

# Managerial Poaching and Talent Reallocation

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## WORKERS FOLLOW WORKERS

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  - ▶ Either because workers refer for **personal motives** (Beaman and Magruder, 2012; Kramarz and Skans, 2014), or because
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  - ▶ Their future **remuneration** and **promotion** depends on **worker performance**.
- ▶ **Our focus**:
  - ▶ We show how this **personnel-specific information** crucially contributes to the overall **impact** of managers moving across firms when **managers are poached**.

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- ▶ The companies settle. ▶ high profile

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- ▶ No-poaching agreements or exclusive contracts are **even worse** than previously thought.
- ▶ Our findings have **important consequences** for firms **poaching** managers, and firms **losing** their **managers** to poaching.

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1. Build a stylized model of **asymmetric learning** and **managerial poaching**:
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1. Build a stylized model of **asymmetric learning** and **managerial poaching**:
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  - ▶ Generate **testable predictions** about **managerial poaching**, **information rents** and **talent reallocation**.
2. **Test** these predictions with employer-employee matched data from **Brazil**:
  - ▶ **Significantly higher** level of co-movement following manager poaching events.
  - ▶ Evidence of **positive talent reallocation** and manager **information rents**.
  - ▶ **Rule out** alternative explanations for worker co-movement.

# ROADMAP

1. **Data and definitions**
2. **Model sketch**
3. **Empirical results**
4. **Discussion**

DATA

## DATA: BRAZILIAN EMPLOYER-EMPLOYEE MATCHED DATA

- ▶ Full **administrative record** of formal employment in the country (2003-2017).
- ▶ **Employee** records: about 46 million employees per year
  - ▶ Data includes tax identifier, monthly earnings, start and end dates of their contract, cause of separation, occupation code and education level.
- ▶ **Establishment** records: about 68,000 firms with more than 50 employees
  - ▶ Accounts for about 60% of total formal employment.
  - ▶ Data includes firm and establishment identifiers, primary industry, municipality.
- ▶ Focus on 2010-2017 data for main analysis:
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- ▶ Focus on 2010-2017 data for main analysis:
  - ▶ We use 2003-09 data to estimate AKM worker and firm fixed effects as proxies of employee ability and firm productivity. ▶ AKM ▶ proxy
- ▶ **We then:**
  - ▶ Identify **poaching events** and document employee movements before and after.
  - ▶ Characterize **poached** managers, **raided** workers, **origin** and **destination** firms.

## DEFINITIONS: POACHING EVENTS

- ▶ A **poaching event** is when an employee:
  - ▶ **moves directly** from one establishment (**origin**) to another (**destination**) of a different **firm** (no government establishments, < 30 days gap, no overlap).
  - ▶ has been **employed** at the origin firm for **at least a year**.
  - ▶ establishments have **between 50-1000 employees**.

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  - ▶ has been **employed** at the origin firm for **at least a year**.
  - ▶ establishments have **between 50-1000 employees**.
- ▶ **Between 2010 and 2017, we identify:**
  - ▶ ~ 4000 manager to manager poaching events.
  - ▶ ~ 5300 employee to manager poaching events.
  - ▶ ~ 81,000 employee to employee poaching events.
- ▶ We classify co-workers as **raided** if they moved from the **same origin firm** as the poached employee.

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- ▶ The average **poached manager** is about 37 years old, with 3.75 years of tenure in the firm and 17 years of labor market experience.
- ▶ Poaching mostly happens **within-industry**: about 32% of our firms are in manufacturing, 23% in services and 14% are in retail.

## THE MODEL (A SKETCH)

## MODEL: MAIN IDEA

- ▶ 2 firms A and B, where A is more productive.

### Setup

- ▶ Firm  $i$  is endowed with a **manager** and a **worker** of ability  $a_i$ .
- ▶ Firm  $i$  maximizes profits.

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### Game

- ▶ Firms **privately learn** their workers' **abilities**.
- ▶ **Poach** the other **manager** to learn about their worker's ability.
- ▶ **Retain** their worker, **raid** one, or **replace** them with junior worker.
- ▶ Vacant positions are filled from the market.

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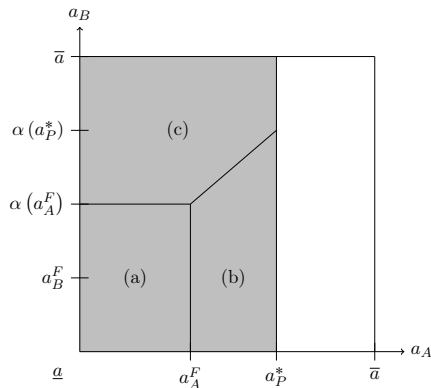
### Bargaining

- ▶ When poaching or raiding, a **bargaining process** ensues.
- ▶ **Offers** and **counter-offers** (Lazear, 1986) → **ascending auction**
- ▶ Sequential equilibrium: pay the **highest value** the **losing firm** assigns

# EQUILIBRIUM BEHAVIOUR (SKETCH)

## Regions:

- (a) replace worker with one from the market.
- (b) retain current worker.
- (c) attempt to raid the other firm's worker.



Equilibrium poaching behavior

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- ▶ A **pays** B's manager an “**information rent**”, which increases in the quality of information.

## EXTENSIONS

**Firm size:** The manager's **information rent increases** in

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**Competition:** A higher number of potential poachers

- ▶ **increases salaries** and **wages** and lowers the rate of poaching.

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### Additional results:

- ▶ **Poaching increases** social **welfare**, but **not** to the **efficient** level. [▶ more](#)
- ▶ Results **generalize** to arbitrary number of worker slots in a dynamic model. [▶ more](#)

# EMPIRICAL RESULTS

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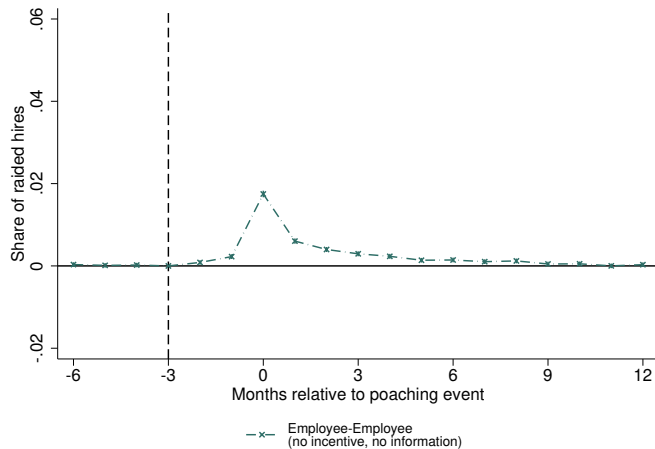
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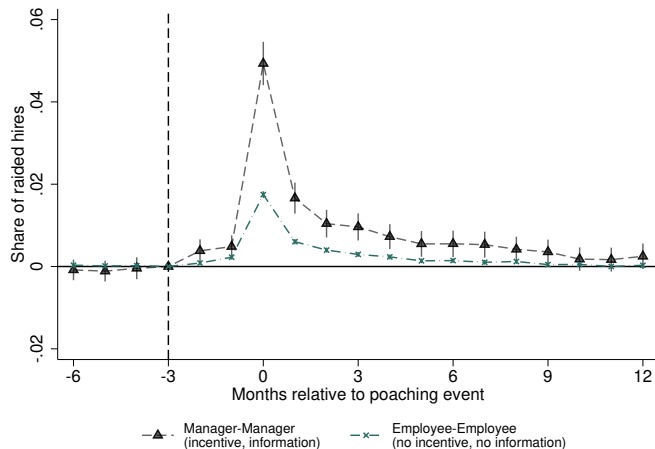
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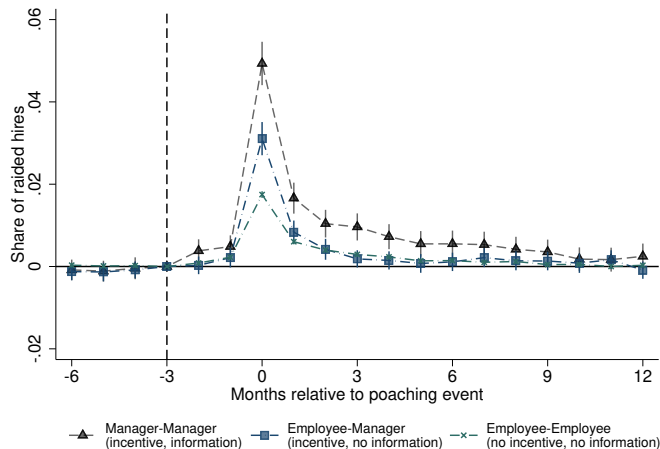
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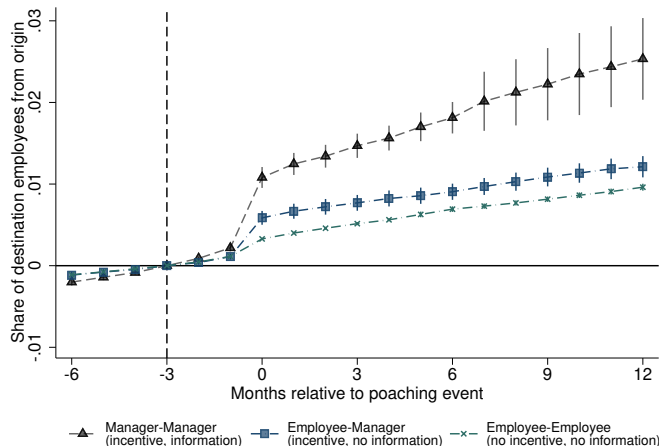
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- ▶ It’s not just authority to hire – **information** seems to matter.
- ▶ Share of “raided” workers **grows** for the next 12 months at a **higher** relative rate.

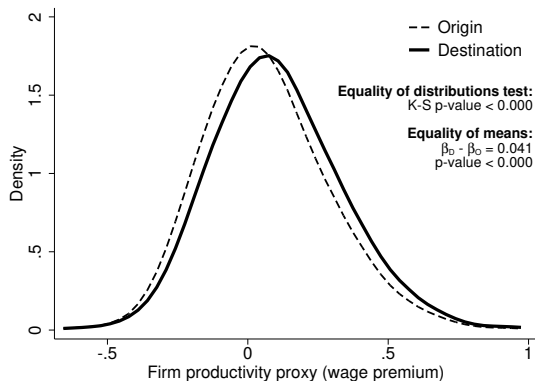


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  - ▶ *12pp higher likelihood of raids if the poached employee is a manager.*
  - ▶ *On average about 3 extra workers raided.*
  - ▶ *Higher rate of hires sustained over the next 12 months.*
2. **Managerial poaching** induces **positive talent reallocation**.
  - ▶ More productive firms poach managers.
  - ▶ Poached managers raid high-ability workers
3. **Poached managers** command **information rents**.
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## 2. MANAGER POACHING AND POSITIVE TALENT REALLOCATION

- More **productive** firms are the ones **poaching** and **raiding** workers. [▶ cdf](#)



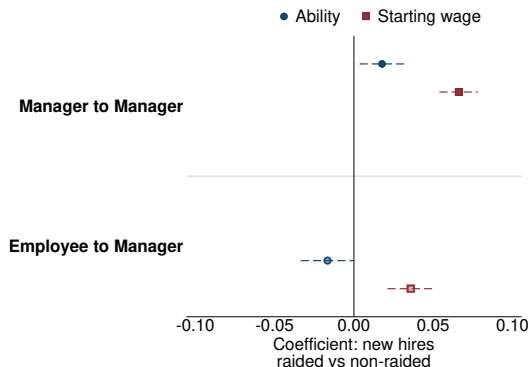
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- ▶ Workers **raided** by origin managers tend to be “better” than **non-raided** new hires: higher **ability** and **starting wages**. [▶ eqn](#)



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- ▶ Again, **information** seems to matter.

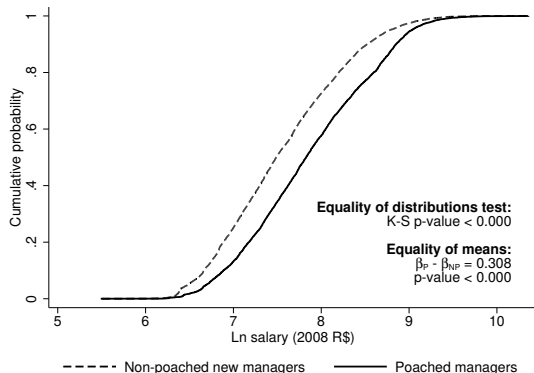


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2. **Managerial poaching** induces **positive talent reallocation**
  - ▶ *Reallocation of better workers to more productive firms.*
3. **Poached managers** command **information rents**.
  - ▶ Increasing in the demand for information.
  - ▶ Increasing in the supply of information.

### 3. POACHED MANAGERS COMMAND INFORMATION RENTS.

- ▶ **Starting salary:**
  - ▶ Poached managers have higher starting salaries than non-poached managers (about 15-20%). [▶ pdf](#)
- ▶ **Demand for information:**
- ▶ **Supply of information:**



### 3. POACHED MANAGERS COMMAND INFORMATION RENTS.

► **Starting salary:**

- Poached managers have higher starting salaries than non-poached managers (about 15-20%). [► pdf](#)

► **Demand for information:**

- Higher at larger establishments/firms.

► **Supply of information:**

|                               | Outcome: Manager ln(salary) at destination |          |       |       |
|-------------------------------|--------------------------------------------|----------|-------|-------|
|                               | (1)                                        | (2)      | (3)   | (4)   |
| <b>Demand for information</b> |                                            |          |       |       |
| Destination size (ln)         |                                            |          |       |       |
|                               |                                            | 0.030*** |       |       |
|                               |                                            | (0.007)  |       |       |
| <b>Supply of information</b>  |                                            |          |       |       |
| Origin size (ln)              |                                            |          |       |       |
| Origin avg worker ability     |                                            |          |       |       |
| Ability of raided workers     |                                            |          |       |       |
| # raided workers (ln)         |                                            |          |       |       |
| <b>Manager controls</b>       |                                            |          |       |       |
| Manager salary at origin      | ✓                                          | ✓        | ✓     | ✓     |
| Manager experience            | ✓                                          | ✓        | ✓     | ✓     |
| Manager ability               | ✓                                          | ✓        | ✓     | ✓     |
| Obs                           | 3983                                       | 3983     | 3983  | 3983  |
| R-Squared                     | 0.687                                      | 0.706    | 0.699 | 0.712 |

### 3. POACHED MANAGERS COMMAND INFORMATION RENTS.

► **Starting salary:**

- Poached managers have higher starting salaries than non-poached managers (about 15-20%). [► pdf](#)

► **Demand for information:**

- Higher at larger establishments/firms.

► **Supply of information:**

- Higher at larger establishments/firm with better workers (in general and known to the manager).

| Outcome: Manager ln(salary) at destination |                     |                             |       |       |
|--------------------------------------------|---------------------|-----------------------------|-------|-------|
|                                            | (1)                 | (2)                         | (3)   | (4)   |
| <b>Demand for information</b>              |                     |                             |       |       |
| Destination size (ln)                      | 0.030***<br>(0.007) | <b>0.029***<br/>(0.007)</b> |       |       |
| <b>Supply of information</b>               |                     |                             |       |       |
| Origin size (ln)                           |                     | <b>0.046***<br/>(0.007)</b> |       |       |
| Origin avg worker ability                  |                     | <b>0.313***<br/>(0.021)</b> |       |       |
| Ability of raided workers                  |                     |                             |       |       |
| # raided workers (ln)                      |                     |                             |       |       |
| <b>Manager controls</b>                    |                     |                             |       |       |
| Manager salary at origin                   | ✓                   | ✓                           | ✓     | ✓     |
| Manager experience                         | ✓                   | ✓                           | ✓     | ✓     |
| Manager ability                            | ✓                   | ✓                           | ✓     | ✓     |
| Obs                                        | 3983                | 3983                        | 3983  | 3983  |
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|                               | (1)                                        | (2)                 | (3)                                | (4)   |
| <b>Demand for information</b> |                                            |                     |                                    |       |
| Destination size (ln)         | 0.030***<br>(0.007)                        | 0.029***<br>(0.007) | <b>0.034***</b><br><b>(0.007)</b>  |       |
| <b>Supply of information</b>  |                                            |                     |                                    |       |
| Origin size (ln)              |                                            | 0.046***<br>(0.007) | <b>0.037***</b><br><b>(0.007)</b>  |       |
| Origin avg worker ability     |                                            | 0.313***<br>(0.021) |                                    |       |
| Ability of raided workers     |                                            |                     | <b>0.166***</b><br><b>(0.017)</b>  |       |
| # raided workers (ln)         |                                            |                     | <b>-0.040***</b><br><b>(0.007)</b> |       |
| <b>Manager controls</b>       |                                            |                     |                                    |       |
| Manager salary at origin      | ✓                                          | ✓                   | ✓                                  | ✓     |
| Manager experience            | ✓                                          | ✓                   | ✓                                  | ✓     |
| Manager ability               | ✓                                          | ✓                   | ✓                                  | ✓     |
| Obs                           | 3983                                       | 3983                | 3983                               | 3983  |
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|-------------------------------|--------------------------------------------|---------------------|----------------------|------------------------------|
|                               | (1)                                        | (2)                 | (3)                  | (4)                          |
| <b>Demand for information</b> |                                            |                     |                      |                              |
| Destination size (ln)         | 0.030***<br>(0.007)                        | 0.029***<br>(0.007) | 0.034***<br>(0.007)  | <b>0.038***<br/>(0.007)</b>  |
| <b>Supply of information</b>  |                                            |                     |                      |                              |
| Origin size (ln)              |                                            | 0.046***<br>(0.007) | 0.037***<br>(0.007)  | <b>0.049***<br/>(0.007)</b>  |
| Origin avg worker ability     |                                            | 0.313***<br>(0.021) |                      | <b>0.280***<br/>(0.021)</b>  |
| Ability of raided workers     |                                            |                     | 0.166***<br>(0.017)  | <b>0.101***<br/>(0.018)</b>  |
| # raided workers (ln)         |                                            |                     | -0.040***<br>(0.007) | <b>-0.042***<br/>(0.007)</b> |
| <b>Manager controls</b>       |                                            |                     |                      |                              |
| Manager salary at origin      | ✓                                          | ✓                   | ✓                    | ✓                            |
| Manager experience            | ✓                                          | ✓                   | ✓                    | ✓                            |
| Manager ability               | ✓                                          | ✓                   | ✓                    | ✓                            |
| Obs                           | 3983                                       | 3983                | 3983                 | 3983                         |
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## TESTABLE PREDICTIONS

1. **Managerial poaching** induces **raids**.
  - ▶ *12pp higher likelihood of raids if the poached employee is a manager.*
  - ▶ *On average about 3 extra workers raided.*
  - ▶ *Higher rate of hires sustained over the next 12 months.*
2. **Managerial poaching** induces **positive talent reallocation**.
  - ▶ *Reallocation of better workers to more productive firms.*
3. **Poached managers** command **information rents**.
  - ▶ *Higher salaries in the destination firms that have higher demand for information.*
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... but is it **really** information?

# ALTERNATIVE EXPLANATIONS

- ▶ **Referrals**
- ▶ **Favoritism**
- ▶ **Common shock**

- ▶ **Referrals** – unlikely
  - Much **lower** rates of **raiding** when an employee is poached.
- ▶ **Favoritism**
- ▶ **Common shock**

|                                        | (1)                  | (2)                    | (3)                   |
|----------------------------------------|----------------------|------------------------|-----------------------|
| Outcome variable:                      | >1 raided<br>worker  | # of raided<br>workers | % raided<br>new hires |
| <i>Ref. cat: manager-manager event</i> |                      |                        |                       |
| Employee-Employee event                | -0.120***<br>(0.008) | -4.609***<br>(0.348)   | -0.017***<br>(0.001)  |
| <b>Controls</b>                        |                      |                        |                       |
| Dest. firm size                        | ✓                    | ✓                      | ✓                     |
| Mean dep. var.                         | 0.342                | 1.985                  | 0.016                 |
| Obs                                    | 89294                | 89294                  | 89294                 |
| R-Squared                              | 0.007                | 0.012                  | 0.012                 |

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|----------------------------------------|----------------------------|-------------------------------|------------------------------|
| <i>Ref. cat: manager-manager event</i> |                            |                               |                              |
| Employee-Employee event                | -0.120***<br>(0.008)       | -4.609***<br>(0.348)          | -0.017***<br>(0.001)         |
| Employee-Manager event                 | -0.088***<br>(0.011)       | -3.089***<br>(0.407)          | -0.013***<br>(0.001)         |
| <b>Controls</b>                        |                            |                               |                              |
| Dest. firm size                        | ✓                          | ✓                             | ✓                            |
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- ▶ **Common shock**

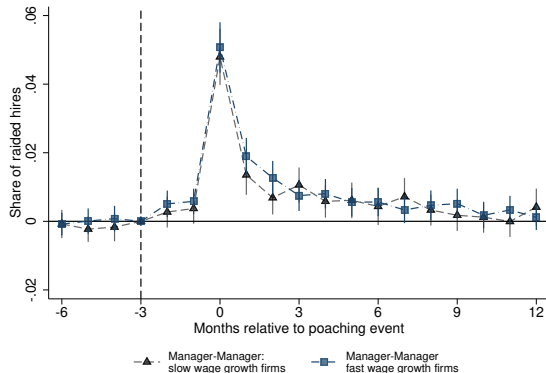
|                                       | Ability            |                                   | Starting wage       |                                   |
|---------------------------------------|--------------------|-----------------------------------|---------------------|-----------------------------------|
|                                       | (1)                | (2)                               | (3)                 | (4)                               |
| <i>Ref. cat: non-raided new hires</i> |                    |                                   |                     |                                   |
| Raided new hire                       | 0.018**<br>(0.007) | <b>-0.017**</b><br><b>(0.009)</b> | 0.066***<br>(0.006) | <b>0.036***</b><br><b>(0.008)</b> |
| <b>Controls</b>                       |                    |                                   |                     |                                   |
| Dest firm FE                          | ✓                  | ✓                                 | ✓                   | ✓                                 |
| Worker Experience                     | ✓                  | ✓                                 | ✓                   | ✓                                 |
| Mean dep. var.                        | -0.217             | -0.220                            | 7.370               | 7.307                             |
| Obs                                   | 26308              | 17482                             | 44858               | 29858                             |
| R-Squared                             | 0.338              | 0.361                             | 0.572               | 0.588                             |

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  - ... with **lower** ability of raided workers but **higher** starting wage.
- ▶ **Common shock** – unlikely?
  - Something else that is making the destination firm attractive?
  - We consider firms with **high/low wage growth** and see **similar patterns**.



▶ table

# DISCUSSION

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- **Managers** are important for productivity in a myriad ways in their own firms, but they also matter when they **switch firms** – in particular because of the **personnel-specific information** they transmit across firms.

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  - ▶ **Poached firms: Lose** not only a manager but potentially **high-ability workers**.
  - ▶ **Regulators: Non-poaching agreements** are **more costly** than assumed.

cảm ơn  
спасибо  
شكريه  
obrigado/a  
terima kasih  
merci  
asante  
na gode  
danke  
謝謝  
धन्यवाद  
thank you  
gracias  
teşekkür ederim  
grazie  
આભાર  
tenki  
salamat  
நன்றி  
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# APPENDIX

# POACHING WORKERS IS COMMON



## Steve Jobs told Google to stop poaching workers

**exame.**

Entrar

**Quem ganha quando uma empresa "rouba" funcionários da outra?**

Pesquisas recentes sugerem que a busca de funcionários pela concorrência pode beneficiar tanto o profissional quanto a empresa que o perde

**BBC**  Home News Sport Business Innov

**NEWS**

**Google and Apple in \$415m 'non-poaching' settlement offer**

🕒 16 January 2015

Four of the world's biggest tech giants - Apple, Google, Intel and Adobe - have agreed to a new settlement of \$415m (£273.5m) in an attempt to resolve a lawsuit.

The US lawsuit alleged the firms agreed not to poach staff from each other.

It claimed the alleged agreement prevented workers from getting better job offers elsewhere.

[▶ back](#)

## THE SETUP

- ▶ 2 firms with **productivities**  $\rho_A \geq \rho_B$  (Hsieh and Klenow, 2009; Foster et al., 2008; Syverson, 2004)
- ▶ firm  $i$ ,  $i \in \{A, B\}$ , at the start of the game is endowed with “present” **manager**  $m_i$  and **worker**  $a_i \in [\underline{a}, \bar{a}]$ ,  $a_i \sim F(\cdot)$
- ▶ Firms maximize

profits  $\pi_i \equiv y_i - c_i$ , with

production  $y_i = \rho_i a_i$  and cost  $c_i = (s_i + 1_i^m t_m) + (w_i + 1_i^w t_w)$

- ▶ Firms can always hire “**junior**” **managers** at  $s$  or **workers** at  $w$

## THE GAME

The **timeline** of this **poaching game** with **asymmetric learning** is as follows ...

1. Firms learn about their worker's ability and decide whether to attempt to **poach** the other firm's **manager**
2. (If successful) firms decide whether to **retain** their worker, **replace** them with a junior worker or attempt to **raid** the other firm's **worker**
3. **Vacant positions** are **filled from** the **market**
4. **Production** takes place, firms accrue **output** and **pay** managers/workers

## BARGAINING

- ▶ When a firm **attempts** to **poach**(**raid**) a manager (worker), an **offer** and **counter-offer** process ensues (Lazear, 1986)
- ▶ Modeled as an **ascending clock** or “Japanese” **auction** (Milgrom and Weber, 1982)
- ▶ **Sequential equilibrium** (Kreps and Wilson, 1982): **winning** firm poaches (raids)/retains manager (worker) at the **highest salary** (**wage**) the **losing** firm is **willing to pay** to retain/poach
- ▶ **Unique equilibrium** in which the winner pays the highest value at which the loser is willing to poach (raid)/retain the manager/worker

## EQUILIBRIUM BEHAVIOR

## Proposition 1 (simplified)

Fix an industry  $(F, \rho_A, \rho_B, s, w, t_m, t_w)$ . In equilibrium, firm  $B$  never poaches firm  $A$ 's manager. There is  $\rho'_A$  with  $\rho_B < \rho'_A$  s. t.

1. if  $\rho_A \leq \rho'_A$ , a **no-poaching equilibrium** materializes.
2. If  $\rho_A > \rho'_A$ , a **poaching equilibrium** materializes: there is  $a_P^*$ , and a strictly increasing function  $\alpha(a)$  such that firm  $A$  poaches firm  $B$ 's manager if and only if  $a_A < a_P^*$ . It then
  - (a) **replaces** its worker with a junior worker if  $a_A < a_A^F$  and  $a_B \leq \alpha(a_A^F)$ ,
  - (b) **retains** its worker if  $a_A \in [a_A^F, a_P^*]$  and  $a_B \leq \alpha(a_A)$ , and
  - (c) **raids** firm  $B$ 's worker if  $a_B > \max\{\alpha(a_A^F), \alpha(a_A)\}$

## EQUILIBRIUM: INTUITION

## Proposition 1 (intuition)

- ▶ Suppose  $A$  hired  $B$ 's **manager**: it then pays  $w_R(a_B)$  if it raids  $B$ 's worker, where

$$w_R(a_B) = w + t_w + \rho_B (a_B - \mathbb{E}[a])$$

- ▶ But in order to learn  $a_B$ ,  $A$  needs to **poach**  $B$ 's **manager** at

$$s_P(a_B) = s + t_m + \mathbb{P}(a_B) [\rho_B (a_B - \mathbb{E}[a]) + t_w]$$

- ▶  $A$  **pays**  $B$ 's manager an “**information rent**”

# WELFARE

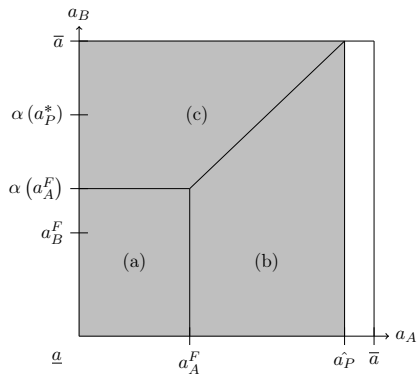
## Proposition 2

**Poaching**, in expectation

1. **increases** firm *A*'s profits
2. **decreases** firm *B*'s profits
3. always **benefits** poached (raided) **managers** (**workers**), and
4. **increases** social **welfare**, but
5. **not** to the **efficient** level

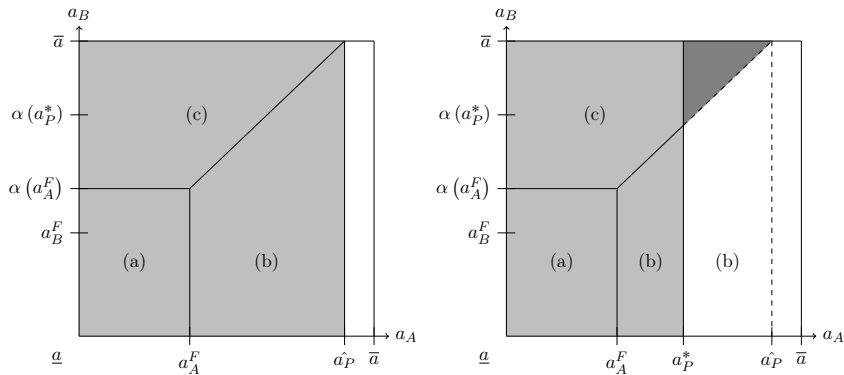
► back

## EQUILIBRIUM AND WELFARE



**Figure:** Welfare loss in equilibrium

## EQUILIBRIUM AND WELFARE

**Figure:** Welfare loss in equilibrium

## INFINITE HORIZON

- ▶ We extend our model to an **infinite horizon** setting
- ▶ **Overlapping generations** of managers and workers
- ▶ Everyone lives for **2 periods**,  $n_A$  ( $n_B$ ) **worker slots**
- ▶ **Timeline** above **repeats** itself at the beginning of each period
- ▶ Results are **consistent with** the **base model**, plus
  - ▶ **Demand** and **supply results generalize** to **arbitrary** number of **worker slots**
  - ▶ Even unsuccessful poaching attempts increase salaries

## SUMMARY STATISTICS - MANAGER-MANAGER EVENTS

|                                     | 10th pct |             | Median  |             | 90th pct |             | Mean    |             |            |
|-------------------------------------|----------|-------------|---------|-------------|----------|-------------|---------|-------------|------------|
|                                     | Origin   | Destination | Origin  | Destination | Origin   | Destination | Origin  | Destination | Diff       |
| <b>Firm variables</b>               |          |             |         |             |          |             |         |             |            |
| Firm size (# workers)               | 96       | 60          | 416     | 360         | 3514     | 4201        | 1791    | 2278        | 487***     |
| Establishment size (# workers)      | 75       | 80          | 228     | 248         | 755      | 806         | 335     | 371         | 35***      |
| # establishments                    | 1        | 1           | 2       | 2           | 19       | 23          | 13      | 14          | 1          |
| Productivity proxy (firm AKM FE)    | -0.18    | -0.17       | 0.13    | 0.14        | 0.46     | 0.48        | 0.14    | 0.15        | 0.01**     |
| Avg. worker ability (worker AKM FE) | -0.33    | -0.32       | -0.04   | -0.03       | 0.65     | 0.70        | 0.06    | 0.08        | 0.02**     |
| Raided workers wage (2008 BRL)      | 1126.56  | 1203.24     | 2250.47 | 2380.94     | 8191.72  | 9085.98     | 3760.11 | 4057.37     | 297.27**   |
| <b>Manager variables</b>            |          |             |         |             |          |             |         |             |            |
| Salary                              | 1914.23  | 2140.67     | 5437.23 | 5566.42     | 14338.77 | 13012.51    | 7381.18 | 6947.87     | -433.31*** |
| Age                                 | 27.00    |             | 35.00   |             | 50.00    |             | 37.10   |             |            |
| Experience                          | 7.00     |             | 16.00   |             | 33.00    |             | 18.33   |             |            |
| Tenure (months)                     | 14.00    |             | 32.30   |             | 94.70    |             | 45.66   |             |            |
| Ability                             | -0.30    |             | 0.40    |             | 1.31     |             | 0.46    |             |            |
| <b>Industry</b>                     |          |             |         |             |          |             |         |             |            |
| Manufacturing                       |          |             |         |             |          |             | 0.32    | 0.33        | 0.01       |
| Services                            |          |             |         |             |          |             | 0.24    | 0.22        | -0.02**    |
| Retail                              |          |             |         |             |          |             | 0.14    | 0.14        | 0.00       |
| Other                               |          |             |         |             |          |             | 0.29    | 0.30        | 0.01       |
| Poaching events                     | 3983     |             |         |             |          |             |         |             |            |

## SUMMARY STATISTICS - EMPLOYEE-MANAGER EVENTS

|                                     | 10th pct |             | Median  |             | 90th pct |             | Mean    |             |           |
|-------------------------------------|----------|-------------|---------|-------------|----------|-------------|---------|-------------|-----------|
|                                     | Origin   | Destination | Origin  | Destination | Origin   | Destination | Origin  | Destination | Diff      |
| <b>Firm variables</b>               |          |             |         |             |          |             |         |             |           |
| Productivity proxy (firm AKM FE)    | -0.17    | -0.16       | 0.09    | 0.10        | 0.39     | 0.41        | 0.10    | 0.11        | 0.01**    |
| Avg. worker ability (worker AKM FE) | -0.32    | -0.32       | -0.04   | -0.04       | 0.49     | 0.48        | 0.03    | 0.03        | -0.00     |
| Firm size (# workers)               | 95       | 71          | 396     | 383         | 3731     | 4883        | 2076    | 2745        | 669***    |
| # establishments                    | 1        | 1           | 2       | 2           | 22       | 29          | 15      | 19          | 4**       |
| Establishment size (# workers)      | 71       | 80          | 215     | 233         | 704      | 767         | 313     | 352         | 39***     |
| Raided workers wage (2008 BRL)      | 1048.45  | 1136.03     | 2121.88 | 2269.53     | 6842.16  | 7366.41     | 3364.57 | 3612.10     | 247.53**  |
| <b>Poached employee variables</b>   |          |             |         |             |          |             |         |             |           |
| Salary                              | 1315.97  | 1691.75     | 3232.29 | 3906.09     | 8103.27  | 9354.00     | 4255.10 | 4937.61     | 682.52*** |
| Age                                 | 24.00    |             | 32.00   |             | 46.00    |             | 33.62   |             |           |
| Experience                          | 4.00     |             | 13.00   |             | 28.00    |             | 14.68   |             |           |
| Tenure (months)                     | 13.40    |             | 27.90   |             | 77.30    |             | 38.66   |             |           |
| Ability                             | -0.41    |             | 0.12    |             | 0.97     |             | 0.21    |             |           |
| <b>Industry</b>                     |          |             |         |             |          |             |         |             |           |
| Manufacturing                       |          |             |         |             |          |             | 0.33    | 0.33        | -0.00     |
| Services                            |          |             |         |             |          |             | 0.28    | 0.25        | -0.03***  |
| Retail                              |          |             |         |             |          |             | 0.16    | 0.17        | 0.01      |
| Other                               |          |             |         |             |          |             | 0.24    | 0.26        | 0.02**    |
| Poaching events                     | 5299     |             |         |             |          |             |         |             |           |

## SUMMARY STATISTICS - EMPLOYEE-EMPLOYEE EVENTS

|                                     | 10th pct |             | Median  |             | 90th pct |             | Mean    |             |           |
|-------------------------------------|----------|-------------|---------|-------------|----------|-------------|---------|-------------|-----------|
|                                     | Origin   | Destination | Origin  | Destination | Origin   | Destination | Origin  | Destination | Diff      |
| <b>Firm variables</b>               |          |             |         |             |          |             |         |             |           |
| Productivity proxy (firm AKM FE)    | -0.21    | -0.18       | 0.04    | 0.09        | 0.35     | 0.40        | 0.06    | 0.10        | 0.04***   |
| Avg. worker ability (worker AKM FE) | -0.36    | -0.32       | -0.09   | -0.04       | 0.44     | 0.50        | -0.01   | 0.03        | 0.05***   |
| Firm size (# workers)               | 79       | 68          | 289     | 322         | 3339     | 4665        | 1918    | 2618        | 700***    |
| # establishments                    | 1        | 1           | 2       | 2           | 23       | 29          | 19      | 22          | 3***      |
| Establishment size (# workers)      | 67       | 67          | 189     | 167         | 668      | 580         | 288     | 263         | -25***    |
| Raided workers wage (2008 BRL)      | 970.62   | 1077.94     | 1677.16 | 1833.20     | 5373.67  | 5772.20     | 2796.85 | 3016.67     | 219.81*** |
| <b>Poached employee variables</b>   |          |             |         |             |          |             |         |             |           |
| Salary                              | 971.12   | 1120.96     | 1819.93 | 2046.82     | 8043.33  | 8022.27     | 3700.68 | 3843.78     | 143.10*** |
| Age                                 | 21.00    |             | 30.00   |             | 44.00    |             | 31.37   |             |           |
| Experience                          | 3.00     |             | 11.00   |             | 28.00    |             | 13.39   |             |           |
| Tenure (months)                     | 12.80    |             | 24.90   |             | 67.60    |             | 34.37   |             |           |
| Ability                             | -0.53    |             | -0.11   |             | 0.93     |             | 0.06    |             |           |
| <b>Industry</b>                     |          |             |         |             |          |             |         |             |           |
| Manufacturing                       |          |             |         |             |          |             | 0.28    | 0.32        | 0.04***   |
| Services                            |          |             |         |             |          |             | 0.29    | 0.24        | -0.05***  |
| Retail                              |          |             |         |             |          |             | 0.20    | 0.19        | -0.01***  |
| Other                               |          |             |         |             |          |             | 0.24    | 0.26        | 0.02***   |
| Poaching events                     | 80844    |             |         |             |          |             |         |             |           |

## PREDICTION 1 - EMPIRICAL FRAMEWORK

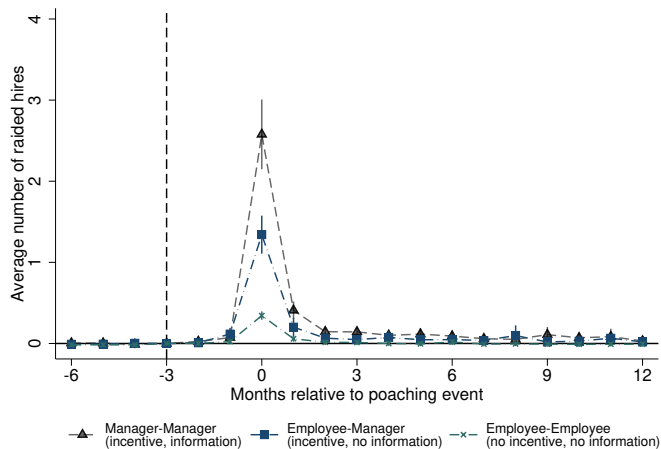
$$RaidedHires_{et} = \alpha + \sum_{k=-6}^{k=12} \delta_t \cdot \mathbb{1}[t = \kappa] + \gamma_e + \varepsilon_{et}$$

**Where:**

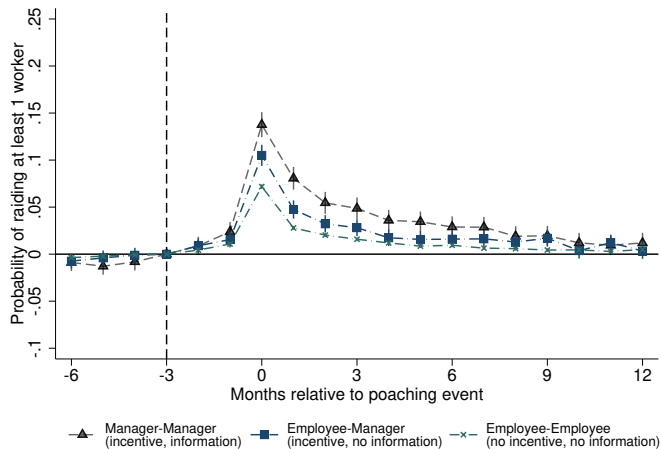
- ▶  $RaidedHires_{et}$  is the share or the number of raided workers for poaching event  $e$  in relative period  $t$  with  $\gamma_e$  event fixed effects;
- ▶  $\delta_t$  coefficients measure the difference in raided workers in the set of new hires in the destination firm  $\kappa$  months before and after and the baseline period  $t = -3$ .

[▶ back to raids](#)

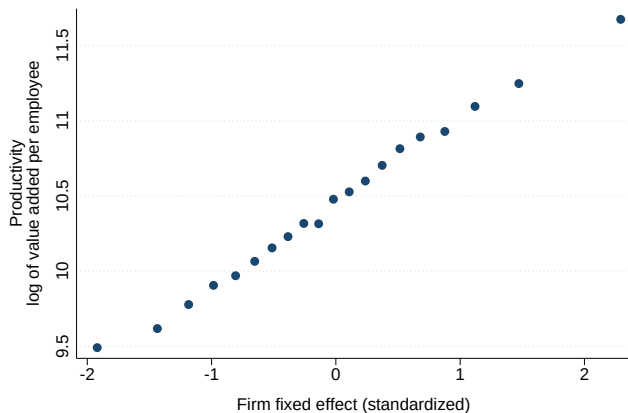
# 1. MANAGER POACHING INDUCES RAIDS



# 1. MANAGER POACHING INDUCES RAIDS



## AKM WAGE PREMIUM CORRELATED WITH FIRM PRODUCTIVITY



Source: Cornwell et al (2021)

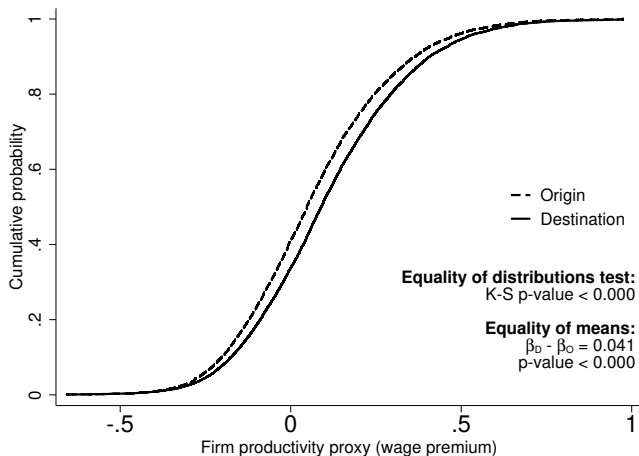
## WORKER ABILITY & FIRM PRODUCTIVITY

- ▶ We approximate **worker ‘ability’** and **firm ‘productivity’** with the worker- and firm-specific **AKM fixed-effects** (Abowd et al., 1999):

$$\ln(w_{i,t}) = \alpha + \beta \mathbf{x}_{i,t} + \eta_{Y(i,t)} + \theta_i + \varepsilon_{i,t}, \text{ where}$$

- ▶  $\mathbf{x}_{i,t}$  refers to controls (age, gender, race, year)
  - ▶  $Y(i, t)$  is worker  $i$ ’s establishment in year  $t$
  - ▶  $\eta_{Y(i,t)}$  is the establishment’s fixed effect (‘wage premium’), and
  - ▶  $\theta_i$  is portable worker ‘skill’ or ‘ability’
- ▶ We estimate the firm and worker fixed effects using data from 2003-2009.

## DISTRIBUTION OF FIRM PRODUCTIVITY

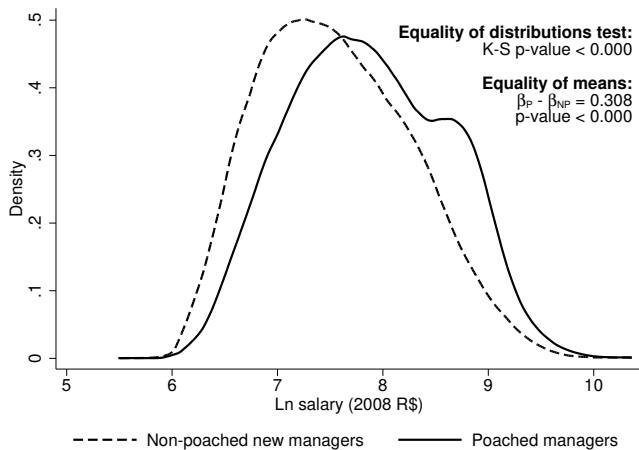


## TALENT REALLOCATION REGRESSIONS

$$Outcome_{ide} = \alpha + \beta_1 Raided_{de} + \gamma_1 W_i + \gamma_d + \varepsilon_{ide}$$

- ▶ where  $Outcome_{ide}$  is either the measure of **worker ability** (worker AKM fixed effect) or **log of starting wages** for worker  $i$  at destination firm  $d$  for poaching event  $e$ .
- ▶  $Raided_{de}$  is an indicator for whether the new hire was a raided worker.
- ▶  $W_i$  is a control for worker experience
- ▶  $\gamma_d$  is a destination firm fixed effect.
- ▶  $\beta_1$  is the coefficient of interest.

## POACHED MANAGER SALARIES



## RAIDS BY HIGH/LOW WAGE GROWTH

|                                         | (1)              | (2)                | (3)                |
|-----------------------------------------|------------------|--------------------|--------------------|
|                                         | >1 raided worker | # of raided worker | % raided new hires |
| <i>Ref. cat: slow wage growth firms</i> |                  |                    |                    |
| High wage growth firms = 1              | 0.016<br>(0.016) | 0.539<br>(0.710)   | -0.002<br>(0.003)  |
| <b>Firm controls</b>                    |                  |                    |                    |
| Dest. firm size                         | ✓                | ✓                  | ✓                  |
| Mean dep. var.                          | 0.464            | 6.456              | 0.030              |
| Obs                                     | 3760             | 3760               | 3760               |
| R-Squared                               | 0.001            | 0.002              | 0.022              |

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## WORKER REFERRALS

- ▶ Burks et al. (2015); Brown et al. (2016); Miller and Schmutte (2021); Friebe et al. (2023): Workers **referred by workers** ...  
are **more likely** to be **hired** (at **lower cost**) earn **higher starting wages** stay **longer** with the firm but are generally **not more productive**

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are **more likely** to be **hired** (at **lower cost**) earn **higher starting wages** stay **longer** with the firm but are generally **not more productive**
- ▶ **Worker referrals differ** from **managerial** ones:  
**Informational advantage** due to supervision and evaluation **Accountability difference** as success depends on workers (Heath, 2018; Beaman and Magruder, 2012)

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## FAVORITISM

- ▶ **Subjective preferences** of managers affect hiring decisions
- ▶ leading to **negative consequences**:
  - “... **arbitrary rewards** and **less productive** job assignments ...” (Prendergast and Topel, 1996) “**surplus diversion** away from society ... and toward the group,”
  - “**inefficiency**” (Bramoulle and Goyal, 2016) Workers hired as a result of favoritism in the public sector are **less productive** (Patacchini and Mocanu, 2025)

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