Female representation and talent allocation in entrepreneurship: the role of early exposure to entrepreneurs

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• Women are only between 1/5 & 1/3 of entrepreneurs in OECD countries



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 - ► ↑ Female representation in traditionally **male-dominated occupations** increases aggregate performance via better allocation of talent in the economy (Hsieh et al 2019)
 - ► Entrepreneurship plays a key for job creation (Deker et al 2014; Klenow and Li 2021) \rightarrow costs of untapped entrepreneurial potential may be particularly large
- Yet, surprisingly little is known about:
 - 1. What could encourage female entrepreneurship
 - 2. Whether we would tap into more entrepreneurial talent





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- ✓ Within schools across cohorts quasi-random variation in the share of peers with entrepreneur parents during the last years of compulsory school (age 13-16)
- ▶ ii) Need to track individuals from adolescents into adulthood
- ✓ Leverage large-scale longitudinal nature of Danish data follow the entire education and career history of ≈ 1 million individuals until they are 40 years old



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- Answering this question requires obtaining two crucial pieces of information:
 i) Whether marginal women are productive entrepreneurs
 ii) What would have been their productivity outside entrepreneurship
- ✓ Thanks to unique features of our data we can:
 - i) Study if \uparrow F entrepr. is associated with creation of successful firms
 - ii) Identify women's counterfactual education and career trajectories
 - \star Shed light on women's **private returns** from entering entrepreneurship
 - ★ Partially shed light on social impact associated w/ reallocation of women to entrepr.

Roadmap

Data and Empirical strategy

Female representation in entrepreneurship

Talent allocation in entrepreneurship

Plausible mechanisms

Conclusions

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- Exploit variation in share of peers with entrepr. parents within-school and across cohorts
 - \rightarrow Students in same school share the same environment
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▶ Treat composition of parental occupation by cohort within-school as quasi-random

- \rightarrow Parents unlikely to be aware of cohort-to-cohort variation in the percentage of students with entrepreneurs parents within a particular school
- → Balancing tests show that cohort-to-cohort variation in the share of peers with entrepr. parents is uncorrelated with students background characteristics (Lavy and Schlosser 2011)
 Balancing tests

Empirical strategy and validity of interpretation

For each girls i (replicate for boys) attending school s in cohort c:

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

- Y_{isc}: (i) indicator for ever being an entrepreneur; (ii) number of years spent in entrepreneurship
- $Entrepr_{-i,sc} = \frac{\sum_{k \neq i} Entrepr_{ksc}}{n_{sc}-1}$; Share of peers with at least one entrepreneur parent (*leave-one-out*)
- Parent_{isc} is equal to 1 if individual i has an entrepreneur parent
- γ_s , γ_c , γ_m are school, cohort, municipality FE.
- X_{isc} and Z_{isc} control for individual & peers / peers' parents characteristics → Isolate the effect of early exposure to entrepreneurs conditional on other parental characteristics

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Early exposure increases girls' entry into entrepreneurship



(a) Effect of overall exposure

% Change in girls' prob. of having started a firm 25th \rightarrow 75th pct in exposure (from 6 to 17%)

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 \rightarrow Does gender of peers matter?

 Adolescents interact w/ same-sex peers more
 Boys & girls have different type of friendships (Rose and Rudolph 2006; Perry and Pauletti 2011)

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(b) Exposure by gender of peers

Separate exposure to entrepr. parents of female vs male peers \rightarrow entirely driven by female peers

★ Consistent w/ importance of contact $\approx 6.5\%$ of effect of having entrepr. parent

Early exposure increases girls' tenure in entrepreneurship



(a) Effect of overall exposure

* Girls remain entrepreneurs once they enter

(b) Effect by gender of peers

* Entirely driven by exposure to entrepreneurs parents of female peers

Early exposure does not affect boys



(a) Probability of starting a firm

 \ast Effects are transitory and fade away quickly

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(a) Probability of starting a firm

* Effects are transitory and fade away quickly * Irrespective of gender of peers

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(a) Probability of starting a firm

* Effects are transitory and fade away quickly* Irrespective of gender of peers

(b) Number of years as entrepreneur

* Insignificant effect on overall time in entrepr.

* More results 💽

- Aligns with boys' higher overall exposure P
- And different structure and nature of friendship

(Schneeweis and Zweimuller, 2012; Fischer, 2017; Mouganie and Wang, 2020; Aguirre et al., 2021)

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Taking stock and next steps

- Early exposure is $key \ for \ girls \rightarrow$ would have not become entrepreneurs otherwise
- Important result from a **gender equality** perspective but the implications for **allocative efficiency** associated with the observed increase in female entrepreneurship are still unclear

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- Early exposure is $key \ for \ girls \rightarrow$ would have not become entrepreneurs otherwise
- Important result from a **gender equality** perspective but the implications for **allocative efficiency** associated with the observed increase in female entrepreneurship are still unclear
- ➡ To study implications of our result for talent allocation we look at:
- 1. Counterfactual educational and career paths of women
 - \rightarrow What are women's private returns & what would they have been their societal impact ?
- 2. Performance of firms associated with increase in female entrepreneurship

 \rightarrow Are we tapping into more **entrepreneurial talent**?
1 How does exposure affect women's educational choices?

• Girls more likely to enrol and complete vocational education \rightarrow path conducive to entrepreneurship

| | Education decision after compulsory school | | | | | | |
|--|--|-----------------------------|-------------------------------|--|--|--|--|
| | (1) | (2) | (3) | | | | |
| | Discontinued education | Upper secondary academic | Upper secondary vocational | | | | |
| Share of female peers with parent entrepreneur | -0.023** | -0.008 | 0.031** | | | | |
| | (0.011) | (0.013) | (0.012) | | | | |
| Share of male peers with parent entrepreneur | 0.009 | 0.004 | -0.014 | | | | |
| | (0.012) | (0.014) | (0.013) | | | | |
| Parent is entrepreneur | -0.027*** | 0.023*** | 0.005* | | | | |
| | (0.002) | (0.003) | (0.002) | | | | |
| Observations | 328632 | 328632 | 328632 | | | | |

Notes. The dependent variables in columns (1)-(3) are mutually exclusive indicators for the first choice made after the end of compulsory schools. All regressions include set of FE and controls. Standard errors clustered at the school level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

2 How does exposure affect women's career choices?

• No effect on years spent self-employed, unemployed, outside LF

| | | N. of years as | | | | | | |
|--|--------------|----------------|------------|-----------------------|--------------------|----------|--|--|
| | (1) | (2) | (3) | (4) | (5) | (6) | | |
| | Entrepreneur | Self-employed | Unemployed | Not in labor force | Employed spouse | Employed | | |
| Share of female peers with parent entrepr. | 0.067** | 0.003 | 0.022 | -0.006 | -0.002 | -0.083 | | |
| | (0.027) | (0.037) | (0.049) | (0.121) | (0.012) | (0.144) | | |
| Share of male peers with parent entrepr. | -0.012 | -0.038 | -0.056 | -0.144 | -0.013 | 0.264* | | |
| | (0.028) | (0.036) | (0.050) | (0.124) | (0.014) | (0.144) | | |
| Parent is entrepreneur | 0.114*** | 0.128*** | -0.184*** | -0.328*** | 0.014*** | 0.257*** | | |
| | (0.007) | (0.009) | (0.009) | (0.022) | (0.003) | (0.028) | | |
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- Decrease in the number of years spent working in low-pay employment

| | | N. of years as | | | | | | | | | |
|--|--------------|----------------|------------|-----------------------|--------------------|----------|----------------------|---------------------|--|--|--|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | | | |
| | Entrepreneur | Self-employed | Unemployed | Not in labor force | Employed spouse | Employed | Employed high pay | Employed low pay | | | |
| Share of female peers with parent entrepr. | 0.067** | 0.003 | 0.022 | -0.006 | -0.002 | -0.083 | 0.203 | -0.287** | | | |
| | (0.027) | (0.037) | (0.049) | (0.121) | (0.012) | (0.144) | (0.154) | (0.124) | | | |
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- \rightarrow i) Women seem to benefit ii) Reallocation not at the expense of high-impact career

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- \rightarrow We use the cumulative number of jobs created as a measure of entrepreneurial success
- $\rightarrow\,$ This metric combines the size of the firm and the number of years the firm survives

- 1. Average effects: cumulative N. of jobs created by women between age 18-40 \uparrow by 12%
 - Highly-relevant for policy (\uparrow jobs by 27,590 at age 40 ~ 3%)
 - Female-friendly firms: 68% and 30% of jobs go to women and part-time female employees
 - Not directly informative about the performance of marginal women Table

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- 2. Marginal effects: performance of marginal women position their firms in 80-90th pct
 - Challenges models with gender-diff only in entry costs (Hsieh et al., 2019)
 - Consistent with presence of both entry and operational barriers and shift in performance distribution due to exposure (Guiso and Schivardi, 2011; Guiso et al., 2021)

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- 3. **Relax exclusion restriction:** effects on always takers need to be substantial for the marginal women to be considered a bad entrepreneurs
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 - Cumulative N of jobs of always takers would need to at least double due to early exposure before perf of marginal women falls below median performance of firms created by men
- \rightarrow Consistent w/ early exposure improving the allocation of entrepreneurial talent

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1. Transmission of specific information/human capital

- 2. Changes in aspirations and goals
- 3. Increased awareness about entrepreneurship as career path

- 4. Mentoring & role-models
- 5. Joint ownership

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 - Exposure does not increase likelihood of engaging in joint ownership of firms with cohort peers
 Table

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Three main takeaways on the effects of early exposure to entrepreneurs:

- 1. Promote female entrepreneurship
 - $\rightarrow \uparrow$ Entry & tenure of girls that would not have pursued the profession
- 2. Tap into more entrepreneurial talent
 - \rightarrow Leads to the creation of successful businesses and different types of jobs
- 3. Without reducing women's representation in other careers with high social return
 - \rightarrow Efficient reallocation as women move away from low-pay jobs

Thank you!

Gender gaps in entrepreneurship

Despite convergence in the occupational distribution of men and women, women continue to be highly underrepresented in entrepreneurship in OECD countries

• Differently from other professions, not much progress over time



Gender gaps in exposure to entrepreneurship

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- *Exposure* to entrepreneurs matters for the decision to start a firm (Parker 2018)
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| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | |
|----------------------|-----------------------------|-----------------|--------|-----------------------|--------|----------|--------|--|
| | Exposure in education | | | Exposure in workplace | | | | |
| | Compulsory | Post compulsory | Age 20 | Age 25 | Age 30 | Age 35 | Age 40 | |
| Women | 0.056^{***} | | | | | | | |
| | (0.000) | | | | | | | |
| Men | 0.056^{***} | | | | | | | |
| | (0.000) | | | | | | | |
| Men/Women | $\frac{1.01^{***}}{(0.00)}$ | | | | | | | |
| N | 800993 | | | | | | | |

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|-----------|-----------------------|-----------------|--------|----------|--------|----------|----------|
| | Exposure in education | | | | | | |
| | Compulsory | Post compulsory | Age 20 | Age 25 | Age 30 | Age 35 | Age 40 |
| Women | 0.056*** | 0.048^{***} | | | | | |
| | (0.000) | (0.000) | | | | | |
| Men | 0.056*** | 0.068*** | | | | | |
| | (0.000) | (0.000) | | | | | |
| Men/Women | 1.01^{***} | 1.42*** | | | | | |
| | (0.00) | (0.00) | | | | | |
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| Women | 0.056^{***} | 0.048*** | 0.068^{***} | 0.056^{***} | 0.046^{***} | 0.039*** | 0.035^{***} | |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Men | 0.056*** | 0.068*** | 0.079^{***} | 0.071^{***} | 0.060*** | 0.052^{***} | 0.045^{***} | |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Men/Women | 1.01^{***} | 1.42^{***} | 1.16^{***} | 1.28*** | 1.31^{***} | 1.32^{***} | 1.31^{***} | |
| | (0.00) | (0.00) | (0.00) | (0.01) | (0.01) | (0.01) | (0.01) | |
| N | 800993 | 731249 | 542656 | 554253 | 590091 | 588052 | 587478 | |

The Danish entrepreneurial scene

- Despite high wages and high taxes, Denmark is one of the major start-up hubs in Europe
- It is ranked 2nd in Europe and 4th country in the world for quality and health of the entrepreneurial ecosystem (Acs et al. 2019)
- Strong collaboration across Danish government, investors, startup communities and enterprise companies



Educational setting in Denmark



- Children in Denmark attend 10 years of primary and lower secondary school (grade 0 to 9) in the same institution
- Hereafter they can either discontinue education or attend academic or vocational upper secondary school, and then university



Sample size by age

Back



Descriptive stats entrepreneurs

| | General Sample | Entrepreneurs | Male Entrepr. | Female Entrepr. |
|--|----------------|----------------------|---------------|-----------------|
| A. Individual Characteristics | | | | |
| Parent is entrepreneur | 0.12 | 0.22 | 0.23 | 0.19 |
| Discontinued edu after compulsory school | 0.18 | 0.18 | 0.19 | 0.17 |
| Completed sec. academic edu. | 0.46 | 0.28 | 0.24 | 0.38 |
| Completed sec. vocational edu. | 0.47 | 0.62 | 0.64 | 0.57 |
| Completed higher edu. | 0.40 | 0.22 | 0.20 | 0.27 |
| Age first entrepreneur | | 30.9 | 30.8 | 31.3 |
| N of firms created | | 1.15 | 1.71 | 1.11 |
| Ever created incorporated firm | | 0.17 | 0.18 | 0.14 |
| B. Firm Characteristics | | | | |
| N of employees | | 5.1 | 5.1 | 4.9 |
| Survival | | 3.7 | 3.7 | 3.5 |
| Tenure | | 2.1 | 2.2 | 2.1 |
| Share of female employees | | 0.36 | 0.19 | 0.84 |
| Share of part-time employees | | 0.2 | 0.18 | 0.25 |

Share of firms by firm type and industry



Top 20 4-digit industries for entrepr. firms

| | TOP 20 4-digit industries among entrepreneurial firms | | | | | | | | |
|----|---|--------------------------------|--|--|--|--|--|--|--|
| 1 | Restaurants | Restaurants | | | | | | | |
| 2 | Raising of dairy cattle | Primary sector | | | | | | | |
| 3 | Hairdressing | General service providers | | | | | | | |
| 4 | Taxi operation | General service providers | | | | | | | |
| 5 | General medical practice activity | Skilled professionals | | | | | | | |
| 6 | Raising of swine/pigs | Primary sector | | | | | | | |
| 7 | Growing of cereals | Primary sector | | | | | | | |
| 8 | Joinery installation | Skilled craftsmen/construction | | | | | | | |
| 9 | Maintenance and repair of motor vehicles | General service providers | | | | | | | |
| 10 | Freight transport by road | General service providers | | | | | | | |
| 11 | General cleaning of buildings | General service providers | | | | | | | |
| 12 | Retail sale of clothes | Retailers | | | | | | | |
| 13 | Other specialised construction activities | Skilled craftsmen/construction | | | | | | | |
| 14 | Retail sale of food, beverage and tobacco | Retailers | | | | | | | |
| 15 | Dental practice activities | Skilled professionals | | | | | | | |
| 16 | Painting and glazing | Skilled craftsmen/construction | | | | | | | |
| 17 | Beverage service activities | Restaurants | | | | | | | |
| 18 | Legal activities | Skilled professionals | | | | | | | |
| 19 | Raising of other animals | Primary sector | | | | | | | |
| 20 | Specialist medical practices activities | Skilled professionals | | | | | | | |



Raw and residual variation

| | Mean | St.Dev |
|--|-------|--------|
| A. Share of peers with at least one entrepreneur parent | | |
| Raw cohort variable | 0.117 | 0.072 |
| Residuals after removing school, cohort and municipality ${\sf x}$ cohort FE | 0.000 | 0.042 |
| B. Share of female peers with at least one entrepreneur parent | | |
| Raw cohort variable | 0.116 | 0.088 |
| Residuals after removing school, cohort and municipality ${\sf x}$ cohort FE | 0.000 | 0.061 |
| C. Share of male peers with at least one entrepreneur parent | | |
| Raw cohort variable | 0.117 | 0.087 |
| Residuals after removing school, cohort and municipality x 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 peers whose parents are entrepreneurs.



Balancing tests



Notes. Coefficients of separate regressions of each variable on the share of peers with parent entrepreneurs, including full set of FEs. All variables are standardized.



Correlated Characteristics

- Correlation with most characteristics is very low
- 1sd increase in the share of cohort peers with entrepreneur parents is correlated with different educational tracks, lower unemployment, and higher income
 - \Rightarrow Controlling for these characteristics does not affect our results

| | | Share of parents | | | | | | Average | |
|-------------------------------------|----------------|------------------|-------------|------------|------------|------------|----------|----------|--------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| | with secondary | with secondary | with | who are | first-gen | second-gen | home | parents' | parents' |
| | academic educ | vocational educ | higher educ | unemployed | immigrants | immigrants | owners | age | income (log) |
| Share of peers with parents entrepr | 0.001 | 0.007*** | 0.007*** | -0.006*** | 0.000 | -0.000 | 0.011*** | 0.040** | 0.014*** |
| | (0.001) | (0.002) | (0.001) | (0.001) | (0.001) | (0.000) | (0.002) | (0.017) | (0.002) |
| Observations | 17441 | 17441 | 17441 | 17441 | 8118 | 17441 | 17441 | 17441 | 17441 |
| Mean dep. var | 0.0333 | 0.555 | 0.112 | 0.110 | 0.0653 | 0.00214 | 0.753 | 40.82 | 12.53 |

Notes. Coefficients of separate regressions of each variable (which refers to the characteristics of parents) on the share of peers with parent entrepreneurs, all computed using leave-one-out approach and including full set of FEs. The dependent variable is standardized.



Ever entrepreneur by gender

| | Ever entrepreneur | | | | | | |
|---|-------------------|-----------|-----------|-----------|--|--|--|
| | (1) | (2) | (3) | (4) | | | |
| | by age 25 | by age 30 | by age 35 | by age 40 | | | |
| A. Women | | | | | | | |
| Share of peers with parent entrepreneur | 0.004* | 0.006 | 0.007 | 0.003 | | | |
| | (0.002) | (0.004) | (0.005) | (0.007) | | | |
| Parents is entrepreneur | 0.005*** | 0.011*** | 0.016*** | 0.021*** | | | |
| | (0.000) | (0.001) | (0.001) | (0.001) | | | |
| Observations | 390770 | 386507 | 382862 | 330081 | | | |
| Mean dep. var | 0.00474 | 0.0125 | 0.0206 | 0.0322 | | | |
| St.dev. share of peers | 0.0716 | 0.0716 | 0.0716 | 0.0716 | | | |
| B. Men | | | | | | | |
| Share of peers with parent entrepreneur | 0.001 | 0.014** | -0.001 | -0.004 | | | |
| | (0.004) | (0.007) | (0.009) | (0.011) | | | |
| Parents is entrepreneur | 0.013*** | 0.043*** | 0.062*** | 0.075*** | | | |
| | (0.001) | (0.001) | (0.002) | (0.002) | | | |
| Observations | 407746 | 402146 | 396183 | 342964 | | | |
| Mean dep. var | 0.0107 | 0.0347 | 0.0570 | 0.0822 | | | |
| St.dev. share of peers | 0.0716 | 0.0716 | 0.0716 | 0.0716 | | | |

Notes. All regressions include set of FEs and controls. Standard errors clustered at the school level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.
Number of years as entrepreneur by gender

| | N. years as entrepreneur | | | |
|---|--------------------------|-----------|-----------|-----------|
| | (1) | (2) | (3) | (4) |
| | by age 25 | by age 30 | by age 35 | by age 40 |
| A. Women | | | | |
| Share of peers with parent entrepreneur | 0.008 | 0.026* | 0.040* | 0.026 |
| | (0.006) | (0.014) | (0.024) | (0.039) |
| Parents is entrepreneur | 0.008*** | 0.032*** | 0.065*** | 0.111*** |
| | (0.001) | (0.003) | (0.004) | (0.007) |
| Observations | 390770 | 386507 | 382862 | 330081 |
| Mean dep. var | 0.00911 | 0.0346 | 0.0733 | 0.136 |
| St.dev. share of peers | 0.0716 | 0.0716 | 0.0716 | 0.0716 |
| B. Men | | | | |
| Share of peers with parent entrepreneur | -0.002 | 0.029 | 0.023 | 0.009 |
| | (0.008) | (0.022) | (0.041) | (0.068) |
| Parents is entrepreneur | 0.030*** | 0.146*** | 0.333*** | 0.551*** |
| | (0.002) | (0.005) | (0.010) | (0.016) |
| Observations | 407746 | 402146 | 396183 | 342964 |
| Mean dep. var | 0.0202 | 0.0940 | 0.214 | 0.390 |
| St.dev. share of peers | 0.0716 | 0.0716 | 0.0716 | 0.0716 |

Notes. All regressions include set of FEs and controls. Standard errors clustered at the school level in parentheses. * p < 0.1, *** p < 0.05, *** p < 0.01.



Exposure to female peers: girls compared to boys

(a) Entry

(b) Number of years



• Effects on girls significantly larger than those for boys



Exposure to male peers: girls compared to boys

(a) Entry

(b) Number of years



- Both girls and boys are not affected by male peers
- Back

• No effect on years spent (i) as self-employed



• No effect on years spent (i) as self-employed, (ii) employed spouse



• No effect on years spent (i) as self-employed, (ii) employed spouse (iii) outside labor force





• In line with previous results, women are not worst-off in terms of total income





2b Does exposure affect women's fertility and marriage outcomes?

- Women's personal outcomes can be differentially affected by the type of careers they pursue (Blau et al 2000; Adda et al 2017; Bertrand et al 2021)
- ► We complement previous analysis by looking at the effect of early exposure on marriage and fertility outcomes <</p>

| | (1) Have children | (2) N. children | (3) N. children (cond.) | (4) Age at first child | |
|--|----------------------|--------------------|----------------------------|---------------------------|----------|
| % F peers with parent entrepreneur | | | 0.014 | | |
| | | | | | |
| % M peers with parent entrepreneur | 0.014 | | | | 0.036*** |
| | | | | | |
| Parent is entrepreneur | 0.009*** | 0.036*** | 0.020*** | 0.281*** | 0.006** |
| | | | | | |
| | | | | | |
| School, cohort, municipality x cohort FE | X | X | X | X | X |
| | Х | X | X | X | X |
| Cohort controls | Х | Х | X | Х | X |
| Mean dep. var | | 1.860 | | 29.14 | |

2b Does exposure affect women's fertility and marriage outcomes?

- Women's personal outcomes can be differentially affected by the type of careers they pursue (Blau et al 2000; Adda et al 2017; Bertrand et al 2021)
- We complement previous analysis by looking at the effect of early exposure on marriage and fertility outcomes < Back</p>

| | (1) | (2) | (3) | (4) | (5) |
|--|---------------|-------------|---------------------|--------------------|--------------|
| | Have children | N. children | N. children (cond.) | Age at first child | Ever married |
| % F peers with parent entrepreneur | -0.008 | -0.006 | 0.014 | -0.045 | -0.001 |
| | (0.009) | (0.026) | (0.022) | (0.138) | (0.011) |
| % M peers with parent entrepreneur | 0.014 | 0.031 | -0.000 | 0.075 | 0.036*** |
| | (0.009) | (0.028) | (0.023) | (0.135) | (0.012) |
| Parent is entrepreneur | 0.009*** | 0.036*** | 0.020*** | 0.281*** | 0.006** |
| | (0.002) | (0.005) | (0.004) | (0.028) | (0.002) |
| Observations | 389099 | 389099 | 331861 | 322229 | 389099 |
| School, cohort, municipality x cohort FE | Х | Х | Х | Х | Х |
| Individual controls | Х | Х | Х | Х | Х |
| Cohort controls | Х | Х | Х | Х | Х |
| Mean dep. var | 0.853 | 1.860 | 2.181 | 29.14 | 0.703 |

Firm performance IV

| | (1) | (2) | (3) | (4) |
|--|-----------|-----------|-----------|-----------|
| | by age 25 | by age 30 | by age 35 | by age 40 |
| A: Dep. var. Cumulative number of jobs | | | | |
| RF: Share of female peers with parent entrepreneur | 0.076*** | 0.264*** | 0.385*** | 0.646** |
| | (0.025) | (0.083) | (0.128) | (0.280) |
| 2SLS: Number of years as entrepreneur | 6.005*** | 7.668*** | 7.302*** | 9.767** |
| | (1.140) | (1.907) | (1.739) | (4.106) |
| B: Dep. var. Survival | | | | |
| RF: Share of female peers with parent entrepreneur | 0.045*** | 0.057*** | 0.067*** | 0.065*** |
| | (0.013) | (0.020) | (0.023) | (0.023) |
| 2SLS: Ever entrepreneur | 6.330*** | 6.978*** | 7.514*** | 8.613** |
| | (1.419) | (1.813) | (2.023) | (3.463) |
| Observations | 384944 | 380881 | 377509 | 374641 |
| | | | | |

Notes. All regressions include set of FEs and controls. Standard errors clustered at the school level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

Do women respond more to their peers' mothers?

| | Women - Ever entrepreneur | | | ur |
|--|---------------------------|-----------|-----------|-----------|
| | (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 |
| 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. All regressions include set of FEs and controls. Standard errors clustered at the school level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

Effects of mothers and fathers are not statistically different (concern: lack of precision in mothers estimates)



Is there a sector-specific effect for women?

(a) Entry

(b) Number of years



▲ Back

Gender distribution within sectors





Professors vs Engineers

| | (1) | (2) |
|---|-----------------|----------------|
| | Ever Professors | Ever Engineers |
| Share of female peers with parent professor | 0.058** | |
| | (0.029) | |
| Share of male peers with parent professor | -0.038 | |
| | (0.029) | |
| Parent is professor | 0.049*** | |
| | (0.013) | |
| Share of female peers with parent engineer | | -0.001 |
| | | (0.003) |
| Share of male peers with parent engineer2 | | 0.004 |
| | | (0.003) |
| Parent is engineer | | 0.009*** |
| | | (0.001) |
| Observations | 395080 | 395080 |
| Mean dep. var | 0.00902 | 0.0207 |

Notes. All regressions include set of FEs and controls. Standard errors clustered at the school level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.



Access to networks

Boys and girls are equally likely to be employed in the firm of their peers parents between age 15 and 18

| | (1) | (2) | (3) | (4) |
|--|----------|----------|----------|----------|
| | Age 15 | Age 16 | Age 17 | Age 18 |
| A. Women | | | | |
| Share of female peers with parent entrepreneur | 0.008*** | 0.014*** | 0.012*** | 0.009*** |
| | (0.002) | (0.002) | (0.002) | (0.002) |
| | | | | |
| Share of male peers with parent entrepreneur | 0.009*** | 0.015*** | 0.016*** | 0.013*** |
| | (0.002) | (0.002) | (0.002) | (0.002) |
| B. Men | | | | |
| Share of female peers with parent entrepreneur | 0.009*** | 0.012*** | 0.012*** | 0.008*** |
| | (0.002) | (0.002) | (0.002) | (0.002) |
| | | | | |
| Share of male peers with parent entrepreneur | 0.014*** | 0.017*** | 0.017*** | 0.014*** |
| | (0.002) | (0.002) | (0.002) | (0.002) |

Notes. All regressions include set of FEs and controls. Standard errors clustered at the school level in parentheses. * p< 0.1, ** p< 0.05, *** p< 0.01.



Joint ownership

| | Cofounded first firm | | |
|--|----------------------|------------------------|--|
| | (1) | (2) | |
| | With peers | With same gender peers | |
| Share of female peers with parent entrepreneur | -0.000 | -0.000 | |
| | (0.000) | (0.000) | |
| Share of male peers with parent entrepreneur | 0.001 | 0.001 | |
| | (0.000) | (0.000) | |
| Parent is entrepreneur | 0.000 | 0.000 | |
| | (0.000) | (0.000) | |
| Observations | 384944 | 384944 | |
| School and municipality x cohort FE | Х | Х | |
| Individual controls | Х | Х | |
| Cohort controls | Х | Х | |
| Mean dep. var | 0.0000883 | 0.0000520 | |

Notes. All regressions include set of FEs and controls. Standard errors clustered at the school level in parentheses. * p < 0.1, *** p < 0.05, *** p < 0.01.