Parental divorces and children's educational outcomes in Senegal

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Abstract

This paper studies how parental divorce affects investments in children's primary education in Senegal. It provides novel evidence on an under-researched topic: the impact of parental divorces on children in a society where safety nets are more often provided by family than by formal institutions. We use a siblings fixed-effects estimation that exploits the variations in the age of the siblings at the time of divorce while controlling for family-invariant omitted variables. We compare children who were old enough at divorce date to have been enrolled in primary school to their younger siblings, for whom enrollment decisions had not yet been taken at the time of the divorce. We find that younger siblings are more likely than their older siblings to have attended primary school. There are no differences between siblings when considering primary school completion: divorce does not increase the likelihood to drop out from primary school. Overall, divorce does not seem to have negative consequences on children when we consider primary school level outcomes. Disruption caused by a divorce may be more severe for older children.

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1   Introduction

Changes in family structure, due to parental death or divorce, are likely to affect children. Yet, while the consequences of orphanhood have been studied, little is known about the consequences of divorces for children in sub-Saharan Africa, despite the fact that around 25% of first unions end by a divorce (Clark and Brauner-Otto, 2015). A divorce is likely to imply economic losses, changes in caregivers, and psychological distress (Amato, 2000). All children whose parents divorce may face these consequences, but in countries where formal safety nets are scarce and poverty levels high, such as sub-Saharan Africa, the consequences of a divorce might be more severe than in developed countries, potentially affecting health and access to education.

This paper addresses whether a divorce affects the (basic) educational decisions parents make for their children. It focuses on the case of Senegal, providing new evidence on divorces in sub-Saharan Africa. It thus complements a scarce body of work on divorce and schooling outcomes in other countries in sub-Saharan Africa: Gnoumou Thiombiano et al. (2013) on Burkina Faso, where divorces are rare and Chae (2016) on rural Malawi, where marital unions are highly unstable. The Senegalese context differs from the context of these two countries: divorces are neither rare nor common (about 20% of first unions in Senegal end by a divorce, closer to the average in sub-Saharan Africa (Clark and Brauner-Otto, 2015)). Additionally, divorces in Senegal are more common among couples from better-off backgrounds (Lambert et al. (2019), on the same dataset as us) than among couples from poorer backgrounds. As the impact of a divorce on children is likely to vary depending on the social context and on family characteristics, expanding the range of countries studied contributes to better understanding the consequences of divorces.

We study whether age at divorce is correlated to primary schooling decisions. A simple comparison of children depending on the divorce status of their parents would not provide a satisfactory answer to the question. Many parental and family characteristics are likely to influence simultaneously the probability that parents divorce and the schooling of their children, leading to an omitted variable bias. To avoid this issue, we use a sibling fixed-effects strategy that allows to control for all the factors that are common to all children in a family, such as parental preferences regarding education or the level of education of their parents (Björklund and Sundström, 2006; Le Forner, 2020). This strategy only relies on (within-family) differences in age at divorce: we compare children for whom schooling decisions had not yet been made at divorce date to their older siblings for whom schooling decisions had likely been made at divorce date. We study two related primary schooling outcomes. The first outcome is whether a child has ever attended school (primary school attendance). It captures the lowest level of schooling that a child can have. The second outcome is whether a child has completed primary school (5th or 6th grade). This outcomes captures higher

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levels of investment in schooling as well as retention in the educational system. This paper focuses on primary school enrollment and does not discuss higher levels of schooling due to sample size limitations.

We use the 2011 wave of the survey *Pauvreté et Structure Familiale* (PSF, De Vreyer et al. (2008)). This survey combines two elements – whose combination is rarely found in household surveys – that are key to implement the sibling fixed effects identification strategy. The PSF survey collected detailed information on marital histories, including the year when and the reason why – divorce or death – each marital union ended. It also collected information on children younger than 25 born to all members of surveyed households, thus including children who do not live in the household. As custody of children is an outcome of divorce, information on children who are not household members ensures that the sample is not selected as a result of divorce.

Overall, our findings suggest that divorce does not affect negatively educational outcomes of children who were young when their parents divorced. Children who were 5 or younger when their parents divorced are more likely to have attended primary school than other children and that their older siblings: parents seems to be able to compensate their younger children after a divorce. We rule out that this result could be driven by divorce (or any correlated negative shock) affecting children older than 6 at the time of the divorce. Additionally, this positive effect on school attendance is robust to varying the age cutoff for the age at divorce. However, this finding must be nuanced: children who were 5 or younger at divorce date are not more likely to have completed primary school when compared to their siblings who were of primary school age at divorce date and to their siblings who were supposed to have completed primary school at divorce date. A higher investment in the lowest level of primary schooling does not seem to lead to a sustained enough investment for children to be able to complete 5th grade. Finally, children who were between 6 and 9 years old when their parents divorced are as likely to have completed primary school as their older siblings. That finding further suggests that divorces might not have negative consequences for children when considering primary-level educational outcomes. Regarding the channels, custody and fostering decisions do not seem to drive the positive effect on primary school attendance. Part of the effect observed seems driven by the children of women who remarry, which is consistent with the fact that remarriage often allows women to improve their financial situation. Another potential channel is that some women might see their decision-making power increase after they divorce: if a woman's preference for education is higher than her ex-husband's, she might invest more in her children by sending them to school after the divorce. Nevertheless, as primary school completion does not increase, this investment is not sustained enough to allow children to complete their primary education.

This paper makes two contributions to the literature. First, we provide new evidence that divorces do not necessarily negatively affect children's basic educational outcomes, using a sibling fixed effects methodology that allows to control for selection into divorce.[1] While finding no negative impact of divorce on schooling outcomes may be surprising, it is in line with recent evidence on health outcomes of children whose parents divorce. Smith-Greenaway (2020) concludes that in sub-Saharan Africa, following divorce, children's health benefits from their biological parents' education to the same degree as children with married parents, highlighting that selection into divorce and remarriage might be what drives the differences previously observed between children.[2]

Second, this paper expands the literature on the link between divorce and children's education in developing countries by providing results on the Senegalese context that challenge previous findings. Gnoumou Thiombiano et al. (2013) find that, in Burkina Faso, children of divorced parents are less likely to attend school than their counterparts, but do not discuss selection into divorce. Chae (2016) uses specifications with child fixed effects and finds that parental divorce in rural Malawi is associated with a lower grade attainment and a lower likelihood for children to be attending school at the time of the survey. Our findings are at odds with both these papers, which is not surprising given that divorced parents in Senegal are not comparable to divorced parents in rural Malawi and Burkina Faso. In the Senegalese case, children of divorced parents do not seem to have worse schooling outcomes due to their parents' divorce. This finding emphasizes the need to study the consequences of divorces in several societies by using multiple methodological tools.

The rest of the paper is organized as follows. We introduce the dataset and survey used for our analysis in section 2. Section 3 introduces elements of context about divorce and education in Senegal. Section 4 details the identification strategy. Section 5 presents the results as well as robustness checks. Section 6 discusses the channels that may mediate the impact of parental divorce on children's primary school enrollment. Section 7 concludes.

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[1]When considering the broader category of paternal absence, the consensus seems to be that death of the father has either negative or no consequences for his children, depending on the outcome considered (van de Walle, 2013; Beegle et al., 2006) and that the death of the mother had negative consequences for her children (Case and Ardington, 2006; Beegle et al., 2010). A divorce does not necessarily imply paternal absence and the impacts of both shocks are likely to differ due to differences in the type of shock as well as differences in the characteristics of families affected by these shocks.

[2]Clark and Hamplová (2013) and Gnoumou Thiombiano et al. (2013) conclude that children of divorced mothers have worse health outcomes than children whose parents are still married.

2   Data: *Pauvreté et structure familiale*

We use the second wave of the survey *Enquête Pauvreté et Structure Familiale*[3] (PSF) that was conducted in Senegal in 2011.[4] The survey is described in detail in De Vreyer et al. (2008).

The PSF database has two specificities that allow us to identify women who divorced and children born to parents who then divorced. First, PSF records detailed information on past marital life. Respondents are asked how many times they experienced a marital dissolution and, if relevant, what the reason for the most recent marital dissolution was (separation or death of their husband). They also provide the dates when their current and last unions began and ended. In case of a divorce or of a separation, the date likely reflects the time when the separation became effective, rather than the end of an eventual legal process.

Second, PSF lists all the children of household members, provided that they are younger than 25 years old. Each individual in the household is asked to indicate which children living in the household are her own, and to list her children living elsewhere. Thus, there is no selection of children based on whom they live with, ensuring that our results are not biased by decisions regarding custody and place of residence of children after a divorce.

We focus on divorced mothers and their children, and do not study fathers who have divorced. There are two reasons for that choice. First, when a man had several wives at the time when he divorced one of them, we cannot reliably identify which children were affected by the divorce, as we do not know which of this then-wives he divorced from. Second, we need information on children's age at divorce date and women are more likely to accurately report the age of their children than men, who, on average, have more children than women, due to high polygamy rates.[5]

The data we use is partly retrospective and concerns in some case children who are not household members. Misreporting should not be a major issue, as it is likely that mothers remember birth, marriage, and divorce years, and know about whether their children went to school, even if they are not living in the same household as them.

There are two main limitations to using PSF. First, households where divorced women live at the time of the survey are not the households in which these women and their children lived

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[3]Momar Sylla and Matar Gueye of the Agence Nationale de la Statistique et de la Démographie of Senegal (ANSD), and Philippe De Vreyer (University of Paris-Dauphine and IRD-DIAL), Sylvie Lambert (Paris School of Economics-INRA) and Abla Safir (World Bank) designed the survey. The data collection was conducted by the ANSD.

[4]The first PSF wave is a representative sample of the Senegalese population, the second wave included respondents of the first wave and the household members living with them. The number of respondents is almost two times higher in the second wave (28 000 individuals versus 14 450) than in the first one. The sample of interest is not large enough in the first PSF wave, hence our decision to use the second wave.

[5]43% of married men older than 45 years old have more than one wife. Polygamous men who live with all their wives have on average 7.5 children.

before the divorce.[6] Information on the previous household is more limited than information on the current household: we do not have retrospective information on the exact place of residence when the child was in school, we only know whether she was in the household or had already left it. Second, information collected on children who are not members of the surveyed household is limited. Two types of education-related questions are asked about these children: whether the child is currently attending school and what her highest level of education is. Information on the age at which a child started school was collected only for children living in the surveyed households.

3 Background: Divorce and Education in Senegal

3.1 Insights on divorces in Senegal

3.1.1 Two different worlds: Legal and customary divorces

We draw from a report by Lagoutte et al. (2014) that provides detailed information and analyzes on marital dissolution practices in Senegal. Since 1973, according to the *Code Sénégalais de la Famille*, a legal marital dissolution (divorce) must be pronounced, even if the marriage is not legally registered. However, qualitative work conducted by one of the authors suggests that most women do not formally divorce but instead have a customary divorce. Under customary law, a wife might ask her husband for a divorce, but he needs to agree to it for the divorce to be effective. Conversely, a husband can divorce his wife, even if she does not agree to the divorce.[7] Under the 1973 Senegalese family law, which aimed at protecting women and ensuring gender equality, both parties can file for divorce. However, women are much more likely to file for divorce than men, making around 75% of claims in court. This discrepancy may be due to the fact that in a polygynous society, men can marry another women rather than divorce in case of an unhappy marriage. Most of the divorce rulings are granted on the grounds of *incompatibilité d'humeur* (a rather vague term, literally "mood incompatibilities") or of "défaut d'entretien par le mari" (husband failed to support his wife economically).[8] The existence of these two grounds for divorce is anterior to the 1973 Senegalese family law and characterizes both the Islamic law and the

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[6]We can retrieve information on the household that existed before the divorce only when the divorce took place between the two waves. There are only 65 women who divorced between the two waves. Among these 65 women, only 43 had at least one child with their then husband, and among them, only 24 had a child older than 6 in 2011.

[7]There are reports that repudiation – unilateral divorce right, only granted to the husband –, while outlawed, is still practiced in Senegal. However, no woman ever mentioned having been repudiated during qualitative interviews, which might be due to social stigma associated to the practice.

[8]Lagoutte et al. (2014) reports that few divorces are filed for jointly. The two grounds for divorce most commonly filed for are also likely to hide other reasons for divorce, such as infidelity. Additionally, alimony can be provided only if the husband filed for divorce under the motive he does not get along with his wife, or in case of a divorce for a serious illness.

customary one.

If children were born to a couple that divorces, then who will have custody of the children needs to be decided. There is uncertainty over children's residence place: Lambert et al. (2019) stress that women often declare in interviews that they worry about their children being taken away from them, should they separate from their husbands. In case of a formal divorce, the judge decides on the children's residence and declares one parent to be the main caregiver. Mothers are usually granted custody of their daughters and of their young sons and the judge can order the father to pay child support. In case of a customary divorce, fathers can claim custody of their children as soon as they are not nursed anymore. If the children stay with their mother, their father might contribute to their living expenses, if he is able and willing to do so. The consequences of a divorce are hence likely to differ vastly across families.

3.1.2 Characteristics of divorced mothers and their children

We contrast the characteristics of divorced mothers to the characteristics of mothers who have never divorced (Panel A, Table 1).[9] Among mothers of children younger than 25 years old, 11% have ever divorced. Divorced mothers, on average, seem to be better-off that their counterparts: they are more educated, more likely to live in an urban area, and are more likely to come from a rather well-off background, as indicated by the fact that fathers of divorced mothers are more likely to be self-employed and state-employed. This difference is not surprising: women who divorce need to access resources to compensate for the (potential) loss of resources associated with divorce, especially if their ex-husbands provided for them during their marriage. Educated women are likely to have better outside options than uneducated women: they have access to more valuable jobs and to better matches on the (re)marriage market.[10] Their family network may be able to provide more financial assistance. Additionally, the profession of the father is a proxy for social class and may capture how empowered women are. Divorced women are therefore positively selected: it may mean that either most women in our sample have chosen to divorce their ex-husbands or men do not abandon women who are vulnerable. Mothers in a polygamous union are not more likely to divorce than other mothers. When including all the variables defined before the divorce in a LPM model (column 4), the findings are similar: higher levels of education as well as some categories related to father occupation are associated to a higher likelihood of divorce. Additionally, coefficients associated to two ethnic groups (Wolof and Poular) are also

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[9]Throughout the paper "divorced mothers" refers to divorced mothers who have, at survey, at least one child younger than 25 who was born from the union that ended in a divorce. Similarly, "mothers" refers to women who have at least one child younger than 25 years old at survey date. It is important to note that 20% of women who divorce are childless: those women are not included in our analysis.

[10]76% of the sample of divorced mothers had already worked before the divorce (and this proportion does not vary according to the educational status).

significant: social norms and practices related to divorce may vary across groups.

This positive selection into divorce is also seen in the characteristics of the children (Panel B, Table 1). Children whose parents divorced are 7 percentage points more likely to have attended primary school than children whose parents did not divorce, 5 percentage points more likely to have completed primary school at the expected age, and 6 percentage points more likely to have attended secondary school. This difference disappears when we control for the education of the mother and is consistent with the vast literature linking parental education to their investment in children's human capital (on Senegal, Dumas and Lambert (2011)). They have a lower birth order, meaning they are more likely to be either the first or the second child born to their mother. This difference in birth order is due to difference in the number of children.

3.1.3 Characteristics at divorce date

Mothers were on average 29 years old when the divorce took place and almost all mothers who divorce do so when they are between 20 and 35 years old (left panel, Figure 1).[11] The average length of marriage before divorce is 7 years old and the median is 5 years. Divorced mothers have on average 1.77 children from their last union: 50% have only one child and 30% have two children. Mothers who have not divorced have on average 2.96 children born to their last union. This difference is explained by the fact that few women divorce after long marriages, resulting in a lower number of children born to the union. Relatedly, women who divorce do so, on average, shortly after the birth of a child: 73% of divorces occur when the youngest child is a toddler. Hence, children whose parents divorce are rather young: children are on average 6 years old at divorce date and few children are older than 10 when their parents divorce (right panel, Figure 1).

3.1.4 Characteristics of households after a divorce

Situation of divorced mothers A divorce almost always results in changes in household composition. The two most common types of living arrangements for a woman after her divorce are to remarry or to move back with her parents. 41% of ever-divorced women have remarried at the time of the survey and 42% live with at least one of their parents. Few divorced women live on their own, due to financial constraints as well as social norms that dictate that child-bearing age women should be married (Lambert et al., 2019). Divorced women may also choose to move back to their parents' house in order to benefit for their financial and emotional support as well as help with her children.

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[11]The irregular aspect of the histograms is likely due to age heaping. However, there is no heaping on divorce dates with respect to the survey date.

Figure 1: Age of mothers and of their children at divorce date
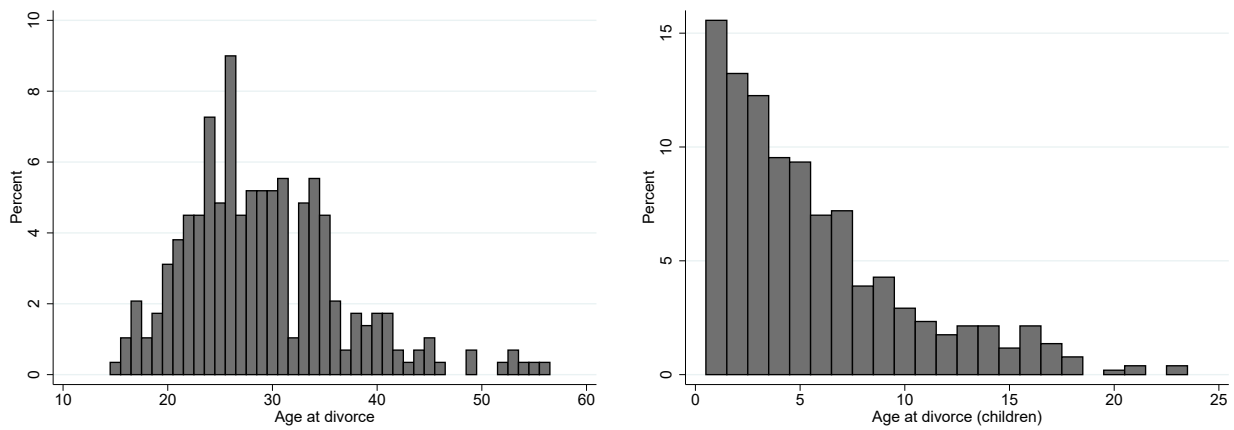
Note: *Left panel*: Age at divorce of divorced mothers. *Right panel*: Age at divorce date of children whose parents divorced.

Figure 2: With whom do children usually live?
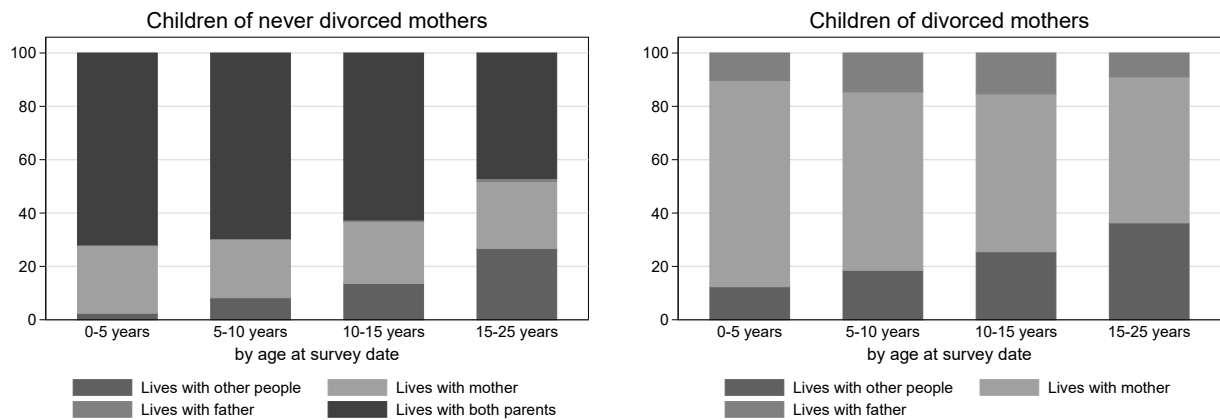
Note: *Left panel*: Children whose parents have not divorced. *Right panel*: Children whose parents have divorced.

At the time of the survey, divorced mothers are part of households that are on average wealthier in terms of per capita household consumption levels than women who did not divorce (Panel A, Table 1). This finding is consistent with the fact that the selection into divorce is positive. It also means that the potential negative impact of divorce on financial resources does not lead to a reversal of women's relative situations in terms of financial resources.

Custody: With whom do children of divorced parents live? 64% of children of divorced parents live with their mother. Whatever their age, this is the most common case (Figure 2). Still, whether parents are divorced or not, with whom children live is a function of both their age and gender. Teenagers and adults are more likely to live with people who are not their parents, mostly

because of marriage or work.[12] Age-related coresidence patterns vary however more subtly for children whose parents are divorced. Among children whose parents are still together, very few live with their father but not with their mother. This share does not increase with age. Among children of divorced parents, the share of children who live with their father increases when children get older. Second, daughters are less likely to live with their father than sons are (Figure A1, in Appendix). Both findings are consistent with qualitative evidence that suggests that fathers can claim custody of their children once they turn 7 and that they more often live with their sons than with their daughters. Young children who do not live with either of their parents are usually fostered. A fostered child is a child who was sent to live with a host family (often to relatives: grand-parents, an uncle or an aunt) by her parents (Marazyan, 2015). Fostering is more common among children of divorced mothers (11% against 6%) than among other families. This difference remains significant even when controlling for the education of the mother.

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[12]29% of all young women (15-25) and 4.5% of all young men are married. This share is lower (but not statistically different) for children of divorced mothers, 26.6% and 1.2% respectively for daughters and sons of divorced mothers.

Table 1: Characteristics of divorced women and of their children

Descriptive statistics	(1) Mean	(2) Mean	(3) Diff.	(4) LPM
Panel A: Mothers	**Has divorced**	**Never divorced**		
Pre-divorce characteristics				
Age	35.80	36.23	-0.44	0.00
Highest education level				
No formal education	0.52	0.66	-0.14***	
Primary	0.31	0.20	0.11***	0.04***
Secondary or higher	0.15	0.09	0.06***	0.04**
Qur'anic	0.35	0.34	0.01	-0.00
Ethnicity & religion				
Mourid brotherhood	0.37	0.33	0.03	0.01
Wolof	0.47	0.44	0.03	0.02+
Serere	0.12	0.12	-0.01	0.01
Poular	0.27	0.24	0.03	0.03**
Father's occupation				
Inactivity of the father of the wife	0.13	0.14	-0.01	
Farmer	0.27	0.43	-0.16***	-0.02
Independant or informal employee	0.26	0.21	0.05**	0.01
State-employed or employer	0.24	0.15	0.09***	0.03+
Occupation unknown	0.09	0.07	0.02	0.07**
Characteristics of the marriage				
Polygamous union	0.34	0.36	-0.02	0.00
Characteristics at survey date				
Lives in rural area	0.37	0.57	-0.21***	
Household Consumption pcap				
Food expenditures (hh)	189259.97	164698.05	24561.93	
Other expenditures (hh)	263200.18	159468.74	103731.43**	
Family composition				
Mother lives with one of her parent	0.42	0.11	0.31***	
Number of children alive	3.21	3.43	-0.22	
Number of children ($\leq$25 y.o)	2.76	3.03	-0.27**	
Number of children - last union[a]	1.77	2.96	-1.19***	
Number of women[b]	290	3,952	4,242	3,929
Panel B: Children	**Divorced mothers**	**Never divorced**		
Age	11.96	10.81	1.15***	
Birth order	2.30	3.39	-1.09***	
Child is a girl	0.48	0.49	-0.02	
Child lives with mother	0.63	0.87	-0.23***	
Has been fostered	0.11	0.06	0.05***	
Has attended primary school	0.72	0.65	0.07***	
Completed primary	0.51	0.47	0.05+	
Child ($\geq$ 14) secondary or higher education	0.42	0.36	0.06*	
Number of children[b]	514	12,376	12,890	

Note: Column (1) reports the mean of each variable listed for mothers who have divorced (or their children). Column (2) reports the mean of each variable listed for mothers who have not divorced (or their children). Column (3) reports the difference between these two groups and the significance level from a t-test. Column (4) reports the results of a linear probability model in which the dependent variable is a binary variable that takes the value 1 when a woman has divorced.

Sample: **Panel A** Mothers of at least a child younger than 25 at survey date. **Panel B** All children.

Divorce Divorced mothers are women who have divorced from the father of at least one of her children younger than 25 at the time of the survey. Other mothers appear in the "never divorced" group (that thus includes all still-married mothers but also widows).

a Number of children younger than 25 born to either current union (if not divorced) or to that last union. Half-siblings of children whose parents divorced are excluded from the sample.

b The number of observations computed in the last row corresponds to the maximum number of observations in each group. For some characteristics, due to missing values, the number of observations is lower. The number of observations is lower in the regression displayed in column (4) due to missing information on the Qur'anic and polygamy variables.

Significance levels are denoted as follows: + p<0.15, * p<0.10, ** p<0.05, *** p<0.01.

3.2 The Senegalese education system

A dual education system   The Senegalese education law mandates that children aged 6 to 16 attend school within the formal school system.[13] The formal school system consists of 4 educational blocks: pre-school, primary school, secondary (middle and high) schools, and higher education. Formal schools are referred as either "French schools" or "French-Arabic schools", depending on the languages in which classes are taught. Despite the law, not all children attend primary school. Attendance in primary school increases between ages 5 to 7 (Figure 3): most children do start primary school around the age of 6. Some children start attending school when they are older than 7. Delayed or absence of entry into primary school may be linked to the fact that the supply of schools in rural areas is not high enough (Cissé et al., 2004). Moreover, public schools do not charge school fees, but there are additional monetary costs to attending school, such as transportation fees and books to buy.

There also exist Qur'anic schools (*daara* in Wolof, Chehami (2016)). While a few Qur'anic schools include both a standard curriculum and a religious one, most focus almost exclusively on religious education (Andre and Demonsant, 2014). The religious education system and the formal school system are not necessarily exclusive: children can attend primary school and a part-time Qur'anic school.[14]

Outcome variables   In this paper, we study three educational outcomes. Our main variable of interest is whether a child has any primary schooling. It hence captures the most basic level of investment that parents can make in the human capital of their children. If a child attended Qur'anic school but never attended primary school, she is considered as having no primary education, since the teaching content of Qur'anic school is mainly religious. In our main specification, we consider this variable to be defined for children aged 7 and older. We check that our results are robust to moving the age cutoff upwards, excluding children up to the age of 10.

The second variable of interest is whether a child has (almost) completed primary school. We consider that a child has completed primary school if she has attended fifth grade (CM1, the second to last grade in primary school).[15] It hence captures a higher level of investment in human capital

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[13]As from the law of n° 2004-37 passed in December 2004, children must be enrolled in school at the age of six. As the survey took place in 2011, children aged 6 at the time of the survey should hence be already attending school.

[14]Using information on all children who live in surveyed households, 38% of children who attended primary school also attended a Qur'anic school. 47% of children older than 7 who never been enrolled in primary school attended Qur'anic school. Only 17.5% of children attended neither Qur'anic nor primary school.

[15]For children who were not living in the surveyed household, the list of possible answers to the highest level of education question pooled together the two last years of primary school (and was recorded as "5 or 6 years of primary school").

than the first outcome variable. Attending primary school does not necessarily implies completing the primary curriculum: among children who have attended school, 70% complete their primary education. Several factors explain why the primary completion rate is not higher. First, grade repetition is high in Senegal (Ndaruhutse, 2008). In 2006, 12% of students had repeated at least a grade (Boubacar and François, 2007). As the opportunity cost of schooling increases with age, grade repetition may increase the likelihood that children drop out of school. Second, the school supply is even more limited for the higher grades of primary education: 36% of primary schools do not offer the whole primary cycle (Boubacar and François, 2007). In our main specification, we consider this variable to be defined for children aged 10 and older, as children who start school at age 6 are supposed to be in fifth grade when they are 10. Due to grade repetition, some children complete primary school at age 13 or 14. As such, the outcome variable studied captures whether a child has completed primary school at the time of the survey. It is likely that some children will complete primary school at later age.

The third variable of interest is whether a child has attended Qur'anic school (exclusively). Attendance in Qur'anic school was reported separately from the highest level of education for children living in the surveyed households. For children living elsewhere, Qur'anic school was only listed as a possible answer to the question regarding their highest education level, so it is reported only for children who did not attend primary school.[16] Hence, we cannot study whether children attended Qur'anic school as a complement to formal schooling. Considering other outcomes (such as transitions into secondary school) is not possible due to sample size limitations.[17]

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[16]Enumerators were trained to report any formal schooling as the highest level of education, even if the child had attended also Qur'anic school.

[17]There are only 23 potential identifying observations if we wanted to extend the sibling fixed effect methodology to study attendance in secondary school. Actually, due to grade repetition, a large share of children start attending secondary school at ages 13-14. Hence, the identifying observations are children older than 15 at survey date and who belong to families were there is a least a child who went to primary school in the *affected by divorce* group (younger than 14 at divorce date) and a child who went to primary school in the *not affected by divorce* group (older than 15 at divorce date).

Figure 3: Trends in education
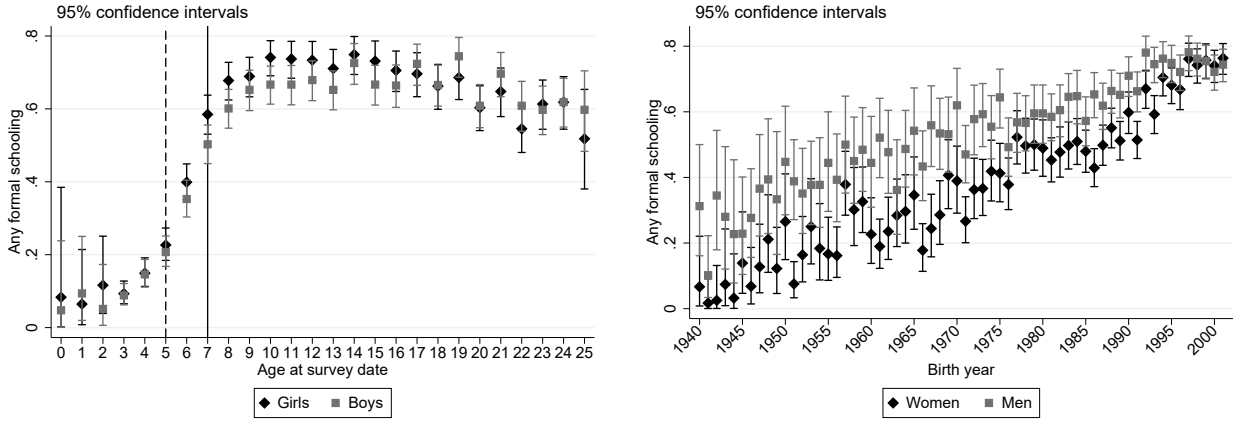
Left panel: Share of children who have any formal schooling. Some children attend pre-school, hence they appear as having attended formal school even when they are younger than six, but children who attend formal pre-school usually go on to attend formal primary school.
Right panel: Share of respondents (aged 10-70) who have any formal schooling.

4   Methodology

How are children affected by their parents' divorce? Many confounding factors could explain differences found between children depending on whether their parents divorced. The methodology we use relies on sibling fixed effects, thus controlling for any (potentially unobserved) factors that are common to siblings. These factors are, for instance, the education level of parents and of other family members, parental preferences about education, the socio-economic background of the family and its status within the community, family norms and rules, including language spoken at home before the divorce.

4.1   Empirical strategy

4.1.1   Primary school enrollment

Framework   We consider the impact of parental divorce on children's enrollment in primary school. As children are supposed to start attending primary school the year they turn 6, we consider children who were 5 or younger when their parents divorced as *affected* by the divorce and children who were 6 or older when their parents divorced as *not affected* by the divorce in terms of this specific schooling outcome: whether a child has ever attended in primary school.[18]

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[18]Reverse causality is unlikely to be at work here given the chronology of events considered. Children can be enrolled in primary school from the age of 6 and children can be *affected* by the divorce only when they were 5 or younger at divorce date. For *affected* children, the education decision could not have been implemented before the divorce decision was made. Conflict over education decisions (for instance if parents have differing preferences regarding their children's education) may preexist, but its effects would be mediated by the decision of divorce (for instance if a divorce results in a change in whom makes decisions about children's education).

As we defined attendance in primary school and in Qur'anic school as exclusive from one another, we consider them as substitutes in the analysis. In order to compare both types of educational choices, we study the likelihood that a child has attended (exclusively) Qur'anic school using the same framework and specifications as when studying primary school enrollment.

Model 1: Basic LPM   The first model is a linear probability model[19] without fixed effects, specified as follows:

$$AnyPrimarySchool_{is} = \alpha_0 + \alpha_1 AgeAtDivorce0/5_i + \alpha_2 AgeAtDivorce6/25_i + \beta Controls_i + \epsilon_{is} \tag{1}$$

In this equation, i denotes children and s denotes a family (defined as a group of full siblings). Standard errors are clustered at the family (group of siblings) level.

Variables The outcome variable, $AnyPrimarySchool$, is an indicator variable that takes the value 1 when a child has attended or is attending primary school, and 0 otherwise. The main variable of interest, $AgeAtDivorce0/5$, is an indicator variable that takes the value 1 if a child was 5 or younger when her parents divorced and 0 if either her parents divorced when she was 6 or older or her parents did not divorce. $AgeAtDivorce6/25$ is a binary variable that takes the value 1 if the child was 6 or older when her parents divorced, and 0 otherwise. $Controls$ is a vector of individual characteristics that includes the following variables: a binary variable that takes the value 1 if the child is a girl; quadratic controls of year of birth; four binary variables that account for birth order (birth orders higher than 4 are grouped together).[20] We discuss the correlation between each of these variables and the outcome variables in the Appendix of the paper (Table A1 and section A.1). In an alternative specification, we add binary variables for the highest education level of mothers as well as their interaction with the variables included in $Controls$.

Model 2: LPM with sibling fixed effects   The second model is a linear probability model with sibling fixed effects.[21] Including siblings fixed effects is equivalent to controlling for (potentially unobserved) factors that are common to all siblings. Estimates from this model should hence be

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[19]We do not estimate logit models as logit models with fixed effects only estimate results for groups in which there is variation in the outcome variable: too many observations are lost and this results in control variables being poorly estimated. Then in order to compare results from the model without fixed effects to results using the sibling fixed effects model, we specify the first one as a linear probability model. The results using a logit are consistent with results estimated used a LPM without sibling fixed effects.

[20]Only individual controls are included in the model. Family size is not included in the controls so higher birth orders may also capture larger family size in the basic linear probability model. However, as family size is the same for all fully siblings, it is captured by the siblings fixed effects. The coefficient on age at divorce 0-5 remains positive and significant (0.137) when we include family size to the model. Coefficients on birth order themselves vary very little when adding family size to the model.

[21]Such models are widely used in the literature on the impact of divorce (Björklund and Sundström, 2006; Le Forner, 2020; Francesconi et al., 2010; Ermisch and Francesconi, 2001; Bratberg et al., 2014).

less biased than estimates from the basic LPM.

$$PrimarySchool_{is} = \alpha_0 + \alpha_1 AgeAtDivorce0/5_i + \beta Controls_i + \gamma_s + \epsilon_{is} \qquad (2)$$

In this equation, i denotes children and s denotes a family (defined as a group of full siblings). Standard errors are clustered at the family (group of siblings) level.

Variables The outcome variables, the variable $AgeAtDivorce0/5$, and the vector of variables $Controls$ are defined as in model 1. γ_s is a sibling fixed effect. As siblings fixed effects are included, the right hand side variables can only be estimated if they vary within families. Thus, $AgeAtDivorce6/25$ cannot be estimated as it is co-linear to $AgeAtDivorce0/5$ once the fixed effects are included.

Sample The estimation sample is made up of children older than 7 who have at least a full sibling who too is older than 7. This results from the fact that the outcome variable is defined only for children older than 7 at survey date and that the sibling fixed effect model can only be estimated for families with at least two children. We consider only full siblings in the analysis.[22] To compare results using the two models, we estimate the basic linear probability model on the same sample as the (more data demanding) sibling fixed effects model.

4.1.2 Primary school completion

Studying primary school completion allow us to test whether divorces have longer run consequences for children's educational outcomes. We modify the analysis framework exposed above to take into account the age threshold that are specific to this variable. However, as the age threshold are higher than when considering primary school, reduced sample size limits the type of analyses that can be conducted. Hence, the results on primary school completion should be interpreted with caution.

Framework & sample We consider the impact of parental divorce on whether children reached 5th grade of primary school (at the expected age). Since children who start primary school at age 6 should be attending 5th grade at age 10, we consider that children who were 9 or younger when their parents divorced as *affected* by the divorce and children who were 10 or older when their parents divorced as *not affected* by the divorce when we study primary school completion. Hence, the estimation sample is made up of children older than 10 who have at least a full sibling who too is older than 10.

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[22]Results do not change when we include half-siblings to the sample (we use mother fixed effects instead of (full) sibling fixed effects).

Model 3: LPM with sibling fixed effects

$$CompletedPrimary_{is} = \alpha_0 + \alpha_1 AgeAtDivorce0/5_i + \alpha_2 AgeAtDivorce6/9_i + \beta Controls_i + \gamma_s + \epsilon_{is}$$

(3)

In this equation, i denotes children and s denotes a family (defined as a group of full siblings). Standard errors are clustered at the family (group of siblings) level. The outcome variable $CompletedPrimary$ is an indicator variable that takes the value 1 when a child has completed primary school (reaching the fifth year of primary school out of six years), and 0 otherwise. The main variables of interests are the variable $AgeAtDivorce0/5$ and the variable $AgeAtDivorce6/9$. Both are indicator variables that take the value 1 if the child's age at divorce belongs to their specific age range and 0 otherwise. The vector of variables $Controls$ is defined as in model 1. γ_s is a sibling fixed effect.

4.2 Identification and interpretation issues

Identifying assumption   The SFE model identifies the causal effect of divorce under the assumption that, in the absence of divorce, the education of the children younger than 5 at the time of divorce would have been similar to that of their older siblings. If the timing of divorce is random and if the likelihood of divorce is not correlated to differences in children's educational abilities, then the identification assumption holds.

Conditional on divorcing, is the date of divorce a random event?
The marriage market literature uses the idea of "sympathy shocks" (Dupuy and Galichon, 2014) that occur randomly and increase the quality of a match. Similarly, the quality of match could be decreased by a random "reverse sympathy shock", leading to a divorce. This idea is supported by respondents who divorced when they were already parents during interviews in Senegal.[23]
This assumption is backed by the fact that variables that capture family composition are not correlated to the divorce date. First, the (wide) distribution of the age at divorce variable (Figure 1) suggests that parents do not strategically time their divorce regarding their children's ages.[24] Second, identifying families – those with (at least) a child younger than 5 at divorce date and one

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[23]From qualitative interviews conducted in Senegal, it seems that some people indeed consider divorces as resulting from a reverse "sympathy shock" that older generations used to endure due to *mougne* (Wolof term that describes an attitude of resignation that allows to endure difficulties).

[24]Qualitative interviews conducted in Senegal indicate that individual's priors regarding the impact of divorce differ greatly – and seem often correlated to their own experiences –, so the patterns we observe might also result from timing according to different priors (e.g. "it is better to divorce while the children are young, so they will not be affected by conflict" or "it is better to stay together till the children are teenagers or young adults".

older than 5 – are not different from other families that experienced a divorce. The mothers of children on which the coefficient of interest is estimated do not appear to be different from other mothers who divorce with children, apart from the structural demographic factors (due to the fact that the age of women, their number of children, children's age, and the length of marriage are all correlated). Detailed results can be found in Appendix (Table A2 and section A.2).

Balance test on children's characteristics Table 2 reports results from a balance test of children's characteristics across age at divorce groups. As expected when comparing siblings, there are systematic differences between age at divorce groups when considering birth order and year of birth. As all siblings experience their parents' divorce at the same date, children who were older than 6 at divorce date are also older than their (younger) siblings at survey date, hence the 4.8 year age difference between children. Relatedly, children older than 6 at divorce date are more likely to be the oldest child and less likely to be the third child.[25] Gender is the only characteristic for which we expect no differences between age at divorce groups: reassuringly, the share of girls is the same in both groups. As these characteristics may affect children's educational outcomes, they are included as controls in both the LPM and the SFE specifications.

Table 2: Characteristics of children according to their age at divorce

	(1) Affected ≤ 5 at divorce	(2) Not affected ≥ 6 at divorce	difference
Child is a girl	0.42	0.47	0.05
Birth year	1999.20	1994.40	-4.81***
First child	0.15	0.34	0.18***
Second child	0.36	0.26	-0.09
Third child	0.23	0.15	-0.08*
Fourth and more	0.26	0.25	-0.00
N	98	167	265

Note: The table presents characteristics of children according to their age at the time of divorce. Column (3) reports the significance of the t-test of the difference. P-values are denoted as follows: + p<0.15, * p<0.10, ** p<0.05, *** p<0.0

Sample: Children who are older than 7 at survey date, only when they belong to a family in which two children are 7 or older at survey date.

We cannot test whether children younger and older than 6 at survey date have the same health

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[25]Birth order is computed using all children born to the same mother, thus including older siblings who are older than 25 and half-siblings. Few children whose parents divorced have older half-siblings and their birth rank is not affected by whether they have younger half-siblings.

outcomes or the same educational abilities – both characteristics that could affect their educational outcomes. However, there is no reason why these differences should be correlated to the age at divorce category.[26]

Threats to identification   The SFE strategy does not distinguish between the impact of a divorce and the impact of any other time-variant factor that would cause younger children *not* to have the same educational outcome as their older siblings. Given the results in the Senegalese context, a time-variant factor that triggers a divorce and cause younger children to have *better* educational outcomes than their older siblings is the main threat to identification.

Positive shock triggering a divorce A positive income shock that allows women to divorce would be a confounding factor. The income shock could allow women to get divorced and increase the likelihood that younger children are sent to school. However, potential positive income shocks are either extremely rare (as few women inherit from their parents, this type of windfall income is unlikely to occur often explain a large share of divorces) or likely to affect women who would already have the means to divorce (women who get a formal job are likely to be already well-off enough to divorce if they wish so).

Negative shock triggering a divorce Short term adverse circumstances could trigger a divorce and impact older children (who would thus be less likely to attend primary school). When the situation improves, younger children would then be more likely to be sent to school than their older siblings. The data only includes information on the latest shock experienced by households so we cannot test directly this hypothesis. However, we compare children who could have been affected by this potential negative shock (children aged 6 to 9 at divorce date) to their older siblings (children aged 10 and older at divorce date) who are arguably less likely to have been affected by the negative shock (it would have needed to have taken place 5 years prior to the divorce) and show that children aged between 6 and 9 when their parents divorced are as likely to have attended primary school as their older siblings.

Exposure to conflict The occurrence of conflict is often correlated to divorce, but conflict might take place both before and after the divorce. It is unclear what effects to expect depending on children's age when conflict occurs: older children might be more affected, children may get used to conflict, conflict might worsen or recede after a divorce etc. Moreover, we expect that high

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[26]If parents divorce because their youngest child has a disability and that the stress on the family is too high, then the age at divorce variable would capture differences in ability across siblings. However, this scenario is unlikely in the Senegalese context: to the best of our knowledge, having a disabled child was never mentioned as a cause for divorce, in our own qualitative fieldwork or in the research done by others (Dial, 2008).

conflict levels could impact children's well-being and some educational outcomes such as test scores, but not necessarily the decision to send a child to school, especially as children can be registered in primary school even if they are older than 7. We hence do not consider conflict to be a threat to the sibling fixed effects identification used.

5 Results

5.1 Results: Ever attended primary school

Main results Columns (1) and (2) of Table 3 report the results of two basic linear probability models. Column (1) reports the results of a regression of whether the child has attended primary school on indicator variables for age at divorce groups. Being 5 or younger at the time of divorce is associated to a higher likelihood to have attended primary school. When controlling by birth year, birth order, gender, and their interactions with the level of education of the mother (column 2), the magnitude of the coefficient decreases but it remains positive and significant. On average, children who were 5 or younger when their parents divorced are 11 percentage points more likely to have attended primary school than their counterparts whose parents did not divorce: this difference represents a 16% increase in the share of children who have ever attended school.

Columns (3) to (5) report the results for three siblings fixed effects models. Being 5 or younger at divorce date is still associated to a higher likelihood of having attended school (column 3). The inclusion of controls does not change the results much (column 4): if anything, the coefficient increases when the controls are added. The addition of the sibling fixed effects slightly increases the magnitude of the coefficient of interest (column 2/column 4). The sibling fixed effects capture some unobserved characteristics that are common to siblings: the basic LPM estimates seem to be slightly downward biased compared to results estimated with a SFE model.[27]

Column (6) reports the results of the same regression as in column (4) but considering whether a child has attended (exclusively) Qur'anic school as an outcome variable. The estimated coefficient is -0.145: children who were younger than 5 at divorce date are less likely to have attended exclusively Qur'anic school.[28] This finding indicates that the older siblings of *affected* children

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[27]Since the introduction of SFE changes the observations on which the coefficient of interest is identified (identifying families in the LPM model include families in which all the children were younger than 5 at divorce date), we reestimate the LPM model on a restricted sample that exclude these families. The LPM coefficient of interest is 0.131, still markedly different from the SFE coefficient.

[28]This result is not driven by reporting bias or measurement error due to children's place of residence. We might be worried that older siblings are more likely not to live with their mother than their younger siblings and that, as a result, their schooling outcome is not accurately reported (Qur'anic or no education even though they did attend primary school). When running the sibling fixed effect specification with "living in the surveyed household" as a dependent variable, the coefficient associated to age at divorce 0-5 is -0.0365 (s.e. 0.0758), thus indicating that younger children at time of divorce are not more likely to live in the surveyed households (with their mother). As such, the effect is not driven by reporting bias correlated to where the child lives at survey date.

are children who have, on average, attended Qur'anic school rather than children who did attend neither formal nor Qur'anic school.

Our findings indicate that parental divorce does not necessarily lead to worse schooling outcomes for young children at the time of divorce. It seems that parents might even be able to (over)compensate their younger children after a divorce. We test the robustness of this results and investigate potential mechanisms in the remaining parts of this paper.

Table 3: Effect of parental separation on primary attendance and completion

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Specification	LPM	LPM	SFE	SFE	SFE	SFE	SFE	SFE
Sample	At least 2 children, older than 7 years old						≥2 children, ≥ 10	
Dependent variable	Ever attended primary school					Qur'anic only	Ever attended	Completed
Age at divorce								
0-5 y.o.	0.147***	0.110**	0.139**	0.164***	0.143**	-0.145***	0.164	0.0297
	(0.0466)	(0.0453)	(0.0616)	(0.0622)	(0.0623)	(0.0507)	(0.115)	(0.137)
0-5 × girl					0.0517			
					(0.0912)			
6-9 y.o.							0.0287	0.0183
							(0.0920)	(0.103)
6-25 y.o.	-0.0200	-0.0734						
	(0.0510)	(0.0494)						
Girl					0.0102			
					(0.00989)			
Controls	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Controls × educ	No	Yes	No	Yes	No	Yes	No	No
Share primary	0.65	0.65	0.65	0.65	0.65	0.19	0.66	0.48
pvalue - joint significance [a]					0.03			
R^2	0.0013	0.1200	0.0010	0.0558	0.0316	0.0388	0.0267	0.0971
N observations	7,314	7,314	7,314	7,314	7,314	7,309	5,612	5,612
N families			2,143	2,143	2,143	2,143	1,758	1,758
N identifying obs. (0-5)	171	171	134	134	102	134	121	121
N identifying families (0-5)			47	47	36	47	44	44

Note: Models (1) and (2) : Linear probability models. Models (3) to (8): Linear probability models with sibling fixed effect. Columns (1) to (5) and column (7): The outcome variable is an indicator variable that takes the value 1 if the child has attended primary school, and 0 otherwise. Column (6): The outcome variable is an indicator variable that takes the value 1 if the child has attended (exclusively) Qur'anic school, and 0 otherwise. Column (8): The outcome variable is an indicator variable that takes the value 1 if the child has completed primary school, and 0 otherwise.
$AgeAtDivorce0/5$ is an indicator variable that takes the value 1 if the child was 5 or younger at time of divorce and 0 if either the child was older than 5 or if her parents are not divorced. $AgeAtDivorce6/25$ is an indicator variables that takes the value 1 if the child was 6 or older at time of divorce and 0 if either the child was younger than 5 or if her parents are not divorced.
Control variables include: quadratic control for birth year, birth order indicators (4 categories) and an indicator variable that takes the value 1 if the child is a girl. *C × educ* variables include: the interaction of all the *control* variables with the mother's education level (coded into 4 categories: no education, primary, secondary and higher, and unknown).
At least 2 children, older than 7 years old Children who are older than 7 at survey date, only when they belong to a family in which two children are 7 or older at survey date. *At least 2 children, older than 10 years old* Children who are older than 10 at survey date, only when they belong to a family in which two children are 10 or older at survey date.
[a] p-value of the joint significance of the coefficient on $AgeAtDivorce0/5$ and the coefficient on its interaction with the variable *girl*.
Robust standard errors in parentheses (clustered at family (sibling group) level). Significance levels are denoted as follows: * p<0.10, ** p<0.05, *** p<0.01.
Source: PSF2.

Heterogeneity: Gender & age at divorce As girls are on average more likely to attend primary school than boys, we test whether girls' educational outcomes are more affected by a divorce before the age of 5 than boys' educational outcomes are. The coefficient associated to the interaction term between age at divorce and gender is close to 0 and not significant in both the basic LPM (not reported) and the SFE models (column (5)): children younger than 5 at divorce date do not seem differentially affected according to their gender in terms of primary schooling. Given that the number of identifying children and families is only a bit lower than than in the main specification,

it seems that this insignificant result is not due to low power.

In order to understand whether the results are driven by specific ages at divorce, we modify our regression equations to introduce binary variables for each age at divorce (for ages at divorce 0 to 6) instead of using only two categories (5 and younger / 6 and older).[29] The results do not seem to be driven by a specific age group for ages at divorce between 1 and 5. Coefficients associated to these age at divorce variables are displayed in Figure A2, in Appendix.

Could the results be driven by a negative shock that lowered older children's education?
If a (negative) economic shock triggers (most) divorces, then we expect the date of the shock and the date of the divorce to be close in time. For children who are older than 10 at divorce date, the shock would have needed to happen at least 5 years before the divorce to affect their enrollment in primary school. As such, children older than 10 at divorce date are less likely to have been affected by a potential negative shock that also triggers a divorce than children younger than 10 at divorce date. We hence use children older than 10 at divorce date as the control (*not affected* children) group for the main specification (column 7). Results show that children who were between 6 and 9 years old at divorce date are as likely to have attended primary school as their older siblings. The sample size is reduced as the sample is made up of children older than 10 at survey date. However, the magnitude of the coefficient on ages 6-9 at divorce is much smaller than the coefficient on ages 0-5 at divorce.

We then introduce binary variables for each age at divorce (for ages at divorce between 0 to 9) and keep children aged 10 and older at divorce date as the control group (Figure 4). The coefficients estimated on all the variables for ages at divorce between 6 and 9 are close to 0: the children whose parents divorced when they were between 6 and 9 have the same likelihood to attend primary school that children who were older as 10 when their parents divorced. Similarly, the coefficient associated to being between 6 and 25 at divorce date is not significant in the columns (1) and (2): the attendance outcome for children older than 6 at the time of divorce is not different from the attendance outcome for children whose parents did not divorce. Thus the coefficient on being younger than 5 at the time of divorce comes from children younger than 5 at divorce date being more educated than what could be expected, rather than from children older than 6 at divorce date being less educated than what could be expected.

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[29]The effects are hence identified using a larger set of observations/families as we can leverage variation within the age group 0-5.

Figure 4: Coefficients on age at divorce
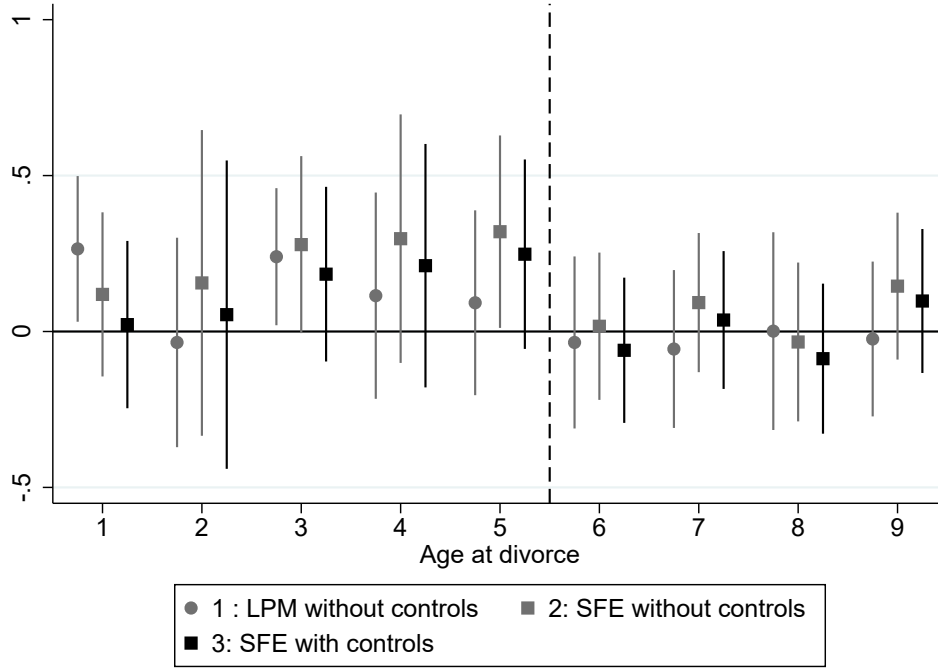
Note: Coefficients associated to binary variables for ages at divorce. The omitted category groups ages at divorce higher than 9. The dependent variable is an indicator variable that takes the value 1 if the child has attended primary school, and 0 otherwise. *Sample*: At least 2 children older than 10 at survey date.

5.2 Results: Completed primary

Column (8) in Table 3 reports the results when considering whether a child has completed primary school (5th or 6th grade). Being younger than 5 at divorce date is not associated to a higher likelihood to complete primary schooling: the magnitude of the coefficient is very low. This finding indicates that gains in primary school enrollment do not result in a higher likelihood to have completed primary school, possibly because the level of investment in education required is much higher in order to complete primary school. Children who were between 6 and 9 when their parents divorced are as likely as their older siblings to have completed primary school (on time). It seems that a divorce *during* primary school does not affect children's likelihood to complete 5th grade on time. This finding means that children are not more likely to drop out of primary school than their older siblings after their parents divorce.[30]

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[30] As a balance test, we confirm that the share of girls is not significantly different across age at divorce groups (0-5, 6-9, 10 and older). Using a sample of children older than 11 at survey date, we find that the coefficients on ages at divorce 6-9 and ages at divorce 6-10 remain close to 0 and not significant. Using a sample of children older than 12 at survey date, we find that the coefficient on ages at divorce 6-9 remain close to 0 and not significant. However, the coefficients on ages at divorce 6-10 and ages at divorce 6-11 are negative and significant. Due to the low number of identifying observations and of measurement error (delayed completion of primary school), these results must interpreted with caution.

5.3 Sensitivity check

Table 4 reports the results of the main specification when both the age threshold for inclusion in the sample (columns) and the age threshold to be considered as *affected* by the divorce (lines) vary.

Sensitivity to the definition of sample (age at survey date) Since some children start attending primary school at ages older than 7, the main outcome is mismeasured for some of the children younger than 10 at survey date. To check that measurement error is not what drives the results, we vary the age at which we consider primary school attendance to be defined. The magnitude of the coefficients (keeping constant the definition of the *affected* by divorce variable) remains similar across columns. A higher age at survey date thresholds implies a reduced sample size, thus a lower number of identifying families. For thresholds fixed at older ages, it seems that the main issue is that power is too low to detect effects as noticeable in the number of identifying families.

Sensitivity to the definition of the *affected by divorce* variable (age at divorce date) We also check that the results are robust to varying the upper age limit for the *affected* by divorce group (this also changes the lower age limit of the *not affected* group). As expected from Figure 4, the coefficients are positive and significant for ages 0-5 and ages 0-6 and not significant for other age thresholds. Indeed, the age threshold 4 results in errors of exclusion from the *affected* group (the *not affected* group includes children aged 5). The coefficient on age at divorce remains positive but its magnitude decreases and standard errors increase, which is consistent with the fact that the coefficient is also identified on siblings for whom we expect no difference in primary school attendance. Age thresholds 7 and 8 result in errors of inclusion in the *affected* group (that then includes children aged 7 or 8): the magnitude of the coefficients on age at divorce drops.

Table 4: Age thresholds on sample selection (columns) and on *affected* by divorce group (lines)

Dependent variable: Ever attended primary school					
Age/divorce \ Sample	≥ 6	≥ 7	≥ 8	≥ 9	≥ 10
Age at divorce					
0-4 y.o.	0.115	0.115	0.0993	0.0926	0.110
	(0.112)	(0.120)	(0.117)	(0.121)	(0.135)
Identifying children	139	127	88	75	62
Identifying families	50	45	33	30	25
Age at divorce					
0-5 y.o.	0.134**	0.168***	0.198***	0.147**	0.140
	(0.0642)	(0.0611)	(0.0694)	(0.0707)	(0.0920)
Identifying children	157	134	108	94	63
Identifying families	55	47	39	35	25
Age at divorce					
0-6 y.o.		0.0915*	0.122*	0.0890	0.0601
		(0.0545)	(0.0628)	(0.0634)	(0.0741)
Identifying children		141	119	108	81
Identifying families		49	42	39	31
Age at divorce					
0-7 y.o.			0.0416	0.0512	0.0438
			(0.0872)	(0.0917)	(0.0956)
Identifying children			110	96	79
Identifying families			37	32	28
Age at divorce					
0-8 y.o.				0.0603	0.00982
				(0.0804)	(0.0826)
Identifying children				85	74
Identifying families				28	26
N children (d)	286	265	227	211	192
N families (d)	109	102	88	82	75
N children (all)	7,896	7,314	6,733	6,183	5,695
N families (all)	2,280	2,143	2,006	1,884	1,775

Note: **Columns** show results when varying the age threshold for inclusion in the sample (at what age is the outcome variable considered as defined?). **Lines** show results when varying the age cutoff for the *affected* by divorce variable (at what ages a divorce could affect the decision to enroll a child in primary school?).
Cells Each cell reports the coefficient on the variable *AgeAtDivorce* of a regression using the SFE model. The outcome variable is an indicator variable which takes the value 1 if the child has attended or attends formal (primary or secondary) school and 0 otherwise. *Control* variables include: quadratic control for birth year, birth order indicators (4 categories) and an indicator variable that takes the value 1 if the child is a girl.
Robust standard errors in parentheses (clustered at the family (sibling group) level).
Significance levels are denoted as follows: * p<0.10, ** p<0.05, *** p<0.01.
Source: PSF2.

6 Channels

In this section, we discuss what might explain the results on primary school attendance and on primary school completion. We first test channels that could affect children directly: custody and fostering decisions. As most children live with their mothers, especially when they are young, we then consider how a divorce may affect mothers and discuss their access to resources, remarriage and decision-making power.

6.1 Children: Custody and fostering decisions after divorce

We discuss whether with whom the child lives after the divorce matters for educational outcomes. If parents have differing preferences regarding their child's education, then the child's educational outcomes depends on which parent gets custody. If parents foster their child, then they are likely to foster her to relatives who have the same preferences for education as them and who might have access to more resources.

We consider two variables that capture with whom a child was living before the age of 7 (at which she should start attending school): living with one's father (but not with one's mother) and being fostered. These variables allow us to study the link between on the one hand, custody and fostering decisions, and on the other hand, primary school attendance. These estimates should be interpreted as correlations: custody and fostering decisions are also determined by unobservable characteristics of children (for instance, personality) that may influence educational outcomes. Additionally, for custody and fostering decisions to mediate the positive link between being younger than 5 at survey date and increased school attendance, we would need to know with whom the child was living during the period between her parents' divorce and the age of 7. However, reconstructing this variable from household information requires too many assumptions to be build for the whole sample: we hence consider custody and fostering decisions made before the age of 7.[31]

Our analysis follow three successive steps. First, we check whether children whose parents divorced when they are 5 or younger had different caregivers than their older siblings (Table A3 in Appendix). As expected, children who were younger than 5 years old are less likely to have lived full time with their mother (before 7) than their older siblings were, but they are 9.9 percentage points more likely to have lived with their father and 13.9 percentage points to have been fostered before the age of 7.

Second, we check whether having lived with one's father and having being fostered are associated to a higher likelihood to attend primary school (columns 1 and 2, Table 5). Having lived with the father is not significant. Having being fostered is negatively correlated to the likelihood to have attended primary school (column 1). However, this effect is not necessarily causal. Fostering may be a means for parents to invest in their children's education, for instance if they cannot finance it: the education of fostered children may have been lower in the absence of fostering.

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[31]Recovering retrospective information on who had custody of a child before the age of 7 is already a strenuous effort and we are not able to credibly recover information for all children. However, we conduct two checks to ensure the validity of these variables and of the analysis. First, we are able to build the variable that captures custody and fostering decisions made between divorce date and the age of 7 for a sub-sample of children. The correlation between this variable ("after divorce, before 7") and the variable used in the analysis ("before 7") is 0.8. Second, as the variable creation process results in additional missing values, thus restricting the sample, we estimate the regressions from Table 3 on this sample and confirm that the results do not change.

This correlation disappears when introducing the fixed effects (column 2): it is in fact driven by family-level characteristics.[32]

Third, we add the age at divorce variable and its interaction with the custody and fostering variables to the regression model (columns 3 and 4, Table 5). The coefficient on the age at divorce remains significant and the interaction terms are never significant. When considering whether a child has lived (exclusively) with her mother before the age of 7, we find a positive correlation for this variable (as expected from the signs of the coefficients on living with one's father and fostering). However, the interaction term with the age at divorce is negative and not significant. These findings suggest that custody and fostering decisions do not drive our results. They should nevertheless be interpreted with caution, as the coefficients are identified on a small number of observations: the null result could therefore also be due by a lack of power.

6.2 Mothers: Financial resources, remarriage and decision-making power

We discuss how mothers' characteristics could affect children's educational outcomes after a divorce. These characteristics are endogenously determined but their study can shed light on what happens to families in the case of a divorce.

Financial resources The first potential channel is that a divorce increases access to resources, either permanently or temporarily, for some women. If getting a divorce allows women to be more independent including financially (Dial, 2008), then it would result in an improved economic situation for women. The same is true for women who divorce a man who did not contribute to household expenses. However, this (permanently) improved financial situation does not seem consistent with the fact that results on primary school attendance are not replicated when we consider primary school completion. A more temporary shock would be more in line with the patterns observed. Such shocks could include women benefiting from additional transfers from their family network after their divorce. More specifically, mothers may receive more transfers from their siblings for schooling investment (such as the transfers highlighted by Baland et al. (2016) in the Cameroonian context (though not in the case of divorce)). This support may allow recently divorced women to send their young children to school by helping them to pay for educational expenses, such as transport fees and school supplies. This support from the family network might fade away in the longer run.

We cannot test directly how income and resources vary following a divorce, as we do not have retrospective data on the economic condition at the time of divorce. However, the panel dimension

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[32]Beck et al. (2015) (on the same dataset as us) find that fostered children have the same educational outcomes as their host siblings.

Table 5: Custody and fostering of children

	(1) LPM	(2) SFE	(3) LPM	(4) SFE

Panel A: Interaction with variable *living with father*

Dependent variable Ever attended primary school

Age at divorce

	(1) LPM	(2) SFE	(3) LPM	(4) SFE
0-5 y.o.			0.177***	0.164**
			(0.0532)	(0.0644)
With father	-0.00128	-0.0565	-0.0102	-0.0642*
	(0.0340)	(0.0351)	(0.0350)	(0.0349)
With father × 0-5			0.0297	0.0725
			(0.119)	(0.156)
Controls	Yes	Yes	Yes	Yes
Share with father [a]	0.15	0.15	0.15	0.15
N observations	7,253	7,253	7,253	7,253
N families		2,125		2,125
N identifying obs.	63	46	37	37
N identifying families	25	18	13	13

Panel B: Interaction with variable *fostered*

Dependent variable Ever attended primary school

Age at divorce

	(1) LPM	(2) SFE	(3) LPM	(4) SFE
0-5 y.o.			0.181***	0.157**
			(0.0510)	(0.0731)
Fostered	-0.101***	-0.0304	-0.108***	-0.0358
	(0.0290)	(0.0265)	(0.0297)	(0.0268)
Fostered × 0-5			0.0754	0.105
			(0.109)	(0.158)
Controls	Yes	Yes	Yes	Yes
Share fostered [b]	0.11	0.11	0.11	0.11
N observations	7,289	7,289	7,289	7,289
N families		2,134		2,134
N identifying obs.	64	54	35	31
N identifying families	20	16	11	9

Note: Columns (1) and (3) present basic linear probability models, and columns (2) and (4) present linear probability models with sibling fixed-effects on the main sample. The outcome variable is an indicator variable that takes the value 1 if the child has attended primary school, and 0 otherwise.

Sample, Panel A: Results are estimated for a subsample of the main sample. This subsample is made up of children for whom the variable *having lived with the father* is not missing, and belonging to families where it is the case for at least two children.

Sample, Panel B: Results are estimated for a subsample of the main sample. This subsample is made up of children for whom the variable *fostered* is not missing and who belong to families where it is the case for at least two children.

[a] Share of children who have been living only with their father before the age of 7 among children of divorced parents.

[b] Share of children who have been fostered before the age of 7 among children of divorced parents.

Control variables include: quadratic control for birth year, birth order indicators (4 categories) and an indicator variable that takes the value 1 if the child is a girl.

Robust standard errors in parentheses (clustered at the family (sibling group) level).

Significance levels are denoted as follows: * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Source: PSF2.

of the *PSF* survey allows to describe how per capita household consumption evolved after a divorce. We use data on the 43 women who divorced the father of their children between the two survey waves. For these women, the annual per capita household consumption seems to be rather stable (397455 FCFA per year per capita in 2011 against 388034 in 2006). It seems that, on average, these women did not experience dramatic changes in their economic situation. These estimates

are compatible with a short term positive economic shock after a divorce and then a return to the average consumption levels.

Resources: Remarriage   Remarriage may be a means for women to access financial resources. We investigate whether the positive link between divorce and primary school attendance is driven by women who have remarried (columns 2 and 3, Table 6). The coefficient on the interaction term between a child being younger than 5 at divorce date and remarriage of the child's mother before she turned 7 is not significant but its size (0.209) is relatively large compared to the coefficient on divorce before age 5 (0.118). The coefficient associated with being younger than 5 at the time of divorce is halved and is not significant when the interaction with remarriage is added. The positive link between divorce and primary school attendance seems therefore to be driven by women who have remarried (shortly) after their divorce. Remarriage might allow women to allocate more resources to their children's education given scale economies associated to marriage as well as the potential direct contribution of their new husband. It could be that their new husband helps with the financial expenses, even if the child does not live with him.

These results should not be interpreted as a pure impact of remarriage, as selection effects are also at work. Remarried women are on average younger than other ever-divorced women[33] and are hence likely to have better opportunities on the labor market. When investigating the heterogeneity of the effect of divorce on primary school attendance according to the age of the mother (columns 4 and 5, Table 6), we find that the effects are driven by mothers who are younger the median age at divorce date (29 years old). We cannot further disentangle whether this effect is due to remarriage or to age, as both are strongly correlated and the decision to remarry is endogenous to other characteristics of women. Additionally, qualitative work does not always describe remarriage as a choice for women. When women can afford not to remarry, they tend to remain single (Lambert et al., 2019). We expect remarriage to have a positive impact for women who face difficult financial situations.

Decision-making power and preferences   After a divorce, women may gain more bargaining power or become the sole decision maker regarding their children. If women have a stronger preference than their husbands for their children's primary education, this may explain why younger children at time of divorce have better educational outcomes than their older siblings. The link between women's bargaining power, their stronger preference for their children's education, and the investment in the education of their children has been highlighted (in a literature review Doss

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[33]Women who have remarried in our sample were on average 27 years old at the time of divorce whereas women who did not were on average 30 years old. The difference is statistically significant.

Table 6: Remarriage, education and age of mothers

	(1) SFE	(2) LPM	(3) SFE	(4) LPM	(5) SFE	(6) LPM	(7) SFE
Dependent variable	Ever attended primary school						
Sample	Restricted to children of divorced parents[a]						
Age at divorce							
0-5 y.o.	0.193*	0.243***	0.118	0.221**	0.0830	0.216**	0.227*
	(0.105)	(0.0796)	(0.122)	(0.0927)	(0.144)	(0.0938)	(0.128)
Remarriage of the mother		-0.0553	0.0194				
		(0.169)	(0.243)				
Remarriage × 0-5		-0.0813	0.209				
		(0.164)	(0.205)				
Mother younger than 29 years old at divorce				-0.0556			
				(0.115)			
Mother younger than 29 years old× 0-5				-0.00794	0.209		
				(0.125)	(0.144)		
Educated Mother						0.321***	
						(0.0965)	
Educated mother× 0-5						-0.0807	-0.0746
						(0.112)	(0.111)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Share remarried/younger than 29/educated		0.17	0.17	0.37	0.37	0.38	0.38
N observations	265	265	265	265	265	258	258
N families	102		102		102		99
N identifying obs.	134	58	48	88	58	69	50
N identifying families	47	22	17	36	22	25	16

Note: Columns (1), (3), (5) and (7) present linear probability models with sibling fixed-effects on the main sample. Columns (2), (4) and (6) present basic linear probability models. The outcome variable is an indicator variable that takes the value 1 if the child has attended primary school, and 0 otherwise. Results of the column (1) are different from the column (4) in Table 3, because the sample is reduced here to children of divorced women.

[a] Results are estimated on children who are older than 7 at survey date and whose mother has divorced, only when they belong to a family in which two children are 7 or older at survey date.

Control variables include: quadratic control for birth year, birth order indicators (4 categories) and an indicator variable that takes the value 1 if the child is a girl.

Robust standard errors in parentheses (clustered at the family (sibling-group) level).

Significance levels are denoted as follows: * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Source: PSF2.

(2013), in the Vietnamese context Menon et al. (2014), though Akresh et al. (2016) do not find such a correlation in the Burkinabè context). The role of this potential channel cannot be directly tested, as the data used contains no information on preferences for children's education. However, assuming that the higher the education of the mother, the stronger her preference for her children's education, then if the increased decision-making channel is at work, the effects observed should be driven by educated mothers. As educated mothers are likely to be better-off than other mothers, we cannot disentangle the preferences channel from the resources channel.

Education of the mother Higher educational attainment for women are likely to be positively correlated to their access to resources, their bargaining power within the household, and their preference for education. It is hence difficult to know what to expect from the heterogeneity results on the education of the mother. On the one hand, we expect all children of educated parents to have attended primary school – the income-constraint should not be binding enough

for them never to send their child to school. If that is the case, then there should not be any effect of the age at divorce variable for children of educated mothers. Hence, if a relaxation of the mother's income constraint after the divorce (resources channel) is at work, then the positive effect of divorce on education should be mostly driven by uneducated women. On the other hand, the (relative) decision-making power channel is more likely to be at work for both educated and uneducated women. Educated mothers are likely to have a higher bargaining power in absolute terms, but the channel depends on the bargaining power a woman has relative to her husband's.

We hence test whether there are differences in the impact of divorce on primary school attendance of the child depending on mothers' education levels (columns 6 and 7, Table 6). The interaction between having an educated mother and the age at divorce is negative but not significant : it seems that the results cannot be explained by mothers' educational attainment. This finding is compatible with the fact that different channels seem to be at work for different types of families.

Why is there no longer-term effect? The absence of results when considering (on time) completion of primary education means that, it does not allow parents to make a sustained investment in children's education. In the case of remarriage, this may be explained by the fact that new husbands do not value supporting the education of a child who is not theirs over a long period. Moreover, the opportunity and monetary costs of schooling for a young child are lower than for an older child, who can help the adults at home or outside and for whom school supplies and indirect educational costs are likely to increase. All the channels considered to explain increased attendance in primary school are likely not to be enough to overcome these increased direct and indirect costs to investing in children's human capital.

7   Conclusion

Using a dataset that records detailed life histories, we find that children's educational outcomes do not seem to be negatively affected by their parents' divorce. Children younger than 5 at divorce date have a higher probability to attend school than their siblings older than 6 at divorce date. This finding holds when controlling for unobservable characteristics common to the siblings. Additional results suggest that this positive effect is not driven by the divorce (or any negative shock correlated to it) affecting children older than 6 at the time of the divorce.

The results on primary school attendance suggest that parents are able to invest more in the education of their younger children. These positive results are mostly driven by women who are able to remarry, potentially because they are in a better financial situation. Another potential

channel could be the increase in the decision-making power of mothers, if women who divorce have stronger preferences for education than their ex-husband. However, the results on primary school completion suggest that the increased investment in education after a divorce does not persist in the longer run.

As the impact of divorce does not seem to be negative for children, at least when considering basic primary education, it alleviates the concerns some people raise over increasing divorce rates. Further research is needed to understand the longer term consequences of divorces for children as well as what drives differing results across societies.

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Appendix A

A.1 Individual determinants of educational outcomes

Table A1 reports results from a linear probability model in which the outcome variable is one of the three outcome variables studied and the regressors are the controls (at individual level) used both in the basic LPM specification and in the SFE one as well as family size. The sample is made up of all children for whom the outcome variable is defined. It is hence different from the sample used for the main analysis.

Column (1) presents the correlation between the control variables and the likelihood to have attended primary school. Girls are more likely to have attended primary school than boys. This is consistent with the fact that the education rate of girls has converged to the one of boys over the last ten years in Senegal (right panel, Figure 3). This difference is also found using the Demographic Health Survey for Senegal 2010-2011. Among children aged 7 to 15, 66% of girls and 63% of boys have some primary schooling or were attending primary school at survey date. Controlling for family size, children with higher birth orders are less likely to have attended primary than first-born children. Birth year variables are also significant, which is consistent with the increase in primary school attendance rates over time (left panel, Figure 3). Column (2) presents the correlation between the control variables and the likelihood to have attended only Qur'anic school. Boys are more likely than girls to have attended only Qur'anic school (a finding also pointed out by Chehami (2016)). Children with higher birth orders are more likely to have attended only Qur'anic school than first-born children, but once family size is controlled for, only second-born children are more likely to have attended only Qur'anic school compared to first born children. These results are consistent with the fact that few children never attend any school (primary or Qur'anic). There are no time trends when we consider Qur'anic school. Column (3) presents the correlation between the control variables and the likelihood to have completed primary school by age 10. Boys and girls are as likely to complete primary school. There are strong time trends: children belonging to later-born cohorts are more likely to have completed primary school than children belonging to earlier-born cohorts.

A.2 Observable characteristics of identifying families

Table A2 displays the characteristics of mothers according to whether they are identifying mothers, mothers whose children were all younger than 5 at divorce date, or mothers whose children were all older than 6 at divorce date. Women who divorced when all their children were older than 5 at divorce date have been married for longer (as more time elapsed between the birth of last

Table A1: Determinants of school attendance

	(1)	(2)	(3)
Dependent variable	Ever attended primary school	Qur'anic	Completed primary School
Sample: children older than	*7*	*7*	*10*
Child is a girl	0.0372***	-0.0947***	0.0129
	(0.0110)	(0.00930)	(0.0123)
Birth rank			
Second child	-0.0229*	0.0201*	-0.0133
	(0.0126)	(0.0104)	(0.0158)
Third child	-0.0363**	0.0168	0.00430
	(0.0148)	(0.0122)	(0.0178)
Fourth and more	-0.0336**	0.0193	-0.0260
	(0.0147)	(0.0121)	(0.0168)
Birth year			
Birth year	7.689***	-0.224	21.74***
	(0.806)	(0.656)	(1.240)
Birth year squared	-0.00193***	0.0000561	-0.00546***
	(0.000202)	(0.000164)	(0.000311)
Constant	-7670.2***	223.3	-21653.6***
	(803.9)	(654.8)	(1236.7)
Controls family size	Yes	Yes	Yes
Share schooling	0.65	0.19	0.47
Number of children	8,333	8,321	6,532

Note: Linear probability models. In column (1), the outcome variable is an indicator variable that takes the value 1 if the child has attended or attends formal primary school. In column (2), the outcome variable is an indicator variable that takes the value 1 if the child has attended only Qur'anic school. In column (3), the outcome variable is an indicator variable that takes the value 1 if the child has attended the 5th grade of primary school or higher level. Sample: Children older than 7 at the time of survey for columns (1) and (2). Children older than 10 for column (3).
Robust standard errors in parentheses (clustered at the mother level).
Significance levels are denoted as follows: * p<0.10, ** p<0.05, *** p<0.01.
Source: PSF2.

child and their divorce) and have less children younger than 25 (due to the censorship to the right of the data) than other divorced women. Women who divorced when all their children were younger than 5 at divorce date have been married for a shorter period, 5 years on average (which is consistent with having two children who were younger than 5) and less children were born to their last union than other divorced mothers in the sample. This differences are due to the fact that the age of women, their number of children, and the length of marriage are all correlated. There are no significant differences in education levels of mothers. Mothers whose children were all younger than 5 at divorce date seem to be more educated, which is consistent with the fact that they are younger than other divorced mothers and that there were recent increases in the education attainment of women. The mothers of children on which our coefficient of interest is estimated hence do not appear to be different from other mothers who divorce when they have at least two children, apart from the structural demographic factors.

Table A2: Characteristics of families according to the age distribution of children at divorce

	(1) Identifying	(2) All children older than 5	(3) all children younger than 5	(4) Diff. identifying all older	(5) Diff. identifying all younger
Age	37.81	42.92	35.65	5.11***	-2.16
Highest education level					
No formal education	0.64	0.65	0.47	0.00	-0.17
Primary	0.27	0.14	0.47	-0.13	0.20
Secondary or higher	0.09	0.22	0.06	0.13	-0.03
Household Consumption					
Food expenditures (hh)	156730.92	206790.20	123768.48	50059.28	-32962.44
Other expenditures (hh)	143408.60	128730.60	151600.76	-14678.00	8192.16
Family composition					
Number of children alive	5.00	4.00	4.92	-1.00	-0.08
Number of children ($\leq$25 y.o)	4.02	3.08	4.18	-0.94***	0.16
Number of children - last union[a]	2.96	2.76	2.18	-0.19	-0.78**
Last marriage duration	9.88	16.14	4.70	6.26**	-5.18**
Number of mothers	47	38	17	85	64

Note: The table presents characteristics of women and their families according to the age distribution of children at the time of divorce. Column (4) presents the results of a difference in average test between identifying families and families where all the children were older than 5 at the time of the survey. Column (5) presents the results of a difference in average test between identifying families and families where all the children were younger than 5 at the time of the survey.
Sample: All mothers surveyed in 2011 with at least a child younger than 25 and two children older than 7 at the time of the survey.

Significance of the t-test of the difference is reported in column (4) and (5). P-values are denoted as follows: + $p<0.15$, * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

A.3 Additional table and figure: Custody and fostering decisions

Table A3: Custody and fostering decisions after a divorce

Dependent variable **Specification**	(1) With Mother LPM	(2) With Mother SFE	(3) With father LPM	(4) With Father SFE	(5) Fostered LPM	(6) Fostered SFE
Sample	Main sample [a]					
Age at divorce						
0-5 y.o.	-0.235***	-0.219***	0.133***	0.0985*	0.0932**	0.139**
	(0.0567)	(0.0794)	(0.0432)	(0.0551)	(0.0462)	(0.0652)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	0.90	0.90	0.04	0.04	0.06	0.06
R^2	0.0098	0.0051	0.0081	0.0058	0.0058	0.0033
N observations[b]	7,276	7,276	7,253	7,253	7,289	7,289

Note: Columns (1), (3) and (5): Linear probability model. Columns (2), (4) and (6): Linear probability model with sibling fixed effect. Columns (1) and (2): The outcome variable is an indicator variable that takes the value 1 if the child has been full time with her mother until the age of 7 years old. Columns (3) and (4): The outcome variable is an indicator variable that takes the value 1 if the child has been coresiding with her father (but not with her mother) before the age of 7 years old. Columns (5) and (6): The outcome variable is an indicator variable that takes the value 1 if the child has been fostered before the age of 7 years old.
Control variables include: quadratic control for birth year, birth order indicators (4 categories) and an indicator variable that takes the value 1 if the child is a girl.
a *Main sample:* Children who are older than 7 at survey date, only when they belong to a family in which two children are 7 or older at survey date.
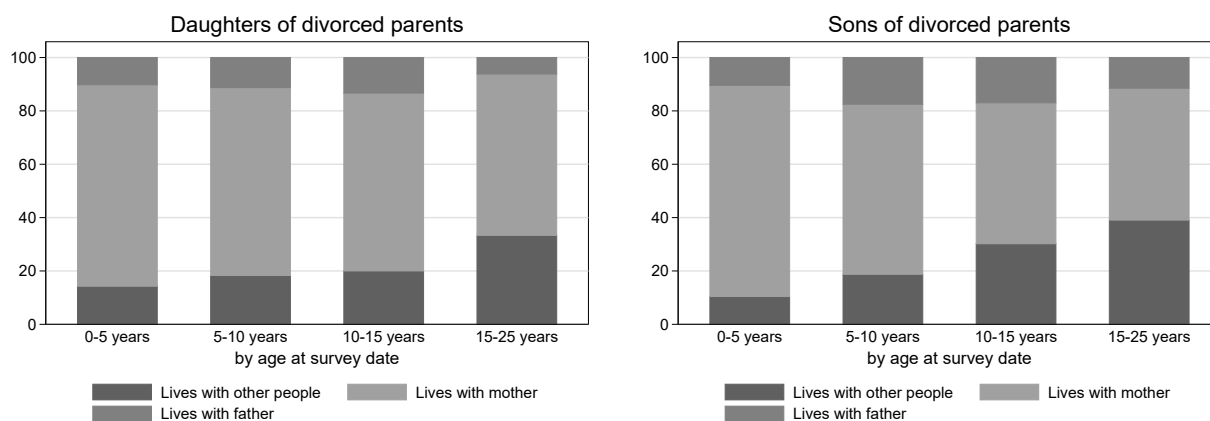b The sample size varies because the outcome variable is missing for some observations.
Robust standard errors in parentheses (clustered at the mother level).
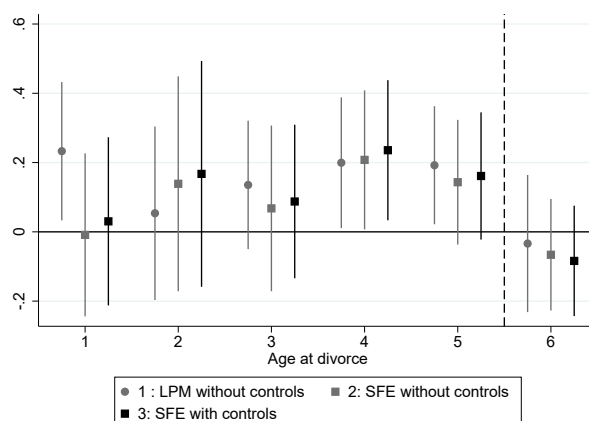Significance levels are denoted as follows: * $p<0.10$, ** $p<0.05$, *** $p<0.01$.
Source: PSF2.

Figure A1: With whom do children of divorced parents live?

Note: *Left panel*: Sample: girls younger than 25 whose parents divorced. *Right panel*: Sample: boys younger than 25 whose parents divorced.

A.4 Additional results

Figure A2: Coefficients on age at divorce

Note: Coefficients associated to binary variables for ages at divorce. The omitted category groups ages at divorce higher than 7. The dependent variable is an indicator variable that takes the value 1 if the child has attended primary school, and 0 otherwise. *Sample*: At least 2 children older than 7 at survey date.