Families' Career Investments and Firms' Promotion Decisions

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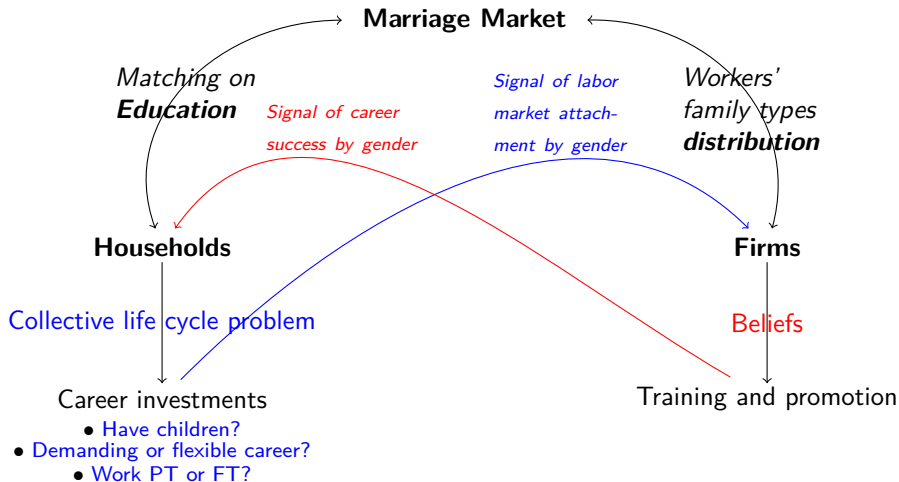
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Context

▶ Importance of managerial positions for both workers and firms.

▶ Big and persistent gender promotion gap.

▶ Firms select workers for managerial training and promotions based on workers' characteristics.
   → on-the-job training/internal promotions/job assignment literature.

▶ Who marries whom impact workers' investments in human capital.
   → Marriage market (MM)/ Family economics literature.

▶ Our insight: MM equilibrium & firms' training and promotion policies interplay.
   → Gender gaps in career investments and firm's training reinforce each other.

This paper: Link between investments in the marriage and the labor markets

Marriage Market

Matching on **Education**

Signal of career success by gender

Signal of labor market attachment by gender

Workers' family types **distribution**

Households

Collective life cycle problem

Career investments
- Have children?
- Demanding or flexible career?
- Work PT or FT?

Firms

Beliefs

Training and promotion

This paper

▶ We show that investments within two uncoordinated groups—families and firms—interact to explain gender gaps in career achievement.

1. Novel facts that *firm-side* investments vary with workers' *family* characteristics.

2. Specify and estimate quantitative equilibrium model of this interaction.

   ▶ Marriage market: spouses match based on initial human capital (hk).

   ▶ Family: fertility and initial biological advantage of women.

   ▶ Firm: capacity constraints for trainees and managers and uncertainty about future performance.

3. Evaluate policies to promote families' and firms' investments in women.

   ▶ Focus on policies being discussed and implemented in different regions.

   ▶ Quantify heterogeneous effects on gender career gaps by type of couple.

   ▶ Quantify heterogeneous welfare effects by gender and initial hk type.

We combine three strands in a unified framework

► Build on literature on the career cost of workers' choices.
  ► Adda, Dustmann, Stevens (2017); Kleven, Landais, Søgaard (2019); Angelov, Johansson, Lindahl (2016); Goldin (2014); Cortes & Pan (2019);

► We incorporate Marriage Market (MM) and Firm-side investments.

We combine three strands in a unified framework

- ▶ MM: workers' investments depend on who they marry.
  - ▶ Chiappori, Costa-Dias, Meghir (2018); Gayle & Shephard (2019); Reynoso (2022); Calvo (2022).

- ▶ Firms have limited manager slots and invest in more attractive workers.
  - ▶ Training matters: Blundell, Costa-Dias, Goll, Meghir (2021)
  - ▶ job assignment/ promotions: Friedrich (2020), Gibbons and Waldman (1999).
  - ▶ firms expectations about workers' performance: Gayle & Golan (2012).

- ▶ Extend literature on Marriage and Labor Markets interactions
  - ▶ Dynamic framework with fertility, on-the-job training, managerial promotions.
  - ▶ Calvo, Lindenlaub, Reynoso (2022); Holzner & Schulz (2023), Philossoph & Wee (2023), AFRSV (2023).

Our framework offers a fresh approach to policy evaluation

▶ Gender gaps in reaching managerial positions are important and persistent.
  ▶ Bronson & Skogman Thoursie (2021); Hampole, Truffa, & Wong (2023); Gayle, Golan, & Miller (2012).

▶ We add to the literature on how different policies affect women's careers,

  ▶ Parental leave policies
  → Thomas (2021); Xiao (2021); Bailey, Byker, Patel, Ramnath (2019).

  ▶ Diversity, Equity, and Inclusion efforts by firms
  → Bertrand, Black, Jensen, Lleras-Muney (2018).

  by accounting for *equilibrium* policy impacts

  ▶ families' and firms' endogenously react to the policy environment, and

  ▶ effects may vary with degree of sorting in the MM.

This talk

- Sample and measurements.

- Novel facts on the relationship between firms' and families' investments.

- Novel model.

- Preliminary works of the model.

Follow families and their firms across cohort's life cycle

▶ Danish register data:
  $\rightarrow$ education, family history, and labor market history for the full population.

▶ Follow the cohort who graduates from highest degree between 1991 and 1995:

  ▶ their main partner, and

  ▶ their employers and occupations,

  ▶ from household formation and labor market entry,

  ▶ over their life cycle.

▶ Dataset of ~120K households and all of their employers observed for ~25 years.

Measurement of key variables

- Ambition types (AFRSV, 2023), θ_i
    - For 1800+ education *programs*, compute average starting wages w_0 and 10Y wage growth g of all program graduates.
    - Categorize programs into 4 groups ranging from low-level, low-growth to high-level, high-growth programs. `▸ Ambition Details`

- Career ladders, steep and flat
    - Compute 10-year wage growth by firm-occupation pair.
    - Group into steep and flat ladders using cutoff at 80th percentile `▸ Ladder Details`

- Promotion to manager
    - First time in occupational codes for "Management" (combines middle and top management jobs) `▸ Promotion Details`

- Firm training combines
    - participation in managerial training programs, and
    - job assignments that predict subsequent manager promotion. `▸ Training Details`

Families' and firms' investment interactions are salient

1. Large gender gaps in training and promotion. `▶ Fact 1`

2. *Firm-side* investments heterogeneous across workers' family characteristics:

   ▶ Gender gaps vary by family type; `▶ Fact 2a`

   ▶ are notoriously big when husbands ever become managers. `▶ Fact 2b`

   ▶ Likelihood of receiving investments ↑ in spouse's type conditional on worker type.
   `▶ Fact 2c`

3. Fertility & spousal time allocation within the household play a key role:

   ▶ Within-couple gaps in human capital increase upon arrival of children; `▶ Fact 3a`

   ▶ and timing of fertility depends on wives' ambition types. `▶ Fact 3b`

→ Motivates a model in which family-side and firm-side investments interact.

Environment I: General

▶ Three periods, t.

▶ Two markets: The Marriage market and the Labor market.

▶ A representative firm with:

  ▶ Two ladders (or career paths), $L = \{L_1, L_2\}$

  ▶ Two production technologies, producer or manager, $J = \{p, mg\}$

▶ Equal mass of women and men, $i = \{m, f\}$.

▶ Distinguished by their *initial* human capital, θ_i

  ▶ relevant for matching in the marriage market, and
  ▶ sorting into *career paths*.

Environment II: The Family

- Flow individual utility: $u_{it} = c_{it} Q_t \chi^u_{(children)}$

- Labor supply choices: $I_i = \{N, P, F\} = \{0, \frac{1}{2}, 1\}$, no leisure.

- Ladder choices: $L_i = \{L_1, L_2\}$.

- The public good produced with private goods and time:
$$Q_t = c_{Qt} + \phi_{ft}(1 - I_{ft}) + \phi_{mt}(1 - I_{mt}) - \chi^Q_{(children)}$$

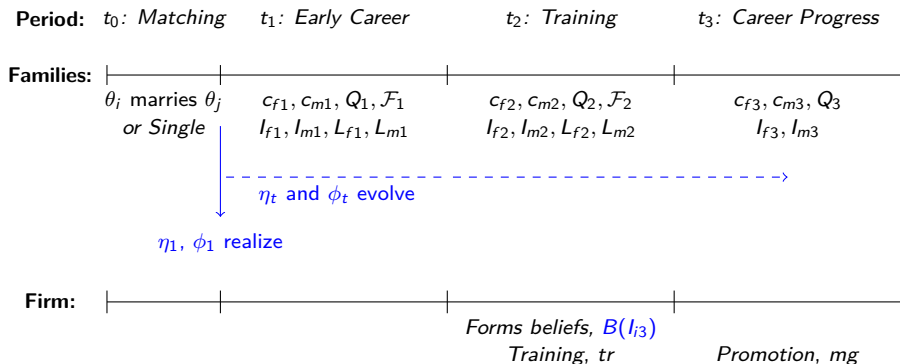- ϕ_i: spouse i's *family* human capital.
  - Depreciates over time.

Environment III: The Representative Firm

- Chooses *training* (*tr*) and *promotions* (*mg*) to maximize expected profits.

- Workers differ in *market* human capital, $\eta_t(\theta_i, L, market\ experience_t, training)$
  - Evolves with investments made by the worker and by the firm.

- Capacity constraints: Convex cost of training and fixed slots for managers.

- Two jobs J on each ladder L, producer and manager.

- Output *per unit of time* in job J and ladder L is parameterized as follows:
$$y_{L,J}(\eta_{it}) = a_{L,J} + b_{L,J}\eta_{it}.$$

The life cycle of individual θ_i and the representative firm

Period: t_0: *Matching* t_1: *Early Career* t_2: *Training* t_3: *Career Progress*

Families:

θ_i marries θ_j $c_{f1}, c_{m1}, Q_1, \mathcal{F}_1$ $c_{f2}, c_{m2}, Q_2, \mathcal{F}_2$ c_{f3}, c_{m3}, Q_3

or Single $I_{f1}, I_{m1}, L_{f1}, L_{m1}$ $I_{f2}, I_{m2}, L_{f2}, L_{m2}$ I_{f3}, I_{m3}

η_t and ϕ_t evolve

η_1, ϕ_1 realize

Firm:

Forms beliefs, $B(I_{i3})$

Training, tr Promotion, mg

▶ Periods in our model correspond to life cycle stages   ▶ in the data.

Market Human Capital Evolves over Time

▶ Initial human capital depends on ambition type:
$$\eta_1(\theta) \sim F(\mu_\theta, \sigma) \quad \forall \theta \in \Theta$$

▶ *Beginning-of-t* η_t depends on past LS, ambition type, and ladder:
$$\eta_{it} = \left[\eta_{t-1} + \alpha_{L_{t-1},\theta} - \delta^P_{L_{t-1},\theta} \mathbb{1}_{\{I_{t-1}=PT\}} - \delta^N_{L_{t-1},\theta} \mathbb{1}_{\{I_{t-1}=NP\}} \right] \tau$$

▶ τ: Training boost in human capital reaped at the beginning of $t = 3$:
$$\tau \begin{cases} = 1 & \text{if } t = \{0, 1, 2\} \\ > 1 & \text{if } t = 3 \, \& \, tr = 1 \end{cases}$$

▶ Evolves due to own and firm's investments:
  ▶ Returns to experience; skill-depreciation when out-of-work.
  ▶ L choice matters: L_1 rewards experience less but penalizes time-out-of-work less.
  ▶ Training boosts human capital.

Family Human Capital Evolves over Time

▶ Initial random family shock common to both spouses.

▶ Women have a biological advantage:

$$\phi_{i1} = \begin{cases} \bar{\phi}\kappa & \text{if } i = f \\ \bar{\phi} & \text{if } i = m \end{cases}$$

▶ Skills at home depreciate (relative to private goods):

$$\phi_{it} = \phi_{it-1}\gamma$$

where $\gamma > 0$.

▶ Initial advantage of women persists over time.

Worker Type vs. Family Type at a given time t

▶ A *worker type* consists of their *ambition type*, *initial hk*, *ladder*, *LS history*, and *training*:

$$\omega_{it} = (\theta_i, \eta_{1i}, \{L_{ir}\}_{r=1}^{t}, \{l_{ir}\}_{r=1}^{t}, tr_i) \quad \in \Omega_t$$

▶ A *family type* consists of *own worker type*, *own family hk*, *spouse's worker type*, and *spouse's family hk*:

$$\varphi_{it} = (\underbrace{\theta_i, \eta_{1i}, \{L_{ir}\}_{r=1}^{t}, \{l_{ir}\}_{r=1}^{t}, tr_i}_{\omega_{it}}, \phi_{it}, \underbrace{\theta_j, \eta_{1j}, \{L_{jr}\}_{r=1}^{t}, \{l_{jr}\}_{r=1}^{t}, tr_j}_{\omega_{jt}}, \phi_{jt})$$

Firm's training and promotion problem

- At $t = 2$ the firm takes as given:
    - Matching in the MM, $\mu(\theta)$;
    - Distribution of worker types decided by families, $\{\omega_{i2}\}$;

- Forms beliefs about $l_{i3} \mid \omega_{i2}$ and profits with and without training
    - Over unknown *family type* and *family shock*.

- Chooses fraction of $N(\omega)$ trained, $tr(\omega)$, and promoted, $mg(\omega)$;

- to maximize expected profits from training:

Firm's training and promotion problem (cont.)

$$\max_{\{tr(\omega),mg(\omega)\}} \Pi_{tr} = \sum_{\omega \in \Omega_2} tr(\omega) \Big[mg(\omega) E[\pi_{mg}(\omega)] + (1 - mg(\omega)) E[\pi_p(\omega)] \Big] \cdot N(\omega) - M \cdot C(N_{tr}/M)$$

subject to the size of the training program, and the capacity constraint for managers,

$$N_{tr} = \sum_{\omega \in \Omega_2} tr(\omega) \cdot N(\omega)$$

$$M \geq \sum_{\omega \in \Omega_2} tr(\omega) \cdot mg(\omega) \cdot Pr(FT \mid tr, \ \omega) \cdot N(\omega)$$

▶ Optimal firm behavior determines training and promotion policies, $tr(\omega_2)$ and $mg(\omega_2 \mid tr(\omega_2), I_3(\omega_2) = 1)$;

▶ wage rates, $W(\omega_i)$, and beliefs $B(I_3 \mid \omega_2)$.

Families' problem

▶ Households (θ_f, θ_m) that formed in the MM take as given:

  ▶ Matching in the MM, $\mu(\theta)$, and women's utility prices, $\overline{U}_{\mathcal{X}}^{\theta_f \theta_m}$;

  ▶ wage rates, $W(\omega_i)$;

  ▶ firm's training and promotion policies, $tr(\omega_2) \in \{0,1\}$ and $mg(\omega_3/tr) \in \{0,1\}$

▶ choose a contingent contract of career trajectories, fertility, and consumption,

$$x(\varphi) = \left\{ \left\{ \underbrace{L_{ft}(\varphi_t), L_{mt}(\varphi_t), \mathcal{F}_t(\varphi_t), I_{ft}(\varphi_t), I_{mt}(\varphi_t), c_{ft}(\varphi_t), c_{mt}(\varphi_t), c_{Qt}(\varphi_t)}_{x_t(\varphi_t)} \right\}_{t=1}^{T} \right\}$$

so as to solve their collective life cycle problem

$$\overline{U}_{\mathcal{Y}}^{\theta_f \theta_m} = \max_{x(\varphi)} \qquad E_0 \sum_{t=1}^{T=3} \delta^{t-1} \left\{ u_m(x_t(\varphi_t)) \right\}$$

$$s.t. \qquad E_0 \sum_{t=1}^{T=3} \delta^{t-1} \left\{ u_f(x_t(\varphi_t)) \right\} \geq \overline{U}_{\mathcal{X}}^{\theta_f \theta_m}$$

$$\forall \varphi_t, t > 0 : \quad c_{ft} + c_{mt} + c_{Qt} = w_{ft}(\varphi_t) I_{ft} + w_{mt}(\varphi_t) I_{mt}$$

▶ Optimal household behavior determines distribution of worker types, $\{\omega_{it}\}$.

Marriage Market

▶ Potential partners in the MM <u>take as given</u>:

   ▶ Idiosyncratic taste shocks, $\beta^{\theta_i \theta_j}$

   ▶ wage rates, $W(\omega_i)$;

   ▶ firm's training and promotion policies, $tr(\omega_2) \in \{0,1\}$ and $mg(\omega_3/tr) \in \{0,1\}$

      ▶ Anticipate $\overline{U}_{\mathcal{Y}}^{\theta_f \theta_m}(\overline{U}_{\mathcal{X}}^{\theta_f \theta_m})$ →   value of any potential household

▶ Male θ_m <u>partner-choice problem</u> is to choose the type $\theta_f \cup \emptyset$ that maximizes:

$$\max\Big\{ \underbrace{\overline{U}_{\mathcal{Y}}^{\emptyset \theta_m} + \beta_m^{\emptyset \theta_m}}_{single}, \underbrace{\{\overline{U}_{\mathcal{Y}}^{\theta_f \theta_m} + \beta_m^{\theta_f \theta_m}\}}_{marry\ \theta_f} \Big\}$$

▶ Competitive equilibrium in the MM pins down <u>outputs</u>:

   ▶ MM matching function $\mu(\theta)$ →   who marries whom,

   ▶ Indirect Expected Utilities $(\overline{U}_{\mathcal{X}}^{\theta_f \theta_m}, \overline{U}_{\mathcal{Y}}^{\theta_f \theta_m})$ →   why.

Equilibrium

A competitive equilibrium is a set of assignments, prices, and probabilities:

- In the marriage market:
    - An assignment of women's types θ_f to men's type θ_m, $\mu(\theta)$.

- In the household:
    - career trajectories, fertility, and consumption, for all households type (θ_f, θ_m), and
    - distribution of worker types, $\{\omega_{it}\}$.

- In the labor market:
    - wage rates, $W(\eta, L, J)$ and beliefs, $B(l_3 \mid \omega_2)$;
    - training and promotion policies, $tr(\omega_2) \in \{0, 1\}$ and $mg(\omega_2 \mid tr(\omega_2), l_3(\omega_2) = 1)$ $\in \{0, 1\}$;

such that:

- The marriage market is in equilibrium,
- individuals and households maximize life-time utility,
- the firm's beliefs are consistent with household behavior,
- and the firm maximizes profits.

Endogenous gender gaps in promotion

▶ Initial women's advantage at home imply women tend to stay at home more.

▶ Firms tend to see women as workers with lower market human capital, η.

▶ Firms tend to expect women to work less in $t = 3$.

▶ Training is offered relatively more to men.

▶ Expecting this bias, families tend to invest even more in husbands.

▶ In equilibrium, gender gaps in training and promotion arise.

▶ How do these forces and mechanisms interact with policies?

Preliminary Estimates: Gender gap in training and promotion
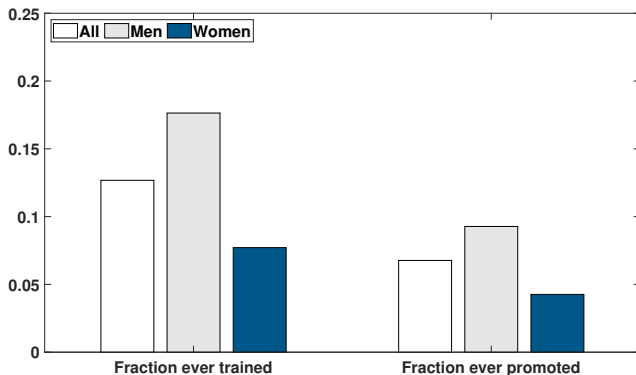
- Women's biological advantage $\kappa = 1.53$, high variance on family human capital.
- Productivity increases more in skills on the steep ladder, but part-time work and non-participation are also penalized more.
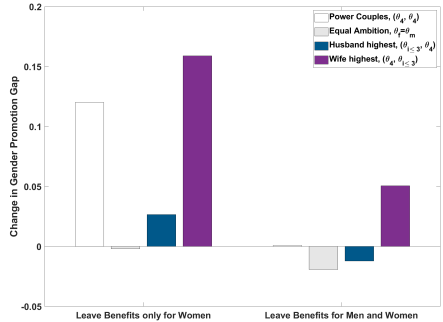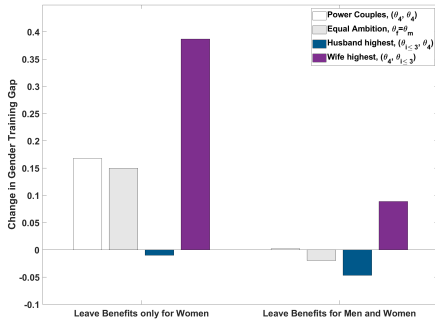
▶ More on Model Estimation

Preview of policy evaluation: Parental leave policies
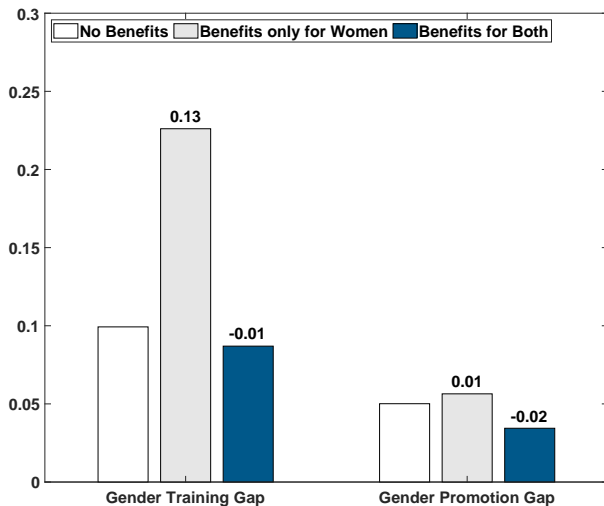
Note: change in probability relative to No Benefits above bars.

▶ Paid leave to both spouses reduces gender gaps in firm-side investments.

Preview of policy evaluation: Parental leave policies

▶ Gap declines in households where husband is of the highest type.

▶ But policy does not help women who marry down or in power couples.

▶ Benefits only to women can harm women even in *initially* equal households.

Preview of policy evaluation: Mechanisms
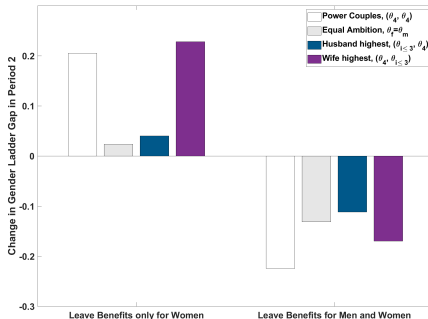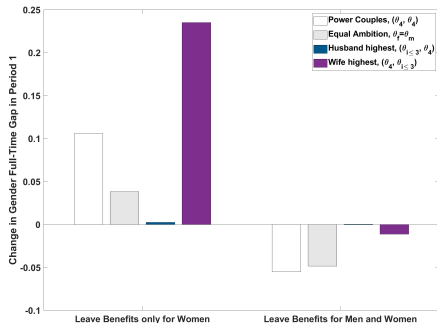
▶ Unequal household human capital investments are behind this heterogeneity.
▶ Gaps in labor supply and career ladders decrease when benefits are split.

Conclusion

▶ Previously undocumented facts on heterogeneity in firm-side investments by households types.

▶ Rich register Danish data $\rightarrow$ follow households and their employers over life cycle.

▶ Build an equilibrium model in which who marries whom affects the link between workers' investments and firms' investments.
  ▶ lifecycle collective household model with fertility and
  ▶ career progression within the firm.

▶ Preliminary policy analysis suggests that blanket policies conceal important heterogeneous effects.
  ▶ Overall, paid leave to both spouses reduces gender gaps in promotions,
  ▶ but some group may lose.

▶ Highlights importance of considering interactions with the MM.

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Ambition types (AFRSV, 2023), θ_i

Educational level, all programs — Educational ambition, all programs
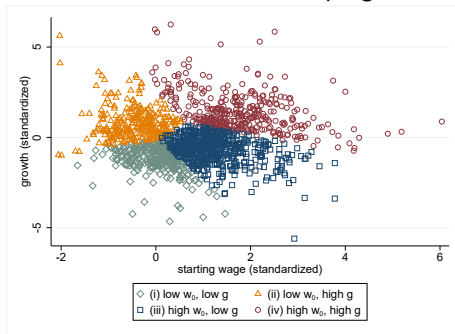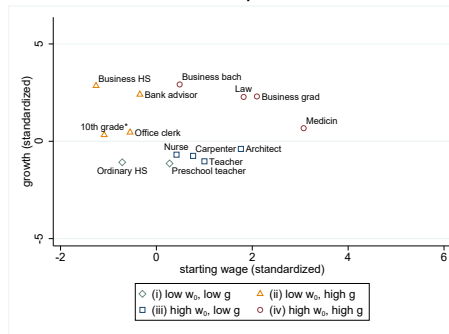
- Programs matter for marital sorting (Wiswal and Zafar, 2021),

- and differ in initial conditions and long-term outcomes (Altonji, Kahn, Speer, 2014, 2016; Kirkeboen, Leuven, Mogstad, 2016)

Classification of most frequent programs (AFRSV, 2023)

Educational ambition, all programs

Examples

▶ Our method groups programs based on labor market starting conditions and progress.

▶ Successful measure to differentiate tertiary degrees
  ▶ e.g.: Architecture $\neq$ Business; Nurse $\neq$ Doctor.

Career ladders

▶ We aim to measure career path choices based on occupational choice and firm at labor market entry

▶ We distinguish *steep* and *flat* career ladder for tractability

  ▶ Steep is defined as the top 20% occupation-firm pairs with highest hourly wage growth over first 10 years.

  ▶ Calculate average growth based on coworkers.

  ▶ Coarsen comparison group if necessary to avoid small-cells issues.

▶ Ambition type is about earnings potential ex ante, ladder choice is about the career path that individuals enter in the labor market.

 $\rightarrow$ Law graduate decides to work at a private law firm or in public sector administration.

Promotion to manager

- Managers are workers with occupations coded "1: Management Work."
    - Categories include "Top management," "Management within administration," "Management within production," and "Management within services."
    - Examples: Manager in production company (132100), manager of internal IT (133020), top manager in public company (111200) etc.

- Promotion means transition to these occupation codes for the first time.

- Significant pay increase
    - Managers make 40% more than non managers, conditional on training.

On-the-job training

- Direct measure of firm investment: data on individuals' participation in management training programs (paid by firm while on the job).
    - → 45% of program participants are subsequently promoted to managers.
    - → 10% of all managers previously received this management training.

- Another type of firm investment: lateral moves across occupations within a firm
    - → Returns to specialization vs preparing for management

- Predictive model to identify workers who receive training based on both sources:
    - → classifies 85.75% of individuals correctly (managers with training and non-managers without training).
    - → 12.92% of trainees are subsequently promoted to managers.
    - → 50.3% of all managers previously received training.

Gender gaps in training and promotion
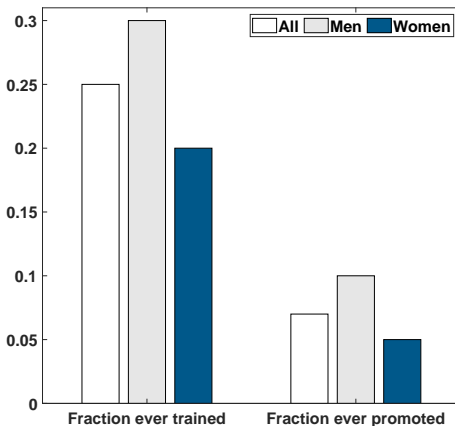
▶ Gender gap in training is 33%, increases to 50% at the promotion stage.

▶ Big and significant even with firm-occupation fixed effects. ▸ Regression

▸ Back

Gender gaps in training and promotion

$$mg_{ift} = \beta_0 + \beta_1 \cdot F_i + \delta_{f,L} + \theta_i + \delta_{\{l_i\}_t} + \epsilon$$

	(1)	(2)	(3)	(4)	(5)	(6)
		Training			Manager Promotion	
female	-0.0856***	-0.0736***	-0.0363***	-0.0191***	-0.0200***	-0.0057***
	(0.002)	(0.003)	(0.003)	(0.001)	(0.001)	(0.001)
Firm-Ladder FE	No	Yes	Yes	No	Yes	Yes
Worker Ambition FE	No	No	Yes	No	No	Yes
Worker Exp FE	No	No	Yes	No	No	Yes
Observations	2,664,705	2,664,705	2,664,705	2,664,705	2,664,705	2,664,705
R-squared	0.010	0.353	0.436	0.003	0.205	0.248

Robust standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$

▶ Gender gaps big and significant even with firms and ladders.

▶ Decline conditional on labor market choices.

▶ Back

Gender gaps in firm-side investments vary with worker's family type

Difference in men's and women's outcome
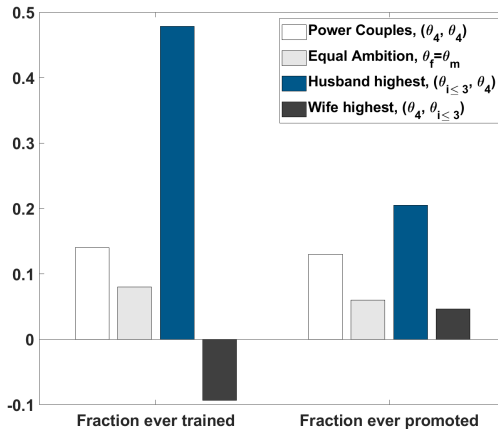
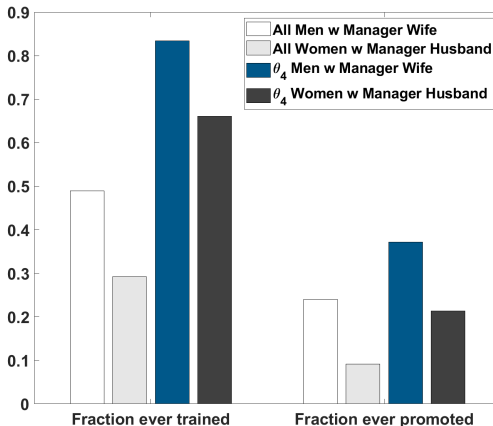- Interestingly, gaps positive within power couples.
- Depend on own and spousal type. ▸ Regression ▸ Back
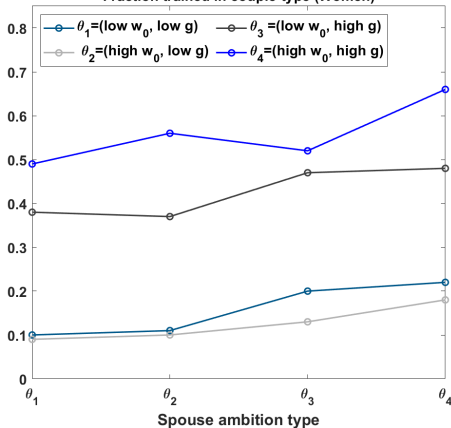
When the husband is a manager

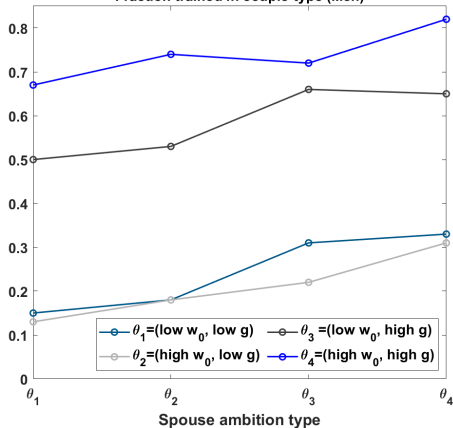Difference in men's and women's outcome

- ▶ Most ambitious women who marry a manager 42.51% less likely to become managers than men married to managers.
  - ▶ Might be behind the higher gaps among power couples. ◀ Back

Firm-side investments vary with worker's family type

Fraction trained in couple-type (Women)

- $\theta_1 =$(low w_0, low g) $\theta_3 =$(low w_0, high g)
- $\theta_2 =$(high w_0, low g) $\theta_4 =$(high w_0, high g)

Spouse ambition type

Fraction trained in couple-type (Men)

- $\theta_1 =$(low w_0, low g) $\theta_3 =$(low w_0, high g)
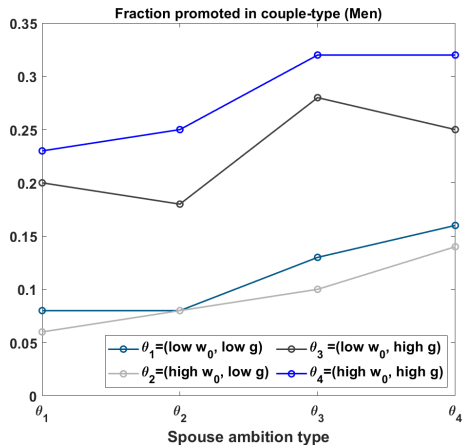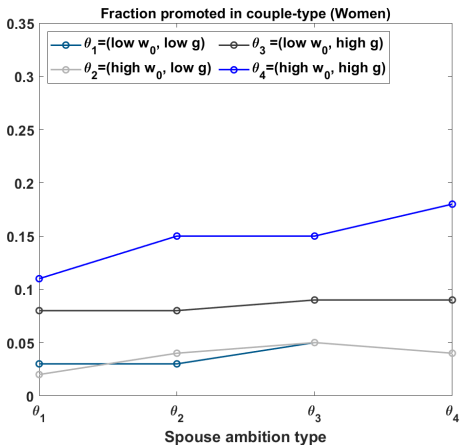- $\theta_2 =$(high w_0, low g) $\theta_4 =$(high w_0, high g)

Spouse ambition type

▶ Probability of receiving training ↑ with own and spouse's ambition

  ▶ but more so for men. ▶ Back

Firm-side investments vary with worker's family type

Fraction promoted in couple-type (Women)

Legend:
θ_1=(low w_0, low g) θ_3=(low w_0, high g)
θ_2=(high w_0, low g) θ_4=(high w_0, high g)

Spouse ambition type

Fraction promoted in couple-type (Men)

Legend:
θ_1=(low w_0, low g) θ_3=(low w_0, high g)
θ_2=(high w_0, low g) θ_4=(high w_0, high g)

Spouse ambition type

▶ Probability of reaching managerial position ↑ with spouse's ambition

  ▶ but more so for men.   ▶ Back

# Firm-side investments vary with worker's family type

$$mg_{ijt} = \beta_0 + \beta_1 \cdot F_i + \beta_2 \cdot \theta_{i,\geq 3} + \beta_3 \cdot \theta_{i,\geq 3} \cdot F_i + \beta_3 \cdot \theta_{j,\geq 3} + \beta_4 \cdot \theta_{j,\geq 3} \cdot F_i + X'\gamma + \epsilon$$

	(1)	(2)	(3)	(4)
	Manager Promotion		Training	
female	-0.0188***	-0.0227***	-0.0082***	-0.0017**
	(0.002)	(0.003)	(0.001)	(0.001)
high-ambition	0.4665***	0.2944***	0.0511***	0.0385***
	(0.004)	(0.005)	(0.001)	(0.002)
high-ambition * female	-0.0785***	-0.0444***	-0.0171***	-0.0121***
	(0.007)	(0.007)	(0.002)	(0.002)
high-ambition spouse	0.1378***	0.0828***	0.0382***	0.0294***
	(0.006)	(0.006)	(0.002)	(0.002)
high-ambition spouse * female	-0.0755***	-0.0565***	-0.0322***	-0.0241***
	(0.008)	(0.007)	(0.003)	(0.003)
Age and Choices FE	No	Yes	No	Yes
Observations	2,664,705	2,664,705	2,664,705	2,664,705
R-squared	0.022	0.248	0.213	0.431

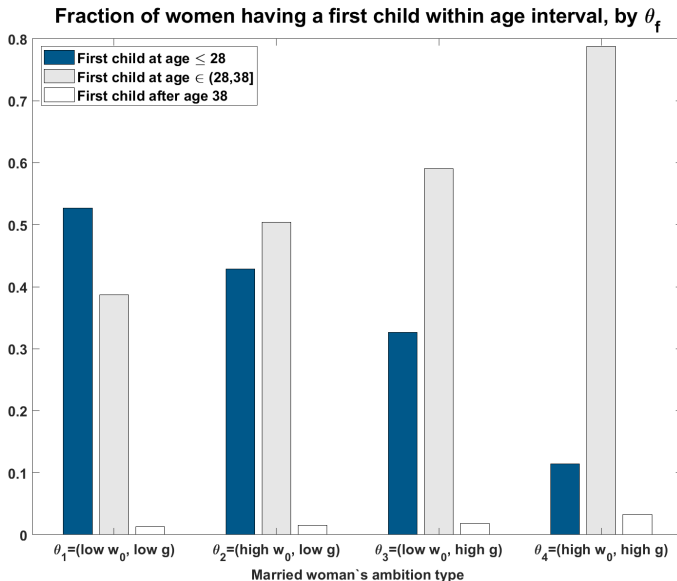Robust standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$

- Gender gaps widen for ambitious women and for women with ambitious spouses.
- The role of the spouse declines conditional on labor market choices.

Time allocation after arrival of children
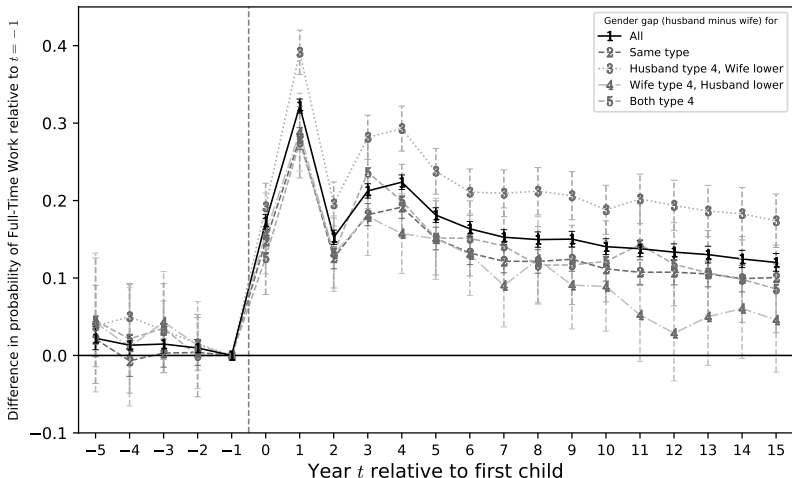
- ▶ Large and persistent child penalty even for women with highest ambition.
- ▶ Women married to more ambitious spouse show a more persistent penalty.

More ambitious women delay fertility significantly more

Fraction of women having a first child within age interval, by θ_f

Legend:
- First child at age ≤ 28
- First child at age $\in (28,38]$
- First child after age 38

X-axis: Married woman`s ambition type
- θ_1=(low w_0, low g)
- θ_2=(high w_0, low g)
- θ_3=(low w_0, high g)
- θ_4=(high w_0, high g)

Model Periods and the life cycle of individuals in the data

Periods: t_0: Matching & t_1: Early Career t_2: Training t_3: Career Progress

Age cuttoffs: $\overline{a_{12}}_i = max\{entry_i + 3, 28\}$ $\overline{a_{23}}_i = max\{\overline{a_{12}}_i + 3, 38\}$

Sample:

85.1% young couples → marry		99.36% managers
46.3% females → first child	37.85% females → first child	→ promoted
	59.25% trainees → trained	

▶ Back.

Estimation

▶ We estimate the model using simulated method of moments.

▶ Targeted moments include

  ▶ marriage market sorting patterns across ambition types

  ▶ initial career ladder choices by gender and ambition types

  ▶ mid-career ladder switches by gender and ambition types

  ▶ labor supply choices by ladder, gender and ambition types

  ▶ autocorrelation of time at home

  ▶ correlation of spousal ladder and labor supply choices

  ▶ initial earnings levels and dispersion by ladder and ambition types

  ▶ differences in earnings growth as a function of labor supply choices (spells of part-time work or non-participation, vs. full-time work)

  ▶ differences in earnings growth as a function of training for full-time workers

  ▶ differences in earnings growth for trained workers who are promoted to managers or not ▶ Back