estimating the effects of origin, destination and mobility.

We apply DRMs for the first time in historical demography to study how social mobility affected fertility in Sweden durung the twentieth century, covering much of the fertility transition as well as a long period after the transition. In addition, we use the recently developed MCM to assess the importance of heterogeneous mobility effects.

**Data**

We use data from the Scanian Economic-Demographic Database (SEDD, Bengtsson et al. 2021). SEDD consists of longitudinal individual-level information on demography and socioeconomic attainment for individuals originating in a region with five parishes (Halmstad, Hög, Kågeröd, Kävlinge, and Sireköpinge) and the city of Landskrona from 1905 to 2015. Data for the period 1905–67 come from various data sources, such as continuous parish registers, birth, marriage, death, income and taxation registers (Dribe and Quaranta 2020), while data from 1968 to 2015 come from Statistics Sweden and cover the entire country. Individuals present in the older data were identified and linked to the contemporary data, using unique personal identifiers for all individuals present from 1947 onwards. The study population is not a random sample of Sweden, but is broadly representative by reflecting conditions shared by populations in similar areas during the time studied (see, e.g. Dribe et al. 2015; Bengtsson and Dribe 2021).

We use social class and income to measure advantage through access to resources, material well-being, and status. Class captures the similar life chances afforded to different classes and is expected to be a stable measure of socioeconomic status over the life course, reflecting not only economic resources but also cultural resources and attitudes (see, e.g. Breen and Jonsson 2005; Erikson and Goldthorpe 2010). We measure social class based on the occupation of the individual or their spouse or partner (higher class within the union for the currently married or cohabiting). Before 1968 occupational information is collected from the population registers (usually updated on entry and when starting a new ledger, about every five years), event registers, and annually in the income and taxation registers. From 1968 occupation was reported in the population and housing censuses of 1970, 1975, 1980, 1985, and 1990 and in the occupation registers from 2001 onwards. Occupations for intercensal years were imputed using the nearest census (e.g. 1970 information for 1971; 1972 and 1975 information for 1973 and 1974). For the period 1990–1995 we used the occupation in the 1990 census, and for 1996–2001 we used the occupation from 2001. It is worth noting that the occupational registers (available 2001–14) were based on reports from employers and only included the currently employed, and hence not unemployed or self employed without own employees.

Occupational notations in SEDD are coded in an internationally comparable coding scheme for historical occupations: HISCO, the Historical International Standard Classification of Occupations (Van Leeuwen et al. 2002).[1] For the period after 1968, the occupational codings from Statistics Sweden were recoded to HISCO (see Dribe and Helgertz 2016). These standardized occupations were subsequently coded into HISCLASS (Historical International Social Class Scheme), a twelve-category occupational classification scheme based on skill level, degree of supervision, manual or non-manual, and urban or rural (Van Leeuwen and Maas 2011).

Finally, we use income as an alternative SES measure. There has recently been increasing recognition in both economics and sociology that social class and income capture different aspects of a person's relative position in society, and there is no reason to expect that they should move in tandem (Björklund and Jäntti 2000; Erikson and Goldthorpe 2010; Blanden et al. 2013; Breen et al. 2016). Income is a measure of the economic resources available to an individual or household at a given moment in time, and is expected to fluctuate more than social class over the life course. We also estimate models using income to measure status and mobility to compare class mobility and income mobility. The income information comes from individual tax returns of total income from labor-related sources (including self-employment) and income from capital and real estate (Helgertz et al. 2020). Additionally, after 1967 we use income data from the national income and taxation registers maintained by Statistics Sweden, with similar total income and various benefits relating to previous labor earnings (pensions, parental leave benefits, unemployment benefits, etc.).

[1] The coding of occupations has been harmonized with other population databases in Sweden within the national infrastructure SwedPop, www.swedpop.se.

In the study area, both absolute and relative social mobility increased during the twentieth century up to 1970, mainly because upward mobility became more prevalent. Formal education and meritocracy became increasingly important for people from lower-class origins to advance socially (Dribe et al. 2015).

**Methods**

When dealing with social mobility effects through various outcomes, most researchers in the past decade have applied the diagonal reference model (DRM), developed by Sobel (1981, 1985). The DRM was an improvement of the square additive model (SAM) developed by Duncan (1966). The DRM was the first model to solve the identification problem and simultaneously estimate the effects of origin, destination, and mobility.

The DRM models the outcome of socially mobile individuals (fertility behavior in our case) in relation to the non-mobile, both at origin and destination. Thus, the social mobility association is estimated based on how mobile individuals diverge from the immobile, with net effects from origin and destination statuses. Intuitively, the best way to understand this is to think of a mobility matrix, where rows are origins and columns are destinations. The DRM first estimates the outcome for the diagonal cells and then compares these estimates to the ones of the off-diagonal cells. In our specific case, the model is specified as:

$$Y_{ij} = q * \mu_{ii} + (1 - q) * \mu_{jj} + \beta_{dsm} + \beta_{usm} + \beta_c + \varepsilon_{ij} \quad (1)$$

Where $Y_{ij}$ is the fertility outcome for social origin (status of husband's father) $i$ and destination $j$ (status of the husband). The parameters $\mu_{ii}$ and $\mu_{jj}$ refer to the diagonal cells (non-mobile individuals). Once the fertility estimates of the immobile are known, the model establishes a proportional parameter, which measures the weight of the influence from the origin status relative to that of the destination. The parameter is constrained to sum up to 1, where destination is $q$ and origin is $1-q$. In other words, a high value on the origin parameter indicates that mobile people resemble the non-mobile in the origin class, while a high value on the destination parameter instead implies that they resemble the non-mobile in the destination class. A coefficient close to 0.5 indicates that mobile individuals are equally similar to the non-mobile in origin and destination (i.e. in-between).

Finally, once the simultaneous influences of both origin and destination are controlled for, we can estimate coefficients for downward ($\beta_{dsm}$) and upward ($\beta_{dsm}$) mobility by simply adding a dummy variable for social mobility. $\beta_c$ is birth year of the mother, to control for possible changes over time.

Although DRM has become the standard approach when studying the influence of social mobility on various outcomes, net of the influence of origin and destination, it has also been criticized. In a recent paper, Luo (2022) addresses some of the drawbacks of DRM. In short, it can be problematic for two main reasons. First, it takes as "core" reference the outcome of the non-mobile, arguing that in societies with increasing rates of social mobility, *newcomers* originating from different backgrounds would be able to influence the overall behavior of the destination status, as they would tend to become the norm rather than the exception. Second, the DRM considers overall social mobility and do not capture heterogeneous effects which might exist, especially in terms of the degree of mobility. In other words, social mobility can have divergent influences, for example if children from unskilled and lower white-collar origins both end up as higher white-collar. In such cases, they are both upwardly mobile but the unskilled have moved over the entire status range while the lower white-collar only advanced one step.

Luo (2022) proposes the mobility contrast model (MCM) as an alternative to DRM. The MCM departs from the original idea of Duncan's SAM, which considered the mobility effect as the deviance from the grand mean in both origin and destination statuses. To address the identification problem (Mobility=Destination-Origin), MCM includes a set of interactions between origin and destination for each individual. Therefore, the mobility effect is derived by the contrast (difference) between origin-destination interactions for individuals from the same origin (see Luo 2022, for an extensive explanation of MCM). As an example, in MCM, the operationalization of upward mobility from unskilled to higher white-collar is the specific result of this combination (cell) contrasted with non-mobile individuals from an unskilled origin.

**Analytical strategy**

We study the fertility behavior of couples in their first marriage who are continuously present in the study area from marriage until the wife turns 50 (end of the reproductive period). Moreover, to be included in the analytical sample there must be information on social class at both origin and destination. In the main analysis, we measure social class at origin as the highest class of the husband's father and the destination class as the highest class between the husband and wife (usually the class of the husband). When assessing the class at destination, we use the highest class position between ages 40-49, as a proxy of final class attainment. Similarly, with the income we apply an approach of lifetime income, using mean inome in ages 40-49 of both husband's father and the couple, adjusted for CPI (SCB, 2020).

For dealing with social (occupational) class mobility, we used an abbreviated scheme with six classes: higher white-collar workers (HISCLASS 1–2), lower white-collar workers (HISCLASS 3–5), medium-skilled workers (HISCLASS 6–7), lower-skilled workers (HISCLASS 9–10), unskilled workers (HISCLASS 11–12), and farmers (HISCLASS 8). Except for farmers, who were a bit problematic to fit into the class scheme over such a long period of time, other classes broadly reflected a status hierarchy from lowest status (unskilled workers) to highest status (higher white-collar workers). The class scheme has frequently been used in historical studies of social stratification, and is very similar to other commonly used class schemes in the stratification literature (e.g. the EGP class scheme; see Erikson and Goldthorpe 1992).

Nevertheles, using a class scheme based on these six classes for a long period of time could be problematic, due to changes in the status of individual occupations. While there is no doubt that the distinction between top and bottom is meaningful today and in the 1920s, the distinction between unskilled and lower-skilled workers, for instance, may less obvious. Thus, in addition to the six-class scheme, we also use a condensed three-class categorization divided into non-manual workers, manual workers, and farmers. The manual group consists of the medium-skilled, low-skilled, and unskilled workers, and the non-manual group is composed of the higher and lower white-collar workers.

As both DRM and MCM require socioeconomic division in categories, we rank incomes in percentiles (by birth year). Second, to divide the income distribution into three classes - high, mid and low income - we use a division proposed by Palma (2011), in which low income is defined as income below the 40$^{th}$ percentile, mid income between the 40$^{th}$ and the 89$^{th}$ percentile, and high income from the 90$^{th}$ percentile and up (see Appendix table A16 for the actual income distribution).

The sample consists of 8,906 couples with information on the status of the husband's father . However, for our main models we do not include childless couples (about 16%) as we are especially interested in how social mobility could shape constrainsand decisions for completed fertility or the probability of having a third child, while the processes involving not having children might be explained by different factors, which could countervail results' interpretations. Therefore our analytical sample consists of 7,363 couples. We run DRM on two different fertility outcomes for wives born between 1870 and 1966. First, to evaluate likely social mobility effects over the entire reproductive career, we use the log of the total number of children born as the dependent variable. Second, as there was a clear two-child norm for most of the period, we look at the probability of having a third child as an indicator of likely family size preferences.

We estimate the main models for the full sample (mothers born 1870-1966). However, in order to capture period patterns within the different stages of the fertility transition, we split the sample and analyze three cohorts separately: women born during the height of the fertility transition (1870-1919), during late transition (1920-1944), and during the post-transition period, including the baby boom (1945-1966).

In the main analyses we use the status of the husband's father (occupational and income) as a measure of origin. We estimate a separate set of models where farners are excluded from both origin and destination to ascertain that this groups does dnot drive the results.

**Results**

Table 1 presents the descriptive statistics for the variables used in our models, broken down into the six different social classes of both origin and destination and separately for the entire sample and the three birth cohorts. Regarding fertility, the total number of children ever born and the probability of having a third child was higher among farmers, especially among the oldest cohorts (1870-1919), while higher white-collar workers had higher fertility among the younger cohorts (1920-1966). Interestingly, the patterns are similar for social class at origin and destination, suggesting that social class differences and fertility were relatively constant across cohorts. Therefore, the theoretical approach of considering non-mobile individuals as the *core* reference group in DRM models seems reasonable for fertility, as is also the case for other outcomes (Daenekindt, 2017).

Overall, by observing the social class structure over time, we see the shift from a society with a high proportion of manual workers (lower and medium-skilled), to a society with a higher share of non-manual workers (lower and higher managers and professionals) (see Table 1). These trends suggest that upward class mobility became more important over time. As shown in table 2, upward class mobility was higher than downward mobility or no mobility in all cohorts. Specifically, upward mobility was more frequent for those born before WWII, especially between 1920 and 1944, while it declined a bit for the youngest cohort born 1945-66. Moreover, the mobility matrices show that most couples in the sample experienced upward mobility (Table A13-A15).

[Table 1]
[Table 2]

Moving to the main analysis using the DRM, we divide the three main components of the models into specific tables to better observe and compare the results by the specification used. Table 3 presents the fertility estimates of the non-mobile, i.e. the couples which shared social class with the husband's father. The estimates are presented using unskilled workers as the reference group. For the entire sample, we observe trends similar to the numbers shown in table 1, where the total number of children and the probability of having a third child was higher among farmers and the highest social class (higher white-collar). In contrast, lower white-collar and medium-skilled workers had lower fertility. Breaking the results down by cohort, it is clear that fertility of farmers decline over time, although it remains consistently higher than for the other classes. However, for the 1920-1944 cohorts, the estimates for farmers are not statistically significant, mainly because this group shrank in size over time.

Higher white-collar workers start with notably lower fertility in the oldest cohorts, but in the 1920-1944 cohort they have the highest fertility. Similar findings have been made in previous studies, both in the same area and in different contexts (see Dribe & Smith, 2021; Sandström, 2014). The differences between the other classes are rather small and varying.

Next, we move to one of the most interesting features of the DRM, which is the parameter $q$, informing whether the behavior of the socially mobile individuals mostly resembled the behavior of their origin or their destination status. By default, the parameter can sum up to 1 ($q$ and 1-$q$) (Table 4). In the full sample (cohorts 1870-1966), the origin and destination weights are almost balanced for the total number of children. For the probability of having a third child, socially mobile individuals resembled much more non-mobile in the destination status.

[Table 3 and Table 4]

Nevertheless, the most exciting feature of knowing the relative importance of origin and destination is how it has evolved , considering the periodization of cohorts coinciding with the different stages of the fertility transition. For the oldest cohorts (1870-1919), the closest resemblance of the over time socially mobile was with the non-mobile in their destination status. Conversely, for mothers born between 1920 and 1944, the relative weight is more important at the origin than at destination. Finally, the *q* parameter for the youngest cohort are fluctuating and not statistically significant. It could mean that socioeconomic differences in fertility were not as distinctive as before; an aspect also found in other studies dealing with contemporary fertility and social mobility (Luo, 2022; Billingsley et al., 2018).

Tables 5 and 6 include the downward and upward mobility estimates for the different model specifications (husband's father's social class, social class excluding farmers, and income). The estimates for downward mobility are almost null and never statistically significant in any specification. The only exception is a 6% fewer children for downwardly mobile couples born 1945-1966 (See Table 5).

Table 6 shows associations between upward mobility net of origin and destination effects. Overall, we observe a constant negative association between upward mobility and fertility in all model specifications for the full sample. For the total number of children ever born, upward mobility was associated with 3-4% fewer children, overall. By cohort, the differences are substantial for those born 1920-1944, with statistically significant coefficients pointing to 4-7% fewer children for upward class mobility. Conversely, upward income mobility did not substantially affect the total number of children per couple.

For the probability of having a third child, the patterns are similar for class mobility. Overall, upward mobility for cohorts born 1870-1944 was associated with lower fertility, although the results are inconclusive for the youngest cohorts, born 1945-1966. For income, upward mobility was negatively associated with the probability of having a third child, both in the oldest cohorts (1870-1966) and among the youngest (1945-1966), with a 4-6 percentage points lower probability.

[Table 5 and Table 6]

Finally, we estimate the same models for the full sample (cohorts born 1870-1966) using MCM as a robustness test. We report the results for the total number of children in tables 7-9 and the probability of having a third child in the appendix (tables 7-9). By only looking at the sign of the coefficients in each cell, we see negative associations of both downward and upward mobility across specifications. However, as the MCM relies on a cell-by-cell comparison, the reduced sample sizes in the interactions give few statistically significant coefficients.

Nevertheless, some specificities are interesting and point to some heterogeneous effects for different kinds of mobility. For instance, table 7 (social class), shows two specific patterns related to farmers, both at origin and destination, associated with an increased fertility. First, children from unskilled origin who became farmers had 39% more children than non-mobile unskilled workers. Similarly, farmer's children becoming medium-skilled workers had 20% more children than non-mobile farmers. These results suggest that some underlying class characteristics, as being from a farming origin or surrounded by farmers, were more important for fertility behavior than social mobility per se.

[Tables 7,8 and 9]

**Conclusion**

This study shows that DRM and MCM are both valuable tools when assessing the impact of social mobility on fertility outcomes, net of social origin and destination. While these models have been used more frequently in demography and sociology, they have rarely been used in historical demography. Interestingly, it is especially among the (less studied) oldest cohorts where we find more disparities in fertility across social classes, and more substantial associations between fertility and social mobility.

First, when comparing the fertility outcomes of the non-mobile with the DRMs, we confirmed previous findings showing that across the 20th century, the highest fertility levels among social classes passed from farmers to the higher white-collar workers. By applying these models, we also found stronger results for the oldest cohorts, born 1870-1944, than those born after 1945, which are the cohorts most often studied in contemporary research. Often, these contemporary studies have found inconclusive or no effects of social mobility on fertility outcomes.

In this vein, through the origin and destination weights of DRMs, we saw that while for the oldest cohorts (1870-1922), the socially mobile resembled the non-mobile of their destination classes, it was the opposite for cohorts born between 1920-1944. A general interpretation, considering Sweden's fertility transition, could be as follows. For the oldest cohorts, born during the height of the transition, socially mobile individuals assumed a fertility behavior similar to their destination class. However, among those born 1920-1944, the fertility transition was already completed when they started their family formation. Finally, when studying the direction of social mobility, we saw that both class and income showed similar patterns and results, with negative, substantial, and statistically significant effects only for upward mobility. The only noticeable difference was that while social class seemed to matter most for the oldest cohorts born until 1944, among those born from 1945 to 1966, only upward income mobility negatively affected the probability of having a third child.

Returning to the theoretical explanations discussed in the introduction, table 10 summarizes the findings in relation to the hypothesized effects. Our findings partly support the stress and disorientation hypothesis, but do not support the other three theoretical perspectives. In this regard, our analysis seems to confirm more classical views from authors such as Blau and Duncan (1967), which connected the ambition of higher social attainment in the industrial society to an inevitable choice of reducing fertility. Moreover, the fact that our results are mainly visible for the oldest cohorts born between 1870 and 1944 strengthens such a theoretical view. Those individuals raised and developed their reproductive careers amidst the long process of industrialization and its consolidation in Sweden, while the youngest cohorts belonged more to a post-industrial reality.

[Table 10]

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**TABLES AND FIGURES**

Table 1: Descriptive statistics of the main used variables, by origin and destination status and birth cohort.

| | Frequency | | Total N of children | | Having a third child (%) | |
|---|---|---|---|---|---|---|
| | Origin | Destination | Origin | Destination | Origin | Destination |
| **All (N=8,906)** | % | % | Mean | Mean | % | % |
| Unskilled | 12.26 | 4.51 | 1.70 | 1.78 | 19.96 | 23.13 |
| Lower Skilled | 26.04 | 19.73 | 1.71 | 1.75 | 19.84 | 22.54 |
| Farmers | 5.03 | 2.6 | 2.02 | 2.17 | 27.90 | 34.05 |
| Medium Skilled | 26.59 | 23.46 | 1.69 | 1.71 | 19.21 | 20.15 |
| Lower White C. | 24.15 | 37.04 | 1.72 | 1.68 | 19.20 | 17.43 |
| Higher White C. | 5.93 | 12.65 | 1.94 | 1.80 | 25.19 | 21.30 |
| **1870-1919 (N=2,944)** | | | | | | |
| Birth year (mean) | | 1904 | | | | |
| Unskilled | 20.24 | 8.7 | 1.74 | 1.78 | 21.98 | 23.05 |
| Lower Skilled | 27.89 | 24.15 | 1.68 | 1.77 | 22.17 | 23.63 |
| Farmers | 6.11 | 4.45 | 2.34 | 2.41 | 35.56 | 40.46 |
| Medium Skilled | 28.29 | 28.94 | 1.66 | 1.79 | 18.73 | 21.36 |
| Lower White C. | 15.52 | 28 | 1.59 | 1.53 | 18.60 | 17.49 |
| Higher White C. | 1.94 | 5.6 | 1.58 | 1.33 | 19.30 | 13.33 |
| **1920-1944 (N=2459)** | | | | | | |
| Birth year (mean) | | 1931 | | | | |
| Unskilled | 13.3 | 2.2 | 1.59 | 1.85 | 16.82 | 29.63 |
| Lower Skilled | 26.15 | 18 | 1.76 | 1.78 | 20.84 | 22.65 |
| Farmers | 4.6 | 2.56 | 1.79 | 1.89 | 23.89 | 25.40 |
| Medium Skilled | 29.32 | 23.34 | 1.66 | 1.63 | 18.72 | 20.03 |
| Lower White C. | 21.31 | 41.68 | 1.68 | 1.68 | 19.66 | 17.17 |
| Higher White C. | 5.33 | 12.08 | 2.21 | 1.88 | 33.59 | 24.92 |
| **1945-1966 (N=3503)** | | | | | | |
| Birth year (mean) | | 1956 | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Unskilled | 4.82 | 2.63 | 1.75 | 1.75 | 18.93 | 19.57 |
| Lower Skilled | 24.41 | 17.13 | 1.70 | 1.69 | 16.84 | 21.17 |
| Farmers | 4.42 | 1.08 | 1.82 | 1.82 | 21.94 | 26.32 |
| Medium Skilled | 23.24 | 18.93 | 1.75 | 1.69 | 20.15 | 18.70 |
| Lower White C. | 33.4 | 41.25 | 1.78 | 1.78 | 19.23 | 17.58 |
| Higher White C. | 9.71 | 18.98 | 1.89 | 1.87 | 22.94 | 21.65 |

Source: The Scanian Economic Demographic Database (Bengtsson et al., 2021)

Table 2: Social Mobility (%) direction between origin (G1) and destination (G2) by cohort.

| Cohorts | Downward | Same | Upward |
|---|---|---|---|
| 1870-1919 | 20.11 | 33.22 | 46.67 |
| 1920-1944 | 18.34 | 27.41 | 54.25 |
| 1945-1966 | 23.58 | 31.52 | 44.9 |
| Total | 20.99 | 30.95 | 48.07 |

Source: Same as Table 1

Table 3: Social class differences in fertility behavior of the non-mobile (diagonal)

| Total N children | All (1870-1966) | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
|---|---|---|---|---|---|---|---|---|
| Unskilled (ref) | | | | | | | | |
| Lower Skilled | 0.02 | ** | -0.02 | | 0.12 | | 0.01 | ** |
| Farmers | 0.22 | *** | 0.27 | *** | 0.15 | | 0.08 | |
| Medium Skilled | -0.01 | *** | -0.05 | | 0.05 | ** | 0.06 | |
| Lower White C. | -0.01 | *** | -0.08 | ** | 0.01 | *** | 0.06 | |
| Higher White C. | 0.09 | | -0.19 | *** | 0.32 | *** | 0.10 | * |
| **Prob. 3rd child** | **All (1870-1966)** | | **1870-1919** | | **1920-1944** | | **1945-1966** | |
| Unskilled (ref) | | | | | | | | |
| Lower Skilled | 0.01 | | 0.01 | | 0.04 | | 0.03 | |
| Farmers | 0.15 | *** | 0.19 | *** | 0.06 | | 0.11 | |
| Medium Skilled | -0.03 | *** | -0.05 | ** | 0.00 | | 0.01 | |
| Lower White C. | -0.05 | *** | -0.07 | *** | -0.05 | *** | 0.00 | |
| Higher White C. | 0.03 | | -0.13 | *** | 0.16 | *** | 0.04 | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Coefficients extracted from the DRM models (tables A1-A6). In the original DRM social class fertility behavior is computed as one class compared to the mean. In this table, for easing comparisons, we susbtract the Unskilled group coefficient to all others to use it as the reference group.

Table 4: Origin and destination components of the DRM models in the diagonal fertility behavior

| Total N children | All (1870-1966) | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
|---|---|---|---|---|---|---|---|---|
| Origin | 0.47 | *** | 0.31 | * | 0.70 | *** | 0.86 | ** |
| Destination | 0.53 | *** | 0.69 | *** | 0.30 | *** | 0.14 | |
| **Prob. 3rd child** | **All (1870-1966)** | | **1870-1919** | | **1920-1944** | | **1945-1966** | |
| Origin | 0.39 | *** | 0.25 | | 0.63 | *** | 0.33 | |
| Destination | 0.61 | *** | 0.75 | *** | 0.37 | *** | 0.67 | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: same as Table 3

Table 5: Downward social mobility coefficients associated with fertility behavior of the DRM models

| Total N children | All (1870-1966) | 1870-1919 | 1920-1944 | 1945-1966 | |
|---|---|---|---|---|---|
| Class origin | -0.01 | -0.03 | 0.00 | 0.00 | |
| Excl. Farmers | 0.02 | 0.02 | -0.02 | 0.03 | |
| Income origin | -0.02 | -0.04 | 0.03 | -0.06 | ** |
| **Prob. 3rd child** | **All (1870-1966)** | **1870-1919** | **1920-1944** | **1945-1966** | |
| Class origin | 0.00 | -0.04 | 0.01 | 0.03 | |
| Excl. Farmers | 0.02 | -0.01 | -0.01 | 0.04 | |
| Income origin | -0.01 | -0.03 | 0.04 | -0.03 | |

*p-values: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$*

Source: Same as Table 1

Note: same as Table 3

Table 6: Upward social mobility coefficients associated with fertility behavior of the DRM models

| Total N children | All (1870-1966) | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
|---|---|---|---|---|---|---|---|---|
| Class origin | -0.03 | ** | -0.02 | * | -0.04 | * | 0.03 | |
| Excl. Farmers | -0.04 | *** | -0.04 | | -0.07 | ** | 0.02 | |
| Income origin | -0.01 | | -0.05 | | 0.03 | | 0.00 | |
| **Prob. 3rd child** | **All (1870-1966)** | | **1870-1919** | | **1920-1944** | | **1945-1966** | |
| Class origin | -0.03 | ** | -0.01 | | -0.05 | ** | 0.00 | |
| Excl. Farmers | -0.03 | ** | -0.02 | | -0.06 | ** | 0.00 | |
| Income origin | -0.04 | *** | -0.06 | * | 0.01 | | -0.04 | ** |

*p-values: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$*

Source: Same as Table 1

Note: same as Table 3

Table 7: MCM model on the total number of children.

| | | Destination | | | | | |
|---|---|---|---|---|---|---|---|
| | All 1870-1966 | Unskilled | Lower Skilled | Farmers | Medium Skilled | Lower White C. | Higher White C. |
| Origin | Unskilled | | 0.10 | 0.393* | 0.06 | -0.03 | 0.04 |
| | Lower Skilled | -0.03 | | 0.11 | 0.01 | 0.01 | -0.01 |
| | Farmers | 0.19 | 0.09 | | 0.205* | 0.12 | 0.03 |
| | Medium Skilled | 0.06 | -0.02 | -0.01 | | -0.01 | 0.03 |
| | Lower White C. | -0.05 | -0.05 | -0.16 | -0.04 | | 0.01 |
| | Higher White C. | -0.08 | -0.02 | -0.23 | -0.141* | 0.01 | |
| | AIC=11490 | | | | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: MCM model with a linear specification. The dependent variable is the natural logarithm of the total number of children by couples (G2). The model also includes control on the birth year of mothers (G2) (not included in the table).

Table 8: MCM model on the total number of children. Social class, farmers excluded.

| | All 1870-1966 | Unskilled | Lower Skilled | Medium Skilled | Lower White C. | Higher White C. |
|---|---|---|---|---|---|---|
| | | Destination | | | | |
| | Unskilled | | 0.08 | 0.379* | -0.05 | 0.03 |
| | Lower Skilled | -0.01 | | 0.11 | 0.01 | 0.00 |
| Origin | Medium Skilled | 0.208* | 0.09 | | 0.12 | 0.04 |
| | Lower White C. | -0.04 | -0.06 | -0.17 | | 0.02 |
| | Higher White C. | -0.08 | -0.03 | -0.24 | 0.00 | |
| | AIC=6737 | | | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Note: Same as Table 7

Table 9: MCM model on the total number of children. Income

| | All 1870-1966 | Low | Mid | High |
|---|---|---|---|---|
| | | Destination | | |
| | Low | | 0 | 0.02 |
| Origin | Mid | -0.028 | | -0.01 |
| | High | -0.034 | 0.005 | |
| | AIC=9042 | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as Table 7

Table 10: Evaluation of the theoretical explanations.

| | Theory | | DRM | | |
|---|---|---|---|---|---|
| | Up | Down | Up | Down | Evaluation |
| Social Isolation | + | + | - | - / *null* | No |
| **Stress and Disorientation** | **-** | **-** | **-** | ***- / null*** | **Yes** |
| Status Enhacement | - | + | - | - / *null* | No |
| Relative Economic Status | + | - | - | - / *null* | No |

ANNEX

Table A1: DRM model on the total number of children. Social class.

| Total N of children | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cohorts | 1870-1966 | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
| | β | *p-value* | β | *p-value* | β | *p-value* | β | *p-value* |
| **Diagonal (HISCLASS)** | | | | | | | | |
| Unskilled | -0.05 | ** | 0.01 | | -0.11 | *** | -0.05 | |
| Lower Skilled | -0.03 | ** | -0.01 | | 0.01 | | -0.04 | ** |
| Farmers | 0.17 | *** | 0.28 | *** | 0.04 | | 0.03 | |
| Medium Skilled | -0.06 | *** | -0.04 | | -0.06 | ** | 0.01 | |
| Lower White C. | -0.06 | *** | -0.07 | ** | -0.10 | *** | 0.01 | |
| Higher White C. | 0.04 | | -0.18 | *** | 0.21 | *** | 0.05 | * |
| **Origin** | | | | | | | | |
| *1-q* | 0.47 | *** | 0.31 | * | 0.70 | *** | 0.86 | ** |
| **Destination** | | | | | | | | |
| *q* | 0.53 | *** | 0.69 | *** | 0.30 | *** | 0.14 | |
| **Social Mobility (HISCLASS)** | | | | | | | | |
| Down | -0.01 | | -0.03 | | 0.00 | | 0.00 | |
| Up | -0.03 | ** | -0.02 | * | -0.04 | * | 0.03 | |
| **N (mothers)** | 7,363 | | 2,302 | | 2,050 | | 3,011 | |
| **AIC** | 9859 | | 3910 | | 2603 | | 2834 | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: DRM model with a linear specification. The dependent variable is the natural logarithm of the total number of children bt couples (G2). The model also includes control on the birth year of mothers (G2) (not included in the table).

Table A2: DRM model on the total number of children. Income

| Total N of children | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cohorts | 1870-1966 | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
| | β | *p-value* | β | *p-value* | β | *p-value* | β | *p-value* |
| **Diagonal (Income)** | | | | | | | | |
| Low | -0.03 | ** | -0.01 | | -0.06 | ** | -0.05 | *** |
| Mid | -0.06 | *** | -0.10 | *** | -0.07 | *** | -0.03 | ** |
| High | 0.09 | *** | 0.12 | ** | 0.13 | *** | 0.07 | *** |
| **Origin** | | | | | | | | |
| *1-q* | 0.46 | *** | 0.45 | *** | 0.31 | * | 0.63 | *** |
| **Destination** | | | | | | | | |
| *q* | 0.54 | *** | 0.55 | *** | 0.69 | *** | 0.37 | * |
| **Social Mobility (Income)** | | | | | | | | |
| Down | -0.02 | | -0.04 | | 0.03 | | -0.06 | ** |
| Up | -0.01 | | -0.05 | | 0.03 | | 0.00 | |
| **N (mothers)** | 6,010 | | 1,409 | | 1,628 | | 2,973 | |
| **AIC** | 7194 | | 2156 | | 2054 | | 2791 | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as Table A1

Table A3: DRM model on the total number of children. Social class, excluding farmers

| Total N of children | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cohorts | 1870-1966 | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
| | β | *p-value* | β | *p-value* | β | *p-value* | β | *p-value* |
| **Diagonal (HISCLASS)** | | | | | | | | |
| Unskilled | -0.08 | *** | -0.03 | | -0.11 | ** | -0.06 | |
| Lower Skilled | -0.04 | ** | 0.01 | | 0.00 | | -0.04 | |
| Medium Skilled | 0.15 | *** | 0.27 | *** | -0.02 | | 0.05 | |
| Lower White C. | -0.06 | *** | -0.07 | ** | -0.09 | *** | 0.02 | |
| Higher White C. | 0.04 | | -0.17 | *** | 0.21 | *** | 0.04 | |
| **Origin** | | | | | | | | |
| *1-q* | 0.39 | ** | 0.25 | | 0.73 | *** | 0.56 | |
| **Destination** | | | | | | | | |
| *q* | 0.61 | *** | 0.75 | *** | 0.27 | ** | 0.44 | |
| **Social Mobility (HISCLASS)** | | | | | | | | |
| Down | 0.02 | | 0.02 | | -0.02 | | 0.03 | |
| Up | -0.04 | *** | -0.04 | | -0.07 | ** | 0.02 | |
| **N (mothers)** | 4,276 | | 1,197 | | 1,147 | | 1,932 | |
| **AIC** | 5681 | | 2090 | | 1527 | | 1779 | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as table A1

Table A4: DRM model on the probability of having a third child. Social class.

| Probability of having a third child | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cohorts | 1870-1966 | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
| | β | *p-value* | β | *p-value* | β | *p-value* | β | *p-value* |
| **Diagonal (HISCLASS)** | | | | | | | | |
| Unskilled | -0.02 | | 0.01 | | -0.04 | | -0.03 | |
| Lower Skilled | -0.01 | | 0.02 | | 0.01 | | 0.00 | |
| Farmers | 0.13 | *** | 0.20 | *** | 0.03 | | 0.08 | |
| Medium Skilled | -0.05 | *** | -0.04 | ** | -0.04 | | -0.02 | |
| Lower White C. | -0.07 | *** | -0.06 | *** | -0.09 | *** | -0.04 | |
| Higher White C. | 0.01 | | -0.12 | *** | 0.13 | *** | 0.01 | |
| **Origin** | | | | | | | | |
| *1-q* | 0.31 | *** | 0.25 | | 0.60 | *** | 0.11 | |
| **Destination** | | | | | | | | |
| *q* | 0.69 | *** | 0.75 | *** | 0.40 | *** | 0.89 | |
| **Social Mobility (HISCLASS)** | | | | | | | | |
| Down | 0.00 | | -0.04 | | 0.01 | | 0.03 | |
| Up | -0.03 | ** | -0.01 | | -0.05 | ** | 0.00 | |
| **N (mothers)** | 7,363 | | 2,302 | | 2,050 | | 3,011 | |
| **AIC** | 8396 | | 2711 | | 2338 | | 3293 | |

*p-values: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$*

Source: Same as Table 1

Note: DRM model with a linear probability model specification. The dependent variable is dummy marking couples with three or more children. The model also includes control on the birth year of mothers (G2) (not included in the table).

Table A5: DRM model on the probability of having a third child. Income.

| Probability of having a third child | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cohorts | 1870-1966 | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
| | β | *p-value* | β | *p-value* | β | *p-value* | β | *p-value* |
| **Diagonal (Income)** | | | | | | | | |
| Low | 0.00 | | 0.03 | | -0.03 | | 0.00 | |
| Mid | -0.06 | *** | -0.05 | * | -0.09 | *** | -0.05 | *** |
| High | 0.06 | *** | 0.02 | | 0.12 | *** | 0.05 | ** |
| **Origin** | | | | | | | | |
| *1-q* | 0.42 | *** | 0.13 | | 0.27 | * | 0.66 | *** |
| **Destination** | | | | | | | | |
| *Q* | 0.58 | *** | 0.87 | ** | 0.73 | *** | 0.34 | ** |
| **Social Mobility (Income)** | | | | | | | | |
| Down | -0.01 | | -0.03 | | 0.04 | | -0.03 | |
| Up | -0.04 | *** | -0.06 | * | 0.01 | | -0.04 | ** |
| **N (mothers)** | 6,010 | | 1,409 | | 1,628 | | 2,973 | |
| **AIC** | 6636 | | 1491 | | 1859 | | 3275 | |

*p-values:* *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Source: Same as Table 1

Note: Same as Table A4

Table A6: DRM model on the probability of having a third child. Social class, farmers excluded.

| Probability of having a third child | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cohorts | 1870-1966 | | 1870-1919 | | 1920-1944 | | 1945-1966 | |
| | β | *p-value* | β | *p-value* | β | *p-value* | β | *p-value* |
| **Diagonal (HISCLASS)** | | | | | | | | |
| Unskilled | -0.04 | | -0.02 | | -0.05 | | -0.05 | |
| Lower Skilled | -0.02 | | 0.02 | | -0.02 | | -0.01 | |
| Medium Skilled | 0.10 | *** | 0.19 | *** | -0.01 | | 0.08 | |
| Lower White C. | -0.07 | *** | -0.08 | *** | -0.07 | ** | -0.03 | |
| Higher White C. | 0.02 | | -0.11 | ** | 0.15 | *** | 0.01 | |
| **Origin** | | | | | | | | |
| *1-q* | 0.34 | ** | 0.27 | | 0.60 | *** | 0.11 | |
| **Destination** | | | | | | | | |
| *q* | 0.66 | *** | 0.73 | *** | 0.40 | *** | 0.89 | ** |
| **Social Mobility (HISCLASS)** | | | | | | | | |
| Down | 0.02 | | -0.01 | | -0.01 | | 0.04 | |
| Up | -0.03 | ** | -0.02 | | -0.06 | ** | 0.00 | |
| **N (mothers)** | 4,276 | | 1,197 | | 1,147 | | 1,932 | |
| **AIC** | 4921 | | 1464 | | 1319 | | 2105 | |

*p-values: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$*

Source: Same as Table 1

Note: Same as Table A4

Table A7: MCM model on the probability of having a third child. Social class.

| | All 1870-1966 | Destination<br>Unskilled | Lower Skilled | Farmers | Medium Skilled | Lower White C. | Higher White C. |
|---|---|---|---|---|---|---|---|
| | Unskilled | | 0.10 | 0.393* | 0.06 | -0.03 | 0.04 |
| | Lower Skilled | -0.03 | | 0.11 | 0.01 | 0.01 | -0.01 |
| | Farmers | 0.19 | 0.09 | | 0.205* | 0.12 | 0.03 |
| Origin | Medium Skilled | 0.06 | -0.02 | -0.01 | | -0.01 | 0.03 |
| | Lower White C. | -0.05 | -0.05 | -0.16 | -0.04 | | 0.01 |
| | Higher White C. | -0.08 | -0.02 | -0.23 | -0.141* | 0.01 | |
| | AIC=11490 | | | | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: MCM model with a linear probability model specification. The dependent variable is dummy marking couples with three or more children. The model also includes control on the birth year of mothers (G2) (not included in the table).

Table A8: MCM model on the probability of having a third child. Income.

| | All 1870-1966 | Destination<br>Low | Mid | High |
|---|---|---|---|---|
| | Low | | -0.017 | 0.00 |
| Origin | Mid | -0.013 | | -0.013 |
| | High | 0.003 | 0.007 | |
| | AIC=8840 | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as table A7

Table A9: MCM model on the probability of having a third child. Social class, farmers excluded.

Destination

| | All 1870-1966 | Unskilled | Lower Skilled | Medium Skilled | Lower White C. | Higher White C. |
|---|---|---|---|---|---|---|
| | Unskilled | | 0.08 | 0.379* | -0.05 | 0.03 |
| | Lower Skilled | -0.01 | | 0.11 | 0.01 | 0.00 |
| Origin | Medium Skilled | 0.208* | 0.09 | | 0.12 | 0.04 |
| | Lower White C. | -0.04 | -0.06 | -0.17 | | 0.02 |
| | Higher White C. | -0.08 | -0.03 | -0.24 | 0.00 | |
| | AIC=6737 | | | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as table A7

Table A10: : DRM model on the total number of chiildren by couples and the probability of having a third child by couples. Social class (Manual, Farmers and Non-Manual)

| All (1870-1966) | | | | |
|---|---|---|---|---|
| Cohorts | Total N children | | Prob 3rd child | |
| | β | *p-value* | β | *p-value* |
| **Diagonal (Income)** | | | | |
| Manual workers | -0.09 | *** | -0.05 | *** |
| Famers | 0.16 | *** | 0.12 | *** |
| Non-manual workers | -0.07 | *** | -0.06 | *** |
| **Origin** | | | | |
| *1-q* | 0.33 | *** | 0.27 | ** |
| **Destination** | | | | |
| *Q* | 0.67 | *** | 0.73 | *** |
| **Social Mobility (Income)** | | | | |
| Down | -0.01 | | -0.01 | |
| Up | -0.05 | *** | -0.05 | *** |
| **N (mothers)** | 7,363 | | 7,363 | |
| **AIC** | 9858 | | 8398 | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as Table A4

Table A11: MCM model on the total number of children. Social class (Manual, Farmers and Non-Manual)

| | | Destination | | |
|---|---|---|---|---|
| | All 1870-1966 | Manual | Farmers | Non-Manual |
| | Manual | | 0.167** | -0.01 |
| Orgin | Farmers | 0.1 | | 0.042 |
| | Non-Manual | -0.067** | -0.134 | |
| | AIC=11480 | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as Table A7

Table A12: MCM model on the probability of having a third child. Social class (Manual, Farmers and Non-Manual)

| | All 1870-1966 | Manual | Farmers | Non-Manual |
|---|---|---|---|---|
| | Manual | | 0.115* | -0.011 |
| Orgin | Farmers | 0.069 | | 0.03 |
| | Non-Manual | -0.049** | -0.095 | |
| | AIC=11480 | | | |

*p-values: *** p < 0.01; ** p < 0.05; * p < 0.1*

Source: Same as Table 1

Note: Same as Table A7

Table A13: Mobility table for class origin and destination. Cohorts of mothers (G2) born 1870-1966

| | | Destination | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Unskilled | Lower Skilled | Farmers | Medium Skilled | Lower White C. | Lower White C. | Total |
| Origin | Unskilled | 107 | 281 | 11 | 326 | 313 | 54 | 1,092 |
| | Lower Skilled | 123 | 617 | 25 | 540 | 823 | 191 | 2,319 |
| | Farmers | 27 | 90 | 156 | 56 | 89 | 30 | 448 |
| | Medium Skilled | 80 | 430 | 13 | 715 | 884 | 246 | 2,368 |
| | Lower White C. | 59 | 292 | 17 | 404 | 967 | 412 | 2,151 |
| | Higher White C. | 6 | 47 | 10 | 48 | 223 | 194 | 528 |
| | Total | 402 | 1757 | 232 | 2089 | 3299 | 1127 | 8906 |

Source: Same as Table 1

Table A14: Mobility table for class origin (based on wife's father) and destination. Cohorts of mothers (G2) born 1870-1966

| | | Destination | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mother's father | Unskilled | Lower Skilled | Farmers | Medium Skilled | Lower White C. | Lower White C. | Total |
| Origin | Unskilled | 73 | 268 | 13 | 283 | 289 | 62 | 988 |
| | Lower Skilled | 103 | 515 | 47 | 595 | 922 | 252 | 2,434 |
| | Farmers | 12 | 88 | 99 | 63 | 140 | 34 | 436 |
| | Medium Skilled | 94 | 496 | 37 | 640 | 951 | 308 | 2,526 |
| | Lower White C. | 73 | 316 | 34 | 379 | 1,001 | 432 | 2,235 |
| | Higher White C. | 13 | 58 | 12 | 66 | 213 | 187 | 549 |
| | Total | 368 | 1,741 | 242 | 2,026 | 3,516 | 1,275 | 9,168 |

Source: Same as Table 1

Table A15: Mobility table for class origin and destination, farmers excluded. Cohorts of mothers (G2) born 1870-1966

| | | Destination | | | | | |
|---|---|---|---|---|---|---|---|
| | Father's father | Unskilled | Lower Skilled | Medium Skilled | Lower White C. | Lower White C. | Total |
| | Unskilled | 107 | 281 | 11 | 313 | 54 | 766 |
| | Lower Skilled | 123 | 617 | 25 | 823 | 191 | 1,779 |
| Origin | Medium Skilled | 27 | 90 | 156 | 89 | 30 | 392 |
| | Lower White C. | 59 | 292 | 17 | 967 | 412 | 1,747 |
| | Higher White C. | 6 | 47 | 10 | 223 | 194 | 480 |
| | Total | 322 | 1,327 | 219 | 2,415 | 881 | 5,164 |

Source: Same as Table 1

Table A16: Mean income by percentile groups at origin and destination. Cohorts of mothers (G2) born 1870-1966

| | Origin | Destination |
|---|---|---|
| **All** | | |
| Low | 29,501 | 40,418 |
| Mid | 55,446 | 77,343 |
| High | 131,936 | 167,493 |
| **1870-1919** | | |
| Low | 12,573 | 19,559 |
| Mid | 24,109 | 43,770 |
| High | 75,920 | 116,722 |
| **1920-1944** | | |
| Low | 19,159 | 52,637 |
| Mid | 40,184 | 88,550 |
| High | 124,829 | 178,712 |
| **1945-1966** | | |
| Low | 44,831 | 50,344 |
| Mid | 81,677 | 103,054 |
| High | 167,373 | 212,973 |

Source: Same as Table 1

Note: Income adjusted for CPI (SEK 1980)

## CENTRE FOR ECONOMIC DEMOGRAPHY

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