

Like mother, like son? Gender and family structure effects in the intergenerational transmission of entrepreneurship

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Abstract

It is well known that the children of entrepreneurs are more likely than other children to become entrepreneurs themselves. But why is this? We explore the persistence of entrepreneurship across generations by adopting a life-course perspective in which the decision to engage in entrepreneurship is seen as a career choice developing in stages, from childhood, to adolescence, to early adulthood. Using data from a UK cohort study following thousands of children from pre-birth through to age 29, we examine how children's entrepreneurial decisions are impacted by the time-points in their upbringing that their parent(s) were entrepreneurs – at birth, at age eight, or at age 18. To further investigate the transmission pathways, we compare the impact on the child's entrepreneurial decision of having a biological parent who is an entrepreneur, with the impact of a step-parent entrepreneur, and whether this differs depending on the gender of the child, the timing in childhood, and whether the parent and child live in the same household. This allows us to partially separate out the effect of non-genetic transmission factors from biologically inherited proclivity towards entrepreneurship. We find that maternal and paternal transmission effects are equally important but present different pathways. Maternal transmission is dependent on the child's gender, while biological paternal transmission is conditional on the father's living arrangement. Non-biological paternal transmission is weaker and dependent on child's age and gender. Overall, our results suggest the existence of interdependence between intergenerational transmission of entrepreneurship, family structure, and the child's lived experience of parental relationships.

Keywords: entrepreneurship; intergenerational transmission; cohort data
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Introduction

It is well known that the children of entrepreneurs are more likely than other children to become entrepreneurs themselves (Hopp et al., 2019; Laspita et al., 2012). But why is this? So far, in addressing this question the literature has shown how the family offers the primary environment in which the intention to engage in entrepreneurship emerges and develops into a career choice for young people (Aldrich & Cliff, 2003; Dyer & Handler, 1994). We also know that parents provide both tangible and intangible resources to their children in the form of knowledge (Carroll & Mosakowski, 1987), values (Wyrwich, 2015), attitudes (Carr & Sequeira, 2007), and socio-economic resources (Dickson et al., 2016; Schoon & Duckworth, 2012). These influence their children's decisions to become entrepreneurs (Lindquist et al., 2015) as well as the likelihood of the new businesses' success (de Jong & Marsili, 2015). More broadly, parental influences need to be understood within a system of family relationships (Mishkin 2021), in which different parental figures and grandparents (Laspita et al., 2012) can play a role. Previous studies examining the career choices of twins (Nicolaou et al., 2008) and of adopted children (Lindquist et al. 2015) estimated how much of the probability of becoming entrepreneur can be attributed to genetic influences, with mixed evidence on the strength of the genetic channel. We know less about the extent to which transmission effects depend on the lived experience of the children – for example how the effect of having an entrepreneur parent differs depending on the age of the child when their parent(s) are entrepreneurs and whether they live in the same household at that time.

Understanding how entrepreneurship is transmitted and whether and when there are critical periods in children's development influencing this transmission is important for public policy. In the UK, where our study is set, the vast majority of businesses (99.9%) are small-to-medium sized enterprises (SMEs) and these account for three-fifths of employment and just over half of the turnover of the private sector (£2.4trillion per year) (HM Gov. Dept. Business & Trade, 2023). At a time when the UK economy, and many around the world, continue to experience sluggish growth post-pandemic, it is important to understand the processes that lead to the decision to pursue an entrepreneurial career, and create the businesses that form the backbone of the economy.

This paper explores the persistence of entrepreneurship across generations by adopting a life-course perspective in which the decision to engage in entrepreneurship is seen as a career choice developing in stages, from childhood, to adolescence, and early adulthood (Burton et

al., 2016). The premise of our study is that the child's experience of exposure to entrepreneurship via the family changes with the child age, because of changes over time in the family household (which parent or parental figure lives with the child) and in the occupational status of the family members. In addition, the child's own perception and response to such experience will change through the stages of child development and this is likely to be affected by the child's gender and the relationship between the child and his/her parents.

Our study is based on a birth cohort study from the UK which has followed thousands of children and their families from the child's gestation through to age 29, allowing us to trace the family history – in particular its composition and the employment status of its members – at different age points for the child. We examine the extent to which children's entrepreneurial decisions in adulthood are impacted by the time-points in their upbringing that their parent(s) were entrepreneurs – at birth, at age eight, at age 18, or simply at any of these time points.

To further investigate the transmission pathways, we compare the impact on the child's entrepreneurial decision of having a biological parent who is an entrepreneur, with the impact of a step-parent entrepreneur, and whether this differs depending on the gender of the child, the time in childhood when the parent is an entrepreneur, and on whether the parent lives in the same household as the child. Akin to the approach in adoption studies, this allows us to partially separate out the effect of non-genetic transmission factors from biologically inherited proclivity towards entrepreneurship.

We find that among children without entrepreneurial parents, 7.5% are entrepreneurs at age 29. Having an entrepreneurial parent at any point from birth to age 18 increases this by 6.9 percentage points (pp). After controlling for a wide range of parental/familial characteristics the effect reduces very slightly to +6.6 pp, significant at all conventional levels. Notably, the parental entrepreneurial influence is more pronounced among boys (+9.7pp) than girls (+4.9pp) though both are statistically significant. Exploring further, we find that having an entrepreneurial mother significantly increases the likelihood of boys becoming entrepreneurs (+8.6pp), but not girls, while the father's influence is significant for both boys (+7.3pp) and girls (+5.0pp). When we disentangle the entrepreneurial family variable and distinguish biological and non-biological parents, we find that the most influential factor is the presence of an entrepreneurial biological father in the household. This effect is consistent across both

genders and at all three life stages (birth, age 8, and age 18). In contrast, the mother's influence is only observed for boys, where again it is almost equally strong whether the mother is an entrepreneur before the son is born, when he is age 8, or age 18. The effect of having an entrepreneurial step-father living in the household is significant only for girls and presents a different impact depending on age. In sum, maternal and paternal transmission effects are equally important over the child's life-course but present different transmission pathways. Maternal transmission is dependent on child's gender, while biological paternal transmission is conditional on the father's living arrangement. Non-biological paternal transmission is weaker and dependent on child's age and gender. Overall, our results suggest the existence of interdependence between intergenerational transmission of entrepreneurship, family structure, and the child's living experience of parental relationships.

The rest of the paper proceeds as follows: in the next section we describe our empirical approach before going on to detail the UK data used in the study. We then present our main results and sensitivity analyses, before offering concluding comments and discussion.

Methodology

We first regress our measure of child entrepreneurship (EC_i), which captures whether the child is an entrepreneur at age 29, on an indicator of coming from an entrepreneurial family, measured by whether any parent of the child (including biological- and step-parents) is ever an entrepreneur at any observed time point: the child's birth, at age 8 or when the child is age 18 ($EFam_i$):

$$EC_i = \beta_0 + \beta_1 EFam_i + \varepsilon_{1i} \quad (1)$$

This gives our base estimate of the intergenerational association in entrepreneurship, (β_1). Next, we add successive sets of controls (X_i) capturing characteristics of the parents': social class, education, financial situation, age at the child's birth, health; child characteristics: gender, ethnicity, birth order, gender of siblings; local deprivation and neighbourhood quality.

$$EC_i = \alpha_0 + \alpha_1 EFam_i + X_i' \zeta + \varepsilon_{2i} \quad (2)$$

This gives us an estimate of the intergenerational association in entrepreneurship, (α_1), purged of any bias relating to family background characteristics that may affect the likelihood of parents and their children choosing to become entrepreneurs.

To begin to explore the relationships captured in the intergenerational association in entrepreneurship we separate the entrepreneurial family variable ($EFam_i$) into variables capturing whether the mother (EM_i) or father (EF_i) were ever an entrepreneur:

$$EC_i = \gamma_0 + \gamma_1 EM_i + \gamma_2 EF_i + X_i' \zeta + \varepsilon_{3i} \quad (3)$$

Finally, we further elaborate on equation (3) and split the entrepreneurial father variable (EF_i) into categories which capture whether the family has an entrepreneurial biological father living in the same household as the child, an entrepreneurial biological father not living with the child, or an entrepreneurial (step-)father figure living with the child. We then estimate the following equation:

$$EC_i = \pi_0 + \pi_1 EM_i + \pi_2 EBF_{in_i} + \pi_2 EBF_{out_i} + \pi_3 EnonBF_{in_i} + X_i' \zeta + \varepsilon_{4i} \quad (4)$$

We estimate the equations (3) and (4) at birth, at age 8, at age 18 and, firstly, in a model where we combine all the data available from the three different time points. We estimate all models both pooled and separately for sons and daughters. All models are estimated by OLS and use robust standard errors.

Data

To estimate our models, we use the Avon Longitudinal Study of Parents and Children (ALSPAC), a long-running UK birth cohort study led by the University of Bristol. ALSPAC was originally established to examine genetic and environmental influences on child health and development, recruiting over 14,000 pregnant women residing in the Avon area of England who were expected to give birth between April 1991 and December 1992 (Golding, 1996). The ALSPAC mothers have been regularly surveyed about their life and household for more than 30 years (up to 52 questionnaires), whilst also providing information about their children from before they were born, through to 16 years old. The children themselves have completed up to 36 questionnaires from the age of five to 29 years old. Surveys were also administered to the

child's father and/or mother's partner at selected time points, with information collected on the wider family structure, including all grandparents of the focus children. This design and longitudinal length make ALSPAC a unique resource for studying the interplay of genetic, familial, and environmental factors across generations. The richness of the data means that we are able to control for many relevant family-level traits that would otherwise be unobserved in standard survey datasets. Despite some sample attrition over the thirty plus years of the survey our sample consists of 3,931 ALSPAC children (2,562 females, 1,369 males) for whom we know their parents' entrepreneurial status over time and their own career choices by age 29. Importantly, this long timeframe takes us to the point at which the focus children are in the age range when most likely to start an entrepreneurial career.

Child entrepreneurship

In all of our models, the dependent variable is a binary indicator taking the value 1 if the study child is self-employed, and zero if they are an employee, in education, unemployed, inactive, or in another category. This measure is constructed based on a series of questions about the study child's occupational status.¹ Later, as a robustness check, we narrow the comparison group to only employed individuals, such that all in the sample are economically active. Our sample comprises 3,931 respondents, with 10.1% (398) entrepreneurs at age 29, 89.9% (3,533) not.

Parental entrepreneurship

We capture parental entrepreneurship at three key points in time: at the child's birth, at age 8, and at age 18. In our baseline specification, the primary independent variable "entrepreneurial family" is an indicator that at least one parental figure – either mother, father, or (step) father figure – is self-employed, with or without employees, at any of these time points. If this condition is met, the binary variable is 1, it is zero otherwise. The zeroes therefore include parents who were in any combination of employment, education, unemployment, inactivity, or other statuses across these time points.

We leverage the richness of the ALSPAC data to distinguish entrepreneurial family roles by creating separate binary indicators for mother, father, and father figure entrepreneurship, and

¹ When multiple responses were recorded for the same individual, we assigned priority in the following order: self-employed, employed, in education, unemployed, inactive, and other.

create time specific versions of each variable for each key time point. For example, we construct binary variables for “entrepreneurial mother” at birth, at age 8, at age 18, and an “ever” indicator which is set to 1 if the mother was entrepreneurial at any of these time points. Finally, we are interested in exploring if the effect is driven by parents that live in the household, and so we further disaggregate the entrepreneurial father variable to live-in biological father entrepreneur, live-out biological father entrepreneur, and live-in step-father entrepreneur.² We also include variables for having a biological father living in the household, a biological father living out of the household, or a father figure living in the household, such that all family types (including single mother households) are captured.

Descriptive statistics

The first two columns of Table 1 show that just over 10% of our sample are entrepreneurs at age 29, and the subsequent sets of columns show how this differs slightly between boys and girls: 9.2% of girls being entrepreneurs, compared to 11.9% of boys. The next rows show that 37.7% of our sample young people come from families in which one of the parents was ever an entrepreneur, and this is similar for girls (38.1%) and boys (37.0%). In the parent generation we see a clear gender difference in entrepreneurialism: 29.9% of our sample come from a family in which the father was ever an entrepreneur, whereas only 16.8% come from families in which the mother was ever an entrepreneur. This pattern is consistent for the boys and girls in our sample. With regard to living arrangement, 26.5% of the sample have ever had a biological father entrepreneur who lives with them, while only 1.6% have ever had a stepfather figure who is an entrepreneur and lives in their household. For less than 1% of the sample (0.75%) their biological father has ever been an entrepreneur but does not live with them. Again, these patterns are consistent across the male and female children in our sample.

<<Table 1 about here>>

Control variables

The long timeframe and large number of questionnaires behind ALSPAC mean it has an extensive list of more than 75,000 variables, allowing us to control for many potentially confounding factors. We control for parental social class using information on ‘social class based on occupation’ for both the mother and father measured before the child is born, and

² We make the assumption that mother always lives with the study child.

again when the child is 4 years old (mother) and 8 years old (father/partner). The variables each capture six categories: manager, professional, skilled non-manual, skilled-manual, semi-skilled and unskilled. Regarding parental education, for each parent we use the recorded highest educational qualification pre the child's birth, covering five discrete categories: none/lowest level qualification, vocational qualification, lower-secondary qualification ("O levels", taken at age 16), upper-secondary qualification ("A level", taken at age 18), and higher education degree. We include separate quadratics in each parents' age at the child's birth, centring these on the mean. We are also able to include controls for parental health as captured by BMI at child's birth and when the child is age 8, and a categorical self-reported health measure at these time points too.

We include controls for the financial circumstances of the household at the time of pregnancy, constructing a categorical variable capturing degree of financial difficulties (low, medium, high) using information from individual items capturing difficulty with regard to affording food, clothing, heating, accommodation or items for the baby. In some specifications we also include family income measured later in childhood, specifically at three time-points: when the child is 3-4 years old, age 8 and age 18. At age 18 we also include in some specifications the total amount the household owes (including all borrowing on credit cards, credit agreements, social fund loans, but not including mortgage). We are also able to capture a measure of household wealth via the household crowding index at the child's birth, calculated by dividing the number of people in the household by the number of rooms and categorising as (0, 0.5], (0.5, 0.75], (0.75, 1], > 1. To further characterise the circumstances that the child is born and raised in, we include some measures of the neighbourhood: the indices of multiple deprivation for all our three time points (birth, at year 8 and at age 18), coded into a deprivation level: very low, low, middle, high and very high. We can also control for the quality of the neighbourhood of residence, using an ALSPAC index constructed from variables capturing if the neighbourhood is considered lively, friendly, noisy, clean, attractive, and polluted. We also use the neighbourhood stress score which is based on the questions asked to the mother about the extent of issues with the neighbourhood such as noise, rubbish/litter and worries about crime and antisocial behaviour.

With regard to the children themselves, we exclude any outcomes that could be on the causal pathway from parental entrepreneurship to child entrepreneurship, including in the model only pre-determined characteristics such as ethnicity ('white', 'non-white') and sex assigned at birth

(male, female). We also control for the number of older siblings (0, 1 or 2+) and their sex given this may affect entrepreneurship probability if age and sex affects the transmission of a family business. We also account for the number of younger siblings to capture completed family size, and include a measure of whether the individual has a twin.

Results

Our baseline results are presented in Table 2. These show the impact on the probability of becoming an entrepreneur of growing up in a family in which at least one parent is an entrepreneur during at least one time point (birth, age 8, age 18) during the child's upbringing.

<<Table 2 about here>>

In column (1), we see that 7.5% of children from non-entrepreneurial families are entrepreneurs at age 29. Having at least one parent ever an entrepreneur is associated with a 6.9 percentage points increase in this probability, highlighting the intergenerational persistence of entrepreneurship. As we move across the columns, we progressively add controls. In column (2) we introduce controls for child characteristics; in column (3) for the parents' social status and their level of education; in column (4) parents' age and physical health; in (5) sibling information; in (6) family finances; in (7) home crowding index; in (8) local deprivation; and in (9) controls for neighbourhood quality. The effect of having entrepreneurial parents on child entrepreneurship remains remarkably consistent across all of the columns, falling only slightly to 6.6pp in the final model with all controls included. The slight reduction is associated with the introduction of parents' age and physical health (column 4) but does not reduce any further as additional controls are added. The final columns of Table 2 show the full model results split by gender of the young person. We see that the effect of growing up in an entrepreneurial family is stronger for boys (+9.7pp) than girls (+4.9pp) but that both are strongly statistically significant. In all remaining models we estimate separately for boys and girls, with results for girls in the first column of each pair, and boys in the second.

The first two columns of Table 3 we continue to look at the effect of ever having a parental entrepreneur but separate out the effects of an entrepreneurial mother and an entrepreneurial

father.³ Interestingly, while father entrepreneur has a strong effect for both sexes, +5.0pp for girls, +7.3pp for boys, the impact of having a mother who is ever an entrepreneur is only impactful for boys: increasing their likelihood of becoming an entrepreneur by 8.6pp compared to those whose mother is never an entrepreneur. For girls the increase is 1.4pp and non-significant.

Before examining the effects at different time points and disaggregated by type of entrepreneurial father, it is worth noting that Appendix Table A1 contains the full version of Table 3, displaying the coefficients on all control variables in addition to our main variables of interest. Looking at the first two columns – showing the effect of ever having an entrepreneurial mother or an entrepreneurial father for girls and boys respectively – reveals some interesting associations between parental and familial characteristics and the likelihood of a young person being an entrepreneur at age 29. The first thing of note is that while an entrepreneurial mother is not associated with the entrepreneurial decision for girls, there is a strong association between having a mother in a professional occupation and girls becoming entrepreneurs. The coefficient suggests a 10.4pp increase in likelihood compared to children whose mother was in the skilled non-manual occupational class and this is a finding that remains consistent across the models, whereas for boys the association is small and imprecisely estimated. Maternal health at the time of the child’s birth also has a notable association with offspring entrepreneurialism, with those whose mother self-reported being ‘not well’ significantly less likely to become an entrepreneur by age 29 (boys -7.3pp, girls -5.1pp) than those whose mothers reported being generally ‘well’. For girls also there is a significant association between maternal BMI and the outcome, with each point increase in BMI reducing the likelihood of a girl becoming an entrepreneur by 0.3pp. With regard to demographics, having older male siblings is associated with a lower likelihood of a girl becoming an entrepreneur (-6.5pp) whereas there is no effect of family composition for boys. However, socio-economic factors are important for boys: living in a low (+8.4pp) or very low (+6.1pp) deprivation area when born (compared to an average area) is associated with a higher probability of boys becoming entrepreneurs and similarly increases in quality at the more granular neighbourhood level are positively associated with entrepreneurship for boys and also for girls. In most cases these effects are very consistent across all models.

³ Appendix Table A1 shows the full model table including coefficients on all of the control variables included in each model.

Returning to Table 3, the remaining columns are in three sets, examining the effect of parental entrepreneurship at the three different time-points: child's birth, age 8, and age 18. In each set of columns, the first two show the maternal and paternal effects (girls in the first column, boys in the second) and the latter two complete the disaggregation by showing how the impacts of paternal entrepreneurship differ depending on whether it is the biological father who is an entrepreneur and whether he lives with the child. Columns (3) to (6) show the impacts on the young person's likelihood of being an entrepreneur at age 29 of the parent(s) being entrepreneurs at the time the child was born. Echoing columns (1) and (2), the positive impact of having a maternal entrepreneur at birth is only evident for boys, increasing their likelihood of being an entrepreneur by 10.1pp. Interestingly, there is a negative effect for girls of 4.9pp though it is only marginally significant. In contrast, the effect of having an entrepreneurial father at the time of child's birth is almost identical for boys and girls: +7.0pp for girls, +7.7pp for boys. When we further disaggregate the paternal entrepreneur effect to allow for biological and non-biological father entrepreneurs and stepfather figure entrepreneurs we see that for both boys and girls the paternal effect at birth is driven by biological father entrepreneurs who live with the child at the time of their birth. Unsurprisingly the other categories of father are small in number at this point – most families are intact at the birth of the child – and so effects are small and imprecisely estimated for these other father types.

The next set of columns, (7) to (10), repeat these models for parental entrepreneurship when the child is aged 8. In these models we include the same controls as the previous columns but also include control variables with updated information on parental and familial characteristics and circumstances at this later time point. The pattern of effects is largely the same as we have seen for the parent entrepreneur at birth model, though with coefficients generally muted. Again, we see in these models that having a mother who is an entrepreneur when the child is aged 8 is only positively associated with boys' likelihood of being an entrepreneur at age 29, with an estimated +7.5pp effect. For girls the coefficient is negative but very close to zero and very imprecisely estimated. The effects of paternal entrepreneurship at age 8 are slightly smaller than the corresponding coefficients in columns (3) to (6), though the effects of an entrepreneurial father remain non-trivial: +4.8pp for girls, +7.6pp for boys. These remain driven by the live-in biological father effects which are positive (+5.6pp girls, +6.7pp boys) and strongly significant. Interestingly, for girls there is a coefficient of -7.5pp for having a

stepfather figure (who we assume lives with the child) when she is age 8, though it should be borne in mind that there are only a small number of families who identify this coefficient.

The final columns, (11) to (14), show the models for parental entrepreneurship when the child is aged 18. Again, we include the controls that have been used in the preceding models and add additional controls for parental/family circumstances when the child is age 18.⁴ We find results are generally weaker than the corresponding effects from earlier ages though the pattern is consistent. The effect of having a maternal entrepreneur when the child is 18 is still strong and significant for boys at around +9pp – so stronger than the effect at age 8 and only slightly smaller than the effect of having a mother who is an entrepreneur when the child is born. For girls the maternal entrepreneur coefficient is now positive (around +4pp) but imprecisely estimated. The live-in biological father entrepreneur estimates are no longer statistically significant, and are slightly smaller in magnitude than for earlier ages. For girls, there is a large positive effect of living with an entrepreneurial stepfather figure at age 18, of +17.8pp but this has to be interpreted with caution as it is driven by a very small number of girls in this category, albeit they disproportionately go on to become entrepreneurs.

Discussion and conclusions

Overall, we find that parental entrepreneurial background is a strong predictor of the future decision of their child regarding entrepreneurship, with results across a range of models consistently showing that having entrepreneurial parents is associated with a significantly higher likelihood that an individual chooses to become an entrepreneur. The effect of being raised in a family in which at least one parent is ever an entrepreneur is stronger for boys than for girls but for both there is a strongly significant association. Interestingly, maternal entrepreneurship is only significantly associated with sons becoming entrepreneurs and this relationship holds whatever age the son is when the mother is an entrepreneur, though it is strongest if it is at the time of the child's birth. The most influential parental association common to both genders is between a live-in biological entrepreneurial father and their offspring becoming an entrepreneur. This is observed for both sons and daughters and is significant at birth and age 8, and still positive but less precisely estimated at age 18. The effect of an entrepreneurial step-father is generally positive but non-significant other than for girls at

⁴ We have tested the robustness of the age 8 and age 18 models to including all the different combinations of sets of controls (e.g. for age 8 models: just birth, just age 8, both birth and age 8) and results are very consistent, available from the authors on request.

ages 8 and 18 where there is a moderate negative and large positive effect respectively, albeit based on small numbers of step-father figures at each of these ages.

The evidence supports the theory that mentoring and role-modelling are important in the process of developing entrepreneurs. The strong effect of having a live-in entrepreneurial biological father, and for sons the impact of a (live-in) entrepreneurial mother, suggest that the living arrangement is important – implying that young people are influenced by seeing and learning first-hand from their entrepreneurial parents. This could indicate a biological process also, since these effects both run from biological parents to their children. However, the importance of non-biological processes is supported by the non-significance of the impact of having a biological father entrepreneur who does not live in the household – if it was a genetic effect dominating we would expect to see a positive impact here. Moreover, while the presence of a non-biological father figure who is an entrepreneur is only ever significant for girls, it is almost always positively associated with entrepreneurship in the child, though the smaller numbers of step-father entrepreneurs means the coefficient is imprecisely estimated in most cases.

Overall, our results point to an interdependence between the family structure, the child's lived experience of parental relationships and the intergenerational transmission of entrepreneurship. The fact that the live-in biological father entrepreneur effect is stronger when the father is an entrepreneur from the child's birth and weakens if the entrepreneurship is at age 8 and weakens further at age 18 would also suggest that there is a gene-environment interaction – the longer exposure to a biological entrepreneurial father, the stronger the effect. Better understanding of the gene-environment interaction and the role that environment can play over and above a genetic endowment towards entrepreneurship remains a priority for future research. For example, our finding of higher entrepreneurial proclivity for the daughters of professional mothers, in the absence of direct transmission of entrepreneurship, could indicate that mechanisms of human capital transmission are potentially prevalent in this case. For policy, the suggestion from the results of the importance of mentoring and role-modelling for the decision to become an entrepreneur implies that coaching and teaching young people how to run a business may be a fruitful avenue for cultivating entrepreneurship more generally amongst younger cohorts.

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Table 1: Descriptive statistics on parent and child entrepreneurship

	All children		Girls		Boys	
	N	%	N	%	N	%
Total	3,931	100.00	2,562	100.00	1,369	100.00
Entrepreneur Child = 0	3,533	89.88	2,327	90.83	1,206	88.09
Entrepreneur Child = 1	398	10.12	235	9.17	163	11.91
Entrepreneurial Family = 0	2,449	62.30	1,586	61.90	863	63.04
Entrepreneurial Family = 1	1,482	37.70	976	38.10	506	36.96
Mother Entrepreneurial = 0	3,265	83.18	2,139	83.59	1,126	82.43
Mother Entrepreneurial = 1	660	16.82	420	16.41	240	17.57
Father Entrepreneurial = 0	2,786	70.98	1,803	70.46	983	71.96
Father Entrepreneurial = 1	1,139	29.02	756	29.54	383	28.04
Biological Dad Entrepreneurial Live In = 0	2,886	73.49	1,870	73.02	1,016	74.38
Biological Dad Entrepreneurial Live In = 1	1,041	26.51	691	26.98	350	25.62
Biological Dad Entrepreneurial Live Out = 0	3,897	99.26	2,539	99.18	1,358	99.41
Biological Dad Entrepreneurial Live Out = 1	29	0.74	21	0.82	8	0.59
Father Figure Entrepreneurial = 0	3,865	98.42	2,522	98.48	1,343	98.32
Father Figure Entrepreneurial = 1	62	1.58	39	1.52	23	1.68

Table 2: Baseline Model – Dependent variable: entrepreneurial child at age 29

	All									Girls	Boys
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Entrepreneurial Family Ever	0.069*** (0.011)	0.070*** (0.011)	0.068*** (0.011)	0.066*** (0.011)	0.066*** (0.011)	0.066*** (0.011)	0.066*** (0.011)	0.066*** (0.011)	0.066*** (0.011)	0.049*** (0.013)	0.097*** (0.020)
Constant	0.075*** (0.005)	0.091*** (0.009)	0.074*** (0.025)	0.082*** (0.026)	0.092*** (0.026)	0.090*** (0.028)	0.149*** (0.044)	0.119*** (0.046)	0.128*** (0.048)	0.132** (0.056)	0.072 (0.088)
N	3931	3931	3931	3931	3931	3931	3931	3931	3931	2562	1369
<i>Control variables</i>											
Child Demographics	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parental Occupational Class	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parental Education	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parental Age	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parental Physical Health	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Siblings	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household Finance	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Home Crowding Index	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Index of Multiple Deprivation (local area level)	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Neighbourhood Quality	No	No	No	No	No	No	No	No	Yes	Yes	Yes

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Family structure and interaction effects by gender

	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Parental entrepreneurial effects ever		Parental entrepreneurial effects at birth				Parental entrepreneurial effects at age 8				Parental entrepreneurial effects at age 18			
Entrepreneurial Mother	0.014	0.086***	-0.049*	0.101**	-0.049*	0.101**	-0.002	0.074*	-0.002	0.075*	0.041	0.090**	0.039	0.090**
	(0.019)	(0.029)	(0.029)	(0.051)	(0.029)	(0.051)	(0.025)	(0.040)	(0.025)	(0.040)	(0.030)	(0.040)	(0.030)	(0.040)
Entrepreneurial Father	0.050***	0.073***	0.070***	0.077**			0.048**	0.076***			0.040	0.050		
	(0.015)	(0.024)	(0.019)	(0.030)			(0.020)	(0.029)			(0.025)	(0.035)		
Entrepreneurial Live-In Biological Father					0.065***	0.075**			0.056***	0.067**			0.037	0.051
					(0.019)	(0.031)			(0.021)	(0.030)			(0.028)	(0.036)
Entrepreneurial Live-Out Biological Father					0.080	-0.117			-0.052	0.015			-0.020	-0.281
					(0.097)	(0.095)			(0.051)	(0.073)			(0.076)	(0.219)
Entrepreneurial Father Figure					0.058				-0.070**	0.231			0.178**	0.099
					(0.108)				(0.035)	(0.162)			(0.090)	(0.110)
Constant	0.137**	0.052	0.119	0.361**	0.181*	0.199	0.085	0.053	0.101	-0.028	0.108	0.035	0.088	0.004
	(0.057)	(0.087)	(0.073)	(0.171)	(0.098)	(0.192)	(0.076)	(0.118)	(0.090)	(0.163)	(0.102)	(0.165)	(0.120)	(0.216)
N	2559	1366	2483	1317	2483	1317	2079	1182	2079	1182	1340	864	1340	864
R2	0.033	0.089	0.035	0.077	0.035	0.081	0.060	0.130	0.063	0.133	0.113	0.210	0.121	0.222
Controls at birth	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls at age 8	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls at age 18	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Appendix - Table A1: Family structure and interaction effects by gender – full table

	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Parental entrep. effects ever		Parental entrep. effects at birth				Parental entrep. effects at age 8				Parental entrep. effects at age 18			
Entrepreneurial Mother	0.014 (0.019)	0.086*** (0.029)	-0.049* (0.029)	0.101** (0.051)	-0.049* (0.029)	0.101** (0.051)	-0.002 (0.025)	0.074* (0.040)	-0.002 (0.025)	0.075* (0.040)	0.041 (0.030)	0.090** (0.040)	0.039 (0.030)	0.090** (0.040)
Entrepreneurial Father	0.050*** (0.015)	0.073*** (0.024)	0.070*** (0.019)	0.077** (0.030)			0.048** (0.020)	0.076*** (0.029)			0.040 (0.025)	0.050 (0.035)		
Entrepreneurial Live-In Biological Father					0.065*** (0.019)	0.075** (0.031)			0.056*** (0.021)	0.067** (0.030)			0.037 (0.028)	0.051 (0.036)
Entrepreneurial Live-Out Biological Father					0.080 (0.097)	-0.117 (0.095)			-0.052 (0.051)	0.015 (0.073)			-0.020 (0.076)	-0.281 (0.219)
Entrepreneurial Father Figure					0.058 (0.108)				-0.070** (0.035)	0.231 (0.162)			0.178** (0.090)	0.099 (0.110)
Father			0.026 (0.043)	-0.253* (0.147)			0.046* (0.027)	-0.039 (0.051)			0.002 (0.027)	-0.034 (0.040)		
Live-In Biological Father					-0.045 (0.081)	-0.075 (0.167)			0.033 (0.054)	0.040 (0.120)			0.011 (0.074)	-0.021 (0.132)
Live-Out Biological Father					-0.066 (0.083)	-0.085 (0.181)			-0.012 (0.065)	-0.054 (0.124)			-0.092 (0.088)	0.179 (0.242)
Father Figure					-0.161 (0.113)	-0.203 (0.173)			0.005 (0.061)	-0.032 (0.123)			-0.041 (0.082)	-0.085 (0.138)
Child Non-White	0.034 (0.034)	0.097* (0.055)	0.038 (0.036)	0.090 (0.062)	0.041 (0.036)	0.093 (0.062)	0.028 (0.041)	0.102 (0.075)	0.027 (0.040)	0.101 (0.076)	0.020 (0.052)	0.006 (0.093)	0.020 (0.052)	0.008 (0.093)
Mother Professional (Birth)	0.104** (0.045)	0.033 (0.047)	0.116** (0.045)	0.018 (0.046)	0.116** (0.045)	0.017 (0.046)	0.110* (0.058)	-0.011 (0.051)	0.107* (0.058)	-0.011 (0.051)	0.191*** (0.071)	-0.009 (0.060)	0.191*** (0.071)	-0.011 (0.059)
Mother Manager (Birth)	0.003 (0.016)	0.015 (0.025)	0.009 (0.016)	0.012 (0.025)	0.009 (0.016)	0.012 (0.025)	0.008 (0.019)	0.011 (0.030)	0.007 (0.019)	0.011 (0.030)	0.013 (0.023)	0.030 (0.036)	0.010 (0.023)	0.031 (0.036)
Mother Skilled Manual (Birth)	0.022 (0.027)	0.026 (0.044)	0.039 (0.027)	0.025 (0.043)	0.037 (0.027)	0.023 (0.044)	0.010 (0.030)	0.044 (0.052)	0.010 (0.030)	0.044 (0.053)	-0.000 (0.038)	0.081 (0.064)	0.007 (0.038)	0.077 (0.064)

Mother Partly Skilled (Birth)	0.003 (0.024)	0.065 (0.048)	0.004 (0.024)	0.049 (0.048)	0.003 (0.023)	0.050 (0.048)	-0.001 (0.029)	0.043 (0.055)	-0.000 (0.029)	0.046 (0.055)	-0.040 (0.033)	-0.005 (0.060)	-0.034 (0.033)	-0.014 (0.061)
Mother Unskilled (Birth)	0.057 (0.065)	-0.063 (0.091)	0.061 (0.065)	-0.068 (0.091)	0.060 (0.065)	-0.046 (0.089)	0.045 (0.081)	-0.032 (0.112)	0.043 (0.081)	-0.036 (0.112)	-0.073 (0.094)	0.096 (0.148)	-0.072 (0.094)	0.111 (0.156)
Partner Professional (Birth)	0.007 (0.030)	-0.050 (0.034)	0.009 (0.030)	-0.038 (0.034)	0.008 (0.030)	-0.038 (0.034)	0.067* (0.036)	-0.031 (0.039)	0.066* (0.036)	-0.032 (0.039)	0.042 (0.042)	-0.020 (0.045)	0.042 (0.042)	-0.023 (0.045)
Partner Manager (Birth)	-0.008 (0.020)	-0.003 (0.029)	-0.009 (0.020)	0.002 (0.029)	-0.009 (0.020)	0.005 (0.029)	0.019 (0.022)	-0.004 (0.034)	0.018 (0.022)	-0.005 (0.035)	0.013 (0.027)	0.012 (0.041)	0.013 (0.027)	0.011 (0.041)
Partner Skilled Manual (Birth)	-0.021 (0.021)	0.052* (0.031)	-0.025 (0.021)	0.051 (0.031)	-0.025 (0.021)	0.054* (0.031)	0.004 (0.023)	0.065* (0.034)	0.003 (0.023)	0.064* (0.034)	-0.021 (0.029)	0.049 (0.042)	-0.024 (0.029)	0.051 (0.043)
Partner Partly Skilled (Birth)	-0.016 (0.031)	-0.006 (0.045)	-0.012 (0.031)	-0.003 (0.046)	-0.014 (0.031)	-0.008 (0.047)	-0.022 (0.034)	0.007 (0.052)	-0.026 (0.034)	0.008 (0.053)	-0.055 (0.048)	-0.061 (0.046)	-0.058 (0.049)	-0.060 (0.046)
Partner Unskilled (Birth)	-0.037 (0.041)	0.122 (0.084)	-0.032 (0.040)	0.130 (0.083)	-0.032 (0.041)	0.129 (0.084)	0.015 (0.055)	0.127 (0.102)	0.014 (0.055)	0.124 (0.103)	-0.034 (0.076)	0.105 (0.136)	-0.041 (0.077)	0.133 (0.138)
Mother Vocational (Birth)	0.014 (0.027)	-0.000 (0.040)	0.013 (0.027)	-0.002 (0.041)	0.013 (0.027)	-0.007 (0.041)	-0.011 (0.033)	0.013 (0.048)	-0.013 (0.033)	0.009 (0.048)	0.003 (0.052)	0.022 (0.059)	0.003 (0.051)	0.010 (0.055)
Mother O level (Birth)	0.014 (0.021)	0.050 (0.034)	0.012 (0.021)	0.047 (0.034)	0.012 (0.021)	0.042 (0.035)	0.003 (0.026)	0.071* (0.040)	0.003 (0.026)	0.073* (0.040)	0.000 (0.037)	0.094** (0.047)	0.005 (0.037)	0.091* (0.048)
Mother A level (Birth)	0.006 (0.024)	0.056 (0.035)	0.005 (0.024)	0.055 (0.035)	0.006 (0.024)	0.052 (0.035)	-0.008 (0.028)	0.073* (0.042)	-0.007 (0.029)	0.074* (0.043)	-0.006 (0.040)	0.092* (0.048)	-0.002 (0.040)	0.090* (0.048)
Mother Degree (Birth)	0.017 (0.029)	0.032 (0.039)	0.017 (0.029)	0.033 (0.039)	0.017 (0.029)	0.032 (0.039)	0.008 (0.034)	0.048 (0.045)	0.008 (0.034)	0.052 (0.046)	-0.001 (0.044)	0.067 (0.052)	0.003 (0.043)	0.074 (0.052)
Partner Vocational (Birth)	-0.007 (0.027)	-0.009 (0.047)	-0.008 (0.027)	-0.004 (0.049)	-0.009 (0.027)	-0.004 (0.049)	0.000 (0.031)	-0.047 (0.056)	-0.004 (0.032)	-0.046 (0.056)	-0.041 (0.040)	0.009 (0.065)	-0.037 (0.040)	0.001 (0.065)
Partner O level (Birth)	0.009 (0.020)	0.007 (0.036)	0.010 (0.021)	0.005 (0.036)	0.009 (0.020)	0.010 (0.036)	0.007 (0.024)	-0.008 (0.040)	0.005 (0.024)	-0.009 (0.040)	-0.019 (0.031)	-0.040 (0.048)	-0.021 (0.031)	-0.045 (0.048)
Partner A level (Birth)	-0.019 (0.019)	-0.027 (0.034)	-0.016 (0.019)	-0.023 (0.035)	-0.015 (0.019)	-0.024 (0.035)	-0.010 (0.022)	-0.048 (0.041)	-0.011 (0.022)	-0.047 (0.041)	-0.025 (0.030)	-0.089* (0.048)	-0.026 (0.030)	-0.097** (0.049)
Partner Degree (Birth)	-0.013 (0.024)	-0.001 (0.040)	-0.011 (0.024)	0.005 (0.041)	-0.011 (0.024)	0.005 (0.041)	-0.010 (0.028)	-0.019 (0.046)	-0.013 (0.028)	-0.019 (0.046)	-0.035 (0.037)	-0.072 (0.055)	-0.037 (0.037)	-0.078 (0.056)

Mother Age	0.002 (0.012)	-0.008 (0.022)	0.003 (0.012)	-0.006 (0.023)	0.001 (0.012)	-0.009 (0.023)	-0.004 (0.015)	0.003 (0.026)	-0.007 (0.015)	0.001 (0.026)	-0.017 (0.024)	0.013 (0.028)	-0.017 (0.024)	0.008 (0.028)
Mother Age^2	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
Partner Age	0.004 (0.008)	0.006 (0.014)	0.004 (0.009)	0.008 (0.014)	0.004 (0.009)	0.009 (0.015)	-0.004 (0.011)	-0.004 (0.020)	-0.004 (0.011)	-0.004 (0.020)	0.001 (0.014)	-0.005 (0.019)	-0.002 (0.013)	-0.005 (0.019)
Partner Age^2	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Mother BMI (Birth)	-0.003** (0.002)	-0.001 (0.002)	-0.003** (0.002)	-0.001 (0.002)	-0.004** (0.002)	-0.002 (0.002)	-0.000 (0.003)	-0.002 (0.004)	0.000 (0.003)	-0.002 (0.004)	-0.001 (0.004)	-0.004 (0.004)	-0.001 (0.004)	-0.004 (0.004)
Partner BMI (Birth)	0.001 (0.002)	0.001 (0.004)	0.002 (0.002)	-0.000 (0.004)	0.002 (0.002)	-0.000 (0.004)	0.002 (0.003)	0.003 (0.005)	0.002 (0.003)	0.004 (0.005)	0.001 (0.003)	0.003 (0.006)	0.001 (0.003)	0.003 (0.006)
Mother Physical Health Well (Birth)	-0.022 (0.014)	-0.006 (0.021)	-0.022 (0.014)	-0.009 (0.021)	-0.021 (0.014)	-0.009 (0.021)	-0.031* (0.016)	0.005 (0.024)	-0.031* (0.016)	0.006 (0.024)	-0.018 (0.021)	0.023 (0.029)	-0.015 (0.021)	0.020 (0.029)
Mother Physical Health Not Well (Birth)	-0.051** (0.023)	-0.073** (0.034)	-0.053** (0.024)	-0.063* (0.035)	-0.051** (0.024)	-0.062* (0.036)	-0.044 (0.028)	-0.044 (0.041)	-0.044 (0.028)	-0.046 (0.041)	-0.040 (0.034)	-0.026 (0.054)	-0.042 (0.034)	-0.042 (0.055)
Partner Physical Health Well (Birth)	-0.012 (0.018)	0.012 (0.025)	-0.012 (0.018)	0.015 (0.025)	-0.011 (0.018)	0.014 (0.025)	-0.008 (0.019)	0.016 (0.028)	-0.009 (0.020)	0.016 (0.028)	-0.023 (0.024)	0.016 (0.030)	-0.024 (0.024)	0.019 (0.030)
Partner Physical Health Not Well (Birth)	0.008 (0.019)	0.041 (0.030)	0.008 (0.019)	0.035 (0.030)	0.008 (0.019)	0.035 (0.030)	0.010 (0.021)	0.070** (0.034)	0.009 (0.021)	0.067* (0.035)	-0.004 (0.028)	0.063 (0.040)	-0.001 (0.028)	0.073* (0.040)
Older Brother (Birth)	-0.022 (0.016)	0.000 (0.026)	-0.021 (0.016)	0.001 (0.026)	-0.021 (0.016)	0.003 (0.026)	-0.025 (0.018)	0.001 (0.029)	-0.025 (0.018)	0.003 (0.029)	-0.003 (0.025)	0.003 (0.033)	-0.003 (0.025)	-0.005 (0.033)
Several Older Brothers (Birth)	-0.065** (0.026)	-0.050 (0.043)	-0.067** (0.026)	-0.036 (0.043)	-0.069*** (0.026)	-0.033 (0.042)	-0.048 (0.030)	-0.058 (0.047)	-0.050* (0.030)	-0.055 (0.047)	-0.043 (0.038)	-0.105** (0.052)	-0.043 (0.038)	-0.104** (0.053)
Older Sister (Birth)	-0.025 (0.015)	-0.008 (0.025)	-0.026* (0.015)	-0.001 (0.026)	-0.026* (0.015)	0.002 (0.026)	-0.028 (0.018)	-0.019 (0.029)	-0.027 (0.018)	-0.017 (0.029)	-0.022 (0.024)	0.029 (0.036)	-0.023 (0.024)	0.028 (0.036)
Several Older Sisters (Birth)	-0.016 (0.032)	-0.042 (0.047)	-0.021 (0.032)	-0.046 (0.046)	-0.020 (0.032)	-0.047 (0.047)	-0.010 (0.038)	-0.056 (0.054)	-0.012 (0.038)	-0.053 (0.054)	-0.026 (0.052)	-0.015 (0.062)	-0.030 (0.052)	-0.003 (0.062)
Number of Younger Siblings (8 Years)	-0.011 (0.009)	0.009 (0.014)	-0.012 (0.009)	0.010 (0.014)	-0.011 (0.009)	0.011 (0.014)	-0.007 (0.011)	0.024 (0.016)	-0.008 (0.011)	0.023 (0.016)	-0.006 (0.016)	0.029 (0.021)	-0.007 (0.016)	0.026 (0.021)

Twin	0.069 (0.048)	0.046 (0.060)	0.073 (0.047)	0.048 (0.062)	0.073 (0.047)	0.043 (0.062)	0.046 (0.054)	0.076 (0.068)	0.042 (0.054)	0.076 (0.068)	0.127 (0.081)	0.026 (0.080)	0.124 (0.079)	0.025 (0.075)
Financial Difficulties Low (Birth)	-0.006 (0.015)	0.008 (0.022)	-0.006 (0.015)	0.000 (0.022)	-0.006 (0.015)	0.001 (0.022)	-0.003 (0.017)	-0.009 (0.025)	-0.004 (0.017)	-0.008 (0.025)	0.022 (0.020)	0.003 (0.030)	0.022 (0.020)	-0.001 (0.030)
Financial Difficulties High (Birth)	-0.009 (0.015)	0.016 (0.025)	-0.008 (0.016)	0.013 (0.026)	-0.007 (0.016)	0.013 (0.026)	-0.010 (0.019)	-0.022 (0.029)	-0.011 (0.019)	-0.020 (0.030)	-0.011 (0.026)	0.008 (0.035)	-0.011 (0.026)	0.005 (0.035)
Family Income Low (4 Years)	-0.003 (0.017)	0.035 (0.031)	-0.003 (0.017)	0.045 (0.031)	-0.002 (0.017)	0.046 (0.032)	-0.016 (0.021)	0.017 (0.036)	-0.015 (0.021)	0.020 (0.037)	-0.013 (0.028)	0.055 (0.044)	-0.006 (0.028)	0.055 (0.045)
Family Income High (4 Years)	-0.010 (0.016)	-0.008 (0.024)	-0.008 (0.016)	-0.008 (0.024)	-0.009 (0.016)	-0.007 (0.024)	-0.002 (0.019)	-0.001 (0.027)	-0.002 (0.019)	0.001 (0.028)	-0.004 (0.023)	0.006 (0.033)	-0.003 (0.024)	0.006 (0.033)
Crowding Index Medium (Birth)	-0.057 (0.042)	-0.082 (0.075)	-0.058 (0.043)	-0.115 (0.079)	-0.048 (0.041)	-0.127 (0.080)	-0.032 (0.045)	-0.067 (0.085)	-0.029 (0.045)	-0.062 (0.085)	-0.058 (0.061)	-0.154 (0.121)	-0.048 (0.058)	-0.136 (0.124)
Crowding Index High (Birth)	-0.046 (0.042)	-0.111 (0.074)	-0.047 (0.043)	-0.152* (0.078)	-0.037 (0.041)	-0.167** (0.079)	-0.013 (0.044)	-0.084 (0.084)	-0.010 (0.044)	-0.078 (0.085)	-0.040 (0.061)	-0.194 (0.122)	-0.028 (0.058)	-0.177 (0.125)
Crowding Index Very High (Birth)	-0.021 (0.044)	-0.074 (0.076)	-0.022 (0.045)	-0.114 (0.080)	-0.012 (0.043)	-0.131 (0.081)	-0.024 (0.047)	-0.054 (0.086)	-0.020 (0.047)	-0.048 (0.087)	-0.026 (0.064)	-0.158 (0.124)	-0.012 (0.062)	-0.144 (0.126)
Deprived Area Very Low (Birth)	0.020 (0.023)	0.061* (0.032)	0.019 (0.023)	0.060* (0.032)	0.019 (0.023)	0.055* (0.032)	0.025 (0.030)	0.081** (0.039)	0.025 (0.029)	0.081** (0.039)	0.039 (0.035)	0.116** (0.045)	0.040 (0.035)	0.110** (0.044)
Deprived Area Low (Birth)	0.036 (0.026)	0.084** (0.038)	0.034 (0.027)	0.084** (0.039)	0.034 (0.027)	0.080** (0.039)	0.029 (0.034)	0.129*** (0.042)	0.029 (0.034)	0.137*** (0.043)	0.066 (0.044)	0.132*** (0.050)	0.063 (0.044)	0.129*** (0.049)
Deprived Area High (Birth)	0.017 (0.024)	0.015 (0.035)	0.019 (0.025)	0.014 (0.036)	0.016 (0.025)	0.010 (0.036)	0.001 (0.033)	-0.014 (0.046)	-0.001 (0.033)	-0.012 (0.046)	0.035 (0.041)	0.006 (0.052)	0.033 (0.041)	0.008 (0.051)
Deprived Area Very High (Birth)	0.037 (0.026)	0.016 (0.038)	0.033 (0.026)	0.015 (0.038)	0.032 (0.026)	0.014 (0.039)	-0.013 (0.032)	-0.004 (0.048)	-0.014 (0.032)	0.007 (0.048)	0.058 (0.043)	0.056 (0.063)	0.060 (0.044)	0.057 (0.062)
Quality of Neighbourhood (Birth)	0.006** (0.003)	0.009* (0.005)	0.006** (0.003)	0.008* (0.005)	0.006* (0.003)	0.009* (0.005)	0.008** (0.003)	0.006 (0.005)	0.008** (0.003)	0.005 (0.005)	0.011** (0.004)	0.010 (0.007)	0.010** (0.004)	0.010 (0.007)
Neighbourhood Stress (2 Years)	0.000 (0.002)	0.001 (0.003)	0.001 (0.002)	-0.000 (0.003)	0.001 (0.002)	-0.000 (0.003)	-0.001 (0.002)	0.000 (0.004)	-0.001 (0.002)	0.000 (0.004)	-0.002 (0.003)	-0.002 (0.004)	-0.002 (0.003)	-0.003 (0.004)
Mother Professional (8 Years)							-0.042 (0.065)	0.123* (0.064)	-0.041 (0.066)	0.127** (0.064)	-0.141* (0.076)	0.165** (0.074)	-0.143* (0.077)	0.168** (0.075)
Mother Manager (8 Years)							0.007	0.027	0.007	0.027	-0.012	0.034	-0.012	0.038

	(0.022)	(0.036)	(0.022)	(0.036)	(0.028)	(0.042)	(0.028)	(0.041)
Mother Skilled Manual (8 Years)	0.258*** (0.095)	0.102 (0.120)	0.255*** (0.095)	0.100 (0.121)	0.262** (0.126)	0.144 (0.159)	0.256** (0.124)	0.140 (0.161)
Mother Partly Skilled (8 Years)	0.013 (0.026)	0.039 (0.043)	0.013 (0.026)	0.036 (0.043)	0.010 (0.034)	0.091* (0.050)	0.012 (0.034)	0.099** (0.050)
Mother Unskilled (8 Years)	0.059 (0.061)	0.003 (0.061)	0.056 (0.061)	0.002 (0.062)	0.062 (0.070)	0.024 (0.070)	0.063 (0.070)	0.033 (0.070)
Partner Professional (8 Years)	-0.076** (0.039)	-0.002 (0.047)	-0.075* (0.039)	0.001 (0.048)	-0.036 (0.046)	-0.007 (0.054)	-0.036 (0.047)	0.009 (0.052)
Partner Manager (8 Years)	-0.025 (0.031)	0.023 (0.041)	-0.024 (0.031)	0.022 (0.041)	0.001 (0.035)	0.021 (0.046)	0.000 (0.036)	0.028 (0.044)
Partner Skilled Manual (8 Years)	-0.022 (0.035)	0.027 (0.047)	-0.022 (0.035)	0.029 (0.048)	0.043 (0.042)	0.033 (0.058)	0.040 (0.042)	0.045 (0.056)
Partner Partly Skilled (8 Years)	0.022 (0.048)	-0.004 (0.053)	0.024 (0.048)	-0.003 (0.053)	0.069 (0.066)	0.037 (0.057)	0.064 (0.067)	0.054 (0.057)
Partner Unskilled (8 Years)	-0.071* (0.041)	0.150 (0.141)	-0.074* (0.041)	0.157 (0.142)	-0.016 (0.053)	0.293 (0.195)	-0.009 (0.054)	0.299 (0.199)
Mother BMI (8 Years)	-0.004 (0.002)	-0.000 (0.003)	-0.004* (0.002)	-0.001 (0.003)	-0.007** (0.003)	-0.002 (0.004)	-0.007** (0.003)	-0.002 (0.004)
Partner BMI (8 Years)	-0.001 (0.003)	-0.006 (0.005)	-0.001 (0.003)	-0.005 (0.005)	0.002 (0.003)	-0.012* (0.006)	0.002 (0.003)	-0.011* (0.006)
Mother Physical Health Well (8 Years)	-0.004 (0.014)	0.005 (0.023)	-0.004 (0.014)	0.002 (0.023)	-0.012 (0.018)	-0.025 (0.027)	-0.012 (0.019)	-0.031 (0.027)
Mother Physical Health Not Well (8 Years)	0.011 (0.031)	-0.041 (0.047)	0.012 (0.031)	-0.040 (0.048)	-0.031 (0.034)	0.033 (0.057)	-0.028 (0.034)	0.023 (0.058)
Partner Physical Health Well (8 Years)	-0.017 (0.019)	-0.036 (0.026)	-0.019 (0.019)	-0.035 (0.026)	-0.035 (0.022)	-0.070** (0.031)	-0.034 (0.023)	-0.070** (0.030)
Partner Physical Health Not Well (8 Years)	-0.038 (0.040)	0.050 (0.080)	-0.040 (0.041)	0.047 (0.081)	-0.065 (0.052)	0.013 (0.087)	-0.065 (0.052)	0.004 (0.088)
Family Income Low (8 Years)	0.013 (0.027)	-0.037 (0.048)	0.019 (0.029)	-0.028 (0.049)	0.011 (0.036)	0.016 (0.056)	0.023 (0.036)	0.016 (0.055)

Family Income High (8 Years)	-0.002 (0.017)	-0.018 (0.027)	-0.002 (0.017)	-0.019 (0.027)	-0.012 (0.023)	-0.009 (0.033)	-0.014 (0.022)	-0.009 (0.033)
Family Income DK (8 Years)	-0.001 (0.029)	0.020 (0.049)	0.000 (0.030)	0.016 (0.049)	0.001 (0.038)	0.019 (0.057)	-0.001 (0.039)	0.023 (0.057)
Financial Difficulties Low (3 Years)	0.000 (0.017)	0.002 (0.025)	-0.001 (0.017)	0.001 (0.025)	-0.004 (0.020)	0.024 (0.029)	-0.003 (0.020)	0.023 (0.029)
Financial Difficulties High (3 Years)	0.024 (0.020)	0.025 (0.030)	0.026 (0.020)	0.022 (0.031)	0.038 (0.027)	-0.053 (0.035)	0.036 (0.027)	-0.051 (0.035)
Crowding Index Medium (8 Years)	-0.035 (0.024)	0.032 (0.034)	-0.037 (0.024)	0.032 (0.034)	-0.015 (0.028)	0.039 (0.040)	-0.010 (0.028)	0.038 (0.039)
Crowding Index High (8 Years)	-0.013 (0.025)	-0.002 (0.036)	-0.015 (0.025)	-0.004 (0.036)	-0.006 (0.029)	0.038 (0.042)	-0.008 (0.029)	0.038 (0.042)
Crowding Index Very High (8 Years)	-0.048 (0.033)	-0.031 (0.057)	-0.049 (0.033)	-0.032 (0.057)	-0.036 (0.041)	-0.019 (0.065)	-0.041 (0.042)	-0.033 (0.064)
Deprived Area Very Low (8 Years)	0.021 (0.021)	-0.032 (0.031)	0.020 (0.021)	-0.033 (0.032)	0.017 (0.029)	-0.057 (0.037)	0.017 (0.029)	-0.049 (0.037)
Deprived Area Low (8 Years)	0.042* (0.023)	-0.074** (0.032)	0.041* (0.023)	-0.077** (0.032)	0.061* (0.032)	-0.091** (0.037)	0.058* (0.032)	-0.085** (0.038)
Deprived Area High (8 Years)	0.057** (0.025)	0.034 (0.043)	0.058** (0.025)	0.033 (0.043)	0.049 (0.037)	0.040 (0.052)	0.047 (0.037)	0.049 (0.051)
Deprived Area Very High (8 Years)	0.072*** (0.027)	0.011 (0.048)	0.072*** (0.027)	0.003 (0.047)	0.054 (0.042)	-0.084 (0.064)	0.049 (0.042)	-0.073 (0.063)
Neighbourhood Very Good (7 Years)	-0.012 (0.016)	0.045** (0.022)	-0.012 (0.016)	0.044* (0.023)	-0.014 (0.019)	0.016 (0.028)	-0.011 (0.020)	0.018 (0.028)
Neighbourhood Not Good (7 Years)	0.047 (0.058)	0.164 (0.107)	0.051 (0.058)	0.164 (0.107)	0.009 (0.088)	0.143 (0.110)	0.001 (0.088)	0.124 (0.117)
Neighbourhood Not At All Good (7 Years)	-0.062* (0.034)	0.102 (0.291)	-0.063* (0.034)	0.116 (0.282)	-0.114 (0.071)	0.329 (0.376)	-0.156** (0.071)	0.334 (0.344)
Mother Finance Low (18 Years)					0.000 (0.038)	-0.001 (0.054)	0.003 (0.039)	0.007 (0.054)

Mother Finance High (18 Years)											0.024 (0.029)	0.052 (0.046)	0.026 (0.029)	0.054 (0.046)
Household Owes Less Than 3000 (18 Years)											-0.005 (0.027)	0.003 (0.041)	-0.001 (0.027)	0.010 (0.041)
Household Owes 3000-9999 (18 Years)											0.012 (0.029)	-0.011 (0.039)	0.018 (0.029)	-0.010 (0.039)
Household Owes More Than 9999 (18 Years)											0.036 (0.032)	0.060 (0.043)	0.035 (0.032)	0.064 (0.043)
Household Owes DK (18 Years)											-0.039 (0.037)	0.139 (0.088)	-0.044 (0.038)	0.151* (0.087)
Deprived Area Very Low (18 Years)											-0.014 (0.027)	0.019 (0.035)	-0.020 (0.028)	0.022 (0.035)
Deprived Area Low (18 Years)											-0.005 (0.027)	0.026 (0.035)	-0.006 (0.028)	0.030 (0.035)
Deprived Area High (18 Years)											-0.007 (0.038)	0.047 (0.049)	-0.013 (0.038)	0.043 (0.049)
Deprived Area Very High (18 Years)											0.021 (0.059)	0.002 (0.073)	0.023 (0.060)	0.009 (0.072)
Neighbourhood Very Good (18 Years)											-0.028 (0.019)	0.050* (0.027)	-0.027 (0.019)	0.046* (0.027)
Neighbourhood Good (18 Years)											0.114 (0.113)	-0.224** (0.105)	0.124 (0.112)	-0.246** (0.110)
Neighbourhood Not Good (18 Years)											0.067 (0.153)	0.317* (0.163)	0.082 (0.151)	0.350** (0.161)
Constant	0.137** (0.057)	0.052 (0.087)	0.119 (0.073)	0.361** (0.171)	0.181* (0.098)	0.199 (0.192)	0.085 (0.076)	0.053 (0.118)	0.101 (0.090)	-0.028 (0.163)	0.108 (0.102)	0.035 (0.165)	0.088 (0.120)	0.004 (0.216)
N	2559	1366	2483	1317	2483	1317	2079	1182	2079	1182	1340	864.	1340	864
R2	0.033	0.089	0.035	0.077	0.035	0.081	0.060	0.130	0.063	0.133	0.113	0.210	0.121	0.222
Dummy variables for missing values	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls at birth	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls at age 8	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls at age 18	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.