# Early exposure to entrepreneurship and the creation of female entrepreneurs

Mikkel Baggesgaard Mertz — Maddalena Ronchi Viola Salvestrini\*

November 24, 2021 Please do not circulate without authorization

#### Abstract

We document the long-run effects of early exposure to entrepreneurship on men's and women's decision to become entrepreneurs by following one million Danish individuals from the age of 13 to the age of 40. Exploiting within-school, across-cohort variation in adolescents' exposure to entrepreneurship, as measured by the share of their peers whose parents are entrepreneurs, we find that higher exposure during adolescence encourages early entry into entrepreneurship, especially for girls exposed to female peers with entrepreneur parents. For this group, the probability of entering entrepreneurship by age 25 increases by 11.2%. Early exposure to entrepreneurship affects women's educational trajectories and pushes them away from low-paying jobs to create businesses that are as productive as the average firm. Our results suggest that gender-specific barriers may be preventing successful entrepreneurs from ever entering the profession, and that policies that expose girls to entrepreneurship at a young age may increase their likelihood to start a business by affecting their educational and career choices.

<sup>\*</sup>Mertz: Queen Mary University of London, Centre for Research and Analysis of Migrations (CReAM) and The Rockwool Foundation (m.b.mertz@qmul.ac.uk). Ronchi: Bocconi University, Queen Mary University of London and IZA (maddalena.ronchi@unibocconi.it). Salvestrini: Queen Mary University of London (v.salvestrini@qmul.ac.uk). We thank François Gerard, Barbara Petrongolo, and Anna Raute for their support and guidance. For very helpful comments we thank participants at the Barcelona GSE Summer Forum on Entrepreneurship 2021, Eale 2021, Queen Mary University of London, and University of Wuppertal.

## 1 Introduction

Entrepreneurship is paramount for innovation, job creation and economic growth (Aghion and Howitt, 1992; Kanniainen and Keuschnigg, 2004). Yet, some demographic groups remain vastly underrepresented in entrepreneurship. Across OECD countries, including those where gender disparities in economic outcomes are relatively low, only about one fifth to a third of entrepreneurs are women (OECD, 2021). As increasing women's representation in traditionally male-dominated occupations has been shown to lead to economic growth (Hsieh et al., 2019), understanding the factors that influence women's decision to enter entrepreneurship has important implications in terms of both equity and efficiency.

This paper studies how exposure to entrepreneurs during adolescence affects men's and women's decision to enter entrepreneurship. While social context, and in particular interactions with university peers, neighbors, and coworkers with entrepreneurial experience, has been shown to affect an individual's decision to become an entrepreneur, surprisingly little is known about whether such exposure affects men and women equally. On one hand, most studies have not directly focused on gender differences (e.g., Lindquist et al., 2015; Guiso et al., 2021; Nanda and Sørensen, 2010), thereby preventing us from understanding the presence of potential heterogeneous effects. On the other hand, the few studies that did so focused on specific settings, such as MBAs or start-ups, that are differentially selective for men and women (e.g., Hacamo and Kleiner, 2020a; Rocha and Van Praag, 2020). As individuals' prior choice to select into these environments can explain much of their subsequent occupational choice, it is hard to assess how the effect of exposure to entrepreneurship would extend outside this highly-selected group of women. This is particularly problematic given the growing body of work that documents the existence of stereotypes and social norms generating expectations about gender-specific roles and career paths, that are internalized by individuals from an early age (Bertrand, 2011, 2020; Bordalo et al., 2016) and that often discourage women from engaging in entrepreneurship or in settings that are highly conducive to it (Thébaud, 2010).

We fill this gap in the literature by focusing on exposure to entrepreneurship during the last years of compulsory schooling, a period when individuals take decisions that are likely to directly influence their future occupational choices, but when educational and career trajectories between men and women have not yet diverged. Our focus on adolescents is motivated by existing evidence that attitudes and beliefs are mostly shaped during the late teens and early adulthood and that, during these so-called *impressionable years*, social learning - defined as the ability to learn from the

 $<sup>^{1}</sup>$ Women make up only around 25% of MBA students and 30% of start-up employees.

environment an individual is exposed to - is at its highest (Krosnick and Alwin, 1989; Harris, 2011; Giuliano and Spilimbergo, 2014). Studying the impact of exposure to entrepreneurship at a young age on selection into entrepreneurship is however empirically challenging, as one would need not only to find a source of exogenous variation in exposure to entrepreneurship across otherwise identical individuals, but also to link exposure during adolescence to long-run labor market outcomes and career trajectories at the individual level.

We overcome both of these empirical challenges by using individual-level administrative data from Denmark that includes information about the education and occupation history for the entire population from 1980 to 2017. We identify entrepreneurs as individuals founding a business with employees, since self-employed are unlikely to constitute a good proxy for entrepreneurship (Levine and Rubinstein, 2017). First, to estimate the role of early exposure to entrepreneurship, we exploit quasi-random variation in the share of school peers whose parents are entrepreneurs across cohorts within schools. That is, we compare the probability of being an entrepreneur as an adult for individuals from adjacent cohorts in the same school, where one cohort happens to have more peers with entrepreneur parents.<sup>2</sup> Second, to identify long-run effects, we focus on adolescents enrolled in the final three years of compulsory school - that is, between the age of 13 and 15 - from 1980 to 1992, which allows us to follow the entire student population for more than 20 years after completion of compulsory school. Consequently, we can causally estimate the long-run effects of exposure to school peers with entrepreneur parents on the decision to become an entrepreneur up to age 40.

We present four sets of results. First, we show that exposure to entrepreneurs during the last years of compulsory schooling increases entry into entrepreneurship at an early stage in an individual's career.<sup>3</sup> In particular, a one standard deviation increase in the share of school peers with entrepreneur parents increases the probability that an individual has ever been an entrepreneur by age 30 by 3 percent. We show that these effects are persistent, in that early exposure to entrepreneurship also increase the number of years spent in entrepreneurship before age 40. Distinguishing by gender, we show that early exposure to entrepreneurship increases the probability of entrepreneurship for both men and women, but that the effect for women kicks in earlier than for men. Moreover, while the effect for women is persistent, the effect for men is transitory and fades away quickly. This suggests that men who are exposed

<sup>&</sup>lt;sup>2</sup>The approach of exploiting natural variation in peers composition within schools across cohorts has been first proposed by Hoxby (2000) to estimate the impact of classmates gender and ethnicity, and has been widely used in the peer effect literature thereafter (e.g., Angrist and Lang, 2004; Lavy and Schlosser, 2011; Bifulco et al., 2011; Carrell et al., 2018; Olivetti et al., 2020).

<sup>&</sup>lt;sup>3</sup>We also show that having a parent who is an entrepreneur is associated with a higher probability of entering and spending more time in entrepreneurship: while non-causal, this correlation is in line with existing studies (Lindquist et al., 2015).

to entrepreneurship through their school peers' parents anticipate entry, but would have entered anyway. Young women instead, who are less likely to be exposed to entrepreneurship in other aspects of their lives, disproportionately benefit from early exposure to entrepreneurship, when their gender identity and their beliefs are still malleable and their educational and career trajectories have not yet diverged from men's ones.

Second, we investigate if the effect of exposure to entrepreneurship depends on the gender of the peers the exposure is coming from, and whether this is different for men and for women. This builds on existing evidence highlighting that the gender composition of an individual's networks may affect the type of information received (Currarini et al., 2009) and that interactions with female or male peers can have differential effects on boys' and girls' behavior (Cools et al., 2019). We find evidence of gender-specific peer effects for women, with our aggregate effects being driven entirely by girls exposed to entrepreneurship through their female school peers. For this group, the effects are sizable and persistent, with a one standard deviation increase in the share of female peers with entrepreneur parent resulting in a 11.2 percent increase in entrepreneurship by age 25 and a 4.2 percent increase in the number of years spent as entrepreneur. The effects for boys instead are not statistically different depending on school peers' gender. The fact that we find gender-specific effects only for women is consistent with the idea that girls develop friendship that are characterized by greater communication and sharing of information (Aukett et al., 1988; Underwood, 2004).

Third, we investigate the margins of adjustment and the efficiency implications of the estimated results. We find that girls' exposure to female peers with entrepreneur parents encourages early career entrepreneurship by increasing their likelihood to pursue vocational education following compulsory schooling, a path that is highly conducive to entrepreneurship. We then investigate the labor market profile of the marginal entrants focusing on what employment status these women would have had had they not become entrepreneurs. We show that early exposure to entrepreneurship reduces women's probability of employment in low-paying jobs. We investigate the efficiency implications of women's increased entry into entrepreneurship by assessing the performance of the newly created business. We find that women exposed to a larger share of female peers with entrepreneur parents are more likely to create firms that are larger, and survive for longer, than the average firm created by female entrepreneurs. Taken together, these results suggest that early exposure to entrepreneurship affects women's probability to become entrepreneurs by shaping their educational and early career choices, confirming the importance of exposing women to entrepreneurship before these crucial decisions are taken. Moreover, as the marginal entrant creates pro-

<sup>&</sup>lt;sup>4</sup>In our sample, 55% of entrepreneurs enrolled in vocational education.

ductive businesses, our results point towards the fact that women's representation in entrepreneurship is sub-optimal, and suggests the possibility of talent misallocation with gender-specific barriers preventing successful entrepreneurs from ever entering the profession.

Finally, we explore the mechanisms through which early exposure to entrepreneurship affects the probability of becoming entrepreneurs for women. First, we test whether our results are driven by role modeling, by investigating whether young women are more affected when they are exposed to their peers' entrepreneur mothers, rather than fathers.<sup>5</sup> We find that the magnitudes of the effects do not seem to differ much depending on the gender of the peers' parents, which we interpret as evidence that role modeling is not the main factor behind our results.

Next, we test whether women exposed to entrepreneurs working in a specific sector are more likely to specialise as entrepreneurs in that sector themselves. We find evidence consisting with this hypothesis, pointing to the transmission of specific human capital and information as the potential mechanism driving our main results. Moreover, we also find that our effects are concentrated in those sectors where women are underrepresented (such as the primary and construction sectors, or manufacturing), suggesting that information transmission is more relevant in settings where their beliefs may be more inaccurate and their knowledge more scarce.

Finally, we investigate whether this information transmission channel operates through learning about the specific nature and features of entrepreneurship or if the effects we observe are instead consistent with exposure lowering barriers to entry to a male-dominated occupation. To do so, we extend our analysis to two more "typical" occupations that are respectively female-dominated (teachers) and male-dominated (architects and engineers). We do not find any evidence that being exposed during adolescence to peers whose parents work as teachers or engineers increases the probability that women will then work in those occupations. This suggests that the estimated effects of exposure to entrepreneurship arise because its specific features, such as the higher degree of risk and uncertainty, and a less clear educational and early career path to follow, among others. Combined together with industry-specific effects of exposure, we interpret these results as suggestive evidence that women react to early exposure to entrepreneurship mainly due to the transmission of specific human capital and information, through which they learn about the nature and characteristics of entrepreneurship and eventually engage in it.

This paper builds on and contributes to various strands of the literature. First, we speak to the limited body of work investigating peer effects in entrepreneurship (Nanda

<sup>&</sup>lt;sup>5</sup>The presence of a role model effect has been established in several male-dominated fields, such as STEM, economics or politics (Carrell et al., 2010; Porter and Serra, 2020; Beaman et al., 2009)

and Sørensen, 2010; Lerner and Malmendier, 2013; Rocha and Van Praag, 2020; Hacamo and Kleiner, 2020a), which has mostly focused on the role of exposure later in life and on individuals who have already selected into very specific settings where women are underrepresented. By focusing on early exposure to entrepreneurship during the final years of compulsory school, when the educational and career trajectories between men and women have not yet diverged, we are able to estimate the causal effect of exposure for the representative man and woman. Similarly to our analysis, Guiso et al. (2021) and Bell et al. (2019) also focus on the effects of early exposure, and find that exposure to entrepreneurship and innovation, respectively, through the neighborhood or the family is key to push individuals into these occupations. Leveraging on our rich and high-quality longitudinal administrative data, we contribute to the findings by Guiso et al. (2021) by documenting the heterogeneous effects of exposure between men and women and by providing evidence on both short- and long-term effects of exposure. We also complement the work by Bell et al. (2019) by showing that early exposure is particularly relevant to push women into entrepreneurship too, and by bringing a robust identification strategy based on idiosyncratic variation in early exposure to entrepreneurs.

By focusing on the differential effects of exposure to entrepreneurship by gender, our work is also related to the literature on gender gaps in entrepreneurship. While multiple factors may contribute to women's underrepresentation in this profession, two existing studies have found a positive association between exposure to people with entrepreneurial experience and women's entrepreneurship rates (Markussen and Røed, 2017; Rocha and Van Praag, 2020).<sup>7,8</sup> We are the first to provide causal and robust evidence that exposure to entrepreneurship during adolescence encourages women's entrepreneurial behavior both in the short- and in the long-term, and to shed light on the channels driving these effects. Moreover, by investigating previously undocumented margins of adjustments we are able to uncover how early exposure to entrepreneurs affects women's educational and early career choices prior to engaging in entrepreneur-

<sup>&</sup>lt;sup>6</sup>For example, exposure to people with entrepreneurial experience has been analyzed in MBAs (Lerner and Malmendier, 2013; Hacamo and Kleiner, 2020a) and in start-ups (Rocha and Van Praag, 2020).

<sup>&</sup>lt;sup>7</sup>One view that might explain the strong and persistent female underrepresentation in entrepreneurship is that men and women have different sets of skills, traits and preferences that make entrepreneurship more appealing for the former than for the latter, such as risk aversion, willingness to compete or self-confidence (Croson and Gneezy, 2009; Niederle and Vesterlund, 2007; Barber and Odean, 2001). Yet, most of the gender gap in entrepreneurship remains unexplained after accounting for these differences (Parker, 2018).

<sup>&</sup>lt;sup>8</sup>Markussen and Røed (2017) study how men's and women's early career entrepreneurship is affected by the presence of entrepreneurs among their neighbors, family members and school and university peers, while Rocha and Van Praag (2020) analyze whether women working in a female-founded start-up are more likely to become entrepreneurs. However, their findings suffer from endogeneity and selection concerns.

ship.

Finally, this paper contributes to the literature on the persistence of peer influence (Black et al., 2013; Carrell et al., 2018), and in particular of peers' parents influence (Bifulco et al., 2011, 2014; Cools et al., 2019; Olivetti et al., 2020) on long-run outcomes. Related to our work, Bifulco et al. (2011, 2014) and Olivetti et al. (2020) examine how idiosyncratic cohort-to-cohort variation in the share of peers with a college educated mother affect the likelihood of college attendance, labor market outcomes, and the labor supply of women during adulthood, respectively. Similarly, Cools et al. (2019) study the effect of exposure to peers with highly educated parents on boys' and girls' educational attainment. We add to this important work by showing previously undocumented effects of school peers' parent entrepreneurial activity on individuals long-term occupational outcomes.

The remainder of this paper is organized as follows. Section 2 describes the data and the main outcomes of interest. Section 3 presents the empirical strategy and discusses its validity. Section 4 presents our baseline results and performs heterogeneity analyses by gender and gender of the peers. Section 5 investigates the margins of adjustment and assess the efficiency implications of the estimated effects. Section 6 focuses on the plausible mechanisms behind the observed link between early exposure to entrepreneurs and women's entrepreneurship rates. Finally, Section 7 concludes.

### 2 Data

We use unique individual-level data, contained in various administrative registers covering the entire Danish population. The data has been collected annually since 1980 and is provided by Statistics Denmark for research purposes. One key feature of the data is a unique individual identifier, which allows us to link information from different administrative registers across time to the same individual. The individual identifier also allows us to connect individuals to their family members and to their place of employment. Specifically, we use employer-employee registers to identify entrepreneurs and the performance of their firm; we use information from educational registers to identify the school individuals attend and their school peers; and we use additional information from other administrative registers to identify individual and family background characteristics at the time of school enrolment.

<sup>&</sup>lt;sup>9</sup>All people residing in Denmark in a given year are included in the register. This implies that the only sources of attrition are due to individuals leaving the country or dying.

## 2.1 The sample

From the full sample we focus on individuals who attended grade 7 between 1980 and 1992, which allows us to observe the exposure to their peers' parents in the last three years of compulsory schooling, when students are between 13 and 16 years old. We focus on exposure during these final years of compulsory schooling because they are prior to the individual making any (potentially endogenous) educational choice. Furthermore, focusing on these cohorts allows us to observe sufficiently long career histories to capture an appreciable number of transitions to entrepreneurship.

Consequently, our working sample consists of all children attending grade 7 between 1980 and 1992, who we observe annually (contingent on being alive and resident in Denmark in a given year) until 2017.<sup>12</sup> Because the sample size drops dramatically from age 40, we focus on the age interval below this age.<sup>13</sup> Our final sample therefore consists of thirteen cohorts observed from they attend grade 7 until they are 35 to 40 years old.<sup>14</sup>

## 2.2 Identifying entrepreneurs and other characteristics

For each individual in our sample we add information on their occupation each year between age 18 and 40, and in particular we note if they are an entrepreneur.<sup>15</sup> We identify entrepreneurs as individuals founding a business with employees, therefore excluding the self-employed as they are unlikely to constitute a good proxy for entrepreneurship (Levine and Rubinstein, 2017).<sup>16</sup> While owners of *unincorporated* businesses are easy to identify in the Danish administrative registers, individuals who found

<sup>&</sup>lt;sup>10</sup>Compulsory school in Denmark consists of a unique block of school years (from grade 0 to grade 9), usually attended in the same school. Some pupils also attend grade 10, but this is on a voluntary basis.

<sup>&</sup>lt;sup>11</sup>Figure A1 in the Appendix show a graphical representation of the Danish education system and in particular the choices they face. Children attend 10 years of primary and lower secondary schooling (grade 0 to 9). Hereafter they can choose to discontinue education or to attend vocational or academic upper secondary schooling. Finally they can go to university.

<sup>&</sup>lt;sup>12</sup>Our data contains information on the school attended only for grade 8 and grade 9. We impute the school in grade 7 as the school where an individual attended grade 8.

<sup>&</sup>lt;sup>13</sup>Figure A2 in the Appendix shows the change in the sample size by age.

<sup>&</sup>lt;sup>14</sup>We also exclude children who were younger than 13 or older than 15 years old when starting grade 7 as well as pupils who attended schools with an annual enrolment of less than 10 students (less than one percent).

<sup>&</sup>lt;sup>15</sup>Note that occupations are based on an individual's primary occupation as of November each year: therefore we are considering individuals whose entrepreneurial activity is their main occupation. In doing so, we are able to exclude, for example, part-time consultants and individuals who may set up a side business in order to shelter taxes.

<sup>&</sup>lt;sup>16</sup>We are able to employ such narrower definition of entrepreneurs thanks to the richness of our data. This stands in comparison with other studies which were limited in their ability to do so by sample size and power concerns (e.g. Nanda and Sørensen, 2010; Guiso et al., 2021).

incorporated ventures are not directly identified,<sup>17</sup> because the founders of incorporated ventures tend to be registered as employees of their own firms in the data.<sup>18</sup> We follow the approach taken in other studies using Danish data and classify top managers of newly created firms as entrepreneurs (e.g., Nanda and Sørensen, 2010). To check that our results are robust to alternative definitions of entrepreneurship, in Appendix B we consider a broader definition of entrepreneurship that includes also the self-employed (defined as owners of businesses without employees). Results using this alternative definition of entrepreneurship are consistent with our main ones, if not stronger due to increased power. Finally, we add additional information to each individual such as gender, educational attainment, immigrant status, parental and family characteristics from various other data sources.<sup>19</sup>

## 2.3 Summary statistics

We report descriptive statistics for the whole sample, and separately by gender in Table 1. The sample consists of 807,300 students attending 1,702 different schools over the 13-year period between 1980 and 1992, resulting in a total of 22,126 school-cohort observations.

Panel A of Table 1 shows our main outcome of interest, an indicator for whether the individual ever enters entrepreneurship as an adult measured in the final year of observation. Nearly 5 percent of all individuals are registered as entrepreneurs at some point over the observation period.<sup>20</sup> Entry into entrepreneurship increases by age, with only 0.8 percent entering before 25 years old and 1.9 percent entering between age 35 and 40. Women are less likely than men to enter entrepreneurship at every age, with the overall entry rates being 6.9 percent for men and 2.7 percent for women. The average number of years spent in entrepreneurship is 4.6 (corresponding approximately to four years and seven months), with women spending seven months less than men in entrepreneurship throughout the observation period.

Panel B of Table 1 provides an overview of the cohort-level variables. The average cohort size in our sample is 55 students, which is relatively small and suggests that it is likely for individuals to interact with the majority of their peers. The key variable of interest is the share of peers with at least one entrepreneurial parent during the last three years of lower secondary school, which is constructed at the school-level

<sup>17</sup>An incorporated business is a separate entity from the business owner, with its own legal identity. Conversely, unincorporated businesses do not have a separate legal identity, and the owner personally bears all results of the business. Unincorporated businesses are usually sole proprietorship or partnership companies.

<sup>&</sup>lt;sup>18</sup>This is the case unless they are passive investors not participating in the direction of the firm.

<sup>&</sup>lt;sup>19</sup>The full list of individual characteristics is detailed in Section 3.

<sup>&</sup>lt;sup>20</sup>This is in line with the national entrepreneurship data from OECD (2021).

excluding the individual herself.<sup>21</sup> On average 11.7 percent of the peers an individual is exposed to have at least one parent who is an entrepreneur and unsurprisingly, the exposure is similar for men and women.

Finally, Panel C of Table 1 provides an overview of other characteristics of the individuals in our sample. In particular it shows that by the end of the sample period 15.4 percent has completed no more than lower secondary education, while the majority (nearly 45 percent) has completed no more than an upper secondary school, which is most likely to be a vocational or technical education (38.6 percent) rather than academic (6.3 percent). Finally, we see that 39.8 percent has completed a higher education degree. The fact that the large majority of individuals complete upper secondary education suggests it is important to understand the effect of exposure to different entrepreneurs in the next educational phase, when individuals are one step closer to choosing their career path.

## 3 Empirical strategy

Our empirical approach identifies the role of exposure to entrepreneurship by exploiting variation in the share of school peers with parents who are entrepreneurs. The main challenge to identification is that selection into schools is not random, and therefore individuals might be exposed to more or less entrepreneurs in a way that is correlated with their unobserved characteristics.

We address this challenge by relying on within-school/across-cohort variation in the share of entrepreneurs, thus exploiting idiosyncratic changes in the proportion of peers with entrepreneur parents across different cohorts of students within a school.<sup>22</sup> The basic idea is to compare the probability of being an entrepreneur as an adult for individuals from adjacent cohorts in the same school who have similar characteristics and share the same environment, except for the fact that one cohort happens to have more peers with entrepreneur parents. The key identifying assumption is that while parents may choose a school based on its overall characteristics, they do not do so based on the occupational mix of the parents of their child's cohort within a school. If that assumption is satisfied, the variation due to differences in cohorts within schools can be treated as quasi-random.

To identify the dynamic effect of early exposure to entrepreneurship on individuals' entrepreneurship activity, we estimate the following model for each age from 18 to 40:

$$Y_{isc} = \beta_1 Entrepr_{-i,sc} + \beta_2 Parent_{isc} + \gamma_s + \gamma_c + \gamma_m \times \gamma_c + \theta X_{isc} + \eta Z_{sc} + \epsilon_{isc} \ \forall \ \text{age} \in [18,40] \ (1)$$

<sup>&</sup>lt;sup>21</sup>A detailed explanation of how the variable is constructed is provided in Section 3.

 $<sup>^{22}</sup>$ For empirical papers using a similar type of variation see Hoxby (2000); Angrist and Lang (2004); Lavy and Schlosser (2011).

where i, s and c represent the individual, school and cohort, respectively.  $Y_{isc}$  is the outcome of interest: an indicator equal to 1 if individual i in school s and cohort c is ever an entrepreneur by age a or the number of years spent in entrepreneurship by age a.  $Entrepr_{-i,sc}$  is defined as the share of peers who have at least one parent who is an entrepreneur. In particular,

$$Entrepr_{-i,sc} = \frac{\sum_{k \neq i} Entrepr_{ksc}}{n_{sc} - 1}$$

captures, for each individual i, the proportion of peers with at least one entrepreneur parent, which is computed from the school-cohort distribution of students after eliminating individual i from the distribution.<sup>23</sup> Note that the leave-one-out strategy induces a mechanical negative correlation between the share of peers whose parents are entrepreneur and own parent's entrepreneurial status (Angrist, 2014). For example, an individual with an entrepreneur parent will be mechanically exposed to a lower share of peers with entrepreneur parents than her peers without an entrepreneur parent, since the former's parents are not included in the computation of  $Entrepr_{-i,sc}$ . To eliminate this source of bias, we add the variable  $Parent_{isc}$  which controls for own parent's entrepreneurial status.  $\gamma_s$ ,  $\gamma_c$  and  $\gamma_m$  denote school, cohort and municipality fixed effects, respectively. The inclusion of school fixed effects accounts for school characteristics that are constant across cohorts within a school, while cohort fixed effects control for confounding factors affecting all individuals in a given cohort, such as common economic shocks. We also include municipality times cohort fixed effects to account for time-varying factors affecting all schools and individuals in a given municipality. We also include a vector of controls for individual characteristics,  $X_{isc}$ , and a vector of other peer characteristics,  $Z_{sc}$ . The set of individual controls includes age; gender; an indicator for whether the individual is living with both parents; number of siblings; indicators for being first- or second-generation immigrant; parents' income; parents' age; and parents' education, all computed at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Note that all peers variables are calculated in the same leave-one-out manner as  $Entrepr_{-i,sc}$ . Finally, to take into account that students' outcomes are correlated within their school, we cluster the standard errors at the school level.

The main parameter of interest,  $\beta_1$ , therefore captures the extent to which the individual's decision to become an entrepreneur is affected by the variable share of peers who have at least one parent who is an entrepreneur.

 $<sup>^{23}</sup>$ This approach is standard in the peer effects literature (e.g. Carrell et al., 2018; Olivetti et al., 2020).

## 3.1 Support to the identification strategy

Before discussing the validity of our empirical strategy, a first-order concern is whether we have sufficient variation in the share of peers with entrepreneur parents once we remove school, cohort and municipality times cohort fixed effects to be able to precisely detect the effects of interest. In Table 2, we examine the extent of this residual variation in the share of peers with entrepreneur parents. Removing school, cohort and municipality times cohort fixed effects reduces variation in the share of peers with entrepreneurs parents from 7.2 percent to 4.2 percent, 58 percent of the original variation unexplained. The amount of variation left after removing the fixed effects is in line with other studies (Bifulco et al., 2011; Olivetti et al., 2020) and reassures us that we have sufficient variation in our key variable in order for our estimates to be precise.

Second, and most importantly, the key identifying assumption underlying our strategy is that, while parents and their children may sort across schools based on the average composition of the school, they do not chose a school based on the specific composition of the child's cohort - and in particular, on the basis of cohort-specific changes in fraction of entrepreneurs among parents. The validity of our identification strategy, therefore, rests on the assumption that variation in peers' parents entrepreneurial status across cohorts results from random fluctuations rather than from systematic selection.

While it seems unlikely that parents are aware and consider the the proportion of students with entrepreneurs parents in their children's cohort when choosing their schools, we provide evidence in favor of this assumption through two empirical checks. First, following Lavy and Schlosser (2011), we formally test for selection by examining whether the variation in the proportion of peers' parents who are entrepreneurs is correlated with the variation in predetermined student characteristics. In Table 3, we present the results of separate regressions of student characteristics on the share of peers with entrepreneur parents, after controlling for own parents' entrepreneurial status and including school, cohort and municipality times cohort fixed effects. All variables have been standardized. None of the coefficients of such regressions are significant, and they are all negligible in magnitude. These balancing tests should mitigate concerns regarding systematic differences due to sorting along observable and unobservable student characteristics alike.<sup>24</sup>

Next, following Brenøe and Zölitz (2020), we check if the observed variation in entrepreneurial outcomes among peers' parents is "as good as random" by plotting the share of peers with entrepreneur parents after removing school, cohort and municipality

<sup>&</sup>lt;sup>24</sup>Altonji et al. (2005) suggest that the degree of selection on observable can provide a good indicator of the degree of selection on unobservables.

times cohort fixed-effects (Figure 1). These deviations in the proportion of peers with entrepreneur parents appear to follow closely a normal distribution, supporting the idea that variations in our exposure measure are as good as random (conditional on school, cohort and municipality times cohort fixed effects).

## 4 Main results

We first estimate the effects of being exposed to school peers with entrepreneur parents on the probability of ever being an entrepreneur. Figure 2, panel (a), plots the estimated coefficient  $\beta_1$  from age-specific regression (1), where the dependent variable is a dummy equal to one if the individual has ever been an entrepreneur by that age. Being exposed to a larger share of school peers with at least one entrepreneur parent increases the probability of ever being an entrepreneur from the mid 20s to the early 30s. In particular, a one standard deviation (7.1 percentage points) increase in the share of peers with entrepreneur parents increases the probability of entry into entrepreneurship by age 30 by 0.07 percentage points, or 3 percent relative to the baseline mean (Table 4, column (1)). After age 30, the effect begins to decrease with age and become small and insignificant. This suggest that exposure to entrepreneurship encourages individuals to enter entrepreneurship earlier in their careers, but not more.

Given that we care not only about entry into, but also about persistence in entrepreneurship, we next investigate the effect of exposure to entrepreneurship on the number of years spent in entrepreneurship. Figure 2, panel (b), plots estimates of  $\beta_1$  from equation (1) when the dependent variable is the number of years spent in entrepreneurship by each age. Consistent with the findings from panel (a), we find that early exposure to entrepreneurship increases the number of years spent in entrepreneurship by the late 20s and early 30s. In particular, a one standard deviation (7.1 percentage points) increase in the share of peers with entrepreneur parents increases the number of years spent in entrepreneurship by age 30 by 0.21 years, or 3.3 percent relative to the baseline mean (Table 4, column (2)). The effect peaks at age 32, after which it plateaus. Although we lose precision over the observation period, the point estimates suggest that the difference in time spent into entrepreneurship between "exposed" and "unexposed" individuals remains constant, indicating that exposure induces an individual not only to enter but also to remain in entrepreneurship throughout our observation period.

Finally, we find evidence that having a parent who is entrepreneur during adolescence increases an individual's probability of entering entrepreneurship and spending more years in the profession (Table 4). While these estimates do not imply a causal relationship, their sign and magnitude are in line with the existing literature (Lindquist

et al., 2015; Bell et al., 2019). Furthermore, we can use these estimates to benchmark our main result: for instance, the effect of being exposed to a quarter of the school peers with parent entrepreneurs is approximately 9 percent of the effect of having a parent who is an entrepreneur.

Taken together, these findings show that exposure to entrepreneurship during adolescence results in an increase in the probability of entering entrepreneurship early on in an individual's career and to remain in the profession for the subsequent years. This has important implications for individuals in their early careers, as the timing of entrepreneurial experience is thought to be relevant in shaping individuals' career trajectories both in and out of entrepreneurship. While it is still debated whether early-or late-career entrepreneurs are the most successful (Dillon and Stanton, 2017; Azoulay et al., 2020), there seems to be a consensus that entering entrepreneurship early on can bring several advantages: as opportunity costs are lower in early career stages, young entrepreneurs are more willing to take risks (Vereshchagina and Hopenhayn, 2009); they can experiment with entrepreneurship without experiencing large wage penalties if returning to paid employment (Manso, 2016; Merida and Rocha, 2021); and they can learn their entrepreneurial potential earlier, thus having more working years to exploit that knowledge (Dillon and Stanton, 2017).

## 4.1 Effects by gender

In this section, we investigate whether early exposure to entrepreneurship affects men and women differently. In particular, we might expect early exposure to matter more for women if they do not consider entrepreneurship as a possible career path to the same extent than men do, for example due to stereotypes and social norms generating expectations about gender-specific roles and career paths (Bertrand, 2011, 2020; Bordalo et al., 2016). Moreover, as men and women may take different educational and professional decisions that make the former more likely to be exposed to entrepreneurship later in life, early "forced" exposure during adolescence might be particularly crucial for women to increase their awareness and understanding of the entrepreneurial profession.

To test whether there are different effects of exposure for men and women, we estimate equation (1) separately by gender for the same two outcome variables, namely a dummy for ever being an entrepreneur and the number of years spent in entrepreneurship by every age. Panel (a) of Figure 3 shows that early exposure to entrepreneurship increases women's probability of ever being an entrepreneur from their early 20s to their late 20s. For men, instead, the effect appears only around age 30 and fades away quickly after that (panel (b)). Moreover, the effects on women are more than two

times bigger than the effects on men. For instance, women exposed to a one standard deviation higher share of peers with entrepreneur parents are 6.1 percent more likely to ever be an entrepreneur by age 28 (Table 5, Panel A). In contrast, the same increase in the share of peers with entrepreneur parents results in a 2.9 percent increase in the probability of ever being an entrepreneur by age 28 for men (Table 5, panel B). Although we lose precision over the observation period, the effect of exposure appears to persist for women, while for men it fades away rather quickly. This suggests that men who are exposed to entrepreneurship through their school peers' parents may anticipate entry but would have entered anyway, while such exposure is key for women, who would not have entered the profession otherwise. To provide a benchmark for the magnitude of our results, we can again use the effect of having a parent entrepreneur (Table 5): the effect of being exposed to a quarter of female school peers with parent entrepreneurs is approximately 25 percent of the effect of having a parent who is an entrepreneur for women.

Figure 3, panels (c) and (d), shows that early exposure to entrepreneurship has a positive and significant effect on the number of years spent in entrepreneurship only for women, consistently with the hypothesis that exposure encourages early entry and persistence into entrepreneurship by women, who would have not started a business otherwise. A one standard deviation increase in the share of peers with entrepreneur parents results in a 5.3 percent increase in the number of years spent as entrepreneur by age 30 for women, but the same increase in the share of peers generates a smaller increase (2.2 percent) in time spent as entrepreneurship for men by age 30.

To summarize, the findings from Figure 3 confirm the hypothesis that early exposure to entrepreneurship has a differential impact on men and women, with the latter responding more strongly and more persistently. As young women may have biased beliefs due to the presence of stereotypes and social norms, and are at the same time less likely to select into environments that can correct these expectations, then exposing them to entrepreneurship sufficiently early in their life, when their gender identity and their beliefs are still malleable and their educational and career trajectories have not yet diverged from men's ones, can act as an equalizer.

## 4.2 Effects by gender of peers

Existing work shows that the gender composition of an individual's networks potentially affects the type of information received (Currarini et al., 2009), indicating that interactions with female or male peers can have differential effects on an individual's behavior (Cools et al., 2019). This is particularly true during adolescence, not only because boys and girl interact with same-sex peers more frequently than with opposite-sex

peers (Rubin et al., 2015), but also because they develop different types of relationships with their friends. While friendships among girls tend to be centered around conversation and sharing, the friendships among boys tend to be centered around activities done together (Aukett et al., 1988; Underwood, 2004). If girls interact more with their female peers than with their male peers, and if they interact differently with their friends than boys do, exposure to *female peers* whose parents are entrepreneurs might have a different effect than exposure to *male peers* whose parents are entrepreneurs.

In line with this idea, a growing body of work points to the gender composition of school peers as an important factor for shaping individuals' preferences for field of study and occupation. For example, it has been shown that both boys and girls exposed to a larger share of own-gender peers make more gender-stereotypical educational and occupational choices (Feld and Zölitz, 2017; Anelli and Peri, 2019; Brenøe and Zölitz, 2020), and that girls exposed to larger shares of "high achieving" boys are less likely to earn a degree (Cools et al., 2019). To test whether the gender of school peers influences an individual's decision to enter entrepreneurship, we estimate the following regressions for each age:

$$Y_{isc} = \beta_1 Entrepr_{-i,sc}^{FP} + \beta_2 Entrepr_{i,sc}^{MP} + \beta_3 Parent_{isc}$$

$$+ \gamma_s + \gamma_c + \gamma_m \times \gamma_c + \theta X_{isc} + \eta Z_{sc} + \epsilon_{isc} \text{ if } Female = 1 \ \forall \text{ age} \in [18, 40]$$

$$Y_{isc} = \beta_1 Entrepr_{i,sc}^{FP} + \beta_2 Entrepr_{-i,sc}^{MP} + \beta_3 Parent_{isc}$$

$$+ \gamma_s + \gamma_c + \gamma_m \times \gamma_c + \theta X_{isc} + \eta Z_{sc} + \epsilon_{isc} \text{ if } Female = 0 \ \forall \text{ age} \in [18, 40]$$

$$(2)$$

where  $Entrepr_{-i,sc}^{FP}$  and  $Entrepr_{-i,sc}^{MP}$  denote the proportion of female and male peers who have at least one parent who is an entrepreneur, respectively; and all other terms are defined as in equation (1). As in equation (1), both  $Entrepr_{-i,sc}^{FP}$  and  $Entrepr_{-i,sc}^{MP}$  are the sample moments of the *leave-one-out* distribution of students with an entrepreneur parent belonging to a specific gender, school and cohort:

$$Entrepr_{-i,sc}^{FP} = \frac{\sum_{k \neq i} Entrepr_{ksc}}{n_{sc}^{F} - 1} \quad \text{for girls;} \quad Entrepr_{i,sc}^{FP} = \frac{\sum_{k} Entrepr_{ksc}}{n_{sc}^{F}} \quad \text{for boys}$$

$$Entrepr_{i,sc}^{MP} = \frac{\sum_{k} Entrepr_{ksc}}{n_{sc}^{M}} \quad \text{for girls;} \quad Entrepr_{-i,sc}^{MP} = \frac{\sum_{k \neq i} Entrepr_{ksc}}{n_{sc}^{M} - 1} \quad \text{for boys}$$

Under the assumptions discussed in Section 3,  $\beta_1$  and  $\beta_2$  capture the causal effect of being exposed to a larger share of female peers and male peers with entrepreneur parents, respectively, on the outcome of interest.<sup>25</sup>

Figure 4 plots the effects of interest from estimating equation (2) on the probability of entering entrepreneurship for women (panel (a)) and men (panel (b)) at each age. The evidence presented in the Figure supports the presence of gender-specific peer effects for women. Panel (a) shows that women who are exposed to a higher

 $<sup>^{25}</sup>$ The identification checks performed in Section 3.1 hold also for this specification and are reported in Tables A1 to A2 in Appendix A.

share of female peers with entrepreneur parents are significantly more likely to enter entrepreneurship in their life. This effect kicks in by age 24 and persists until age 40. The effect is sizable, especially at younger ages: a one standard deviation (8.8 percentage points) increase in the share of female peers with entrepreneur parents increases the probability of ever being an entrepreneur by age 25 by 11.2 percent (Table 6). A larger share of male peers with entrepreneur parents, on the contrary, has no effect on women's future entrepreneurship.<sup>26</sup> In Panel (b) of Figure 4 we report the estimated effects for men, who do not appear to respond differently when exposed to entrepreneurship through the parents of their female or male peers. If anything, they respond more to their female peers, which is consistent with the idea that friendship with girls may be characterized by greater communication and sharing of information, although the effects are concentrated over a short time period and quickly fade away.

Considering next the effect of exposure on the time spent in entrepreneurship, Figure 4 (panels (c) and (d)) plots the estimated coefficients  $\beta_1$  and  $\beta_2$  from estimating equation (2) by age and gender, where the dependent variable is the number of years spent as an entrepreneur by each age. The observed patterns are consistent with what we saw in in the previous Figure: we find evidence of gendered peer effects for girls who are exposed to entrepreneurship through their female peers (panel (c)). The effect kicks in at age 24 and persists at least until age 40, where a one standard deviation (8.8 percentage points) increase in the share of female peers with entrepreneur parents results in 4.2 percent more time spent in entrepreneurship (Table 7). Again, we see that a larger share of male peers with entrepreneur parents has no effect on women's future entrepreneurship.<sup>27</sup> In Panel (d) of Figure 4 we report the corresponding estimates for men, for whom the effects of peers' gender are less clear-cut as the estimated coefficients are generally not statistically different from zero regardless of the gender of their peers.

Taken together, these results suggest that exposure to entrepreneurship through the parents of an individual's school peers have a different effect on girls' future entrepreneurial behaviour depending on the gender of the peers the exposure is coming from. In particular, the effects are driven almost entirely by women exposed to larger shares of female peers with entrepreneur parents during adolescence, who become more likely to enter entrepreneurship at earlier stages of their career and spend more time in entrepreneurship throughout their lives. This evidence seems to suggest that exposure to entrepreneurship per se is not sufficient for women, unless it comes with some valuable information, which is something we investigate in more depth in section 6.

<sup>&</sup>lt;sup>26</sup>Table A3 in Appendix A shows that the coefficient on female peers is statistically different from the coefficient on male peers from mid 20s to mid 30s.

<sup>&</sup>lt;sup>27</sup>Table A4 in Appendix A shows that the coefficient on female peers is statistically different from the coefficient on male peers from age 24 until age 40.

## 5 Margins of adjustment and efficiency implications

Our baseline results show that exposure to a higher share of female school peers with entrepreneur parents increases the probability that women create a new business and remains in entrepreneurship throughout their career. We now assess some specific margins of adjustment underlying the estimated effects for these women. In particular, we want to understand the choices that these women make in order to become entrepreneurs after being exposed to entrepreneurship through their female school peers. Early exposure to entrepreneurship might impact young women's career trajectories through both their educational and early career choices. To assess the importance of these margins of adjustment, we focus on the most important decisions girls take once they finish compulsory schooling: we begin by investigating in section 5.1 the effect of exposure to entrepreneurship on girl's subsequent educational choices. Next, in section 5.2 we consider what occupations these women would have had had they not become entrepreneurs. Finally, we conclude this section by assessing the efficiency implications of our result by analyzing the performance of the businesses created by women as a result of early exposure (section 5.3).

#### 5.1 Educational choices

In this section, we investigate if at the end of compulsory schooling women exposed to entrepreneurship through their female peers with entrepreneur parents make different educational choices which are, for example, more conducive to entrepreneurship. We analyse the effect of exposure to entrepreneurship on the highest education level achieved by these women by every age. In order to do so, we estimate equation (2) for women, where the dependent variable is an indicator for whether the highest education achieved at every age is lower secondary education, upper secondary vocational education, upper secondary academic education, or higher education.<sup>28</sup>

Figure 5 presents the results for women exposed to entrepreneurship through the parents of their female peers.<sup>29</sup> We find that these women are less likely to discontinue their education after finishing compulsory schooling, suggesting that early exposure to entrepreneurship does not push young girls immediately into the labor market. Instead, Figure 5 shows that these women are more likely to enrol in and complete upper-secondary vocational education.<sup>30</sup> We do not find any effect of exposure on the

<sup>&</sup>lt;sup>28</sup>See Figure A1 in Appendix A for a representation of the Danish educational system.

<sup>&</sup>lt;sup>29</sup>The full results by gender of peers are reported in Figure A3 in Appendix A.

<sup>&</sup>lt;sup>30</sup>Note that we can rule out that our results are driven by exposure to parents with a vocational educational qualification, rather than by exposure to parents who are entrepreneurs. In Table A5 in Appendix A we repeat the estimation by controlling for the share of female and male peers with parents with different educational qualifications, and our results are unchanged. Our baseline results

probability of enrolling in academic high schools. This result square well with the increase in women's probability to create a business, as vocational education is highly conducive to entrepreneurship in Denmark.<sup>31</sup>

## 5.2 Counterfactual employment status

Having showed that women who enter entrepreneurship due to exposure to the entrepreneur parents of their female school peers make different educational choices, we next investigate what employment status these women would have had, had they not become entrepreneurs. Characterizing the labor market profile of the marginal entrants is relevant in order to understand whether early exposure to entrepreneurship encourages a positive or negative selection into entrepreneurship for women, something we investigate more directly in the next section. To shed light on this, we analyze how exposure to entrepreneurship during adolescence affects the number of years spent in other employment statuses, namely self-employment, employment, unemployment, working as employed spouse, and being outside the labor force.<sup>32</sup>

Figure 6 presents the results from estimating equation (2) for women exposed to entrepreneurship through the parents of their female peers.<sup>33</sup> Panel (a) shows that the increase in entrepreneurship does not come at the cost of time spent into self-employment. This result indicates that exposure does not induce women to found businesses by moving out of self-employment by hiring employees, and instead suggests that their counterfactual labor market profile may have been very different from entrepreneurship. A lack of an effect can also be observed when looking at the number of years spent working as employed spouse (panel (d)) or being outside the labor force (panel (e)). Instead, while imprecisely estimated, the results suggest that women exposed to female peers with entrepreneur parents spend slightly less time in formal employment (Panel (b)) and in unemployment (Panel (c)).

To shed more light on these suggestive results, we replicate the above analysis distinguishing between high-paid employment (that is, employment with gender- and age-specific earnings above the median) and low-paid employment (that is, employment with gender- and age-specific earnings below the median). We find that women that were exposed to larger share of female peers with parents entrepreneurs are significantly less likely to spend time in jobs with below-median earnings (Figure 7).<sup>34</sup>

are also robust to controlling for the share of female and male peers with parents with different educational qualifications.

<sup>&</sup>lt;sup>31</sup>In our sample, 55% of entrepreneurs enrolled in vocational education.

<sup>&</sup>lt;sup>32</sup>An employed spouse is an individual who works in the business of the spouse but who is not employed and instead perceives part of the business profits.

<sup>&</sup>lt;sup>33</sup>The full results by gender of peers are reported in Figures A4 in Appendix A.

 $<sup>^{34}</sup>$ The full results by gender of peers are reported in Figures A5 in Appendix A.

We interpret this as suggestive evidence that, absent the exposure to entrepreneurship during adolescence, women would still have participated in the labor market but mainly as an employee in low-paying jobs.

## 5.3 Effects on firm performance

In this section, we want to understand whether the increase in women's probability to start a business has not only equity, but also efficiency implications. The answer to this question is a priori ambiguous. From the one hand, a number of studies have shown that the increase in minorities representation across several (mainly high-skilled) occupations in which they are generally underrepresented has a positive effects on economic growth (Hsieh et al., 2019). This evidence points to the fact that if a substantial pool of potentially talented entrepreneurs does not pursue this profession due to gender-specific barriers, then reducing these barriers by increasing women's early exposure to entrepreneurship may have a positive effect on the quality of newly created businesses. On the other hand, it is possible that the marginal woman entering entrepreneurship due to exposure may not have a comparative advantage in this profession, which requires a specific set of skills and abilities (Levine and Rubinstein, 2017).

One might be particularly concerned by the finding that women who are exposed to entrepreneurship during adolescence through their female peers move away from low-pay jobs to enter entrepreneurship in their early careers. If these women would have been employed in jobs with below-median earning because they are low-ability women, we might observe that the firms they create as entrepreneurs are low-performing too. On the contrary, if these women are more productive as entrepreneurs than as paid employees, in which case exposure to entrepreneurship allows them to broaden their choice set and choose the occupation that best suits them, we may observe their businesses performing as well as those of other female entrepreneurs.

To directly assess the efficiency implications of early exposure, we investigate the performance of these newly created firms. We rely on two measures of firm performance that have been widely used in the entrepreneurship literature (e.g., Nanda and Sørensen, 2010; Hacamo and Kleiner, 2020a,b): the size of the enterprise, as measured by the number of employees, and the number of years it survives in the labor market.

In columns (1)-(4) of Table 8, we report estimates from estimating equation (2) for women, where the dependent variables are indicators for whether the individual creates a firm with less or more than the average or the median number of employees. We find evidence that women exposed to a larger share of female peers with entrepreneur parents are not more likely to create small firms. Instead, they are more likely to found businesses with more employees than the average firm created by female entrepreneurs.

We find similar results in columns (5)-(6), where we look at whether women creates firms that survives less or more than the average or the median number of years. We find that women exposed to a larger share of female peers with entrepreneur parents are more likely to create firms that survive more years than the median firm created by female entrepreneurs.

The evidence presented in Table 8 indicates that the positive effect of early exposure on women's entry into entrepreneurship does not lead to the creation of low-performing firms. Rather, under the assumption that entry is at baseline efficient, they point toward the possibility of talent misallocation with gender-specific barriers preventing successful entrepreneurs from ever entering the profession.

### 6 Plausible mechanisms

In this section, we discuss several potential mechanisms that could explain the finding that exposure to entrepreneurs during adolescence - a period where attitudes and beliefs are mostly shaped and social learning is peaking - is relevant for individuals' early career entrepreneurship choices, and in particular for women.

One way to interpret our findings is within a framework where individuals have imperfect information about the characteristics of entrepreneurship, and where early exposure to this career path provides them with the necessary information to update their beliefs and eventually engage in entrepreneurship. Under this scenario, young women might be particularly responsive to early "forced" exposure to entrepreneurship because exposure provides them with information about entrepreneurship that they would be less likely to acquire otherwise. The fact that girls exposed to entrepreneurship through the parents of their female peers show the strongest response is consistent with this interpretation: given that friendship among girls tend to be more centered about sharing of information and attention paid to the world of adults (Aukett et al., 1988; Underwood, 2004), young women might be more likely to acquire valuable information about entrepreneurship when they have more female peers with parents entrepreneurs, with whom they are more likely to have meaningful interactions.

While exposure to entrepreneurship through the parents of their peers during adolescence might matter because of information transmission, it might also affect individuals' entrepreneurial behavior through changes in aspirations. This might be the case if adolescents identify with the entrepreneur parents they are exposed to through their peers, in a role-modeling perspective. Due to their lack of representation in entrepreneurship, young women might be particularly responsive to the female entrepreneurs they come into direct contact with, and be inspired to follow the same career path. In a similar way, this role model effect has been established in several male-dominated fields, such as STEM, economics or politics (Carrell et al., 2010; Porter and Serra, 2020; Beaman et al., 2009).

While registry data does not naturally lend itself to studying the effects of early exposure to entrepreneurship on women's beliefs and attitudes towards this profession, we can leverage the richness of our dataset and its linked structure to gain indirect insights about the mechanisms at play. In particular, we perform three tests. First, in section 6.1 we look at whether young women respond more to exposure to entrepreneurship through the mothers or the fathers of their female peers. If the observed effect is operating through a role modeling channel, one would reasonably expect women to be more affected when they are exposed to their female peers' entrepreneur mothers, rather than fathers.

Next, we check for the presence of sector-specific effects (section 6.2): in particular, we investigate whether individuals who were exposed to entrepreneurs working in a given sector are more likely to become entrepreneurs in that given sector. If the observed effects operate through an information transmission channel, then women should specialize more in the industries where the entrepreneur parents they were exposed to were working.

Finally, in section 6.3 we perform an additional test to shed more light on whether the mechanism driving our results is information transmission and on what young women are learning about. In particular, given that entrepreneurship is characterized both by a strong female underrepresentation and high uncertainty, we want to understand if our findings arise: (a) because of specific intrinsic features of entrepreneurship (such as uncertainty or lack of general knowledge about the occupation), which information transmission can address; or (b) because entrepreneurship is a male-dominated occupation, and hence the observed effects are not driven by learning about entrepreneurship per se, but rather by lowering barriers to entry to a male-dominated occupation. To do so, we replicate our analysis for two other occupations which are characterised by less uncertainty than entrepreneurship and where one is female-dominated and the other is male-dominated. If the mechanism driving our result is indeed an update in women's beliefs through information acquisition and learning about entrepreneurship, we should not find any effect of exposure for these occupations, be they female- or male-dominated.

#### 6.1 Role models

To test for the presence of a role modeling effect, we estimate the following regression for women, where we distinguish between exposure through female and male peers according to the gender of their parents:

$$Y_{isc} = \beta_1 Entrepr_{-i,sc}^{fath,FP} + \beta_2 Entrepr_{-i,sc}^{moth,FP} + \beta_3 Entrepr_{isc}^{fath,MP} + \beta_4 Entrepr_{isc}^{moth,MP}$$

$$+ \beta_5 Father_{isc} + \beta_6 Mother_{isc} + \gamma_s + \gamma_c + \gamma_m \times \gamma_c + \theta X_{isc} + \eta Z_{sc} + \epsilon_{isc}$$

$$(3)$$

where  $Entrepr_{-i,sc}^{fath,FP}$  and  $Entrepr_{-i,sc}^{moth,FP}$  denote the proportion of female peers with a father or mother who is an entrepreneur, while  $Entrepr_{i,sc}^{fath,MP}$  and  $Entrepr_{i,sc}^{moth,MP}$  denote the proportion of male peers with a father or mother who is an entrepreneur;  $Father_{isc}$  and  $Mother_{isc}$  are indicators for whether the individual's father or mother are entrepreneurs, respectively; and all other terms are defined as in equation (2). As in equation (2),  $Entrepr_{-i,sc}^{fath,FP}$  and  $Entrepr_{-i,sc}^{moth,FP}$  are the sample moments of the leave-one-out distribution of students with an entrepreneur parent belonging to a specific gender, school and cohort.

Tables 9 and 10 show the effect of being exposed to female and male peers with an entrepreneur mother or father on the probability of ever engaging in entrepreneurship and the time spent in entrepreneurship, respectively. We find little evidence in support of role modeling, as women do not seem to respond more to female entrepreneurs than to male entrepreneurs. If anything, we find that young women respond more when their female peers' father is an entrepreneur: a one standard deviation (8.3) percentage points) increase in the share of female peers with entrepreneur fathers increases women's probability of becoming an entrepreneur by age 25 by 12 percent, and the time spent in entrepreneurship by age 25 by 11.8 percent. However, the coefficients on female peers with father entrepreneurs and mothers entrepreneur are not statistically different from one another. Instead, we find that women are more likely to enter in entrepreneurship and spend more years in it when their own mother is entrepreneur, which is consistent with Lindquist et al. (2015). Note that there might be concerns regarding the lack of precision in our estimates of the share of peers with mothers entrepreneur, as in our sample only 1.7% of mothers are entrepreneurs compared to 10.2% of fathers. Nevertheless, taken at face value, and independently on statistical significance, the magnitudes of the effects do not seem to differ much by the gender of the peer's parents, suggesting that role modeling is unlikely to be the main factor behind our results.

## 6.2 Sector-specific effects

In this section, we want to investigate whether women who were exposed during adolescence to larger shares of female peers with parents entrepreneur in a specific sector are more likely as adults to become entrepreneurs in that specific sector. To test for the presence of such sector-specific effect, we estimate the following regression for women for each age:

$$Y_{isc}^{s} = \beta_{1}Entrepr_{-i,sc}^{s,FP} + \beta_{2}Entrepr_{-i,sc}^{-s,FP} + \beta_{3}Entrepr_{i,sc}^{s,MP} + \beta_{4}Entrepr_{i,sc}^{-s,MP} + \beta_{5}Parent_{isc}^{s} + \beta_{6}Parent_{isc}^{-s} + \gamma_{s} + \gamma_{c} + \gamma_{m} \times \gamma_{c} + \theta X_{isc} + \eta Z_{sc} + \epsilon_{isc}^{s} \quad \forall \text{ age } \in [18, 40]$$

$$(4)$$

where  $Y_{isc}^s$  is an indicator for ever being an entrepreneur sector s;  $Entrepr_{-i,sc}^{s,FP}$  and  $Entrepr_{-i,sc}^{-s,FP}$  denote the share of female peers with parents entrepreneur in sector s and in any other sector but s, respectively, while  $Entrepr_{i,sc}^{s,MP}$  and  $Entrepr_{i,sc}^{-s,MP}$  are the corresponding shares of male peers;  $Parent_{isc}^s$  and  $Parent_{isc}^{-s}$  are indicators for whether the individual's parents are entrepreneurs in sector s or any other sector but s, respectively; and all other terms are defined as usual. As in equation (2), both  $Entrepr_{-i,sc}^{s,FP}$  and  $Entrepr_{-i,sc}^{-s,FP}$  are the sample moments of the leave-one-out distribution of students with an entrepreneur parent belonging to a specific gender, school and cohort.

Figure 8 reports the results for three main sectors: primary sector and construction (panel (a)); manufacturing (panel (b)); and services (panel (c)).<sup>35</sup> We find that women are more likely to become entrepreneurs in a given sector when they are exposed to a larger share of peers with entrepreneur parents working in those sectors. While the estimates are statistically significant only at the 10% significant level, they point to the transmission of specific human capital and information as potential mechanisms driving our main results. We also find that the sectors for which we see a stronger effect (primary sector and construction (panel (a)), and manufacturing (panel (b))) are sectors where women would usually not specialise into (Figure A6). This suggests that information transmission is particularly relevant for those sectors where women are underrepresented, and hence where their beliefs might be more inaccurate and their knowledge more scarce.

## 6.3 Other professions: teachers and engineers

In the previous sections, we presented suggestive evidence that early exposure to entrepreneurship positively affects women's entrepreneurial behavior through the transmission of specific human capital and information transmission mechanism: women, who might have more inaccurate information about entrepreneurship and might hence not consider it an occupational path available to them, can benefit from early "forced"

<sup>&</sup>lt;sup>35</sup>Primary sector and construction includes: agriculture, fishing and quarrying; construction and utility services. Services include: trade, retail, transport, tourism, hospitality; finance and business services; public administration, education and health; other service activities. We aggregated these sectors into groups to gain more precision in our estimates. Results for each sectors are reported in Figure A7 in Appendix A and are consistent with our findings.

exposure as it allows them to update their information and expand their occupational choice set. In this section, we aim at providing further evidence in support for the information transmission channel by understanding whether our effects arise: (a) because of specific intrinsic features of entrepreneurship (such as uncertainty or lack of general exposure to the occupation), which information transmission can address; or (b) because entrepreneurship is a male-dominated occupation, and hence the observed effects are not driven by learning about entrepreneurship per se but rather by lowering barriers to entry to a male-dominated occupation.

To investigate this, we expand our analysis to two other occupations which are characterised by less uncertainty than entrepreneurship and that are respectively female-dominated - teachers - and male-dominated - architects and engineers.<sup>36</sup> If our results are driven by women learning about some specific features of entrepreneurship, such as its uncertainty or lack of exposure to the occupation, we should not find any effect of exposure for other occupations, being those female- or male-dominated.

For each occupation, we then estimate the following regression for women:

$$Y_{isc} = \beta_1 Occ_{-i,sc}^{FP} + \beta_2 Occ_{i,sc}^{MP} + \beta_4 Parent_{isc} + \gamma_s + \gamma_c + \gamma_m \times \gamma_c + \theta X_{isc} + \eta Z_{sc} + \epsilon_{isc} \text{ with } Occ = \{\text{teachers, architects \& engineers}\}$$
(5)

where  $Y_{isc}$  is an indicator for ever being a teacher or an architect/engineer;  $Occ_{i,sc}^{FP}$  and  $Occ_{i,sc}^{MP}$  denote the proportion of female and male peers who have at least one parent who is a teacher or architect/engineer, respectively;  $Parent_{isc}$  is an indicators for whether the individual's own parents are teachers or architects/engineers; and all other terms are defined as in equation (2). As in equation (2), both  $Occ_{-i,sc}^{s,FP}$  and  $Occ_{-i,sc}^{-s,FP}$  are the sample moments of the leave-one-out distribution of students with an teacher or architect/engineer parent belonging to a specific gender, school and cohort.

Table 11 presents the results. We do not find any evidence that being exposed during adolescence to peers whose parents work as teachers or engineers increases the probability that women will then work in those occupations. Because women are underrepresented also in the engineering profession,<sup>37</sup> these results suggest that there is something specific to entrepreneurship other than it being male-dominated. This may

<sup>&</sup>lt;sup>36</sup>In our data, information on occupations is only available starting from 1992. To define occupations for the parents in our sample, we rely on the specific field of the highest education degree achieved (for example, we proxy being an engineer with having a degree in Engineering). Our choice of occupations to benchmark entrepreneurship against was therefore limited to those occupations in which the education degree maps almost 1:1 into a specific job: this is indeed the case for teachers, engineers and architects. We use subsequent years in which the occupational digit code is available to check that our match is indeed correct Also, we group architects and engineers together following the literature (e.g., Gallen et al., 2019), but restricting the male-dominated profession to engineers only leaves our results unchanged.

 $<sup>^{37}</sup>$ Women represent just above 20% of college graduates in engineering and architecture (Gallen et al., 2019).

be the intrinsically higher level of uncertainty of entrepreneurship or the fact that it is an occupation that, differently from engineers and teachers, it has no clear educational and early career path to follow: in both cases, early exposure to entrepreneurship can provide young women with the information necessary to correct for this.

## 7 Conclusions

Women are persistently underrepresented in entrepreneurship in all OECD countries. This paper shows previously undocumented results on how exposure to entrepreneurship during adolescence can foster entrepreneurship among women by impacting their educational and early career choices. Using data on education and occupation history for the entire Danish population from 1980 to 2017, we show that exposure to larger share of school peers with entrepreneur parents increases women's probability to start a business by age 30 and overall time spent in entrepreneurship. On the contrary, the effect on men is transitory and fades away quickly, suggesting that while men who are exposed to entrepreneurship through their school peers' parents anticipate entry but would have entered anyway, early exposure plays a key role for young women, who would have had less opportunity to be exposed to entrepreneurship in other aspects of their lives.

Our effects are driven entirely by girls exposed to entrepreneurship through their female school peers, in line with the idea that girls tend to develop friendships more centered around communication and sharing of information than boys. Investigating the margins of adjustment, we find that exposure to entrepreneurship encourages women's early career entrepreneurship by increasing their likelihood to pursue vocational education, a path that is highly conducive to entrepreneurship, and by reducing their probability of being employed in low-paying jobs in their early career. We also provide evidence that these marginal entrants are not less successful entrepreneurs: in fact, women exposed to a larger share of female peers with entrepreneur parents are more likely to create firms that are larger, and survive for longer, than the average firm.

Various explanations can be consistent with these findings, such as the transmission of specific human capital and information or role modeling. We do not find strong evidence in support of role modeling driving our results, as the effects of exposure through a woman's female peers' mothers are not stronger than those coming from her female peers' fathers. On the contrary, we find that women exposed to larger shares of female peers with parents entrepreneur in a specific sector are more likely to specialise as entrepreneurs in that sector, pointing to the transmission of specific human capital and information as the potential mechanism driving our main results.

Moreover, our effects are concentrated in sectors where women are underrepresented, suggesting that information transmission is more relevant in settings where their beliefs may be more inaccurate and their knowledge more scarce. Finally, we provide evidence that our results are specific to entrepreneurship and appear to be driven by the uncertainty and lack of information around entrepreneurship, as we do not find any effect of exposure for other less uncertain and more "typical" professions, be they female- or male-dominated.

Taken together, the evidence presented in this paper suggests that there are genderspecific barriers to entrepreneurship preventing successful entrepreneurs from ever entering the profession, but that these can be lowered by exposing them to entrepreneurship sufficiently early in their life, when their gender identity and their beliefs are still malleable and their educational and career trajectories have not yet diverged from men's ones. This has important implications, as there seems to be consensus that entering entrepreneurship early on can bring several advantages: as opportunity costs are lower in early career stages, young entrepreneurs are more willing to take risks, they can experiment with entrepreneurship without experiencing large wage penalties if returning to paid employment, and they can learn their entrepreneurial potential earlier, thus having more working years to exploit that knowledge. These results have implications for how we think about employment decisions and gender gaps in entrepreneurship. If one factor that prevents women from starting a business is that they form beliefs that discourage them to consider entrepreneurship as feasible career pathway, and that they are less likely to self-select into educational paths or workplaces where they can update these beliefs, policies that increase exposure to entrepreneurship at a younger age could help close the gender gap in the profession and increase women's early career entrepreneurship.

## References

- Aghion, P. and Howitt, P. (1992). A model of growth through creative destruction. Econometrica: Journal of the Econometric Society, 60:323–351.
- Altonji, J. G., Elder, T. E., and Taber, C. R. (2005). Selection on observed and unobserved variables: Assessing the effectiveness of catholic schools. <u>Journal of political economy</u>, 113(1):151–184.
- Anelli, M. and Peri, G. (2019). The effects of high school peers' gender on college major, college performance and income. The Economic Journal, 129(618):553–602.
- Angrist, J. D. (2014). The perils of peer effects. Labour Economics, 30:98–108.
- Angrist, J. D. and Lang, K. (2004). Does school integration generate peer effects? evidence from boston's metco program. <u>American Economic Review</u>, 94(5):1613–1634.
- Aukett, R., Ritchie, J., and Mill, K. (1988). Gender differences in friendship patterns. Sex roles, 19(1):57–66.
- Azoulay, P., Jones, B. F., Kim, J. D., and Miranda, J. (2020). Age and high-growth entrepreneurship. American Economic Review: Insights, 2(1):65–82.
- Barber, B. M. and Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. The Quarterly Journal of Economics, 116(1):261–292.
- Beaman, L., Chattopadhyay, R., Duflo, E., Pande, R., and Topalova, P. (2009). Powerful women: does exposure reduce bias? <u>The Quarterly Journal of Economics</u>, 124(4):1497–1540.
- Bell, A., Chetty, R., Jaravel, X., Petkova, N., and Van Reenen, J. (2019). Who becomes an inventor in america? the importance of exposure to innovation. <u>The Quarterly Journal of Economics</u>, 134(2):647–713.
- Bertrand, M. (2011). New perspectives on gender. In <u>Handbook of Labor Economics</u>, volume 4, pages 1543–1590. Elsevier.
- Bertrand, M. (2020). Gender in the twenty-first century. In <u>AEA Papers and</u> Proceedings, volume 110, pages 1–24.
- Bifulco, R., Fletcher, J. M., Oh, S. J., and Ross, S. L. (2014). Do high school peers have persistent effects on college attainment and other life outcomes? <u>Labour economics</u>, 29:83–90.

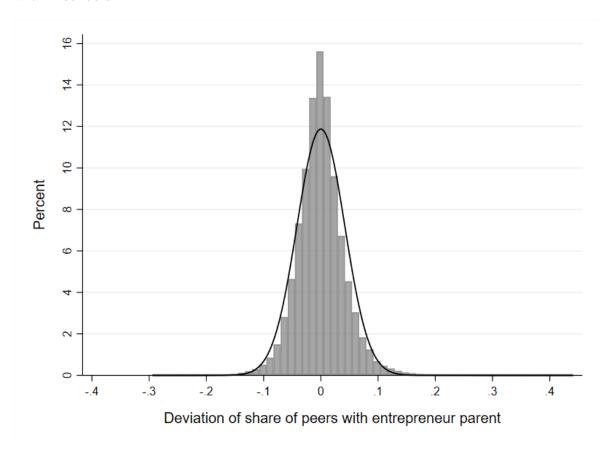
- Bifulco, R., Fletcher, J. M., and Ross, S. L. (2011). The effect of classmate characteristics on post-secondary outcomes: Evidence from the add health. <u>American</u> Economic Journal: Economic Policy, 3(1):25–53.
- Black, S. E., Devereux, P. J., and Salvanes, K. G. (2013). Under pressure? the effect of peers on outcomes of young adults. Journal of Labor Economics, 31(1):119–153.
- Bordalo, P., Coffman, K., Gennaioli, N., and Shleifer, A. (2016). Stereotypes. The Quarterly Journal of Economics, 131(4):1753–1794.
- Brenøe, A. A. and Zölitz, U. (2020). Exposure to more female peers widens the gender gap in stem participation. Journal of Labor Economics, 38(4):1009–1054.
- Carrell, S. E., Hoekstra, M., and Kuka, E. (2018). The long-run effects of disruptive peers. American Economic Review, 108(11):3377–3415.
- Carrell, S. E., Page, M. E., and West, J. E. (2010). Sex and science: How professor gender perpetuates the gender gap. <u>The Quarterly Journal of Economics</u>, 125(3):1101–1144.
- Cools, A., Fernández, R., and Patacchini, E. (2019). Girls, boys, and high achievers. Technical report, National Bureau of Economic Research.
- Croson, R. and Gneezy, U. (2009). Gender differences in preferences. <u>Journal of</u> Economic literature, 47(2):448–74.
- Currarini, S., Jackson, M. O., and Pin, P. (2009). An economic model of friendship: Homophily, minorities, and segregation. Econometrica, 77(4):1003–1045.
- Dillon, E. W. and Stanton, C. T. (2017). Self-employment dynamics and the returns to entrepreneurship. Technical report, National Bureau of Economic Research.
- Feld, J. and Zölitz, U. (2017). Understanding peer effects: On the nature, estimation, and channels of peer effects. Journal of Labor Economics, 35(2):387–428.
- Gallen, Y., Lesner, R. V., and Vejlin, R. (2019). The labor market gender gap in denmark: Sorting out the past 30 years. <u>Labour Economics</u>, 56:58–67.
- Giuliano, P. and Spilimbergo, A. (2014). Growing up in a recession. <u>Review of</u> Economic Studies, 81(2):787–817.
- Guiso, L., Pistaferri, L., and Schivardi, F. (2021). Learning entrepreneurship from other entrepreneurs? Journal of Labor Economics, 39(1):135–191.

- Hacamo, I. and Kleiner, K. (2020a). Confidence spillovers: Evidence from entrepreneurship. Working paper. Available at SSRN: https://ssrn.com/abstract=3088068.
- Hacamo, I. and Kleiner, K. (2020b). Forced entrepreneurs. <u>R&R Journal of Finance</u>. Available at SSRN: https://ssrn.com/abstract=2801637.
- Harris, J. R. (2011). The nurture assumption: Why children turn out the way they do. Simon and Schuster.
- Hoxby, C. (2000). Peer effects in the classroom: Learning from gender and race variation. Technical report, National Bureau of Economic Research.
- Hsieh, C.-T., Hurst, E., Jones, C. I., and Klenow, P. J. (2019). The allocation of talent and us economic growth. Econometrica, 87(5):1439–1474.
- Kanniainen, V. and Keuschnigg, C. (2004). <u>Venture capital</u>, entrepreneurship, and public policy. MIT press.
- Krosnick, J. A. and Alwin, D. F. (1989). Aging and susceptibility to attitude change. Journal of personality and social psychology, 57(3):416.
- Lavy, V. and Schlosser, A. (2011). Mechanisms and impacts of gender peer effects at school. American Economic Journal: Applied Economics, 3(2):1–33.
- Lerner, J. and Malmendier, U. (2013). With a little help from my (random) friends: Success and failure in post-business school entrepreneurship. <u>The Review</u> of Financial Studies, 26(10):2411–2452.
- Levine, R. and Rubinstein, Y. (2017). Smart and illicit: who becomes an entrepreneur and do they earn more? The Quarterly Journal of Economics, 132(2):963–1018.
- Lindquist, M. J., Sol, J., and Van Praag, M. (2015). Why do entrepreneurial parents have entrepreneurial children? <u>Journal of Labor Economics</u>, 33(2):269–296.
- Manso, G. (2016). Experimentation and the returns to entrepreneurship. <u>The Review of Financial Studies</u>, 29(9):2319–2340.
- Markussen, S. and Røed, K. (2017). The gender gap in entrepreneurship—the role of peer effects. Journal of Economic Behavior & Organization, 134:356–373.
- Merida, A. L. and Rocha, V. (2021). It's about time: The timing of entrepreneurial experience and the career dynamics of university graduates. Research Policy, 50(1):104135.

- Nanda, R. and Sørensen, J. B. (2010). Workplace peers and entrepreneurship. Management Science, 56(7):1116–1126.
- Niederle, M. and Vesterlund, L. (2007). Do women shy away from competition? do men compete too much? The Quarterly Journal of Economics, 122(3):1067–1101.
- OECD (2021). Self-employed with employees (indicator). Available at https://doi.org/10.1787/b7bf59b6-en (Accessed on 23 February 2021).
- Olivetti, C., Patacchini, E., and Zenou, Y. (2020). Mothers, peers, and gender-role identity. Journal of the European Economic Association, 18(1):266–301.
- Parker, S. C. (2018). The economics of entrepreneurship. Cambridge University Press.
- Porter, C. and Serra, D. (2020). Gender differences in the choice of major: The importance of female role models. <u>American Economic Journal: Applied Economics</u>, 12(3):226–54.
- Rocha, V. and Van Praag, M. (2020). Mind the gap: The role of gender in entrepreneurial career choice and social influence by founders. <u>Strategic Management</u> Journal, 41(5):841–866.
- Rubin, K. H., Bukowski, W. M., and Bowker, J. C. (2015). Children in peer groups. Handbook of child psychology and developmental science, pages 1–48.
- Thébaud, S. (2010). Gender and entrepreneurship as a career choice: do self-assessments of ability matter? Social Psychology Quarterly, 73(3):288–304.
- Underwood, M. K. (2004). Gender and peer relations: Are the two gender cultures really all that different? In <u>Children's peer relations: From development</u> to intervention., pages 21–36. American Psychological Association.
- Vereshchagina, G. and Hopenhayn, H. A. (2009). Risk taking by entrepreneurs. American Economic Review, 99(5):1808–30.

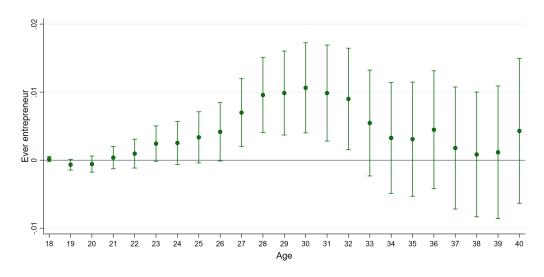
# **Figures**

Figure 1: Year-to-year variation in the share of peers' parents who are entrepreneurs within schools

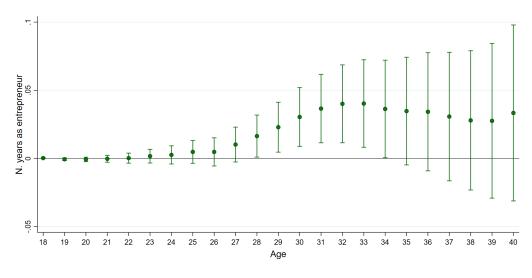


Notes. The figure plots the predicted proportion of peers' entrepreneur parents at the school-cohort level from a regression of the proportion of peers' parents who are entrepreneur on school, cohort and municipality times cohort fixed effects. It is plotted together with the normal distribution for comparison. Entrepreneurs are defined as business owners with employees and top managers of newly created firms.

Figure 2: Effect of exposure by age



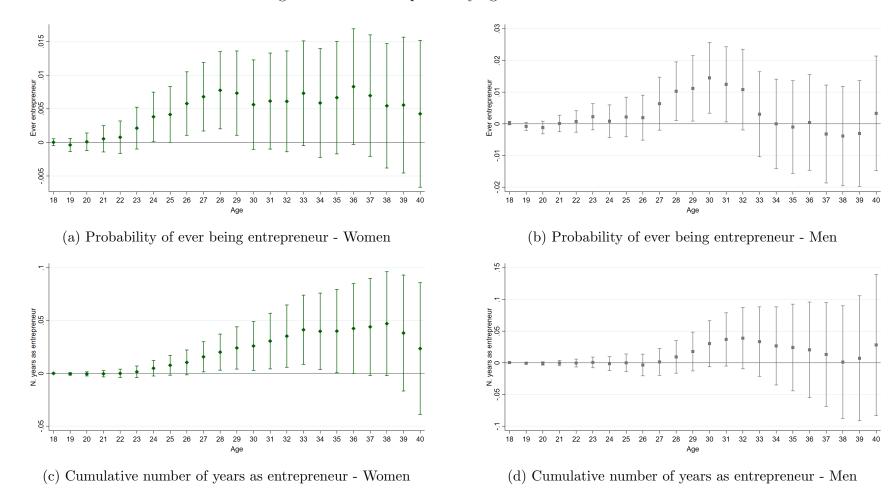
(a) Probability of ever being entrepreneur by age



(b) Cumulative number of years as entrepreneur by age

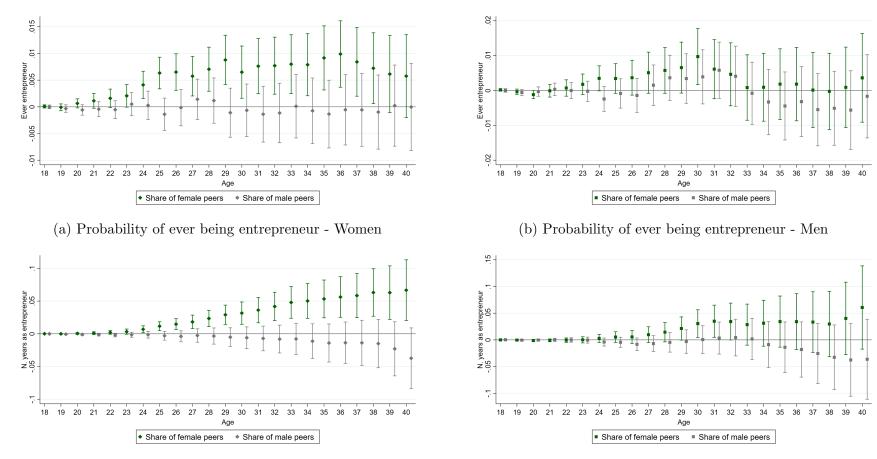
Notes. This figure plots the regression coefficients and 90% confidence intervals from estimating equation (1) for each age. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age in panel (a) and the cumulative number of years spent in entrepreneurship until that age in panel (b). Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Figure 3: Effect of exposure by age for men and women



Notes. This figure plots the regression coefficients and 90% confidence intervals from estimating equation (1) for each age, and for men and women separately. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age in panel (a) for women and (b) for men, and the cumulative number of years spent in entrepreneurship until that age in panel (c) for women and (d) for men. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age. Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Figure 4: Effect of exposure by age and gender of peers for men and women

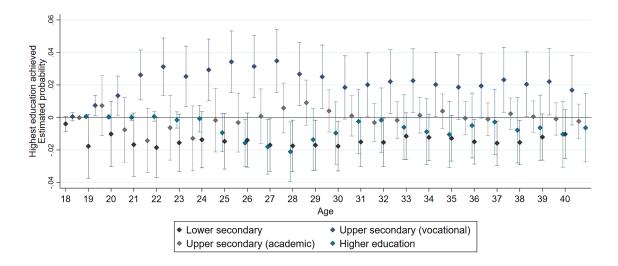


(c) Cumulative number of years as entrepreneur - Women

(d) Cumulative number of years as entrepreneur - Men

Notes. This figure plots the regression coefficients and 90% confidence intervals from estimating equation (1) for each age, and for men and women separately. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age in panel (a) for women and (b) for men, and the cumulative number of years spent in entrepreneurship until that age in panel (c) for women and (d) for men. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age. Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Figure 5: Effect of exposure to female peers with parents entrepreneur on highest education achieved by age for women



Notes. This figure plots the regression coefficient  $\beta_1$  and 90% confidence intervals from estimating equation (2) for each age for women. The dependent variable for each age-regression is an indicator for whether the highest education achieved by women by that age is lower secondary, upper secondary vocational, upper secondary academic or higher education. Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

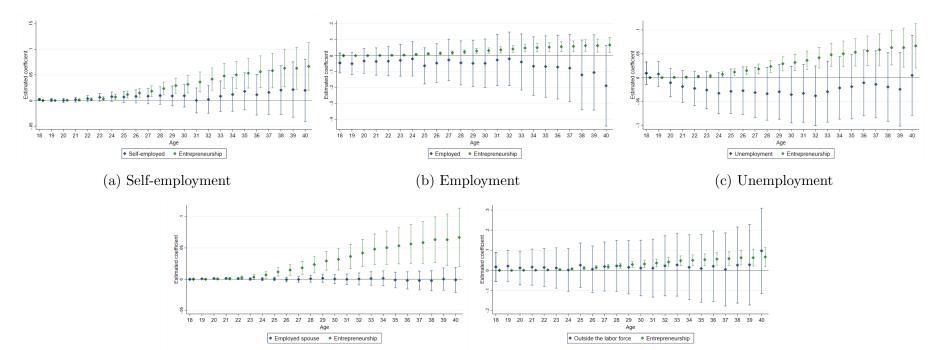


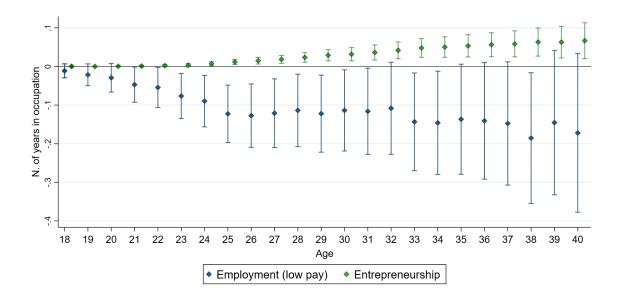
Figure 6: Number of years spent in counterfactual occupations compared to entrepreneurship

Notes. This figure plots the regression coefficient  $\beta_1$  and 90% confidence intervals from estimating equation (2) for each age for women. The dependent variable for each age-regression is the number of years spent in self-employment (Panel (a)), employment (Panel (b)), unemployment (Panel (c)), as employed spouse (Panel (d)) and outside the labor force (Panel (e)) until that age. The regression coefficient  $\beta_1$  and 90% confidence intervals from estimating equations (2) is also reported for comparison. Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

(e) Outside the labor force

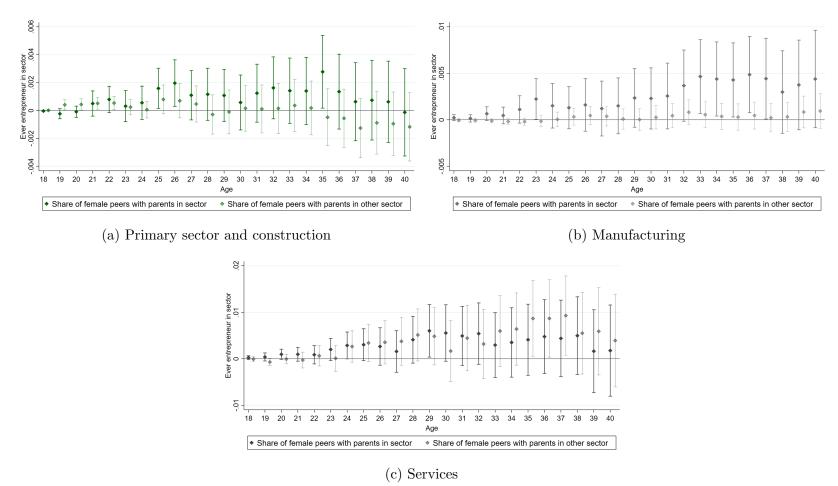
(d) Employed spouse

Figure 7: Number of years in low-pay employment compared to entrepreneurship for women



Notes. This figure plots the regression coefficient  $\beta_1$  and 90% confidence intervals from estimating equation (2) for each age for women. The dependent variable for each age-regression is the number of years spent in low-pay employment (defined as paid employment with earnings below the median) until that age. The regression coefficient  $\beta_1$  and 90% confidence intervals from estimating equations (2) is also reported for comparison. Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Figure 8: Effects on sector choice by age for women exposed to entrepreneurship through their female peers



Notes. This figure plots the regression coefficients  $\beta_1$  and  $\beta_2$  and 90% confidence intervals from estimating equation (4) for each age for women. The dependent variable for each age-regression is an indicator for whether the individual has ever been an entrepreneur in that sector by the age considered. Share of female peers with parent entrepr. in sector is the share of female peers with parent who is entrepreneur in that sector during the exposure period. Share of female peers with parent entrepr. in any other sector is the share of female peers with parent who is entrepreneur in any other sector during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

## **Tables**

Table 1: Descriptive statistics

	All s	ample	Wo	omen	N	Ien .
	Mean	St.Dev	Mean	St.Dev	Mean	St.Dev
A: Outcome variables						
Ever entrepreneur	0.048	0.214	0.027	0.162	0.069	0.253
Ever entrepreneur by 25	0.008	0.088	0.005	0.069	0.011	0.103
Ever entrepreneur by 30	0.024	0.153	0.013	0.111	0.035	0.183
Ever entrepreneur by 35	0.039	0.194	0.021	0.142	0.057	0.232
Ever entrepreneur by 40	0.058	0.234	0.032	0.177	0.082	0.275
N. of years as entrepreneur	0.222	1.302	0.115	0.918	0.325	1.578
N. of years as entrepreneur (cond. on entrepr.)	4.600	3.870	4.222	3.704	4.743	3.921
B: Cohort variables						
Share of peers with parent entrepr.	0.117	0.072	0.117	0.071	0.116	0.072
Share of female peers with parent entrepr.	0.116	0.088	0.116	0.088	0.115	0.089
Share of male peers with parent entrepr.	0.117	0.087	0.117	0.087	0.117	0.087
Number of students	55.1	24.3	55.3	24.3	54.8	24.2
Number of girls	27.1	12.8	27.8	12.7	26.4	12.8
Number of boys	28.0	12.7	27.6	12.7	28.4	12.7
Share of first-generation immigrants	0.008	0.024	0.009	0.025	0.008	0.024
Share of second-generation immigrants	0.007	0.027	0.007	0.027	0.007	0.026
C: Individual characteristics						
Female	0.489	0.500	1.000	0.000	0.000	0.000
Parents is entrepreneur	0.117	0.321	0.116	0.320	0.117	0.321
Lower secondary education	0.154	0.361	0.129	0.335	0.177	0.382
Upper secondary (academic) education	0.063	0.242	0.063	0.243	0.062	0.242
Upper secondary (vocational) education	0.386	0.487	0.353	0.478	0.417	0.493
Higher education	0.398	0.489	0.455	0.498	0.344	0.475
Is a first-generation immigrant	0.008	0.092	0.008	0.090	0.009	0.094
Is a second-generation immigrant	0.007	0.086	0.007	0.085	0.008	0.087
Went abroad for some time	0.163	0.369	0.164	0.370	0.162	0.368
Observations	80	7300	395087		412213	
Schools	1	702	1'	702	1'	702
Cohorts		13		13	13	
Municipalities	2	275	2	275	2	275

Notes. This table reports descriptive statistics for the whole sample and for men and women separately. Our sample includes adolescents in grades 7 through 9 between 1980 and 1992 with at least 10 peers, who are observed until 40 years old. Entrepreneurship is defined as business owners with employees and top managers of newly created firms. Ever entrepreneur=1 if the individual ever entered entrepreneurship. Share of peers with parents entrepreneur is the share of peers in a given school-cohort with at least one parent who is an entrepreneur. Share of female (male) peers with parents entrepreneur is the share of female (male) peers in a given school-cohort with at least one parent who is an entrepreneur. Parents is entrepreneur=1 if at least one of the individual's parents is an entrepreneur.

Table 2: Raw and residual variation in share of parents who are entrepreneurs

	Mean	St.Dev
Share of peers with at least one entrepreneur parent		
Raw cohort variable	0.117	0.072
Residuals after removing school, cohort and municipality x cohort FE	0.000	0.042

*Notes.* This table reports the raw and residual (net of school, cohort and municipality times cohort fixed effects) variation in the share of peers' parents who are entrepreneurs. Entrepreneurship includes business owners with employees and top managers of newly created firms.

Table 3: Balancing tests

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Age in 7th grade	Female					Mother unempl. in 7th grade			Log income in 7th grade		Lives with mother	Lives with father		0	Second-gen immigrant
Share of peers with parent entrepreneur	0.002	0.003	0.002	0.003	0.001	-0.001	0.002	0.002	-0.005	0.002	0.001	-0.002	0.002	0.001	-0.002	0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.005)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300

Notes. This table reports the coefficients of separate regressions of each individual characteristic on the share of peers with parents entrepreneur. All regressions include school, cohort and municipality times cohort fixed effects and control for an indicator for whether the individuals' parents are entrepreneur. All variables have been standardized. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\*\* p < 0.05, \*\*\* p < 0.01.

Table 4: Effects on the probability of and time spent in entrepreneurship by age 30

	(1)	(2)
	Ever entrepreneur	N.years as entrepreneur
Share of peers with parent entrepreneur	0.010***	0.030**
	(0.004)	(0.013)
Parents is entrepreneur	0.027***	0.090***
	(0.001)	(0.003)
Observations	788660	788660
School, cohort and municipality <b>x</b> cohort FE	X	X
Individual controls	X	X
Cohort controls	X	X
Mean dep. var	0.0238	0.0649
St.dev. share of peers	0.0716	0.0716

Notes. The dependent variable is an indicator for whether the individual ever entered entrepreneurship by age 30 (column (1)) and the number of years spent as entrepreneur by age 30 (column (2)). Share of peers with parent entrepreneur is the share of peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table 5: Effects on the probability of and time spent in entrepreneurship by age 28

	(1)	(2)
	Ever entrepreneur	N.years as entrepreneur
A. Women		
Share of peers with parent entrepreneur	0.008**	0.020*
	(0.003)	(0.010)
Parents is entrepreneur	0.008***	0.021***
	(0.001)	(0.002)
Observations	381314	381314
School, cohort and municipality x cohort FE	X	X
Individual controls	X	X
Cohort controls	X	X
Mean dep. var	0.0093	0.0227
St.dev. share of peers	0.0716	0.0716
B. Men		
Share of peers with parent entrepreneur	0.010*	0.009
	(0.006)	(0.016)
Parents is entrepreneur	0.033***	0.089***
	(0.001)	(0.004)
Observations	397188	397188
School, cohort and municipality x cohort FE	X	X
Individual controls	X	X
Cohort controls	X	X
Mean dep. var	0.0244	0.0570
St.dev. share of peers	0.0716	0.0716

Notes. The dependent variable is an indicator for whether the individual ever entered entrepreneurship by age 28 (column (1)) and the number of years spent as entrepreneur by age 28 (column (2)). Share of peers with parent entrepreneur is the share of peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.05, \*\*\* p < 0.01.

Table 6: Effects on the probability of entrepreneurship by age, gender and gender of peers

		Ever enti	repreneur	
	(1)	(2)	(3)	(4)
	by age $25$	by age 30	by age 35	by age 40
A. Women				
Share of female peers with parent entrepreneur	0.006***	0.007**	0.009**	0.005
	(0.002)	(0.003)	(0.004)	(0.005)
Share of male peers with parent entrepreneur	-0.001	-0.001	-0.001	-0.001
	(0.002)	(0.003)	(0.004)	(0.005)
Parents is entrepreneur	0.005***	0.011***	0.016***	0.021***
	(0.000)	(0.001)	(0.001)	(0.001)
Observations	390770	386507	382862	330081
School, cohort and municipality x cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.00474	0.0125	0.0206	0.0322
St.dev. share of female peers	0.0883	0.0883	0.0883	0.0883
St.dev. share of male peers	0.0870	0.0870	0.0870	0.0870
B. Men				
Share of female peers with parent entrepreneur	0.003	0.010**	0.001	-0.001
	(0.003)	(0.005)	(0.006)	(0.008)
Share of male peers with parent entrepreneur	-0.001	0.004	-0.004	-0.005
	(0.003)	(0.005)	(0.006)	(0.007)
Parents is entrepreneur	0.013***	0.043***	0.062***	0.075***
	(0.001)	(0.001)	(0.002)	(0.002)
Observations	407746	402146	396183	342964
School, cohort and municipality x cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.0107	0.0347	0.0570	0.0822
St.dev. share of female peers	0.0883	0.0883	0.0883	0.0883
St.dev. share of male peers	0.0870	0.0870	0.0870	0.0870

Notes. The dependent variable in all columns is an indicator for whether the individual ever entered entrepreneurship by the age considered. Share of female (male) peers with parent entrepreneur is the share of female (male) peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. Panel A reports estimates for women only; Panel B reports estimates for men only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table 7: Effects on the number of years as entrepreneur by age, gender and gender of peers

		N. years as entrepreneur						
	(1)	(2)	(3)	(4)				
	by age 25	by age 30	by age 35	by age 40				
A. Women								
Share of female peers with parent entrepreneur	0.012***	0.031***	0.051***	0.065**				
	(0.004)	(0.010)	(0.017)	(0.029)				
Share of male peers with parent entrepreneur	-0.003	-0.006	-0.012	-0.034				
	(0.004)	(0.010)	(0.017)	(0.029)				
Parents is entrepreneur	0.009***	0.032***	0.065***	0.112***				
	(0.001)	(0.003)	(0.004)	(0.007)				
Observations	390770	386507	382862	330081				
School, cohort and municipality x cohort FE	X	X	X	X				
Individual controls	X	X	X	X				
Cohort controls	X	X	X	X				
Mean dep. var	0.00911	0.0346	0.0733	0.136				
St.dev. share of female peers	0.0883	0.0883	0.0883	0.0883				
St.dev. share of male peers	0.0870	0.0870	0.0870	0.0870				
B. Men								
Share of female peers with parent entrepreneur	0.005	0.030*	0.033	0.036				
	(0.006)	(0.015)	(0.029)	(0.048)				
Share of male peers with parent entrepreneur	-0.005	-0.001	-0.016	-0.035				
	(0.006)	(0.016)	(0.028)	(0.046)				
Parents is entrepreneur	0.030***	0.146***	0.333***	0.551***				
	(0.002)	(0.005)	(0.010)	(0.016)				
Observations	407746	402146	396183	342964				
School, cohort and municipality x cohort FE	X	X	X	X				
Individual controls	X	X	X	X				
Cohort controls	X	X	X	X				
Mean dep. var	0.0202	0.0940	0.214	0.390				
St.dev. share of female peers	0.0883	0.0883	0.0883	0.0883				
St.dev. share of male peers	0.0870	0.0870	0.0870	0.0870				

Notes. The dependent variable in all columns is the number of years spent in entrepreneurship by the age considered. Share of female (male) peers with parent entrepreneur is the share of female (male) peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. Panel A reports estimates for women only; Panel B reports estimates for men only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table 8: Effects on firm performance for women

	Size (n. of employees)				Survival (years)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Below average	Above average	Below median	Above median	Below average	Above average	Below median	Above median	
A. Women									
Share of female peers with parent entrepr.	-0.001	0.004*	-0.001	0.005	0.003	0.004	0.002	0.005**	
	(0.006)	(0.002)	(0.005)	(0.003)	(0.004)	(0.002)	(0.004)	(0.002)	
Share of male peers with parent entrepr.	-0.002	-0.003	-0.001	-0.004	0.001	-0.002	0.001	-0.004	
	(0.006)	(0.002)	(0.006)	(0.003)	(0.004)	(0.002)	(0.003)	(0.002)	
Parents is entrepreneur	0.021***	0.006***	0.016***	0.013***	0.013***	0.007***	0.012***	0.008***	
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	
Observations	395080	395080	395080	395080	395080	395080	395080	395080	
Mean dep. var	0.0565	0.00762	0.0505	0.0175	0.0199	0.00715	0.0189	0.00826	
St.dev. share of female peers	0.0883	0.0883	0.0883	0.0883	0.0883	0.0883	0.0883	0.0883	
St.dev. share of male peers	0.0870	0.0870	0.0870	0.0870	0.0870	0.0870	0.0870	0.0870	

Notes. The dependent variables in columns (1)-(4) are indicators for whether the individual created a firm with less or more than the average/median number of employees within the observation period. The dependent variables in columns (5)-(8) are indicators for whether the individual created a firm that survived less or more than the average/median number of years within the observation period. Smong the sample of female entrepreneurs the median (average) firm size is 4 (8) and the median (average) survival is 8 (9) years. Share of female (male) peers with parent entrepreneur is the share of female (male) peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. The table reports estimates for women only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p< 0.1, \*\* p< 0.05, \*\*\* p< 0.01.

Table 9: Effects on the probability of entrepreneurship by age, gender of peers and gender of parents for women

		Ever enti	repreneur	
	(1)	(2)	(3)	(4)
	by age 25	by age 30	by age 35	by age 40
Share of female peers with father entrepreneur	0.007***	0.005*	0.008**	0.002
	(0.002)	(0.003)	(0.004)	(0.005)
Share of female peers with mother entrepreneur	-0.000	0.010	0.010	0.010
	(0.004)	(0.007)	(0.009)	(0.011)
Share of male peers with father entrepreneur	-0.003	-0.001	-0.001	-0.002
	(0.002)	(0.003)	(0.004)	(0.005)
Share of male peers with mother entrepreneur	0.009*	0.003	-0.001	0.006
	(0.005)	(0.007)	(0.009)	(0.012)
Father is entrepreneur	0.003***	0.008***	0.013***	0.017***
	(0.000)	(0.001)	(0.001)	(0.001)
Mother is entrepreneur	0.009***	0.022***	0.029***	0.041***
	(0.001)	(0.002)	(0.003)	(0.004)
Observations	390770	386507	382862	330081
School, cohort and municipality x cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.00474	0.0125	0.0206	0.0322
St.dev. share of female peers (fathers)	0.0830	0.0830	0.0830	0.0830
St.dev. share of female peers (mothers)	0.0305	0.0305	0.0305	0.0305
St.dev. share of male peers (fathers)	0.0816	0.0816	0.0816	0.0816
St.dev. share of male peers (mothers)	0.0295	0.0295	0.0295	0.0295

Notes. The dependent variable in all columns is an indicator for whether the individual ever entered entrepreneurship by the age considered. Share of female (male) peers with mother/father entrepreneur is the share of female (male) peers with mother/father who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. The table reports estimates for women only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table 10: Effects on the number of years as entrepreneur by age, gender of peers and gender of parents for women

		N. years as	entrepreneur	
	(1)	(2)	(3)	(4)
	by age 25	by age 30	by age 35	by age 40
Share of female peers with father entrepreneur	0.013***	0.032***	0.047***	0.064**
	(0.004)	(0.011)	(0.018)	(0.030)
Share of female peers with mother entrepreneur	0.001	0.018	0.050	0.046
	(0.009)	(0.023)	(0.041)	(0.065)
Share of male peers with father entrepreneur	-0.006	-0.012	-0.021	-0.045
	(0.004)	(0.010)	(0.018)	(0.030)
Share of male peers with mother entrepreneur	0.022**	0.043*	0.043	0.031
	(0.010)	(0.024)	(0.041)	(0.069)
Father is entrepreneur	0.006***	0.024***	0.050***	0.092***
	(0.001)	(0.003)	(0.005)	(0.007)
Mother is entrepreneur	0.018***	0.070***	0.129***	0.200***
	(0.004)	(0.008)	(0.014)	(0.021)
Observations	390770	386507	382862	330081
School, cohort and municipality x cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.00911	0.0346	0.0733	0.136
St.dev. share of female peers (fathers)	0.0830	0.0830	0.0830	0.0830
St.dev. share of female peers (mothers)	0.0305	0.0305	0.0305	0.0305
St.dev. share of male peers (fathers)	0.0816	0.0816	0.0816	0.0816
St.dev. share of male peers (mothers)	0.0295	0.0295	0.0295	0.0295

Notes. The dependent variable in all columns is the number of years spent in entrepreneurship by the age considered. Share of female (male) peers with mother/father entrepreneur is the share of female (male) peers with mother/father who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. The table reports estimates for women only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

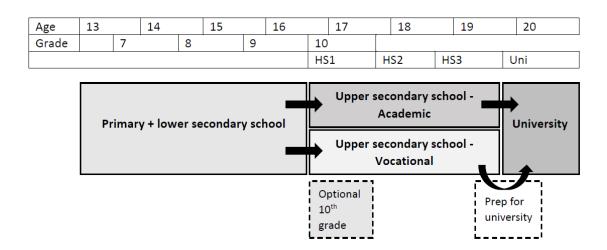
Table 11: Effects on other occupations by gender of peers for women

	Ev	ver in occupation
	(1) Teachers	(2) Architects & engineers
Share of female peers with parent teacher	0.002	
	(0.007)	
Share of male peers with parent teacher	0.001	
	(0.007)	
Parent is teacher	0.076***	
	(0.003)	
Share of female peers with parent architect/engineer		-0.001
		(0.003)
Share of male peers with parent architect/engineer		0.001
		(0.004)
Parent is architect/engineer		0.014***
		(0.001)
Observations	395080	395080
School, cohort and municipality x cohort FE	X	X
Individual controls	$\mathbf{X}$	X
Cohort controls	X	X
Mean dep. var	0.0451	0.0394
St.dev. share of female peers	0.0579	0.114
St.dev. share of male peers	0.0570	0.111

Notes. The dependent variable is an indicator for whether the individual has ever been an teacher (column (1)) or an architect / engineer (column (2)) within the observation period. Share of female (male) peers with parents teacher is the share of female (male) peers with a parent who is a teacher during the exposure period. Share of female (male) peers with parents architect@engineer is the share of female (male) peers with a parent who is an architect/engineer during the exposure period. The table reports estimates for women only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

## A Other Tables and Figures

Figure A1: Schooling in Denmark



*Notes.* This figure illustrate the Danish education system from age 7 to higher education. Our treatment period goes from grade 7 to grade 9, when students are between 13-14 years old and 15-16 years old.

Table A1: Raw and residual variation in share of parents who are entrepreneurs

	Mean	St.Dev
A Chang of family many with at least one entrepressing manent		
A. Share of female peers with at least one entrepreneur parent	0.116	0.000
Raw cohort variable	0.116	0.088
Residuals after removing school, cohort and municipality x cohort FE	0.000	0.061
B. Share of male peers with at least one entrepreneur parent		
Raw cohort variable	0.117	0.087
Residuals after removing school, cohort and municipality <b>x</b> cohort FE	0.000	0.060

*Notes.* This table reports the raw and residual (net of school, cohort and municipality times cohort fixed effects) variation in the share of female (panel A) and male (panel B) peers' parents who are entrepreneurs. Entrepreneurship includes business owners with employees and top managers of newly created firms.

Figure A2: Number of observation by age

Notes. The figure plots the number of observation per age, from 18 to 52.

52

Table A2: Balancing tests - gender of peers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	Age in 7th grade			Mother age in 7th grade		Mother unempl. in 7th grade				$\begin{array}{c} \text{Lives with} \\ \text{mother} \end{array}$	Lives with father	N. siblings	Born in Denmark	First-gen immigrant		N. boys	N.girls
A. Women																	
Share of female peers with parents entrepreneur	0.001	0.004*	0.002	0.001	-0.000	0.002	0.001	0.002	0.000	-0.003	0.005**	0.001	-0.001	0.001	0.002	-0.009**	0.000
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)
Observations	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080
Share of male peers with parents entrepreneur	-0.000	0.001	0.001	-0.002	0.001	0.000	-0.001	-0.002	0.000	-0.000	0.000	-0.001	0.006***	-0.006***	-0.001	-0.002	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.004)	(0.005)
Observations	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080	395080
B. Men																	
Share of female peers with parents entrepreneur	-0.001	0.002	-0.002	-0.001	0.002	-0.000	0.002	0.005**	0.003	-0.003	0.001	0.001	0.001	-0.001	0.004*	-0.008*	-0.001
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)
Share of male peers with parents entrepreneur	0.004**	-0.001	0.002	0.007***	0.000	-0.003	0.001	-0.000	-0.000	0.000	-0.002	0.003	0.000	-0.000	0.001	-0.003	-0.001
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)
Observations	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213	412213

Notes. This table reports the coefficients of separate regressions of each individual characteristic on the share of female and male peers with parents entrepreneur, estimated separately for men (panel A) and for women (panel B). All variables have been standardized. All regressions include school, cohort and municipality times cohort fixed effects and control for an indicator for whether the individuals' parents are entrepreneur. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table A3: Test of statistical difference of coefficients in Figure 4, Panel (a)

	Ever entrepreneur	SE	p-value
Age 18	0.000	0.000	0.693
Age 18	0.000	0.000	0.693
Age 19	0.000	0.001	0.668
${\rm Age}~20$	0.001	0.001	0.113
${\rm Age}\ 21$	0.002	0.001	0.189
${\rm Age}\ 22$	0.002	0.001	0.151
${\rm Age}~23$	0.002	0.002	0.397
${\rm Age}\ 24$	0.004*	0.002	0.093
$\rm Age~25$	0.008***	0.003	0.003
$\rm Age~26$	0.007**	0.003	0.028
${\rm Age}\ 27$	0.004	0.003	0.197
$\rm Age~28$	0.006	0.004	0.115
${\rm Age}\ 29$	0.010**	0.004	0.017
${\rm Age}~30$	0.007	0.004	0.107
${\rm Age}\ 31$	0.009*	0.005	0.054
${\rm Age}\ 32$	0.009*	0.005	0.069
${\rm Age}~33$	0.008	0.005	0.126
${\rm Age}~34$	0.009	0.005	0.108
${\rm Age}~35$	0.011*	0.006	0.058
${\rm Age}~36$	0.010*	0.006	0.072
${\rm Age}~37$	0.009	0.006	0.130
${\rm Age}~38$	0.008	0.006	0.178
${\rm Age}~39$	0.006	0.007	0.374
Age 40	0.006	0.007	0.415

Notes. This table presents the results of the test of statistical difference of coefficients  $\beta_1$  and  $\beta_2$  in the estimating regression (2) for women. The dependent variable in equation (2) is an indicator for whether the individual ever entered entrepreneurship by the age considered. \* p< 0.1, \*\* p< 0.05, \*\*\* p< 0.01.

Table A4: Test of statistical difference of coefficients in Figure 4, Panel (c)

	N. years as entrepreneur	SE	p-value
Age 18	0.000	0.000	0.571
Age 18	0.000	0.000	0.571
Age 19	0.001	0.001	0.351
${\rm Age}~20$	0.002	0.001	0.154
${\rm Age}\ 21$	0.002	0.002	0.177
${\rm Age}\ 22$	0.004*	0.002	0.087
${\rm Age}\ 23$	0.005	0.003	0.166
${\rm Age}\ 24$	0.008*	0.005	0.073
$\rm Age~25$	0.015**	0.006	0.013
${\rm Age}~26$	0.019**	0.007	0.012
${\rm Age}\ 27$	0.021**	0.009	0.023
${\rm Age}\ 28$	0.027**	0.011	0.015
${\rm Age}\ 29$	0.034***	0.013	0.008
${\rm Age}~30$	0.038**	0.015	0.012
${\rm Age}\ 31$	0.043**	0.017	0.012
${\rm Age}\ 32$	0.050***	0.019	0.010
${\rm Age}~33$	0.056***	0.022	0.010
${\rm Age}~34$	0.061***	0.024	0.010
${\rm Age}~35$	0.067***	0.026	0.010
${\rm Age}~36$	0.070**	0.028	0.014
${\rm Age}~37$	0.072**	0.031	0.019
${\rm Age}~38$	0.078**	0.033	0.019
${\rm Age}~39$	0.086**	0.037	0.022
Age 40	0.104**	0.042	0.014

Notes. This table presents the results of the test of statistical difference of coefficients  $\beta_1$  and  $\beta_2$  in the estimating regression (2) for women. The dependent variable in equation (2) is is the number of years spent in entrepreneurship by the age considered. \* p< 0.1, \*\*\* p< 0.05, \*\*\*\* p< 0.01.

Table A5: Effects on educational choices controlling for parents educational qualifications

		Highest educa	tion achieved	
	(1)	(2)	(3)	(4)
	Lower secondary	Upper secondary academic	Upper secondary vocational	Higher education
Share of female peers with parent entrepr.	-0.011	-0.003	0.023**	-0.009
	(0.008)	(0.006)	(0.012)	(0.012)
Share of male peers with parent entrepr.	0.001	-0.002	-0.011	0.012
	(0.008)	(0.006)	(0.012)	(0.013)
Parents is entrepreneur	-0.013***	0.003**	-0.005**	0.015***
	(0.002)	(0.001)	(0.002)	(0.003)
Observations	395080	395080	395080	395080
School, cohort and municipality <b>x</b> cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.129	0.0630	0.353	0.455
St.dev. share of female peers	0.0883	0.0883	0.0883	0.0883
St.dev. share of male peers	0.0870	0.0870	0.0870	0.0870

Notes. The dependent variable is an indicator for whether the highest education achieved by women at the end of the observation period is lower secondary (column (1)), upper secondary academic (column (2)), upper secondary vocational (column (3)), or higher education (column (4)). Share of female (male) peers with parent entrepreneur is the share of female (male) peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. The Table reports estimates for women only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers, share of first- and second-generation immigrants peers, and share of peers with parents with different educational qualifications by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

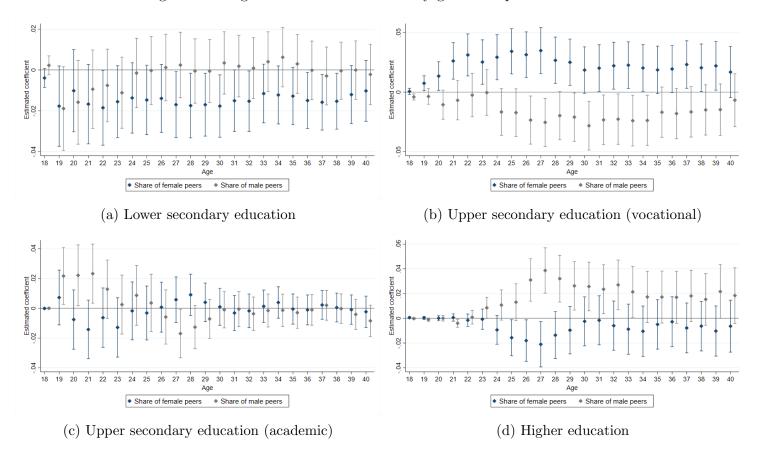


Figure A3: Highest education achieved by gender of peers for women

Notes. This figure plots the regression coefficients and 90% confidence intervals from estimating equation (2) for women. The dependent variable for each age-regression is an indicator for whether the highest education achieved by that age is lower secondary education (a), upper secondary vocational education (b), upper secondary academic education (c) or higher education (d). Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

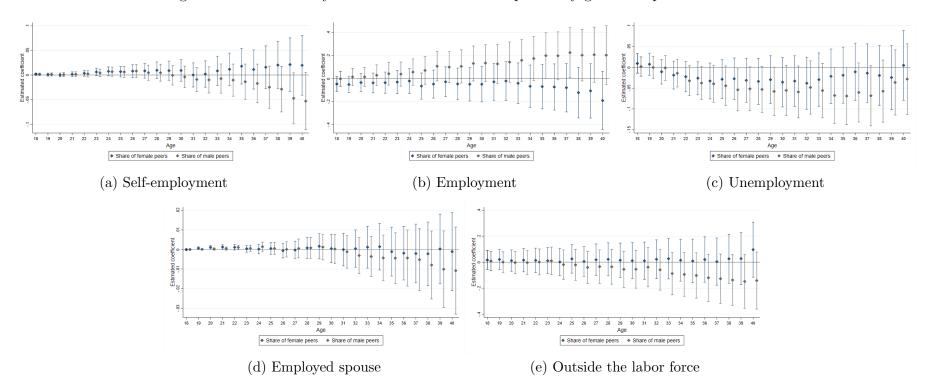
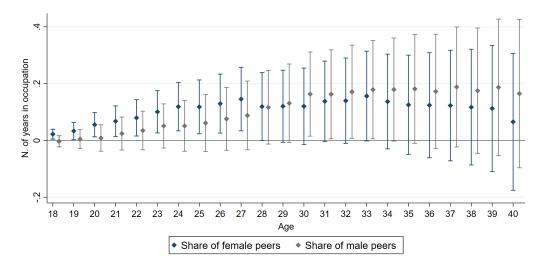


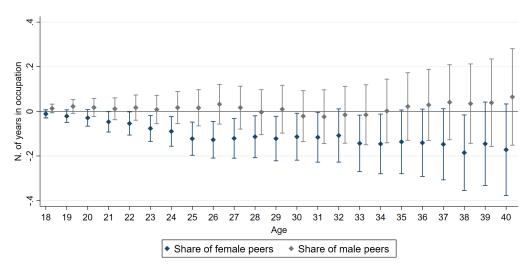
Figure A4: Number of years in counterfactual occupation by gender of peers for women

Notes. This figure plots the regression coefficients  $\beta_1$  and  $\beta_2$  and 90% confidence intervals from estimating equation (2) for women (a) and men (b). The dependent variable for each age-regression is the number of years spent as self-employed by that age. Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Figure A5: Number of years spent in paid employment by gender of peers for women



## (a) High-pay employment



(b) Low-pay employment

Notes. This figure plots the regression coefficients  $\beta_1$  and  $\beta_2$  and 90% confidence intervals from estimating equation (2) for each age for women. The dependent variable for each age-regression is the number of years spent in high-pay employment (Panel (a)) and low-pay employment (Panel (b)) until that age. High-pay (low-pay) employment is defined as paid employment with a wage above (below) the median. The regression coefficient  $\beta_1$  and 90% confidence intervals from estimating equations (2) is also reported for comparison. Entrepreneurship includes business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

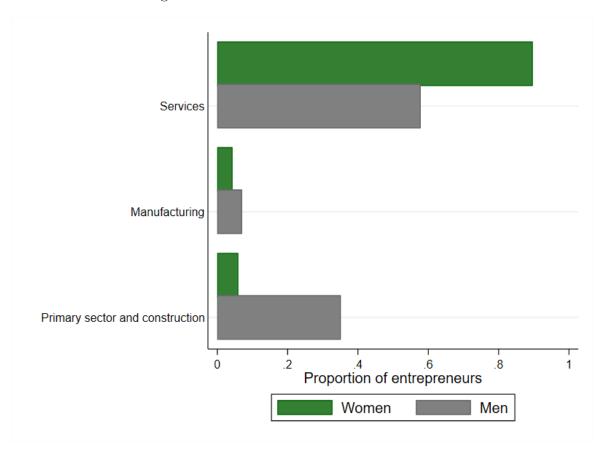
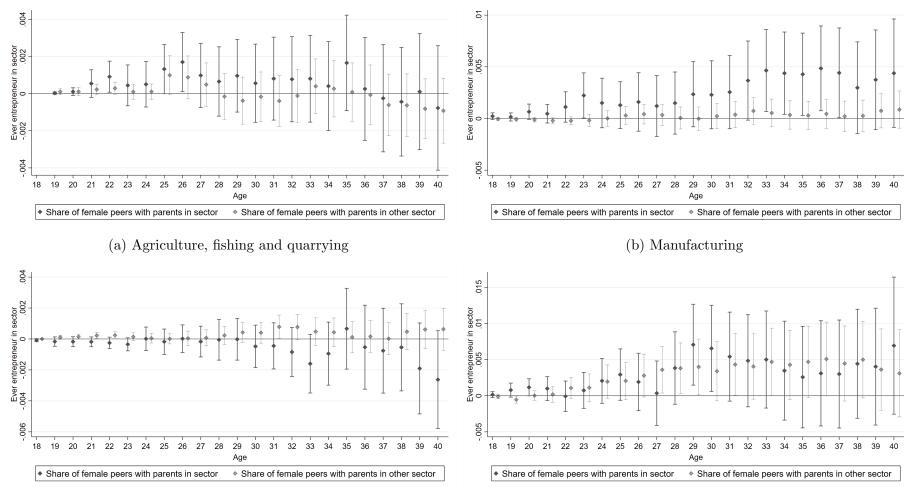


Figure A6: Gender distribution across sectors

*Notes.* The figure plots the distribution of women and men entrepreneur across sectors. Both the green bars (representing the distribution of women) and the grey bars (representing the distribution of men) sum up to 100%.

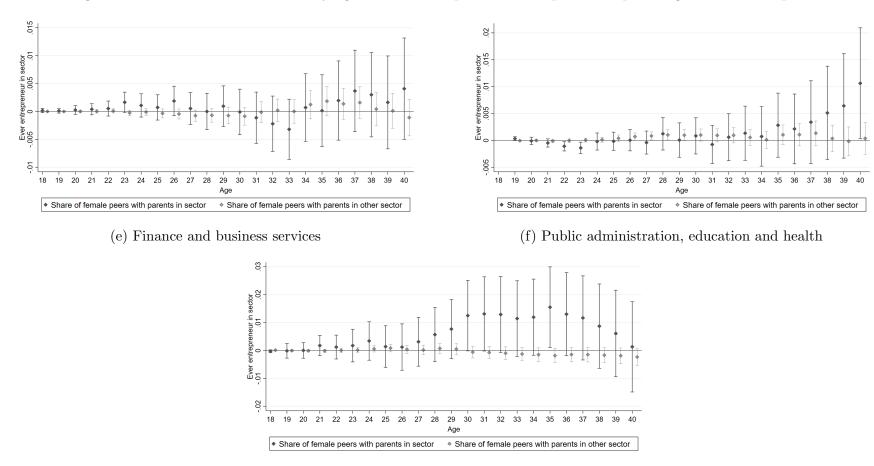
Figure A7: Effects on sector choice by age for women exposed to entrepreneurship through their female peers



(c) Construction and utility services

(d) Trade, retail, transport, tourism, hospitality

Figure A7: Effects on sector choice by age for women exposed to entrepreneurship through their female peers



This figure plots the regression coefficients  $\beta_1$  and  $\beta_2$  and 90% confidence intervals from estimating equation (4) for each age for women. The dependent variable for each age-regression is an indicator for whether the individual has ever been an entrepreneur in that sector by the age considered. Share of female peers with parent entrepr. in sector is the share of female peers with parent who is entrepreneur in that sector during the exposure period. Share of female peers with parent entrepr. in any other sector is the share of female peers with parent who is entrepreneur in any other sector during the exposure period. Entrepreneurs are defined as business owners with employees and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

(g) Other service activities

## B Alternative definition of entrepreneurship

Table B1: Descriptive statistics by type of entrepreneur

	Wide d	efinition	Narrow	definition
	Mean	St.Dev	Mean	St.Dev
A: Cohort parents variables				
Share of peers with parent entrepreneur	0.221	0.112	0.233	0.117
Share of female peers with parent entrepreneur	0.220	0.131	0.231	0.136
Share of male peers with parent entrepreneur	0.222	0.128	0.234	0.133
B: Cohort parents variables (narrow definition)				
Share of peers with parent entrepreneur	0.120	0.074	0.126	0.075
Share of female peers with parent entrepreneur	0.119	0.091	0.125	0.093
Share of male peers with parent entrepreneur	0.120	0.089	0.126	0.091
C: Other cohort variables				
Number of students	54.393	24.566	55.411	24.950
Number of girls	26.560	12.921	27.014	13.145
Number of boys	27.834	12.817	28.397	12.975
D: Own parents status				
Parent is entrepreneur (wide)	0.301	0.459	0.362	0.481
Parent is entrepreneur (narrow)	0.169	0.374	0.221	0.415
E: Other individual characteristics				
Age when first entrepreneur (wide)	29.899	5.776	29.114	5.202
Age when first entrepreneur (narrow)	31.540	5.718	30.855	5.079
Female	0.317	0.465	0.275	0.447
Lower secondary education	0.166	0.372	0.166	0.373
Upper secondary (academic) education	0.078	0.269	0.062	0.242
Upper secondary (vocational) education	0.423	0.494	0.551	0.497
Higher education	0.333	0.471	0.220	0.414
Is a first-generation immigrant	0.015	0.122	0.020	0.139
Is a second-generation immigrant	0.011	0.105	0.011	0.104
Went abroad for some time	0.161	0.368	0.120	0.324
Observations	113994		38960	

Notes. This Table reports descriptive statistics for the whole sample and for men and women separately. Our sample includes adolescents in grades 7 through 9 between 1980 and 1992 with at least 10 peers. The wide definition of entrepreneurship includes business owners (with or without employees) and top managers of newly created firms. The narrow definition excludes self-employed without employees. Ever entrepreneur=1 if the individual ever entered entrepreneurship. Share of peers with parents entrepreneur is the share of peers in a given school-cohort with at least one parent who is an entrepreneur. Share of female (male) peers with parents entrepreneur is the share of female (male) peers in a given school-cohort with at least one parent who is an entrepreneur. Parents is entrepreneur=1 if at least one of the individual's parents is an entrepreneur.

Table B2: Descriptive statistics (wide definition)

	All s	ample	Wo	men	M	en
	Mean	St.Dev	Mean	St.Dev	Mean	St.Dev
A: Outcome variables						
Ever entrepreneur	0.141	0.348	0.091	0.288	0.189	0.391
Ever entrepreneur by 25	0.036	0.186	0.018	0.133	0.053	0.225
Ever entrepreneur by 30	0.077	0.267	0.042	0.200	0.111	0.315
Ever entrepreneur by 35	0.116	0.320	0.069	0.254	0.161	0.368
Ever entrepreneur by 40	0.166	0.372	0.108	0.311	0.222	0.415
N. of years as entrepreneur	0.669	2.266	0.376	1.629	0.950	2.711
B: Cohort variables						
Share of peers with parent entrepr.	0.216	0.109	0.216	0.109	0.216	0.110
Share of female peers with parent entrepr.	0.214	0.128	0.214	0.127	0.214	0.129
Share of male peers with parent entrepr.	0.217	0.126	0.217	0.125	0.217	0.127
Number of students	55.061	24.251	55.329	24.259	54.803	24.240
Number of girls	27.078	12.769	27.767	12.740	26.416	12.761
Number of boys	27.983	12.673	27.561	12.682	28.387	12.651
Share of first-generation immigrants	0.008	0.024	0.009	0.025	0.008	0.024
Share of second-generation immigrants	0.007	0.027	0.007	0.027	0.007	0.026
C: Individual characteristics						
Female	0.489	0.500	1.000	0.000	0.000	0.000
Parents is entrepreneur	0.216	0.411	0.214	0.410	0.217	0.412
Lower secondary education	0.154	0.361	0.129	0.335	0.177	0.382
Upper secondary (academic) education	0.063	0.242	0.063	0.243	0.062	0.242
Upper secondary (vocational) education	0.386	0.487	0.353	0.478	0.417	0.493
Higher education	0.398	0.489	0.455	0.498	0.344	0.475
Is a first-generation immigrant	0.008	0.092	0.008	0.090	0.009	0.094
Is a second-generation immigrant	0.007	0.086	0.007	0.085	0.008	0.087
Went abroad for some time	0.163	0.369	0.164	0.370	0.162	0.368
Observations	807	7300	395	5087	412	2213
Schools	17	702	17	702	17	702
Cohorts	1	3	1	.3	1	.3
Municipalities	2	75	2	75	2	75

Notes. This Table reports descriptive statistics for the whole sample and for men and women separately. Our sample includes adolescents in grades 7 through 9 between 1980 and 1992 with at least 10 peers, who are observed until 40 years old. Entrepreneurship is defined as business owners (with and without) employees and top managers of newly created firms. Ever entrepreneur=1 if the individual ever entered entrepreneurship. Share of peers with parents entrepreneur is the share of peers in a given school-cohort with at least one parent who is an entrepreneur. Share of female (male) peers with parents entrepreneur is the share of female (male) peers in a given school-cohort with at least one parent who is an entrepreneur. Parents is entrepreneur=1 if at least one of the individual's parents is an entrepreneur.

Table B3: Raw and residual variation in share of parents who are entrepreneurs

	Mean	St.Dev
A. Share of peers with at least one entrepreneur parent		
Raw cohort variable	0.216	0.109
Residuals after removing school, cohort and municipality <b>x</b> cohort FE	0.000	0.054
B. Share of female peers with at least one entrepreneur parent		
Raw cohort variable	0.214	0.128
Residuals after removing school, cohort and municipality <b>x</b> cohort FE	0.000	0.080
C. Share of male peers with at least one entrepreneur parent		
Raw cohort variable	0.217	0.126
Residuals after removing school, cohort and municipality <b>x</b> cohort FE	0.000	0.076

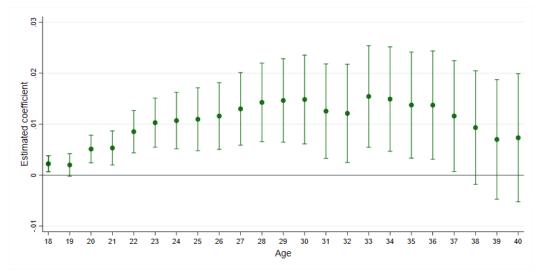
*Notes.* This table reports the raw and residual (net of school, cohort and municipality times cohort fixed effects) variation in the share of peers' parents who are entrepreneurs. The wide definition of entrepreneurship includes business owners (with or without employees) and top managers of newly created firms. The narrow definition excludes self-employed without employees.

Table B4: Balancing tests - wide definition

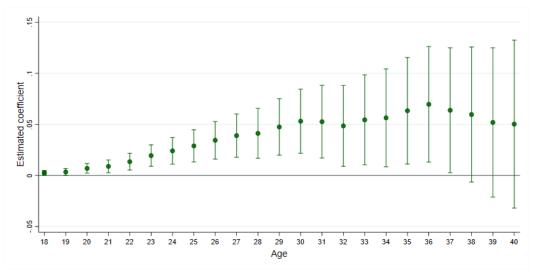
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
						Mother unempl. in 7th grade	Father unempl. in 7th grade			Lives with mother					Second-gen immigrant		N.girls
Share of peers with parent entrepreneur	0.002	0.002	0.002	0.003	0.003	0.003	-0.000	0.002	0.004	-0.001	0.002	-0.003	0.002	0.005**	0.003	-0.003	0.008**
	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.005)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)
Observations	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300	807300

Notes. This table reports the coefficients of separate regressions of each individual characteristic on the share of peers with parents entrepreneur. All regressions include school, cohort and municipality times cohort fixed effects and control for an indicator for whether the individuals' parents are entrepreneur. All variables have been standardized. Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\*\* p < 0.05, \*\*\*\* p < 0.01.

Figure B1: Effect of exposure by age



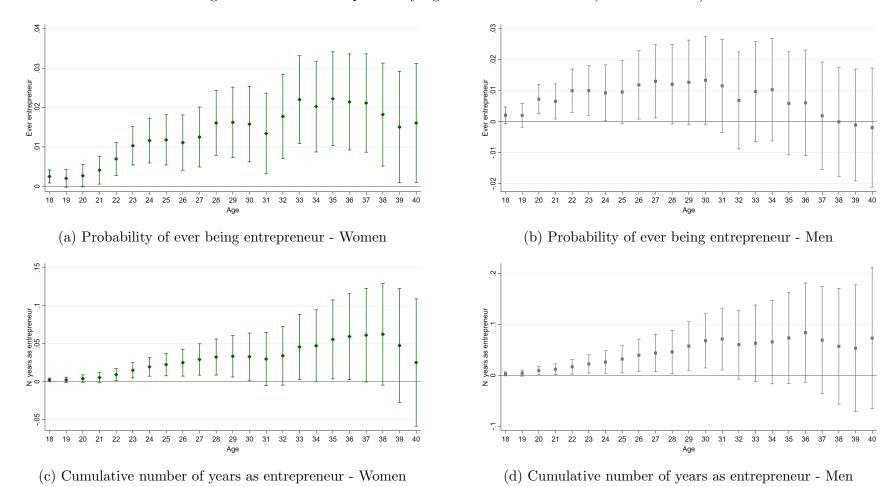
(a) Probability of ever being entrepreneur by age (wide definition)



(b) Cumulative number of years as entrepreneur by age

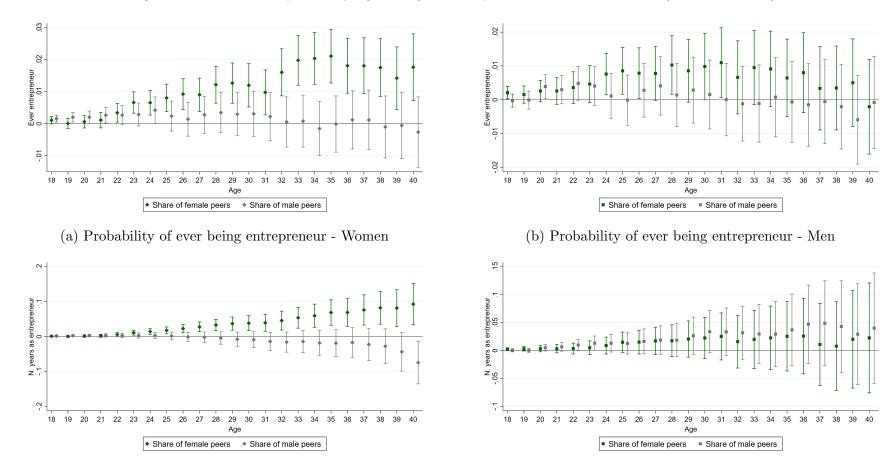
Notes. This figure plots the regression coefficients and 90% confidence intervals from estimating equation (1) for each age. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age in panel (a) and the cumulative number of years spent in entrepreneurship until that age in panel (b). Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Figure B2: Effect of exposure by age for men and women (wide definition)



Notes. This figure plots the regression coefficients and 90% confidence intervals from estimating equation (1) for each age, and for men and women separately. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age in panel (a) for women and (b) for men, and the cumulative number of years spent in entrepreneurship until that age in panel (c) for women and (d) for men. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age. Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Figure B3: Effect of exposure by age and gender of peers for men and women (wide definition)



(c) Cumulative number of years as entrepreneur - Women

(d) Cumulative number of years as entrepreneur - Men

Notes. This figure plots the regression coefficients and 90% confidence intervals from estimating equation (1) for each age, and for men and women separately. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age in panel (a) for women and (b) for men, and the cumulative number of years spent in entrepreneurship until that age in panel (c) for women and (d) for men. The dependent variable for each age-regression is the probability of ever being entrepreneur by that age. Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors are clustered at the school level.

Table B5: Effects on the probability of entrepreneurship by age (wide definition)

	Ever entrepreneur						
	(1)	(2)	(3)	(4)			
	by age 25	by age 30	by age 35	by age 40			
Share of peers with parent entrepreneur	0.011***	0.014***	0.013**	0.008			
	(0.004)	(0.005)	(0.006)	(0.008)			
Parents is entrepreneur	0.025***	0.050***	0.065***	0.074***			
	(0.001)	(0.001)	(0.001)	(0.001)			
Observations	798632	789258	780525	685220			
School, cohort and municipality <b>x</b> cohort FE	X	X	X	X			
Individual controls	X	X	X	X			
Cohort controls	X	X	X	X			
Mean dep. var	0.0361	0.0773	0.116	0.166			
St.dev. share of peers	0.109	0.109	0.109	0.109			

Notes. The dependent variable is all columns is an indicator for whether the individual ever entered entrepreneurship by the age considered. Share of peers with parent entrepreneur is the share of peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table B6: Effects on the number of years as entrepreneur by age (wide definition)

	N. years as entrepreneur						
	(1)	(2)	(3)	(4)			
	by age 25	by age 30	by age 35	by age 40			
Share of peers with parent entrepreneur	0.028***	0.050***	0.057*	0.041			
	(0.009)	(0.019)	(0.032)	(0.051)			
Parents is entrepreneur	0.062***	0.190***	0.368***	0.578***			
	(0.002)	(0.004)	(0.007)	(0.010)			
Observations	798632	789258	780525	685220			
School, cohort and municipality <b>x</b> cohort FE	X	X	X	X			
Individual controls	X	X	X	X			
Cohort controls	X	X	X	X			
Mean dep. var	0.0759	0.222	0.441	0.788			
St.dev. share of peers	0.109	0.109	0.109	0.109			

Notes. The dependent variable in all columns is the number of years spent in entrepreneurship by the age considered. Share of peers with parent entrepreneur is the share of peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table B7: Effects on the probability of entrepreneurship by age and gender (wide definition)

		Ever ent	repreneur	
	(1)	(2)	(3)	(4)
	by age $25$	by age 30	by age 35	by age 40
A. Women				
Share of peers with parent entrepreneur	0.012***	0.016***	0.022***	0.020**
	(0.004)	(0.006)	(0.007)	(0.009)
Parents is entrepreneur	0.013***	0.024***	0.034***	0.043***
	(0.001)	(0.001)	(0.001)	(0.001)
Observations	390797	386605	383109	333796
School, cohort and municipality <b>x</b> cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.0179	0.0418	0.0691	0.108
St.dev. share of peers	0.109	0.109	0.109	0.109
B. Men				
Share of peers with parent entrepreneur	0.009	0.012	0.005	-0.004
	(0.006)	(0.009)	(0.010)	(0.012)
Parents is entrepreneur	0.037***	0.075***	0.094***	0.103***
	(0.001)	(0.002)	(0.002)	(0.002)
Observations	407828	402646	397409	351387
School, cohort and municipality <b>x</b> cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.0534	0.111	0.161	0.222
St.dev. share of peers	0.109	0.109	0.109	0.109

Notes. The dependent variable is all columns is an indicator for whether the individual ever entered entrepreneurship by the age considered. Share of peers with parent entrepreneur is the share of peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table B8: Effects on the probability of entrepreneurship by age, gender and gender of peers (wide definition)

		Ever enti	repreneur	
	(1)	(2)	(3)	(4)
	by age $25$	by age 30	by age $35$	by age 40
A. Women				
Share of female peers with parent entrepreneur	0.008***	0.013***	0.021***	0.019***
	(0.003)	(0.004)	(0.005)	(0.006)
Share of male peers with parent entrepreneur	0.003	0.003	-0.000	0.000
	(0.003)	(0.004)	(0.005)	(0.007)
Parents is entrepreneur	0.013***	0.024***	0.034***	0.043***
	(0.001)	(0.001)	(0.001)	(0.001)
Observations	390797	386605	383109	333796
School, cohort and municipality x cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.0179	0.0418	0.0691	0.108
St.dev. share of female peers	0.128	0.128	0.128	0.128
St.dev. share of male peers	0.126	0.126	0.126	0.126
B. Men				
Share of female peers with parent entrepreneur	0.009**	0.010	0.005	-0.002
	(0.004)	(0.006)	(0.007)	(0.008)
Share of male peers with parent entrepreneur	-0.000	0.002	0.000	-0.002
	(0.004)	(0.006)	(0.007)	(0.008)
Parents is entrepreneur	0.037***	0.075***	0.094***	0.103***
	(0.001)	(0.002)	(0.002)	(0.002)
Observations	407828	402646	397409	351387
School, cohort and municipality x cohort FE	X	X	X	X
Individual controls	X	X	X	X
Cohort controls	X	X	X	X
Mean dep. var	0.0534	0.111	0.161	0.222
St.dev. share of female peers	0.128	0.128	0.128	0.128
St.dev. share of male peers	0.126	0.126	0.126	0.126

Notes. The dependent variable in all columns is an indicator for whether the individual ever entered entrepreneurship by the age considered. Share of female (male) peers with parent entrepreneur is the share of female (male) peers with at least one parent who is entrepreneur during the exposure period. Entrepreneurs are defined as business owners (with or without employees) and top managers of newly created firms. Panel A reports estimates for women only; Panel B reports estimates for men only. All regressions include school, cohort and municipality times cohort fixed effects, as well as individual and cohort level controls. Individual controls include age, living with family indicators, number of siblings, indicators for being first- and second-generation immigrants, parents' income, parents' age and parents' education at the beginning of the exposure period. Cohort level controls include cohort size, share of female peers and share of first- and second-generation immigrants peers by school-cohort. Standard errors clustered at the school level in parentheses. \* p< 0.1, \*\* p< 0.05, \*\*\* p< 0.01.