Children of the Revolution: Women's Liberation and Children's Success

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Abstract

We re-examine the effects of the women's liberation movement of the 1960s on family structures and children's outcomes. Drawing on the French experience, we show that the movement favored the advent of smaller families, where the mother works outside the home and where the risk of divorce is greater, but that the combination of these changes had little effect on the educational and occupational trajectories of the children who lived through them.

Keywords : Sixties, Family size, Maternal employment, Education
JEL-Codes: J11, J12, J13, I24

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1 Introduction

At the end of the 1960s, a new wave of feminism challenged the patriarchal values of Western societies and led to major reforms in many countries, resulting in much freer access to contraception, abortion, and divorce (Glendon [1987], Glendon [1989], Watkins [1998]). At the same time, family structures underwent profound transformations, with children growing up in completely different environments, in smaller families, where the mother works outside the home, and where parental separation is no longer a fault or a taboo (Mason and Jensen [1995]).

This political and cultural revolution is cherished by many for the wind of freedom and democracy it blew across the world. But it is also often blamed for the inexorable decline into which it is accused of having thrown post-war societies. In the US as in Europe, many leading politicians have anchored their political vision in the idea of a moral decline of their country that began in the sixties (Hartman [2015]). For many, the decline that began in the sixties is first and foremost that of the traditional family, resulting in new generations of children far more exposed to poverty, poor school results and family insecurity (Popenoe [1993]). In this article, we use a new research strategy and new French data covering cohorts born in the post-war decades to shed light on this debate and assess whether and how the women's liberation movement (WLM) and the accompanying transformations of the family have affected the educational and occupational outcomes of the children concerned.[1]

From a theoretical point of view, it is not easy to predict the effect that the WLM may have had on children's outcomes, and even less easy to predict whether this

[1] In France, as elsewhere, the origins and exact definition of what can be called the women's liberation movement are complex and controversial. In the 1960s, numerous organizations and groups emerged in France to promote the right to contraception and abortion and to change the place of women in society, starting with the French Movement for Family Planning (created in 1960), but also groups such as the *Mouvement Démocratique Féminin* (created in 1962), some of whose activists would later, after May 1968, found the *Mouvement de Libération des Femmes* (see, e.g., Picq [1993]). In this article, we use this term generically to refer to all the political and social forces that helped bring women's issues to the forefront of political debate, culminating in the enactment of new rights in the late 1960s and early 1970s.

effect was the same for all children. Family size, parental divorce and mothers' labor force participation are dimensions whose effects on children are the subject of long-standing and abundant literature, often with contradictory results.[2] These dimensions have all been simultaneously affected by the WLM, and our aim is to explore the combined effect these transformations may have had. We are going to focus on the French experience, i.e. a context where the main reforms liberalizing women's access to the pill, abortion or the labor market took place in just a few years, between the end of the sixties and the beginning of the seventies.

The starting point for our work is an analysis of changes in family environments across cohorts of individuals born before, during and after the 1960s. Using a series of French surveys with information on the date of birth and birth order of large samples of individuals born in the post-war decades, we first show that individuals born in the 1970s or the 1980s, after the major WLM reforms, grew up in much smaller families, where the mother worked outside the home much more often and where parental divorce was much more frequent than individuals born in the 1950s or the late 1940s. Between the cohorts born before and after the sixties, the family environment in which children grew up changed completely, moving from "traditional" to "modern" families, with fewer siblings, more economically independent mothers, and higher risks of family separation.

The first cohorts affected by this profound transformation of family environments are the cohorts of individuals born in the early 1960s. These individuals were born before the major reforms of the late 1960s and early 1970s, but most of them have mothers who were under thirty at their birth, that is, mothers who ended their fertile years well after the major WLM reforms and who were therefore able to take advantage of these reforms to limit their number of children, participate more in the labor market or divorce.

[2] On the effects of divorce laws see, e.g., Gruber [2004], or Wolfers [2006] ; on the effects of family size see, e.g., Black et al. [2005], Angrist et al. [2010] or Mogstad and Wiswall [2016] ; on the effects of maternal employment on children outcomes see, e.g., Brooks-Gunn et al. [2002], Baum [2003], Baker et al. [2008], Dustmann and Schönberg [2012], Bettinger et al. [2014] or Carneiro et al. [2015].

A closer examination further reveals that, among individuals born in the early 1960s, it is primarily the first-born group - that is, the group whose mothers are on average the youngest at their birth - that is impacted by the major transformations in the family. The second-born group will only begin to be impacted with a delay, starting with cohorts born later, in the second half of the 1960s.

We are therefore in a configuration where the family environment of a group of individuals (the first-born) begins to be impacted by the WLM from the cohorts born in the first half of the 1960s, before a second group (the second-born) begins to be impacted in turn from the cohorts born in the second half of the 1960s. Due to this lag, significant within-cohort differences in family environment widen between the two groups for the cohorts born in the 1960s, which did not exist for the cohorts born in the 1950s or the 1940s (when no one was impacted by the WLM) and which will cease to exist for the cohorts born in the 1970s or the 1980s, when the second group will end up being as impacted as the first one. In such a context, the question becomes whether an educational achievement gap also widens (or narrows) between the two groups for the cohorts born in the 1960s, before also closing in turn, which would be a very clear indication that WLM-induced family changes have an effect on educational outcomes.

We show that the answer is negative: we do not detect any significant shift in the relative educational (or occupational) outcomes of first-born and second-born children for cohorts born in the sixties. Put differently, there is no evidence that the rise in "modern" families led to any general decline (or rise) in the educational outcomes of affected children. Within each cohort, first-born children tend to do better at school, but the gap remained on average almost exactly the same across cohorts born before, during and after the sixties.

To test the robustness of our findings, we developed an alternative research strategy based on the idea that the legalization of new birth control methods benefited more mothers who did not aspire to have a large number of children. Our data confirm that the WLM was indeed followed by a particularly sharp drop in the

probability of having a third child for mothers whose two eldest children were of the opposite sex, i.e., those who are generally the least keen to have a third child (because the gender mix of their siblings is already achieved). However, our data also reveal that this WLM-induced drop in family size in families with opposite-sex elders (and the rise of "modern" families that went with it) did not coincide with any drop (or rise) in children's subsequent educational and occupational outcomes. Ultimately, families whose two eldest children are of the same sex and those whose two eldest children are of the opposite sex were affected differently by the WLM without this having any impact on their children's relative outcomes, which is consistent with the more general finding that WLM-induced changes had no overall effect obtained with the first strategy.

All in all, we have a set of results to suggest that the various changes in the family brought about by the emancipation movement of the sixties had no major repercussions on the subsequent trajectories of the children most directly concerned. This basic result remains true when we analyze the male and female samples separately. There is also no significant divergence in the trajectories of individuals from different social backgrounds, even though the WLM was followed by a (statistically non-significant) improvement in the educational outcomes of individuals with a higher-SES background and a (marginally significant) deterioration in the outcomes of individuals with a lower-SES background, a possible explanation being that the decline in the size of siblings (and in the proportion of mothers doubly constrained by their employment and their number of children) was more particularly marked for individuals with a higher-SES background.

This article contributes to the rich social science literature on the WLM and the decline in patriarchal family at the turn of the sixties. Much of this literature has focused on the effects of legalization of the contraceptive pill and abortion on young women's outcomes, using variations in the legal framework for minors across US states (see e.g., Goldin and Katz [2002], Bailey [2006], Bailey [2010], Ananat and Hungerman [2012], Steingrimsdottir [2016] as well as the reexamination carried out

by Myers [2017]). In a related contribution, Marie and Zwiers [2023] provide evidence that the liberalization of the pill for minors in the Netherlands in 1970 had positive effects on their subsequent outcomes.[3] The literature on the long-term effects of these reforms on children is much less dense, although it has long been recognized that this movement may have had both positive and negative effects on children's development, without a clear consensus emerging (e.g., Kain [1990], Popenoe [1993], Houseknecht and Sastry [1996], McLanahan [2004], Furstenberg [2019]). We contribute to this literature by developing a new identification strategy based on the fact that the social movement under consideration first affected the firstborns born just before the start of the movement before affecting all the firstborns and secondborns of the following cohorts. Because it is based on comparing the eldest siblings across families (and not on comparing "average" children), this research strategy overcomes the selection problems usually encountered in the literature assessing the impact of the reforms of the sixties on children's outcomes (e.g., Gruber et al. [1999], Pop-Eleches [2006], Bailey et al. [2019]).

Beyond the methodological contribution, our results reveal that women have seized the new opportunities for emancipation without arbitrating against the "quality" of their children. Specifically, those who took advantage of the new birth control options appear to have done so mainly because they wanted to participate more fully in the labor market (hence the fact that falling family size and rising maternal employment went hand in hand). The result has certainly been less maternal time at home and a greater risk of divorce, but also more resources per child, and ultimately a status quo in terms of children's performance at school and in the job market.

The remainder of the paper is organized as follows. In section 2, we present the major reforms relating to abortion, divorce or contraception which were implemented at the end of the sixties and the beginning of the seventies in France. In

[3] In another related contribution, Akerlof et al. [1996] argue that new birth control technologies may have contributed to the increase in out-of-wedlock births and women's poverty in the US by making births appear to be the sole responsibility of women, and undermining the social norm that a man should marry the woman he gets pregnant.

section 3, we specify a conceptual framework within which our empirical explorations can be interpreted. In section 4, we present the data. In sections 5 and 6, we develop an empirical analysis of the effects of the social movement on the family environment in which first-born and second-born children grow up and on their educational outcomes. In section 7, we examine the specific impact of the decline in unwanted births by comparing families with two elders of the same sex and families with two elders of the opposite sex, before and after the wave of reforms. Section 8 concludes.

2 Historical and institutional context

In this article, we use a large corpus of French surveys covering cohorts born in the post-war decades with information on respondents' date of birth and birth order to explore the effect of the 1960s emancipation movement on the family environment in which children grew up as well as on their educational and occupational attainment. The French experience is particularly interesting for the strength of the social movement that shook the country and the suddenness with which society was transformed at the turn of the sixties. The legalization of the contraceptive pill, abortion and divorce by mutual consent all came into effect almost at the same time, in just a few years (see Table 1, a summary timeline).

2.1 Legalization of contraception and abortion

Until the late 1960s, the contraceptive pill was banned in France, and abortion was considered a crime. A major breakthrough came in December 1967, when, after heated debates, Parliament passed a law authorizing the contraceptive pill. By 1968, about 5% of women aged 20-44 had already used the pill and around 29% by 1974 (Leridon et al. [1979]). The proportion of contraceptive pill users then continued to rise steadily, reaching 50% in the late 1970s, boosted by the vote authorizing

reimbursement of the pill by the Social Security system in 1974. That same year, free access to the pill was extended to women aged 18-21, who until then had to obtain parental authorization.

With regard to abortion, a major shift in jurisprudence towards decriminalization occurred in 1972, following the trial of a 16-year-old teenager who had had an abortion after a pregnancy resulting from rape (a trial known as the "procès de Bobigny"). Following highly publicized debates, the teenager was acquitted in court. This trial marked the advent of an age when abortion was effectively decriminalized. Decriminalization became official in January 1975 when parliament passed a law giving women the right to have an abortion up to 10 weeks after conception.

As in the case of contraception, French women did not wait for the law before resorting to abortion, even though it is not easy to agree on the number of clandestine abortions that took place in the 1960s. Based on statistics on obstetrics deaths, the French demographic institute (INED) estimates that there were around 250,000 clandestine abortions per year in the mid-1960s. According to the INED, the number of abortions then increased slightly in the 1970s, after legalization, despite the spread of oral contraception. In the early eighties, the number of abortions slightly fell back to its initial level and then stabilized (Rossier and Pirus [2007]).

Before turning to the other dimensions of WLM, it is important to emphasize that the liberalization of contraception and abortion in the late 1960s and early 1970s did not just affect women whose fertile lives began after this period. As we will discuss in more detail later in this article, it also affected those who had begun their fertile lives in the years preceding it (i.e., the early sixties), but who were able to benefit from the new birth control techniques at least for part of their lives.

To illustrate this point, Figure 1 shows the evolution of completed fertility of French women who reached the age of 25 between 1945 and 1990, as estimated from civil registration data by the French statistical office.[4] Completed fertility remains stable, between 2.5 and 2.6 children per woman for the cohorts who reached the age

[4]The data are available at https://www.insee.fr/fr/statistiques/5391774.

of 25 between 1945 and 1960, before falling rapidly to stabilize around 2.1 children per woman for the cohorts who reached the age of 25 between 1973 and the late 1980s, in line with the idea that the effects of the WLM began to be felt from the cohorts of women who began their fertile life in the early 1960s.

2.2 Economic Empowerment and Divorce Liberalization

The liberalization of abortion and contraception can be seen as reforms that have significantly increased women's control over the number and timing of births, at the same time as new social norms emerged that favored smaller families. In the family sphere, other reforms have contributed to women's empowerment, such as the 1970 law that established the equality of both parents in decisions relating to children and their education. Until then, paternal authority was predominant.

Women's empowerment within the family went hand in hand with their economic empowerment. As early as 1965, a law allowed married women to open a bank account and participate in the job market without having to obtain their husband's authorization. Until then, in a distant legacy of Napoleonic laws, husbands had a veto over their wives' participation in the labor market. In 1972, a law enshrined the principle that, for a given job, women should receive the same pay as men. The 1960s and early 1970s were a period all the more favorable to the extension of maternal work as they were also those of an unprecedented extension of free pre-elementary school and pre-school structures. The pre-elementary schooling rate for three-year-old children rose from 36% in 1960 to more than 80% in 1975 (and that of two-year-old children from less than 10% to more than 27%, see Papon and Martin [2008]). These developments accompanied the expansion of womens participation in labor markets from the mid-1960s and above all, as we return to in the following sections, subsequently allowed many mothers to maintain paid employment after childbirth.[5]

[5]On the evolution of mothers' participation in the labor market during the twentieth century, see especially Maruani and Méron [2012], Méron [2016] or Afsa and Buffeteau [2007].

The economic emancipation of women was accompanied by an increase in the number of divorces, which was also encouraged by a 1975 law extending the possibilities of divorce beyond fault-based divorce, notably by introducing divorce by mutual consent. Divorce by mutual consent is a civil divorce in which the spouses agree on the breakdown of the marriage and its consequences (custody of children, compensatory allowance, etc.). The law also introduced a compensatory allowance designed to reduce the income disparities that might arise between spouses as a result of separation. This reform contributes to reducing the sense of guilt felt by those embarking on divorce proceedings (there is no longer any need to find someone at fault). It coincides with an upward trend in the number of divorces, the vast majority of which are initiated by women (Comaille [1974]). As with the contraceptive pill, the rise in divorce rates began in part before the law came into force, but the law marked a clear acceleration, with the divorce rate rising almost twice as fast at the end of the 1970s as at the beginning (Sardon [1996], Solaz [2021]). About 22% of marriages celebrated in the late 1970s ended in divorce, compared with just 12% of those celebrated in 1970 (Bellamy [2016]).

All in all, from the mid-1960s onwards, the evolution of French laws and institutions accompanied and amplified a deep movement giving women greater control over the number of children they have and their personal lives. This movement potentially induced profound changes in the family contexts in which children grew up. In the rest of this article, our main ambition is to identify these changes and determine whether and how they have affected childrens educational achievement. The main difficulty lies in the fact that the WLM coincided (in France as elsewhere in the world) with an unprecedented expansion of the education system, so that comparing the educational achievements of cohorts of children born before and after the WLM does not isolate the effect of changes in family contexts. To overcome this difficulty, we will focus on the evolution of the gap in educational achievement observed between children of rank 1 and rank 2 born at the same date in different families. As discussed in the next section, the comparison of first-born children and

second-born children born on the same date into different families can be used to identify the effect of reforms that affect all families at a specific point in time.

3 Conceptual Framework

In this section, before moving on to the empirical part of our analysis, we develop a simple conceptual framework to shed light on the conditions under which the comparison of first-born and second-born individuals born at the same date in different families provides a source of identification for the family changes induced by the WLM and for the impact of these changes on educational outcomes.

3.1 The WLM and Family Environment

In the following, time is assumed to be discrete and each family is characterized by the dates t and $t+d$ at which it began and ended its fertile life, the gap d between the start and the end being assumed to be constant. The main WLM reforms are supposed to be fully effective from date t_0, including reforms liberalizing modern birth control techniques or promoting women's access to the job market (such as the massive expansion of free preschools).

Within each cohort defined by t, each family chooses its level of consumption (C), the quality of the family environment offered to each child (Q), maternal participation in the labor market (L) and methods of birth control (B). For simplicity, there are only two types of birth control technique, traditional ($B = 0$) and modern ($B = 1$), and the choice of B determines the number of children $N = N(B)$. Also, the Q variable is assumed to include decisions about where children live, their schooling conditions and their exposure to parental separation. Parents are assumed to make their choices in such a way as to maximize a standard utility function, in the

spirit of the seminal contribution by Becker and Lewis [1973],

$$\begin{aligned} &\max_{(B,Q,C,L)} U(N,Q,C) \\ &\text{s.t. } R + wL = C + c_L NL + (c_N + c_{NQ}Q)N + c_B B \text{ and } N = N(B). \end{aligned} \tag{1}$$

where c_L represents the childcare costs induced by maternal work, c_B the costs induced by using modern birth control techniques while c_N and c_{NQ} represent the costs associated with the children and the quality of the family environment offered to each.[6] The price of consumption is normalized to one. Parameter w represents the maternal wage rate and R father's earnings and other sources of income.

Within this framework, our main working hypothesis is that the childcare costs c_L induced by maternal participation in the labor market and the costs c_B induced by the use of modern contraceptive techniques began to decline for women with at least part of their fertile life during and after the WLM.[7] It is simply a question of taking into account that mothers have benefited all the more from the liberalization of contraception and policies in favor of women's emancipation, as they spent a significant part of their fertile lives after these reforms became fully effective. To keep it simple, c_B is assumed to be negligible for families starting their fertile lives after t_0 (the most recent ones) and prohibitive for families ending their fertile lives before t_0 (the oldest ones). For intermediate families (i.e., with t in $[t_0 - d, t_0]$), c_B is assumed to be lower the closer t is to t_0. Similarly, childcare costs c_L are assumed to be negligible for families starting their fertile life after t_0, to be prohibitive for families ending their fertile life before t_0, and to go from prohibitive to negligible for

[6] Other seminal contributions to the analysis of the quantity-quality trade-off include Becker and Tomes [1976] or Behrman et al. [1982], who extended the basic model to take into account that children in the same family may have different initial abilities and that parents may be more concerned about helping the less fortunate. As we shall see later, however, our data suggest that the distribution of family resources between children within families did not change significantly during and after the WLM.

[7] In the following, we neglect that preferences themselves may have changed, for example a decline in the marginal utility of having children. In the presence of such a decline, the model's predictions would remain qualitatively the same; simply, the decline in sibship size across cohorts should be interpreted as the joint consequence of the decline in c_B and the evolution of preferences.

intermediate families.

In this highly stylized set-up, we expect families to gradually move from a traditional model (with no maternal labor and no modern contraception) to a modern model (with maternal labor and the possibility of modern contraception) in the years leading up to the advent of the WLM. To be more specific, if we first consider parents who complete their fertile lives before t_0 (i.e., the oldest cohorts), mothers have no access to modern birth control techniques ($B = 0$) and cannot participate in the labor market ($L = L_{trad} = 0$), which results directly from the prohibitive levels of c_B and c_L for these families. We will note N_{trad} and Q_{trad} the number of children and the quality of the family environment that these traditional-type families are led to choose. Conversely, if we consider parents who began their fertile lives after t_0 (i.e., the most recent cohorts), all mothers participate in the labor market ($L = L_{mod} = 1$) and have unconstrained access to modern birth control techniques, i.e., they can choose either $B = 0$ or $B = 1$ depending on their preferences over N and Q. In the following, N_{mod} and Q_{mod} will represent the average number of children and the average quality of the family environment for these modern-type families. Finally, if we consider intermediate families (i.e., such as $t_0 - d < t < t_0$), only a fraction (denoted $\lambda(t)$) opts for traditional outcomes and this fraction is all the lower as t approaches t_0 (and c_B and c_L approach zero).

With these notations, for any family characteristic T in $\{N, Q, L\}$, the average value of T for families who begin their fertile life on t can be written,

$$T(t) = \lambda(t)T_{trad} + (1 - \lambda(t))T_{mod} \tag{2}$$

where the proportion $\lambda(t)$ is constant and equal to 1 for the oldest generations (i.e., for $t < t_0$), constant and equal to 0 for the most recent generations (i.e., for $t > t_0 - d$), and, in the interval, decreases from 1 to 0.

If we now consider children of ranks 1 and 2 of these families, the start date t of their parents' fertile life can be written as a simple function of their birth cohort

(denoted c) and their rank (denoted R, with $R = 1$ if of rank 1 and $R = 0$ otherwise). Specifically, by denoting δ the spacing of children for these generations of parents,[8] we have $t = c - \delta(1 - R)$ so that, for each family characteristics T in N, Q, L, the average value of T experienced by children of rank R in cohort c can be written,

$$T_{c,R} = T(c - \delta(1 - R)) = T(c - \delta) + \alpha_T(\lambda(c - \delta) - \lambda(c))R \tag{3}$$

where $\alpha_T = T_{mod} - T_{trad}$ denotes the average gap in T between modern-type and traditional-type families. The difference $\lambda(c - \delta) - \lambda(c)$ is zero for the oldest cohorts (that is, $c < t_0 - d$) as well as for the most recent ones (that is, $c > t_0 + \delta$). For intermediate cohorts, it can be approximated by δ/d, assuming that the proportion of families that become modern per unit of time remains roughly constant (and equal to $1/d$). Hence, denoting $I = [t_0 - d, t_0 + \delta]$ the set of intermediate cohort, equation (3) can be rewritten,

$$T_{c,R} \approx \gamma_c + \gamma_T \mathbb{1}_I(c)R \tag{4}$$

with $\gamma_c = T(c - \delta)$ and $\gamma_T = \delta\alpha_T/d$. In our conceptual framework, we therefore expect gaps (γ_T) in sibship size (N), maternal work (L) or quality of family environment (Q) to open up between first-born and second-born children within cohorts born in the years preceding the WLM (i.e., for c in I). Importantly, these gaps did not exist in older cohorts and will cease to exist in more recent cohorts, born after the WLM. The first objective of our empirical analysis will be to verify the existence of these (first-stage) relationships between the different dimensions of the family environment on the one hand, and c and R on the other. If this is indeed the case, the central question will become whether the widening of these gaps in sibship size or family environment (as captured by the different γ_T) has coincided with a widening in the gap in educational achievement between first-born and second-born children.

[8] To keep things simple, we are ignoring possible differences in spacing between modern and traditional families. As discussed below, the spacing between children of rank 1 and rank 2 (as captured by differences in mothers' ages at birth) does not appear to be significantly different for the pre-WLM and post-WLM cohorts.

3.2 The WLM and Children's Educational Achievement

To explore this issue, we note $E_{c,R}$ the educational achievement of children of rank R in cohort c and we assume that it can be written as follows,

$$E_{c,R} = \beta_N N_{c,R} + \beta_Q Q_{c,R} + \beta_L L_{c,R} + \beta_R R + \gamma_c \tag{5}$$

where γ_c is a fixed effect capturing the influence of all the school inputs that benefited the children of birth cohort c (class size, school entry age, number of seats in secondary or higher education, etc.). Within each cohort, the parameter β_T capture the influence of T for each T in $\{N, Q, L\}$ while the parameter β_R captures the fact that the eldest ($R = 1$) and the youngest ($R = 0$) are not necessarily equally equipped to succeed at school. It has long been established that first-born children tend to do better in school, one explanation being that they are the exclusive recipients of parental attention during their early years, before the arrival of the second child (see, e.g., Price [2008]).

In our setup, it is not possible to identify the different β_T separately, but it is possible to identify a weighted average of these parameters. To understand why this is the case, simply use equation (4) to rewrite equation (5) in reduced form,

$$E_{c,R} = \delta\beta_{WLM}\mathbb{1}_I(c)R/d + \beta_R R + \psi_c \tag{6}$$

where $\beta_{WLM} = \beta_N\alpha_N + \beta_Q\alpha_Q + \beta_L\alpha_L$ corresponds to the weighted average of the different β_T that can be identified. It represents the overall impact on educational achievement of growing up in a modern-type family rather than a traditional-type family. It is possible to identify this composite parameter (or, at the very least, its sign) simply by comparing the educational gap between first-born and second-born children across cohorts. Specifically, this gap is β_R for both the oldest and most recent cohorts, while it is $\beta_R + \delta\beta_{WLM}/d$ for the intermediate cohorts born in the years preceding the WLM. The difference between the differences observed for the inter-

mediate cohorts and for the other cohorts identifies $\delta\beta_{WLM}/d$ and makes it possible to test the nullity of β_{WLM}.[9]

The identifying assumption is that differences in educational attainment between first-born and second-born children would have remained constant across cohorts if the WLM had not induced significant changes in the T variables (usual common trend hypothesis). We must also assume that first-born and second-born children responded in the same way to WLM-induced family changes.[10] One threat to our approach could indeed be that the substitution of modern-type families for traditional ones in the years preceding the WLM did not have the same effect on first-born and second-born children. We might wonder, for example, whether the increase in maternal participation in the labor market has not had a more depressing effect on first-born children (who were partly deprived of the exclusive enjoyment of their mother during their early years) than on younger children. However, if this were the case, we should observe a different gap in educational attainment between first-born and second-born children for the most recent cohorts (modern type) and the oldest cohorts (traditional type), but we shall see empirically that this is not the case.

4 Data and samples

The data used in this study comes from the series of five surveys on *Formation et Qualification Professionnelle* (hereafter, FQP surveys) conducted by the French Statistics Office (INSEE) in 1977, 1985, 1993, 2003 and 2014-2015.[11] Each of these surveys is

[9] To complete the identification of β_{WLM}, it is sufficient to identify δ/d, that is, the difference in the proportion of traditional-type families between first-borns and second-borns within the intermediate cohorts. In our setting, the decline of traditional-type families is reflected in the decline of families where mothers do not participate in the labor market and δ/d can be estimated very directly by looking at the gap in the proportion of such mothers that widens between first-borns and second-borns within the intermediate cohorts.

[10] These assumptions are reflected in the fact that the explanatory variables in model (4) exclude interactions between the T variables and the R variable as well as between the R variable and c.

[11] For presentation and early uses of FQP surveys, see, e.g., Monso and Thévenot [2010] or Goux and Maurin [2000]. Detailed documentation for each FQP survey can be found on the French public

conducted on a representative sample of the adult population, ranging in size from about $N = 45,000$ for the 1977 and 1985 surveys, $N = 18,000$ for the 1993 survey and $N = 40,000$ for the 2003 and 2014-2015 surveys.

These surveys provide detailed information on respondents' education and occupation as well as on their gender, date of birth, birth rank and number of brothers and sisters (including half-brothers and half-sisters). We also have information on the education of the parents as well as on their employment status and occupation at the time the respondent completed his/her education. Pooled together, these surveys make it possible to construct a sample of about 45,000 respondents aged 26 to 65, with a birth order 1 or 2, born between 1945 and 1989 in families with two or more children, with information on their gender, date of birth, birth rank, number of siblings as well as on their level of education and their parents' education or occupation.[12] The date of birth of the parents is available in the surveys conducted in 1993, 2003 and 2014-2015. For the surveys conducted in 2003 and 2014-2015 (i.e., a subsample of approximately 32,000 respondents), we have also information on whether the parents had divorced by the time the respondent finished school.

Finally, in 2003 and 2014-2015, additional information was also collected on one of the respondent's siblings (if any) drawn at random. For this particular sibling, we know his or her gender, date of birth, birth rank, level of education, employment status and occupation. From these two surveys, we can build a sub-sample of about $N = 19,000$ individuals with a birth order 1 or 2, with information on the gender, education and occupational status of the two eldest siblings of their family. It is made up of observations where the respondent is rank 1 and the sibling drawn is rank 2, as well as observations where the respondent is rank 2 and the sibling drawn is rank 1.[13] We will use this subsample in the last section of the arti-

statistics archives website (see http://www.progedo-adisp.fr/enquetes_educfor_en.php).

[12] To be a little more specific, the five surveys allow for a total sample of approximately 119,000 French-born respondents aged 26-65. The sample size drops to about 79,000 when further restricted to respondents born between 1945 and 1989. It falls to just under 45,000 when further restricted to respondents of birth order 1 or 2 born into families with 2 or more children.

[13] The probability of drawing a sibling of rank 2 (resp. rank 1) when respondent i is of rank 1 (resp.

cle to compare families with two eldest children of the same sex and families with two eldest children of the opposite sex, before and after the wave of emancipatory reforms.

Table A.1 in the online appendix describes the main variables used in the rest of this article. Their mean values are given for individuals belonging to our main working sample of first-born and second-born individuals born between 1945 and 1989, as well as for the three sub-samples corresponding to cohorts born before 1960, between 1960 and 1974, and after 1974, so as also to get an idea of underlying trends. The table confirms the decline in the proportion of individuals who grew up in families with 3 or more children over the cohorts considered, as well as the rise in the proportion of working mothers and the increase in parental divorce. The table also confirms the rise in the level of education of respondents over the cohorts. The table also reveals that the age of mothers at the birth of first-borns has changed little over the cohorts, as has the age of mothers at the birth of second-borns. As a result, the difference between these two ages is on average almost exactly the same (around 3.2 years) for both the oldest and most recent cohorts, which is in line with the idea that the advent of post-sixties families has not coincided with any significant change in the spacing between first-borns and second-borns.

As a complement to Figure 1, Figure A.1 shows the evolution of sibship size for the full sample of respondents born between 1945 and 1990 (i.e., with no restriction on sibship size or birth order). This figure confirms that sibship size has remained more or less stable for cohorts born before 1960 as well as for those born after 1970, with most of the decline occurring between the early 1960s and early 1970s cohorts. To take this further, Figure A.2 uses the same full sample of respondents to show the evolution of the proportion of individuals who grew up in families with two or more children, and the proportion who grew up in families with three or more children.

rank 2) is inversely proportional to the number of siblings w_i of i. To account for this differential representation of sample observations according to the number of siblings, we weight each observation by $\frac{w_i}{\sum_i w_i}$.

Most of the decline in sibling size appears to be due to the decline in families with three or more children, with the proportion of families with two or more children remaining roughly constant (and close to 90%) across the cohorts considered.

5 Graphical Analysis

One of the central predictions of our conceptual framework is that the first children to experience the effects of the WLM were those born in the years preceding the rise of the movement (i.e., the early 1960s). Furthermore, among them, our prediction is that firstborns were even more strongly impacted than secondborns born at the same time, the reason being simply that their mothers (younger than those of secondborns at the time of their birth) were able to benefit longer from the WLM reforms facilitating women's access to contraception, abortion or the labor market.

To test these predictions, Figure 2a focuses on first-born and second-born children who grew up in families with 2 or more children, and shows the evolution of the proportion who grew up in families with 3 or more children over the cohorts born between 1945 and 1989. We focus on this indicator of family size to take account of the fact that the decline in family size at the turn of the 1960s essentially reflected a fall in the proportion of families with three or more children, while the proportion of families with 2 or more children remained more or less constant, as discussed in the previous section.

Figure 2a confirms that the liberalization of contraception and abortion was accompanied by a sharp drop in sibship size that began with the cohorts born in the early 1960s and ended with those born in the early 1970s. Also, consistent with our conceptual framework, the decline in sibship size came earlier for first-born children than for second-born children. As a result, first-born children born in the early 1960s grew up significantly less often in families with 3 or more children than second-born children born at the same time as them in other families, whereas this was not the case for either older or more recent birth cohorts. The gap created in the

1960s between first-born and second-born children is far from negligible: the difference in the proportion who grew up in families with 3 or more children is about 7 percentage points stronger in the early 1960s than in the 1950s or the 1970s (Figure 2b).

Accompanying the strong decline in family size, the 1960s also coincided with an unprecedented growth in the proportion of children whose mother held a job before they left school. As with sibship size, and following the same logic, the upward trend came again earlier for first-born children than for second-born children (see Figure 3a). The difference in maternal employment between first- and second-born children in the early sixties is of roughly the same order of magnitude as the difference in the proportion of families with 3 or more children, suggesting that family size and maternal employment were two sides of the same coin (Figure 3b). For children born in the early sixties, the probability of growing up in a family with 3 or more children suddenly becomes almost 15% higher for second-born children than for first-born children, while their probability of having a mother who works outside the home decreases in roughly equal proportion.

Finally, as expected, the economic emancipation of mothers has been followed by a rise in divorce rates, all the more rapid as the early 1970s saw a far-reaching reform of divorce law. The first cohorts of children to be affected are those born a few years before the law was passed, namely in the late sixties and the early seventies. For cohorts born in the immediate post-war period, the proportion of children of divorce remains marginal. From the cohorts born in the early sixties to those of the early seventies, the effects of the reform are felt and the proportion of children whose parents divorce before they finish school rises rapidly, reaching almost 10% for children born in 1965-1969 and 15% for those born in 1970-1974. Consistent with our conceptual framework, the upward trend came again earlier for first-born children than for second-born children (see Figure 4a and Figure 4b). As the liberalization of divorce came after that of contraception, the gap in exposure to parents divorce between first-born and second-born children reaches its maximum later than that of

exposure to the decline in sibship size, namely for cohorts born in 1965-1974 rather than for cohorts born in 1960-1964. Among cohorts born in the late 1960s, the probability of experiencing parental divorce before the end of schooling is about 40% higher for first-borns than for second-borns, whereas there was virtually no difference between first-borns and second-borns among cohorts born in the 1950s.

6 Regression Results

The graphical analyses in the previous section confirm that the WLM induced significant changes in family environments, with fewer siblings, parents more often divorced and mothers more frequently employed. Consistent with our conceptual framework, they also reveal that these changes first affected first-born children born in the years before the main reforms. In this section, we use a simple regression model to test the robustness of these results, as well as to explore whether these changes in family environment affected all social groups and whether they coincided with changes in children's educational and occupational outcomes.

6.1 Impact on Family Environment

To begin with, Table 2 considers the same sample as in the previous graphical analysis, and shows the results obtained by regressing a set of variables characterizing the family environment in which respondents grew up on a variable (again denoted R_i) indicating whether respondents are first-borns, as well as on variables interacting R_i with a set of five birth cohort effects ($k = 1, ..., 5$). The model can be written,

$$Y_i = bR_i + \sum_{k=1}^{5} b_k R_i D_{i,k} + X_i d + v_i \tag{7}$$

where Y_i is the outcome for individual i while variable $D_{i,k}$ is a dummy indicating that i was born in cohort group k and v_i represents a random error term. Variable

X_i represents a set of control variables that includes a gender dummy and a full set of birth cohort dummies.[14] Parameters b_k capture the variation in the first-born effect across birth cohorts. In keeping with the spirit of our conceptual framework, we will distinguish 5 groups of birth cohorts (k=1,...,5) according to whether the individuals were born before 1960 (i.e., long before the WLM reforms, k=1), after 1975 (i.e., after the reforms, k=5) or in the years 1960-1974 preceding and overlapping the reforms, distinguishing 3 five-year subgroups (1960-1964, 1965-1969 and 1970-1974) so as to identify the timing of the evolution of the gap between first-born and second-born children during the sixties and early seventies as precisely as possible. The oldest group of children is taken as reference (i.e., b_1 is set to zero) so that parameter b captures the gap in family environment between first-born and second-born respondents for the oldest cohorts while parameters b_k ($k = 2$ to 5) show the extent to which this gap has changed over the cohorts born during and after the 1960s. This regression model is designed to test the relevance of our hypothesis concerning the relationships between family environment, birth rank and birth cohort (as summarized by equations (4) and (6) in section 3), i.e. to test the hypothesis that a gap in family environment arises specifically between first-borns and second-borns born in the years preceding the WLM (i.e., for k between 2 and 4).

Table 2 reports estimated parameters b and b_k when the dependent variable is in turn (a) a dummy variable indicating whether the respondent's mother had 3 or more children, (b) a dummy variable indicating whether the respondent's mother held a job before the respondent left school, (c) a dummy variable indicating whether the respondent's parents were divorced when the respondent left school, (d) a dummy variable indicating the father's occupational status when the respondent left school (where the lower positions correspond to blue-collar workers and farmers, and the upper positions to white-collar workers, professionals and employers).

[14] This model is simply the empirical counterpart of equation (6) in section 3. The regression results are unchanged when we further control for survey date.

Consistent with our conceptual model and with previous graphical analysis, the table first confirms that first-born individuals born in the 1960s grew up significantly less often in families with 3 or more children and significantly more often with a mother who had a job than second-born individuals born at the same time in other families, whereas this was not the case either in the earlier birth cohort (i.e., born before 1960) or in later cohorts (i.e., born after 1975). To be more specific, the difference in the probability of growing up in a family with 3 or more children between first-born and second-born children is small and non-significant for cohorts born before 1960, then it drops significantly by 7.5 percentage points for cohorts born in the early 1960s. Similarly, the difference in the probability of growing up with a mother participating in the labor market is small and non-significant for cohorts born before 1960, then it increases significantly by 5.6 percentage points. The gap then gradually decreases to become small and non-significant again for cohorts born after 1974.

Focusing on the sub-sample for which information is available on parental divorce, the table also confirms that first-born individuals born in the late sixties and early seventies were significantly more likely than second-born individuals born at the same time to experience their parents' divorce before finishing school, whereas this was again not the case either in earlier or later cohorts. Finally, the table shows that the differences in occupational status between fathers of second-born and first-born children varied very little across birth cohorts. This result is in line with the idea that the Sixties primarily affected mothers.

When it comes to maternal work and family size, it is worth pointing out that the gaps between first-born and second-born children that appear in the early sixties are very similar in timing and magnitude, consistent with our conceptual model and with the idea that fertility and labor market participation decisions are closely connected. To further explore this idea, Table 3 focuses on the four outcome variables defined by interacting the family size dummy and the maternal work dummy. Specifically, the table shows the regression results when the dependent variable is

in turn (a) a variable indicating that the respondent has grown up in a family with 2 children and a stay-at-home mother (i.e., a mother who never had a job), (b) a variable indicating that the respondent has grown up in a family with 3 or more children and a stay-at-home mother ("traditional" families), (c) a variable indicating that the respondent has grown up in a family with 2 children and a working mother ("modern" families) and (d) a variable indicating that the respondent has grown up in a family with 3 or more children and a working mother.

The results suggest that the Sixties primarily impacted the proportions of children growing up in either "modern" or "traditional" families, but had very little impact on the proportions of children growing up in the other two family types (i.e., neither "traditional" nor "modern"). Specifically, the regression results suggest that the changes brought about by the Sixties essentially boil down to the substitution of "modern" families for "traditional" families. Once again, first-born children born in the early 1960s are the first to experience this major change in family environments. For cohorts born in the early 1960s, the proportion of first-born children growing up in "modern" families is almost 25% higher than that of second-born children, whereas there was no gap for earlier cohorts, and this gap will disappear for cohorts born in the 1970s.

Beyond family size or maternal work, Table A.2 in the online appendix explores whether parents age at birth and education (as measured by high school graduation) have evolved differently for first-born and second-born children over the cohorts born before, during and after the 1960s. Using again the same regression model as Table 2, the table confirms that within each cohort, first-born children are born to parents significantly younger than second-born children, but the table shows that this gap (of around 3 years) fluctuates little over the cohorts studied. Similarly, first-born children are born to parents with slightly more education on average than second-born children, but again this gap fluctuates little over the cohorts under consideration.

6.2 Impact on Childrens Outcomes

The previous analysis confirms that children born in the years preceding the WLM did not grow up in the same family environment depending on whether they were first-born or second-born children. Compared to second-born children born at the same time into other families, first-born children grew up in smaller families, where mothers are more involved in the workforce and parental divorce is more frequent. In this subsection, we use the same regression model to explore whether these variations in family environment between first-born and second-born children coincided with parallel variations in educational and occupational achievement between these same children. This approach can be understood as a reduced-form analysis of the link between respondents' educational attaintment and the various dimensions of the family environment in which they grew up (as described by equation (5) in section 3).

To begin with, Table 4 considers the same sample as Table 2 and shows the results obtained using several measures of the level of education attained by individuals as dependent variables. The variables used to measure individuals' level of education are (a) a dummy variable indicating that the individual has left school without any diploma, (b) a dummy variable indicating that the individual has obtained a high school diploma and (c) a variable giving a (standardized) continuous measure of the level of education attained.[15] We also look at the effect of the Sixties on a measure of respondents' occupational status, namely a dummy variable indicating whether the respondent is a highly skilled employee[16].

These regressions first confirm that, on average, first-born children achieve significantly higher levels of education than second-born children, which is consistent

[15]We use the standardized version of a variable that takes the value 0 for people with no diploma, the value 1 for people with a short vocational diploma, the value 2 for people with a high school diploma and the value 3 for people with a higher education diploma.

[16]Specifically, the variable indicates whether the respondent is a *cadre* (executives, engineers, managers...) or a *profession intermédiaire* (technicians, mid-level managers...), namely items 3 and 4 of the French classification of occupations (i.e., upper-level and mid-level white-collar occupations).

with a long-standing literature on the effect of birth rank (e.g., Black et al. [2005]). However, this advantage does not appear to be significantly different for cohorts born in the 1960s than for older or more recent cohorts. In the 1960s, as in the 1950s and 1970s, the proportion of high school graduates was around 4 percentage points higher among first-born children than among second-born children (i.e., between 10% and 15% higher). Consistent with the lack of significant variation in the education gap between first-born and second-born children, we also do not detect any significant variation in the gap in the probability of holding a highly skilled job.

To take one step further, Figure 5a and Figure 5b further shows the detailed evolution of the gap in educational attainment between first-born and second-born children over the cohorts born between 1945 and 1989. They confirm that this gap has remained very stable for the cohorts born before the sixties (consistent with the parallel trends assumption) as well as for the cohorts born after the 1960s. They also confirm that there is no specific shift in this gap for cohorts born in the 1960s.[17]

The fact that the educational gap between first-born and second-born children is the same for the most recent cohorts (born after 1974) and the oldest (born before 1960) is in line with the idea that the changes in family environment induced by the WLM had no different effects on the educational attainment of first-born and second-born children. The fact that this same gap between is also the same for the intermediate cohorts (born in the sixties) and the oldest cohorts (born before 1960) further suggests that the changes induced by the WLM actually had no effect on the educational attainment of the children concerned. First-born children born in the 1960s were significantly more exposed to a "modern" environment, but this does not appear to have had any major impact on their education. Important as they were, the specific changes in the family environment experienced by first-born children born in the 1960s did not coincide with any significant improvement or decline in

[17]Figure A.3 in the Appendix shows that the pattern is the same when using the probability of being a high school graduate as a measure of educational attainment. Figure A.4 shows that the pattern is also the same when focusing on the probability of entering a highly skilled occupation.

their school performance.

One possible interpretation for this result is that the different family changes induced by the WLM each played out in different directions and neutralized each other. Many papers have analyzed the impact of substituting non-maternal childcare for maternal care (or vice versa) without detecting very clear effects on children's development, one explanation being that the rise in the use of non-maternal childcare generally goes hand in hand with an increase in maternal employment and therefore with an increase in family income and in expenditure on the quality of care and education provided to children, the different developments canceling each other out (see e.g., Baker and Milligan [2010], Goux and Maurin [2010], Rasmussen [2010], Dustmann and Schönberg [2012], Carta and Rizzica [2018], Danzer and Lavy [2018], Nicoletti et al. [2023], Behaghel and Pinto [2024]).

With regard to parental divorce (and to laws liberalizing divorce), the literature tends to find a rather negative impact on children, even if the consensus remains fragile (see e.g., Gonzalez and de Quinto [2021] or Frimmel et al. [2024]). However, assuming that such a negative effect was at work in our context, it may have been offset by the decline in sibship size induced by the liberalization of contraception and abortion, which has often been associated in the literature with positive effects for children (see e.g., Pop-Eleches [2006], Bailey et al. [2019], Dumas and Lefranc [2019]).

6.3 Heterogeneity Analysis

To explore heterogeneity, we replicated the previous analyses separately for the male subsample and the female subsample (see the online Appendix Table A.3). Reforms of the late sixties and early seventies have profoundly altered the place and role of women in the family, and we may wonder whether the repercussions have not been even greater for girls than for boys, particularly at school. Our analyses reveal nothing to suggest this. The gap in educational achievement (and occupa-

tional status) between first-born and second-born is just as significant for women as for men, and has remained stable across birth cohorts for both women and men. In particular, there was no significant variation in this gap for the cohorts born in the 1960s, for either men or women.

We also replicated the previous analyses separately for the subsample of individuals whose fathers have higher socioeconomic status and for the subsample whose fathers have lower socioeconomic status (see the Online Appendix Table A.4). For the lower-SES group, we detect a marginally significant decrease in the educational advantage of first-born children among cohorts born in the early 1960s (-9% of a SD) while for the higher-SES group, it is the opposite, we detect an increase in the advantage of first-born children (+8% of a SD), even if the estimated effect is only significant at the 11% level.[18] A possible explanation for these slightly divergent trends could be that the decline in families with 3 or more children has been mainly noticeable in the higher-SES group while the opposite is true for maternal employment, which has risen most sharply for the lower-SES group. Children from the higher-SES group appear to have benefited more from the decline in sibship size, while being less exposed to the increase in maternal labor force participation than children from the lower-SES group. Since the differences between the two groups are not estimated very precisely, it is nevertheless difficult to go much further in interpreting these results.

7 Alternative strategy

In the previous sections, by comparing first-born and second-born children across cohorts born before, during and after the 1960s, we assessed the cumulative effect of the various facets of the WLM that took off at that time. The Sixties

[18] A closer examination suggests that the small differential in evolution for low-SES and high-SES is essentially driven by a differential in evolution in the probability of obtaining a higher education diploma.

were accompanied by a decline in unwanted births (thanks to the liberalization of the pill and abortion), but also by a decline in desired births (reflecting new family norms), and the combination of these trends has coincided with a marked increase in mothers' participation in the labor market and in parental divorce. Our approach suggests that, on average, these changes in family environment ultimately had little effect on children's subsequent educational and occupational trajectories.

In this section, we develop an alternative research strategy that builds on the idea that more effective birth control may not have had the same effect on all families. Specifically, improved birth control likely mainly benefited the group of families who did not want large families. It enabled them to avoid unwanted birth, to have a smaller number of children, closer to their desired number. Therefore, by comparing children in this group with children outside this group, before and after the WLM, it may be possible to capture the effect of the WLM on the group that was most exposed to unwanted births.

To implement this strategy, we need a variable that predicts the desired number of children while being as good as random with respect to other potential determinants of the quality of children's schooling. To construct this variable, we will rely on the information available on the gender mix of the two eldest children. It has long been noted that a significant proportion of parents have a preference for mixed-gender sibships, so that the sex of the two eldest children makes it possible to distinguish between groups of families that are ex ante similar in every respect, except possibly in terms of the desire to have a third child, those whose elders are of the opposite sex having a lower propensity to desire a third child.[19] Our approach will be first to check that this link between the sex of the two eldest children and family size is indeed verified in the data we use, and that the decline in family size post-sixties has indeed primarily affected families whose eldest children are of the opposite sex. We will then explore the consequences of this decline in family size on

[19]For an early use of sibling gender composition as a predictor of family size, see Angrist and Evans [1998].

children's subsequent trajectories.

Table 5 shows the results obtained using this approach. It focuses on the sample of first-born and second-born respondents from families with two or more children for whom we know the sex of the two eldest children and it shows the results obtained by regressing the variables characterizing the family environment in which respondents grew up as well as the respondents' achievements on a dummy variable indicating whether the two eldest siblings are of the opposite sex and on the interaction between this variable and a dummy variable indicating whether the respondent was born before or after 1974, controlling for gender and cohort effects.[20]

The first three columns of the table confirm that, for the oldest cohorts, mothers whose two eldest children are of the opposite sex are not particularly exposed to divorce, but are significantly less likely to have a third child (-4.6 percentage points) and more likely to have a job (+1.8 percentage points) than mothers whose two eldest children are of the same sex. The first column of the table also shows that for respondents born after 1974, the gap in family size between opposite-sex and same-sex families widens even further (by about -3.8 percentage points), in line with the idea that opposite-sex families were more exposed to unwanted births before the birth control reforms and have benefited more from these reforms than same-sex families. The second and third column show, however, that this is not accompanied by any significant change in the difference in maternal work or in parental divorce.

The results in Table 5 are relatively imprecise and we must be cautious in interpreting them. They do, however, suggest that the size of opposite-sex families decreased relative to that of same-sex families, without maternal work increasing particularly strongly in these opposite-sex families. One possible reason for this result is that the WLM coincided not only with a decline in unwanted births, but also with the advent of social norms (and the development of school infrastructure) fa-

[20] We use the 1974 threshold, after which all children are affected by the WLM reforms, whatever their birth rank. We have verified that the results remain similar using the 1964 threshold, after which children of rank 1 begin to be affected by the reforms.

vorable to maternal employment, which may have particularly benefited families wishing to have a third child, among which families in which the two eldest children are of the same sex are overrepresented. Using the same indicators as Table 3, Table 6 confirms that, in cohorts born after 1974, the excess of births in same-sex families simply reflects the substitution of large working mother families for small working mother families, consistent with the idea that adjusting the actual number of births to their desired number is no longer necessarily to the detriment of mothers' participation in the labor market.

Finally, the two last columns of Table 5 explore how these developments have affected childrens educational and occupational outcomes. Are there differences in educational or occupational achievement between children from same-sex and opposite-sex families in cohorts born before 1974, and have these differences changed for cohorts born after 1974? The answer appears to be no: the two last columns of Table 5 do not reveal any significant gaps for cohorts born before 1974 nor any significant changes in these gaps between cohorts born before and after 1974. For cohorts born after 1974, that is, after the advent of modern birth control techniques, the differences in family size between opposite-sex and same-sex families are likely mostly differences in the desired number of children, with gender-mixed preferences leading a greater number of same-sex families to desire a third child. For cohorts born before 1974, the differences in family size between the two groups of families are likely also due to differences in the number of unwanted births, with opposite-sex families being more exposed to these. In neither case are there any significant differences in children's educational or occupational outcomes. Following the WLM, compared with children from same-sex families, children from opposite-sex families are less likely to have siblings unwanted by their parents, perhaps also less likely to have siblings wanted by their parents, but this does not have any significant effect on their educational and occupational outcomes. The specific changes in family environment induced by the WLM between children from opposite-sex and same-sex families do not appear to have had any impact on their

later achievement, a result consistent with the more general diagnosis obtained in the first part of the article.

8 Conclusion

Drawing on the French experience, this article studied the impact of the women's emancipation movement of the 1960s on the family environment in which children grew up, and the consequences this had on the educational and occupational trajectories of the children concerned.

By analyzing changes in the relative situation of first-borns and second-borns over the course of birth cohorts, we show that the social movement has led to a significant rise in "modern" families (two children max., mothers with jobs and a non-negligible probability of parental divorce) to the detriment of "traditional" families (three or more children, mother does not work, rare parental divorce), but that this transformation of the family model had no significant effect on children's outcomes. The emergence of a new family model at the turn of the sixties did not coincide with any general decline (or any general improvement) in the educational or occupational level of successive cohorts.

Critics of the Sixties often point out that the revolution harmed children by overexposing them to less-present mothers, parental separation, and family insecurity. We show that the legacy of the emancipation movement is more complex, since it also and above all favored the emergence of smaller siblings, with fewer unwanted children, where the number of children is better adjusted to women's deepest aspirations, for an overall effect on children that is not negative, for either girls or boys. It is possible, however, as our data suggest, that not all social backgrounds experienced the 1960s in exactly the same way. Future research will need to explore in greater depth whether and how the family transformations that took place at this key time shaped inequalities between children from different social backgrounds in the decades that followed.

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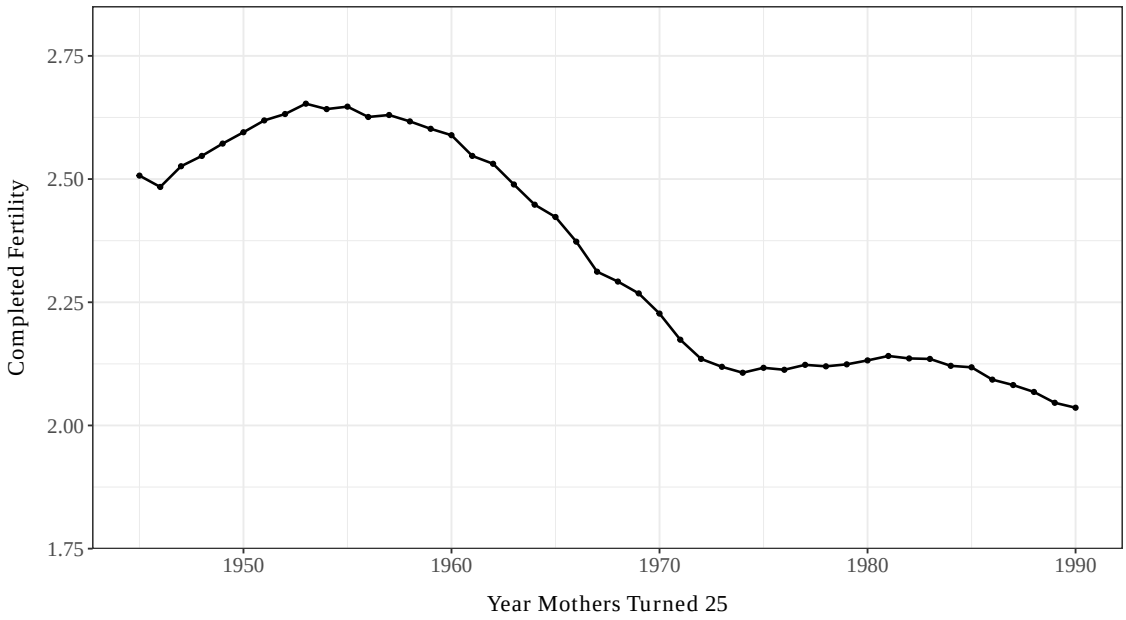
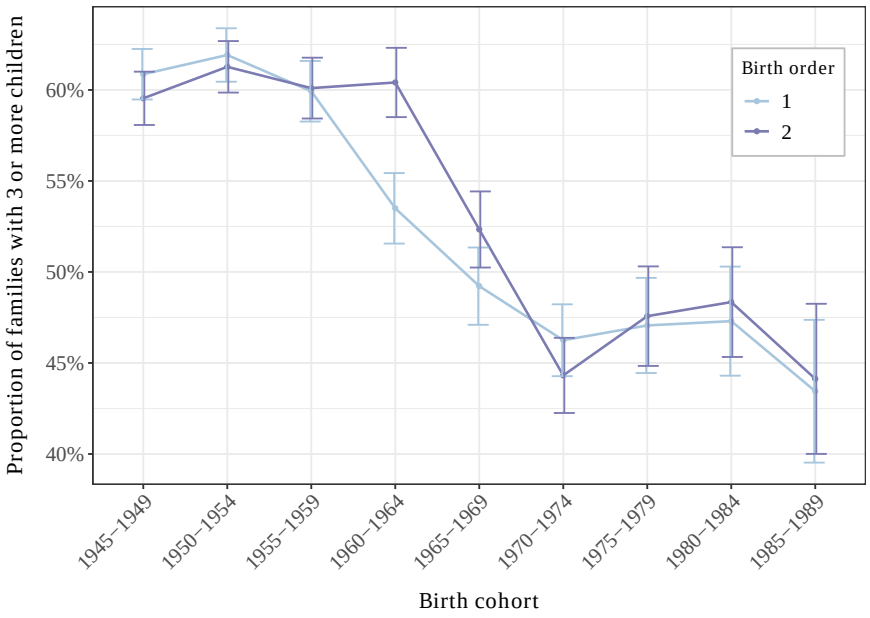
Figure 1: Decline in Completed Fertility across Cohorts of Mothers who Turned 25 between 1945 and 1990



Note: The figure shows the evolution of completed fertility (as measured at age 50) of women by year they turned 25.*Source*: Civil registration data (INSEE).

Figure 2: Decline in the Proportion of Individuals Growing Up in Families with 3 or more Children, by Birth Order



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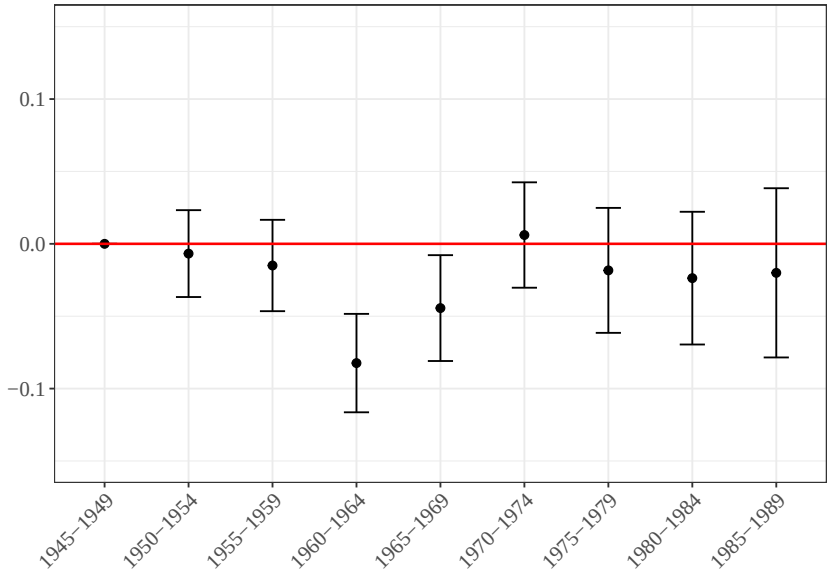
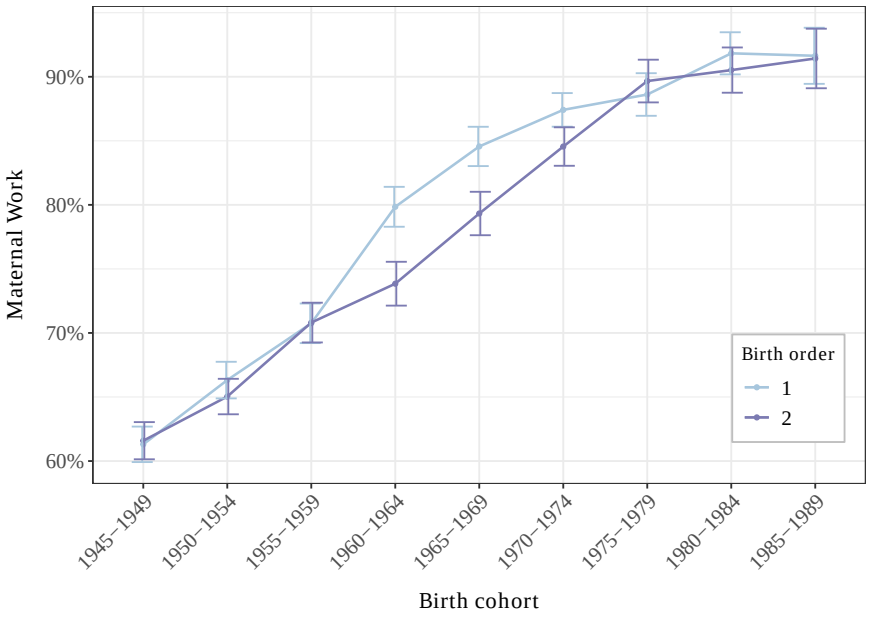


(b) Difference

Note: Figures 2a and 2b refer to the sample of first-born and second-born individuals who were born between 1945 and 1989 and who grew up in families with 2 or more children. Figure 2a shows the evolution across birth cohorts of the proportion growing up in families with 3 or more children, separately for first-born and second born individuals. Figure 2b shows the evolution of the estimated difference between the two curves in Figure 2a, as well as the 95% confidence interval (using the difference for the 1945-1949 cohort as a reference). *Sources*: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Figure 3: Rise in Maternal Work across Birth Cohorts, by Birth Order



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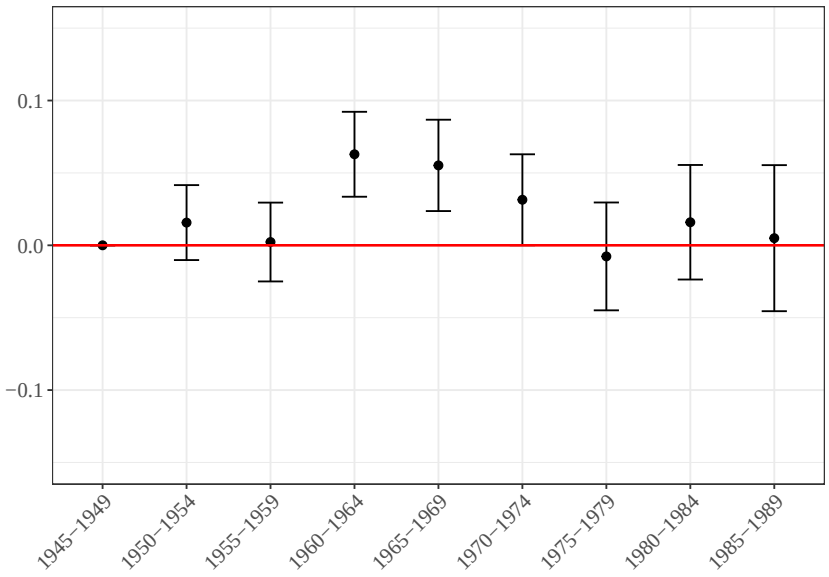
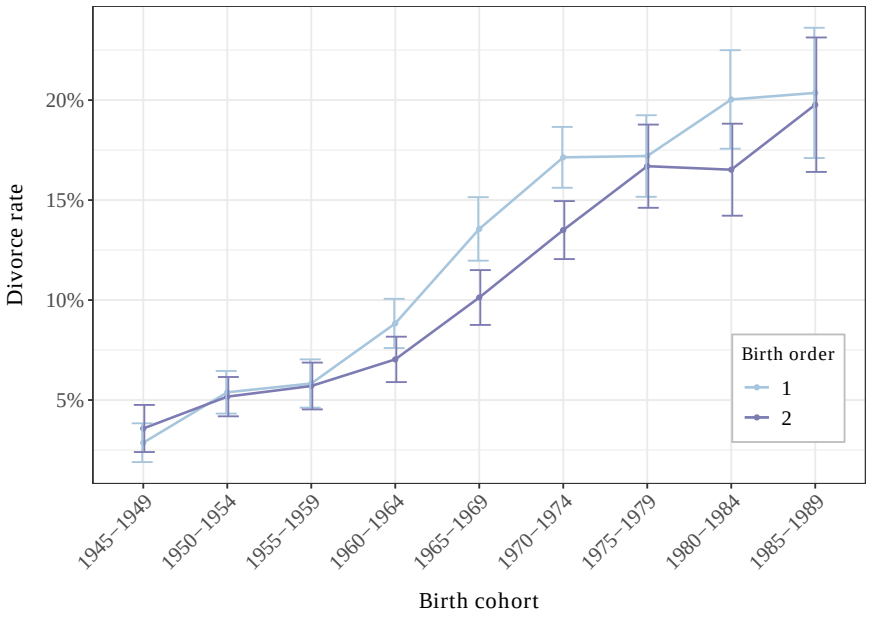


(b) Difference

Note: Figures 3a and 3b refer to the sample of first-born and second-born individuals who were born between 1945 and 1989 and who grew up in families with 2 or more children. Figure 3a shows the evolution across birth cohorts of the proportion of respondents whose mother ever held a job before they left school, separately for first-born and second born individuals. Figure 3b shows the evolution of the difference between the two curves in Figure 3a, as well as the 95% confidence interval (using the difference for the 1945-1949 cohort as a reference). *Sources*: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Figure 4: Rise in Parental Divorce across Birth Cohorts, by Birth Order



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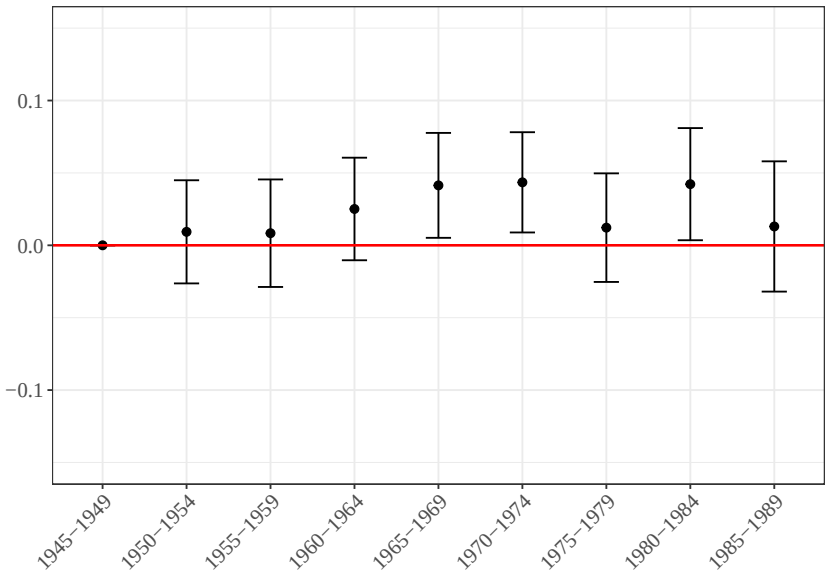
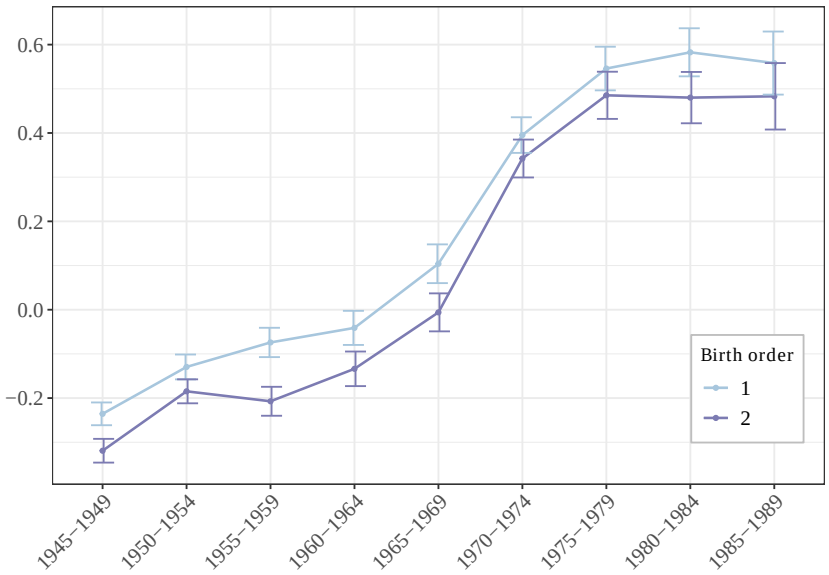


(b) Difference

Note: Figures 4a and 4b refer to the sample of first-born and second-born individuals who were born between 1945 and 1989 and who grew up in families with 2 or more children. Figure 4a shows the evolution across birth cohorts of the proportion whose parents divorced before they finished school, separately for first-born and second born individuals. Figure 4b shows the evolution of the difference between the two curves in Figure 4a, as well as the 95% confidence interval (using the difference for the 1945-1949 cohort as a reference). *Sources*: FQP surveys 2003 and 2014-2015 (INSEE).

Figure 5: Rise in Educational Attainment for Cohorts Born Between 1945 and 1990, by Birth Order



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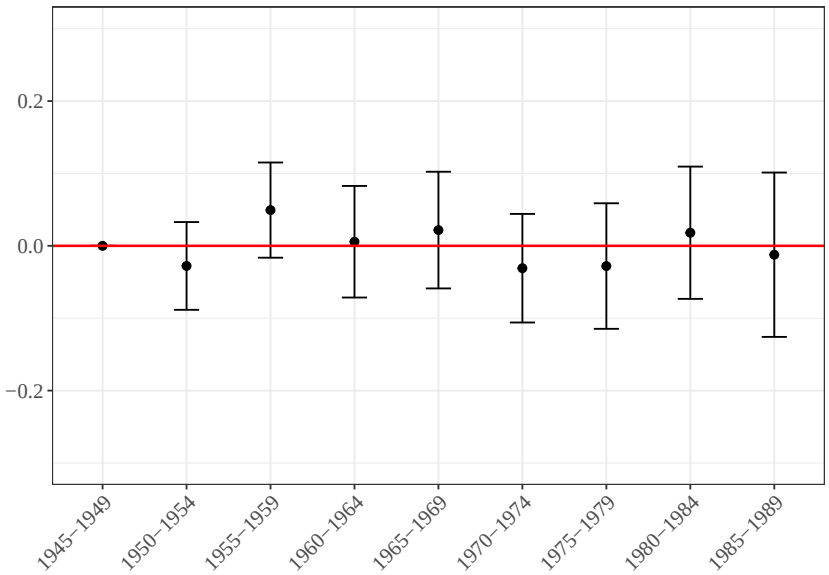


(b) Difference

Note: Figures 5a and 5b refer to the sample of first-born and second-born individuals who were born between 1945 and 1990 and who grew up in families with 2 or more children. Figure 5a shows the evolution across birth cohorts of the (standardized) educational attainment of children, separately for first-born and second born individuals. Figure 5b shows the evolution of the difference between the two curves in Figure 5a, as well as the 95% confidence interval (using the difference for the 1945-1949 cohort as a reference). *Sources*: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Table 1: Timeline of Main Laws and Events

Landmarks	Topics	Details
Law of July 1965 (effective January 1966)	Economic empowerment	Married women are allowed to participate in the labor market and to open their own bank account without husbands authorization.
Law of December 1967 (fully effective 1972)	Oral contraception	Legalization of the contraceptive pill.
Law of June 1970 (effective January 1971)	Joint parental authority	The law substitutes joint parental authority for sole paternal power: The two spouses together ensure the moral and material direction of the family.
April 1971, Manifeste des 343	Abortion	Manifesto published by 343 women (including many public figures) stating they had undergone illegal abortions and asking for liberalization.
October 1971, Bobigny trial	Abortion	Landmark trial of a teenager who underwent an illegal abortion following rape. Following the trial, the Minister of Justice instructed public prosecutors to stop prosecuting women who have had abortions.
Law of December 1972 (effective March 1973)	Economic empowerment	The law establishes the principle of equal pay for equal work, requiring employers in both the private and public sectors to pay women and men equally.
Law of 4 December 1974 (effective January 1975)	Oral contraception	The pill is reimbursed by social security and its free access (without parental authorization) is extended to minor women.
Law of 20 December 1974 (effective January 1975)	Abortion	Legalization of abortion.
Law of July 1975 (effective December 1975)	Divorce	Introduction of divorce by mutual consent. Creation of a compensatory benefit intended to reduce the financial disparities created between spouses by divorce.

Table 2: The Impact of the Sixties on the Family Environment in which Children Grew Up

	3 or more Children (1)	Maternal Work (2)	Parental Divorce (3)	Higher SES Father (4)
First-born	0.006	0.004	0.000	0.008
	(0.007)	(0.007)	(0.005)	(0.007)
First-born × Born 1960-1964	-0.075**	0.056**	0.017	0.005
	(0.017)	(0.015)	(0.010)	(0.017)
First born × Born 1965-1969	-0.037*	0.048**	0.034**	-0.003
	(0.019)	(0.015)	(0.012)	(0.019)
First born × Born 1970-1974	0.013	0.025*	0.036**	-0.031
	(0.017)	(0.013)	(0.012)	(0.017)
First born × Born after 1974	-0.014	-0.003	0.016	-0.008
	(0.015)	(0.010)	(0.012)	(0.015)
Mean before 1960	0.61	0.66	0.05	0.46
Nb. Obs.	44534	44534	26572	44534

Note: The table refers to the full sample of first-born and second-born respondents born between 1945 and 1989 and who grew up in families with 2 or more children. It shows the results obtained by regressing four dependent variables describing the respondents family environment on a dummy variable indicating whether the respondent is a first-born child, a set of four variables interacting the first-born dummy variable with dummies indicating the birth cohort of the respondent, controlling for a full set of cohort of birth effects and a gender dummy. The dependent variables are a dummy indicating that the respondents have more than one sibling (column 1), a dummy indicating whether respondents mothers ever held a job before the respondents left school (column 2), a dummy indicating parental divorce (column 3) and a dummy indicating whether the respondent's father has a higher socio-economic status. *p<0.05, **p<0.01. Robust standard errors are in parenthesis.
Sources: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE)

Table 3: The Impact of the Sixties on the Type of Family in which Children Grew Up

	2 Children Maternal Work = 0 (1)	> 2 Children Maternal Work = 0 (2)	2 Children Maternal Work = 1 (3)	> 2 Children Maternal Work = 1 (4)
First-born	-0.008	0.005	0.002	0.002
	(0.004)	(0.006)	(0.006)	(0.007)
First-born × Born 1960-1964	0.000	-0.056**	0.075**	-0.019
	(0.009)	(0.013)	(0.016)	(0.017)
First born × Born 1965-1969	-0.016	-0.032**	0.053**	-0.005
	(0.010)	(0.012)	(0.018)	(0.018)
First born × Born 1970-1974	-0.017*	-0.008	0.004	0.021
	(0.008)	(0.010)	(0.017)	(0.016)
First born × Born after 1974	0.006	-0.003	0.008	-0.011
	(0.006)	(0.009)	(0.015)	(0.015)
Mean before 1960	0.11	0.23	0.29	0.37
Nb. Obs.	44534	44534	44534	44534

Note: The table refers to the same sample as Table 2. It shows the results obtained by regressing four dependent variables describing the respondents family environment on a dummy variable indicating whether the respondent is a first-born child, a set of four variables interacting the first-born dummy variable with dummies indicating the birth cohort, controlling for a full set of cohort of birth effects and a gender dummy. The dependent variables are the four dummies obtained by interacting a dummy indicating that the respondent has more than one sibling and a dummy indicating whether respondents mothers ever held a job before the respondents left school. *p<0.05, **p<0.01. Robust standard errors are in parenthesis.
Sources: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE)

Table 4: The Impact of the Sixties on Childrens Educational and Occupational Achievement

	No Diploma	High school grad.	Educational attainment	Highly Skilled Occupation
	(1)	(2)	(3)	(4)
First-born	-0.025**	0.042**	0.091**	0.033**
	(0.005)	(0.007)	(0.014)	(0.007)
First-born × Born 1960-1964	-0.006	-0.002	0.001	-0.019
	(0.012)	(0.017)	(0.036)	(0.017)
First-born × Born 1965-1969	0.004	0.002	0.017	0.018
	(0.012)	(0.018)	(0.038)	(0.018)
First-born × Born 1970-1974	0.015	-0.019	-0.036	-0.017
	(0.010)	(0.016)	(0.035)	(0.017)
First-born × Born after 1974	0.011	-0.010	-0.013	-0.018
	(0.008)	(0.014)	(0.029)	(0.015)
Mean before 1960	0.13	0.34	0.08	0.40
Nb. Obs.	44534	44534	44534	44534

Note: The table refers to the same sample as Table 2. It shows the results obtained by regressing four dependent variables describing respondents educational and occupational achievement on a dummy variable indicating whether the respondent is a first-born child, a set of four variables interacting the first-born dummy variable with dummies indicating the birth cohort of the respondent, controlling for a full set of cohort of birth effects and a gender dummy (and further by age in the last column). The dependent variables are a dummy variable indicating that the respondent left school without any diploma (column 1), a variable indicating that he/she graduated from high school (column 2), a (standardized) continuous variable indicating educational attainment (column 3) and an dummy indicating whether the respondent has a highly skilled occupation (column 4). *p<0.05, **p<0.01. Robust standard errors are in parenthesis.
Sources: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Table 5: The Impact of the Sixties on Opposite-Sex Eldest Siblings

	3 or more Children (1)	Maternal Work (2)	Parental Divorce (3)	Educational Attainment (4)	Highly Skilled Occup. (5)
Opposite Sex × Post 1974	-0.038*	-0.013	0.004	-0.036	0.014
	(0.019)	(0.015)	(0.016)	(0.039)	(0.019)
Opposite Sex	-0.046**	0.018*	-0.003	0.031	0.003
	(0.009)	(0.009)	(0.006)	(0.020)	(0.010)
Mean before 1974	0.55	0.76	0.09	0.25	0.43
Nb. Obs.	18799	18799	18199	18799	18799

Note: The table refers to the sample of first-born and second-born respondents born between 1945 and 1989 into families where we know the sex of the two eldest children. It shows the results obtained by regressing variables characterizing the respondents' family environment, level of education and occupational level on a variable indicating whether the two eldest siblings of the family are of the opposite sex, a variable interacting the opposite-sex dummy and a dummy indicating that the respondent was born after 1974, controlling for a gender dummy as well as for a full set of cohort dummies. *p<0.05, **p<0.01. Robust standard errors are in parenthesis.
Sources: FQP surveys 2003, 2014-2015 (INSEE)

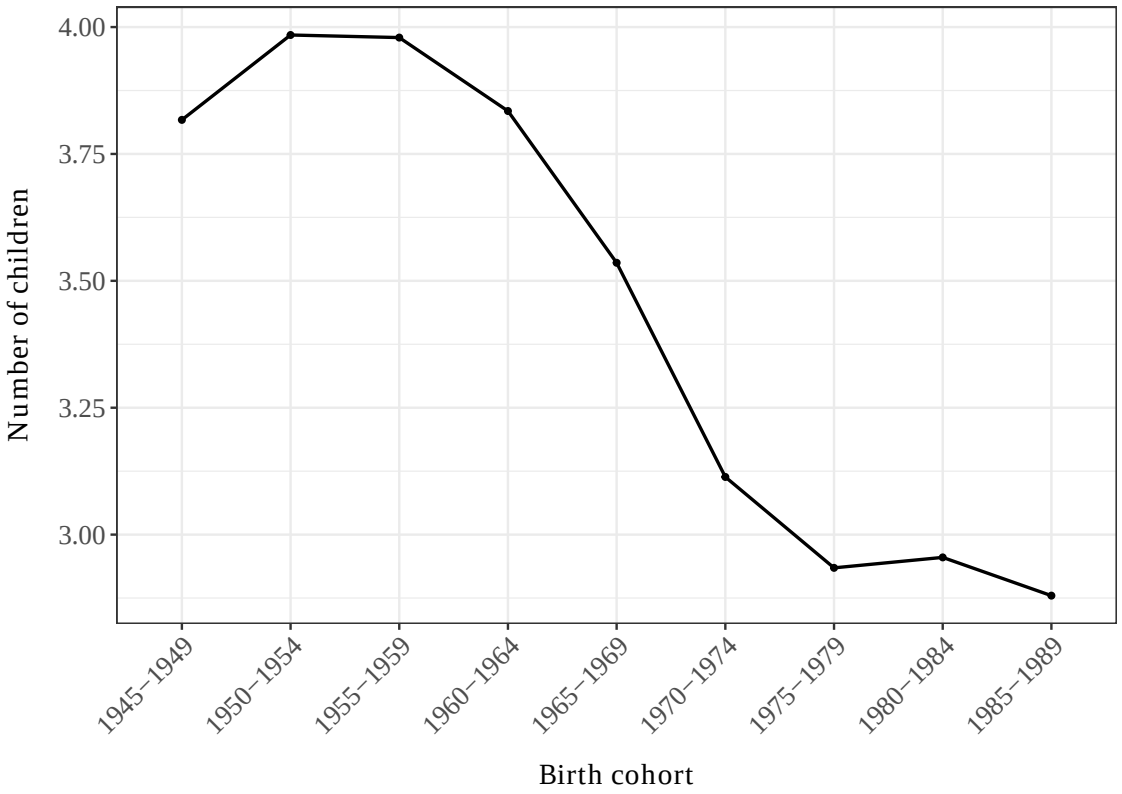
Table 6: The Impact of the Sixties on Opposit-Sex Family Types

	2 Children Maternal Work = 0 (1)	> 2 Children Maternal Work = 0 (2)	2 Children Maternal Work = 1 (3)	> 2 Children Maternal Work = 1 (4)
Opposite Sex × Post 1974	-0.002	0.014	0.040*	-0.053**
	(0.006)	(0.015)	(0.018)	(0.020)
Opposite Sex	0.006	-0.025**	0.039**	-0.021*
	(0.004)	(0.009)	(0.008)	(0.010)
Mean before 1974	0.08	0.16	0.37	0.39
Nb. Obs.	18799	18799	18799	18799

Note: The table refers to the same sample of first-born and second-born respondents as Table 5. It shows the results obtained by regressing the variables characterizing the family environment in which they grew up on a variable indicating whether the two eldest siblings of the family are of the opposite sex, a variable interacting the opposite-sex dummy and a dummy indicating that the respondent was born after 1974, controlling for a gender dummy. The four dependent variables are the same as in Table 3. *p<0.05, **p<0.01. Heteroskedasticity-robust standard errors are in parenthesis. Robust standard errors are in parenthesis.
Sources: FQP surveys 2003, 2014-2015 (INSEE)

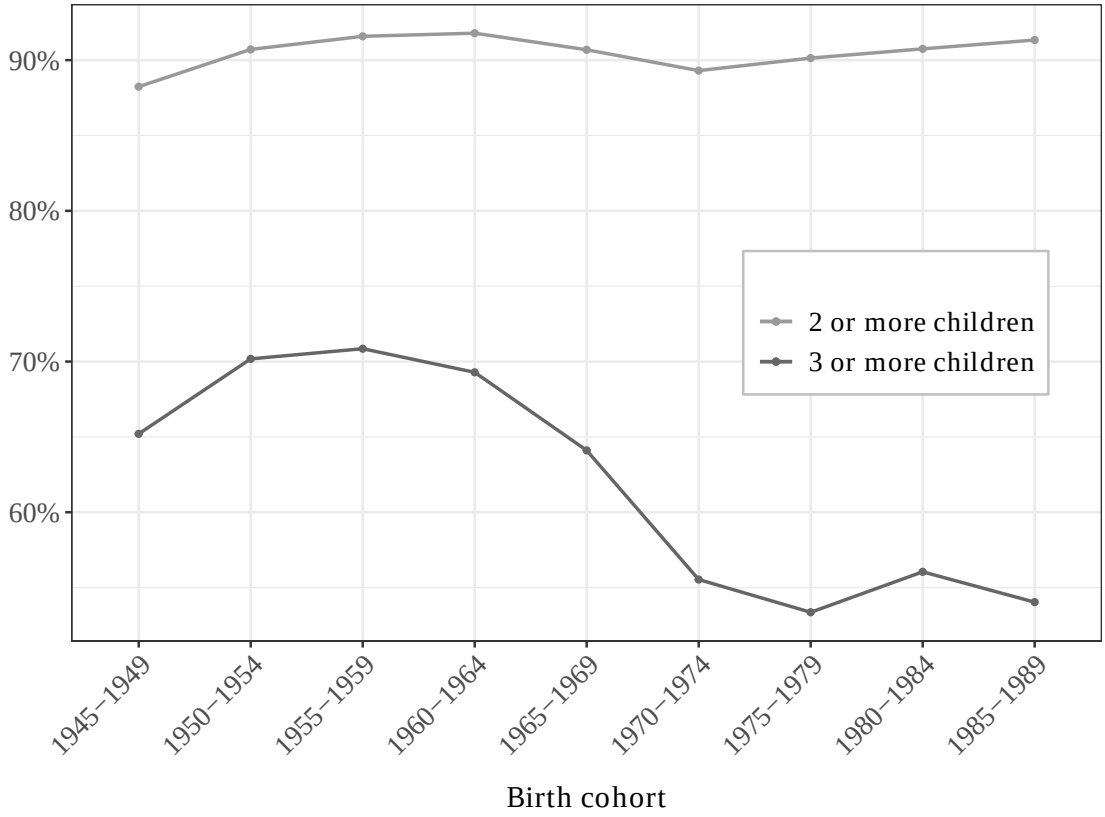
Appendix

Figure A.1: Decline in Family Size across Birth Cohorts



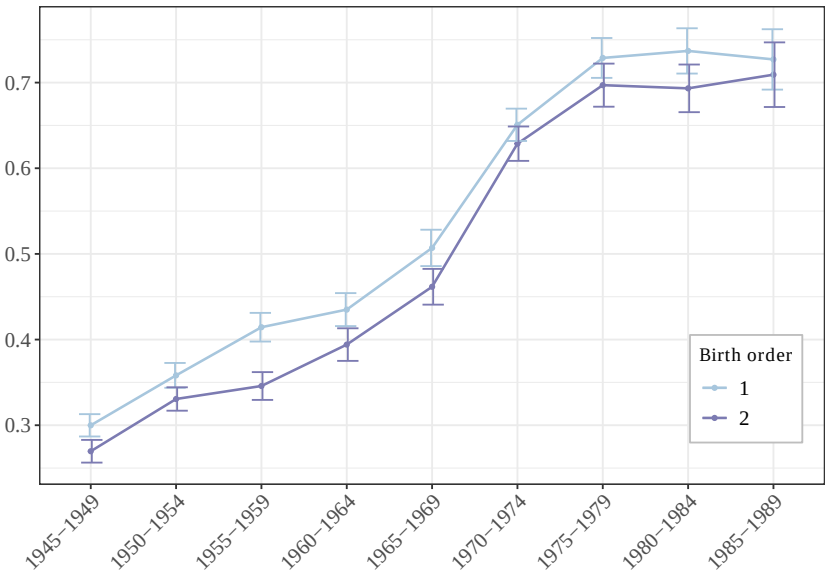
Note: The figure refers to the sample of individuals born between 1945 and 1989. It shows the evolution of the size of the sibship to which individuals belong over their birth cohorts.
Sources: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Figure A.2: Change in the Distribution of Family Size across Birth Cohorts



Note: The figure refers to the sample of individuals born between 1945 and 1989. It shows the evolution across individuals' birth cohorts of the proportion growing up in a family with 2 or more children, as well as the evolution of the proportion growing up in a family with 3 or more children. *Sources*: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Figure A.3: Rise in the Probability of Being a High School Graduate for Cohorts Born Between 1945 and 1990, by Birth Order



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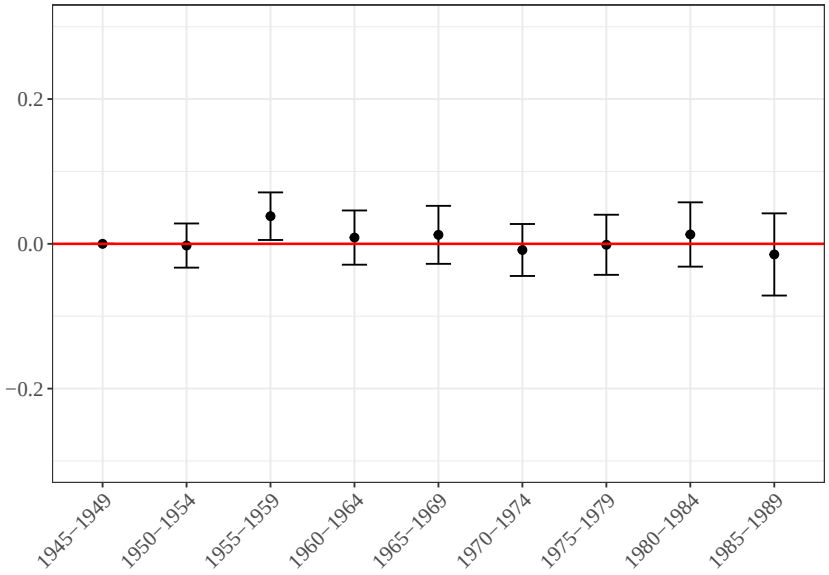
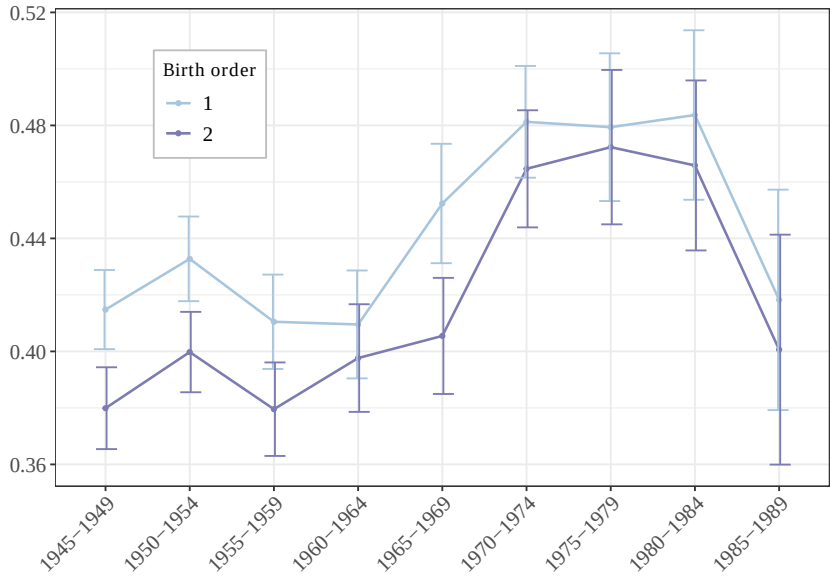


(b) Difference

Note: Figures A.3a and A.3b refer to the sample of first-born and second-born individuals who were born between 1945 and 1990 and who grew up in families with 2 or more children. Figure A.3a shows the evolution across birth cohorts of the share of high school graduates, separately for first-born and second born individuals. Figure A.3b shows the evolution of the difference between the two curves in Figure A.3a, as well as the 95% confidence interval (using the difference for the 1945-1949 cohort as a reference). *Sources*: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Figure A.4: Rise in the Probability of Having a Highly Skilled Occupation for Cohorts Born Between 1945 and 1990, by Birth Order



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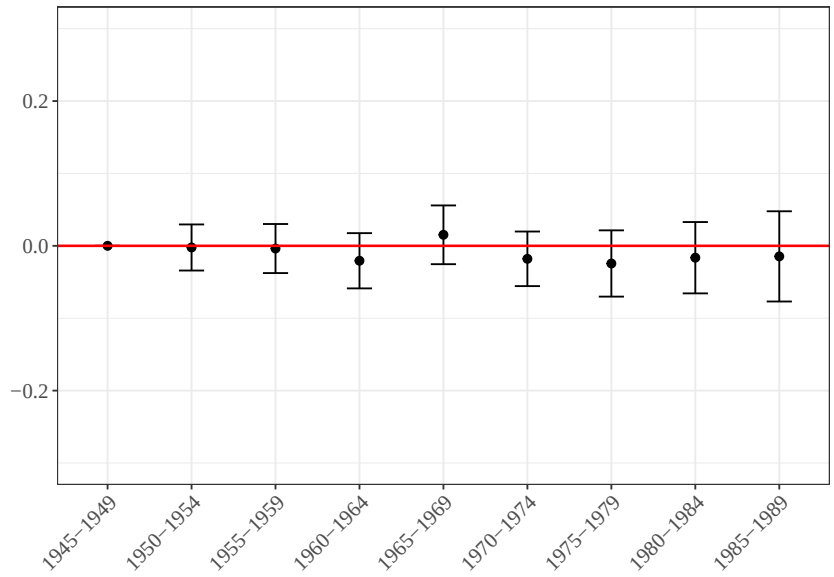

(b) Difference

Note: Figures A.4a and A.4b refer to the sample of first-born and second-born individuals who were born between 1945 and 1990 and who grew up in families with 2 or more children. Figure A.4a shows the evolution across birth cohorts of the share of individuals with a highly skilled occupation, separately for first-born and second born individuals. Figure A.4b shows the evolution of the difference between the two curves in Figure A.4a, as well as the 95% confidence interval (using the difference for the 1945-1949 cohort as a reference). *Sources*: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Table A.1: Descriptive Statistics

	All birth cohorts	Born before 1960	Born 1960-1974	Born after 1974
Respondents characteristics				
First-born	0.51	0.50	0.51	0.52
	(0.50)	(0.50)	(0.50)	(0.50)
Female	0.49	0.47	0.52	0.53
	(0.50)	(0.50)	(0.50)	(0.50)
High-school graduate	0.44	0.34	0.51	0.71
	(0.50)	(0.47)	(0.50)	(0.45)
Educational attainment	1.61	1.43	1.72	2.14
	(1.02)	(0.95)	(1.05)	(0.96)
Highly skilled occupation	0.42	0.41	0.43	0.46
	(0.49)	(0.50)	(0.50)	(0.50)
Family and parents characteristics				
Family Size	3.09	3.32	2.86	2.71
	(1.45)	(1.63)	(1.16)	(1.02)
3 or more children	0.56	0.60	0.51	0.47
	(0.50)	(0.49)	(0.50)	(0.50)
Maternal Work	0.74	0.65	0.81	0.90
	(0.44)	(0.48)	(0.39)	(0.30)
Parental divorce	0.11	0.05	0.12	0.18
	(0.31)	(0.22)	(0.32)	(0.39)
Mother's age at birth of firstborn	23.52	23.96	23.08	23.66
	(4.21)	(4.43)	(4.11)	(3.86)
Mother's age at birth of secondborn	26.77	27.11	26.44	26.86
	(4.95)	(5.13)	(4.98)	(4.36)
Sex composition of eldest siblings				
Male-Male	0.25	0.23	0.25	0.25
	(0.43)	(0.42)	(0.44)	(0.43)
Female-Male	0.25	0.25	0.26	0.24
	(0.43)	(0.43)	(0.44)	(0.43)
Male-Female	0.25	0.26	0.25	0.24
	(0.43)	(0.44)	(0.43)	(0.42)
Female-Female	0.26	0.27	0.24	0.27
	(0.44)	(0.44)	(0.43)	(0.44)
Nb. Obs.	44534	24463	14088	5983

Note: The table refers to our working sample of respondents aged 26 to 65, with a birth order 1 or 2, born between 1945 and 1989 in families with two or more children. The last four rows refer to the subsample for which the sex composition of the two eldest siblings in the family is known. The table shows the average value and standard deviation (in parenthesis) of the main variables used in the article. The first column shows the result for all birth cohorts, the second column for the cohorts born before 1960, the third column for the cohorts born between 1960 and 1974 and the fourth column for the cohorts born after 1974. *Sources:* FQP surveys 1977, 1985, 1993, 2003 and 2014-2015 (INSEE).

Table A.2: The Sixties and Parent Characteristics

	Mother		Father	
	High School Dropout	Age at Birth	High School Dropout	Age at Birth
	(1)	(2)	(3)	(4)
First-born	-0.030*	-3.212**	-0.019	-3.344**
	(0.014)	(0.094)	(0.015)	(0.115)
First-born × Born 1960-1964	-0.036	0.025	-0.034	0.275
	(0.040)	(0.175)	(0.040)	(0.195)
First-born × Born 1965-1969	-0.055	-0.306	-0.049	-0.356
	(0.044)	(0.184)	(0.042)	(0.208)
First-born × Born 1970-1974	-0.073	-0.114	-0.052	-0.342
	(0.047)	(0.166)	(0.042)	(0.192)
First-born × Born after 1974	-0.094*	0.003	-0.033	0.161
	(0.046)	(0.144)	(0.039)	(0.172)
Mean before 1960	0.02	25.57	-0.05	28.74
Nb. Obs.	44534	31889	44534	31085

Note: The table refers to the same sample of first-born and second-born children as Table 2. It shows the results obtained by regressing four dependent variables describing socio-demographic characteristics of parents on a dummy variable indicating whether the respondent is a first born child, a set of four variables interacting the first-born dummy variable with dummies indicating the birth cohort of the respondent, controlling for a gender dummy and a full set of birth cohort dummies. The dependent variables are a dummy indicating whether the mother dropped out of school before completing high-school (column 1), a variable giving the respondents mothers age at birth (column 2), a dummy indicating whether the father dropped out of school before completing high-school (column 3), a variable giving the respondents fathers age at birth (column 4). *p<0.05, **p<0.01. Robust standard errors are in parenthesis.
Sources: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Table A.3: The Impact of the Sixties on Childrens Family Environment and Achievements, by Gender Group

	3 or more Children (1)	Maternal Work (2)	High school grad. (3)	Educational Attainment (4)	Highly Skilled Occup. (5)
Panel A: Women					
First-born	0.001	-0.003	0.041**	0.095**	0.036**
	(0.010)	(0.010)	(0.010)	(0.019)	(0.010)
First-born × Born 1960-1964	-0.040	0.062**	-0.013	-0.019	-0.028
	(0.024)	(0.020)	(0.024)	(0.050)	(0.023)
First born × Born 1965-1969	-0.065*	0.059**	0.025	0.052	0.031
	(0.026)	(0.022)	(0.026)	(0.053)	(0.026)
First born × Born 1970-1974	0.029	0.022	-0.036	-0.046	-0.023
	(0.023)	(0.017)	(0.022)	(0.047)	(0.023)
First born × Born after 1974	-0.024	-0.004	-0.031	-0.056	-0.020
	(0.021)	(0.014)	(0.018)	(0.039)	(0.021)
Mean before 1960	0.61	0.67	0.35	0.10	0.35
Num.Obs.	22022	22022	22022	22022	22022
Panel B: Men					
First-born	0.011	0.010	0.041**	0.086**	0.030**
	(0.009)	(0.009)	(0.009)	(0.019)	(0.010)
First-born × Born 1960-1964	-0.110**	0.050*	0.009	0.022	-0.008
	(0.024)	(0.022)	(0.024)	(0.051)	(0.025)
First born × Born 1965-1969	-0.007	0.039	-0.024	-0.022	0.005
	(0.027)	(0.021)	(0.026)	(0.054)	(0.027)
First born × Born 1970-1974	-0.002	0.028	-0.001	-0.024	-0.010
	(0.024)	(0.018)	(0.023)	(0.051)	(0.024)
First born × Born after 1974	-0.002	-0.001	0.012	0.029	-0.021
	(0.022)	(0.015)	(0.021)	(0.043)	(0.022)
Mean before 1960	0.61	0.65	0.32	0.05	0.45
Num.Obs.	22512	22512	22512	22512	22512

Notes: The table refers to the same sample as Table 2. Panel A (Panel B) refers to the sub-sample of female respondents (male respondents). The two first columns show the replication of the two first columns of Table 2 separately for women and men. The last two columns show the replication of the last three columns of Table 4 separately for women and men. *p<0.05, **p<0.01. Robust standard errors are in parenthesis.
Source: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).

Table A.4: The Impact of the Sixties on Childrens Family Environment and Achievements, by SES Group

	3 or more Children (1)	Maternal Work (2)	High school grad. (3)	Educational Attainment (4)	Highly Skilled Occup. (5)
Panel A: Lower SES Father					
First-born	0.007	-0.009	0.037**	0.088**	0.029**
	(0.009)	(0.009)	(0.007)	(0.015)	(0.008)
First-born × Born 1960-1964	-0.051*	0.088**	-0.034	-0.093*	-0.036
	(0.024)	(0.021)	(0.021)	(0.044)	(0.021)
First born × Born 1965-1969	-0.004	0.053*	0.001	-0.002	0.024
	(0.027)	(0.022)	(0.026)	(0.054)	(0.025)
First born × Born 1970-1974	-0.023	0.023	-0.019	-0.042	-0.019
	(0.025)	(0.020)	(0.024)	(0.051)	(0.023)
First born × Born after 1974	-0.001	0.012	-0.008	0.003	-0.020
	(0.022)	(0.016)	(0.021)	(0.042)	(0.021)
Mean before 1960	0.65	0.66	0.20	-0.22	0.28
Num.Obs.	22633	22633	22633	22633	22633
Panel B: Higher SES Father					
First-born	0.007	0.019	0.042**	0.083**	0.034**
	(0.011)	(0.010)	(0.011)	(0.021)	(0.010)
First-born × Born 1960-1964	-0.096**	0.022	0.024	0.082	-0.006
	(0.024)	(0.021)	(0.024)	(0.051)	(0.024)
First born × Born 1965-1969	-0.066*	0.039	0.003	0.039	0.013
	(0.026)	(0.020)	(0.025)	(0.051)	(0.026)
First born × Born 1970-1974	0.033	0.023	-0.005	0.003	-0.003
	(0.023)	(0.016)	(0.021)	(0.044)	(0.023)
First born × Born after 1974	-0.024	-0.021	-0.007	-0.014	-0.014
	(0.020)	(0.014)	(0.018)	(0.037)	(0.020)
Mean before 1960	0.56	0.66	0.50	0.42	0.55
Num.Obs.	21901	21901	21901	21901	21901

Notes: The table refers to the same sample as Table 2. Panel A (Panel B) refers to the sub-sample of respondents whose fathers have a lower SES (higher SES). The two first columns show the replication of the two first columns of Table 2 separately for the lower SES subsample and the higher SES subsample. The last three columns show the replication of the last three columns of Table 4 separately for the lower SES subsample and the higher SES subsample. *p<0.05, **p<0.01. Robust standard errors are in parenthesis.
Source: FQP surveys 1977, 1985, 1993, 2003, 2014-2015 (INSEE).