

Leaving employment to entrepreneurship: the value of coworker mobility in pushed and pulled-driven startups

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This paper is part of a research project on the "Dynamics of Entrepreneurship: Entry, Survival, and Firm Growth"

- **Objectives:**

- To study both **entrepreneurial entry** and **exit**, identifying and characterizing **different profiles of** individuals leaving paid employment to become **business-owners (BO)**, and **distinguishing** between **different modes of exit**.
- To evaluate the **performance of new entrepreneurs** identifying the factors that reduce their probability of success

- **Data (Quadros de Pessoal):**

- We follow over **157,000** individuals who leave paid employment and become business owners during the period 1992-2007
- And a total of **28,353 startups, with personnel**, founded between 1992-2007

What is this paper about?

Inter-firm labor mobility (from incumbent firms to new startups)

Impact on new venture **survival**

New context: Pushed versus pulled-driven startups (spinoffs)

Which labor flows? Former coworkers of new entrepreneurs

Mechanisms? Knowledge Transfer/Reduced Screening Costs



JUN 18, 2012 @ 11:22 PM 285,339 VIEWS

The 7 C's: How to Find and Hire Great Employees



"I am convinced that nothing we do is more important than hiring and developing people. At the end of the day you bet on people, not on strategies."—Lawrence Bossidy, former COO of GE.

MAR 21, 2013 @ 12:25 PM 2,915 VIEWS

Hiring for Your Startup? How to Find the Right Candidates

Personal Networks

If it seems like tapping into your personal network is a recurring theme when starting a company, that's because it is. Joining an early stage start-up requires employees to place a lot of trust in the founders, so having a mutual connection who can vouch for you is important to your potential hires.

JUN 5, 2012 @ 06:34 PM 25,166 VIEWS

Dealing With A Bad Hire? The Case To Teach And Adapt, Rather Than Fire

What Really Happens When You Hire the Wrong Candidate

Top 7 Hiring Mistakes for Startups

1. Hiring someone just because you know them.

This means friends, former co-workers, family members or your own children.

2. Hiring someone to "help them out."

Productivity costs

Financial costs

Employee morale costs

Reputation costs

Inspiring lines of research

- Inter-firm labor mobility as a channel of knowledge diffusion
 - Common explanation for survival advantages exhibited by (pulled) spin-offs [Agarwal et al., 2004; Franco and Filson, 2006; Dahl and Sorenson, 2014]
- Importance of early hiring decisions for future performance
 - Early hiring decisions are often strategic [Campbell, 2005; Phillips and Gully, 2015]
 - Initial choices have lasting consequences for new organizations and may be difficult to adjust, specially in rigid labor markets [Geroski et al., 2010]
 - Whom do startups hire? [Ouimet and Zarutskie, 2014; Dahl and Klepper, 2015]
 - Pros and cons of hiring from founders' network [Campbell, 2005; Timmermans, 2010]
- Entrepreneurship after job loss
 - Job losses increase e-ship propensity [Berglann et al., 2011; Røed & Skogstrøm, 2014]
 - Emerging discussion on pushed vs pulled spin-offs [Andersson & Klepper, 2013; Bruneel et al., 2013]





This paper, contentwise:

- Studies the **impact on firm survival** of hiring former coworkers at entry
 - Pulled-driven startups/opportunity entrepreneurs
 - Pushed-driven startups/necessity entrepreneurs
- Explores **the main mechanism(s)** through which coworker mobility may affect (pushed and pulled) new ventures' survival

...& methodwise:

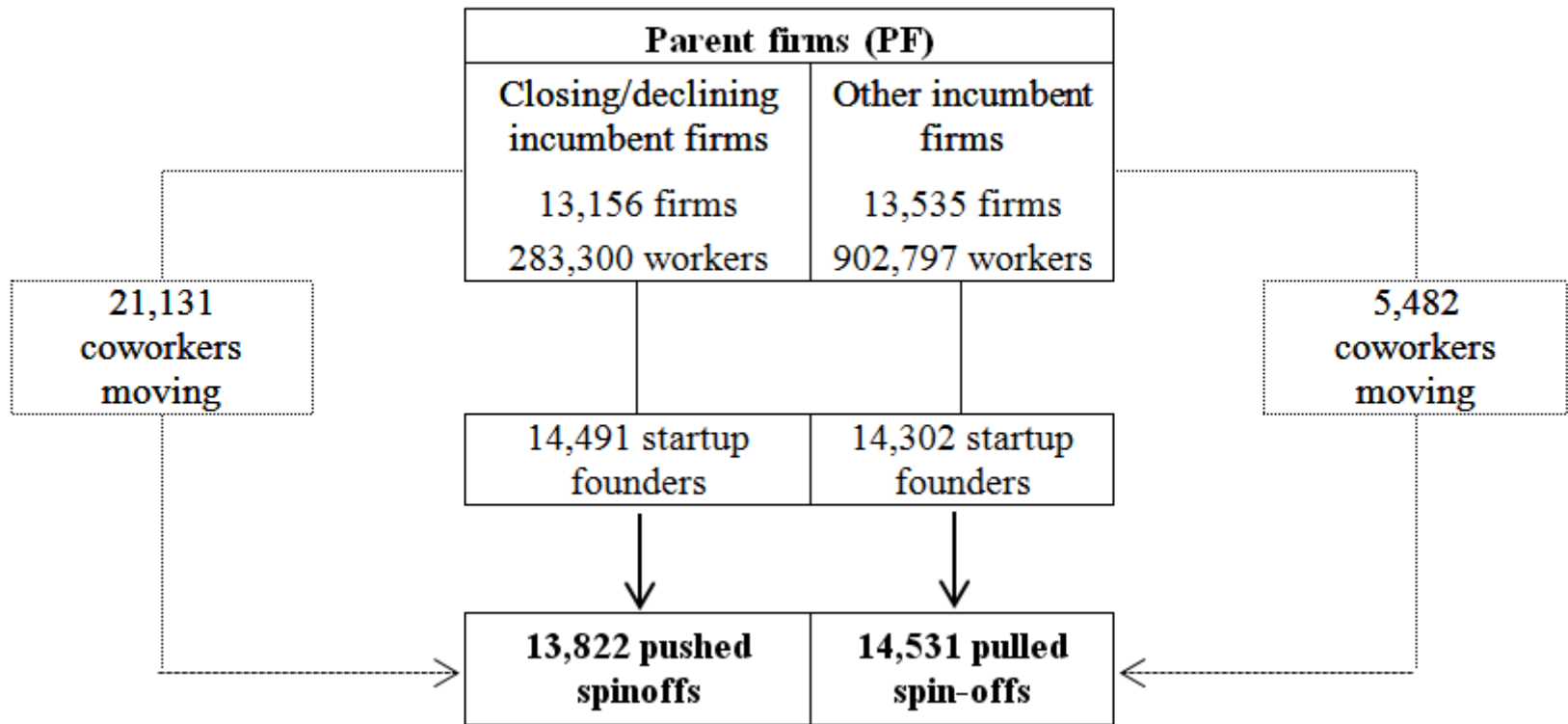
- Addresses the issues raised by founders' **self-selection in entrepreneurship**, and the potential **endogeneity in the decision of hiring former coworkers** from the parent firm



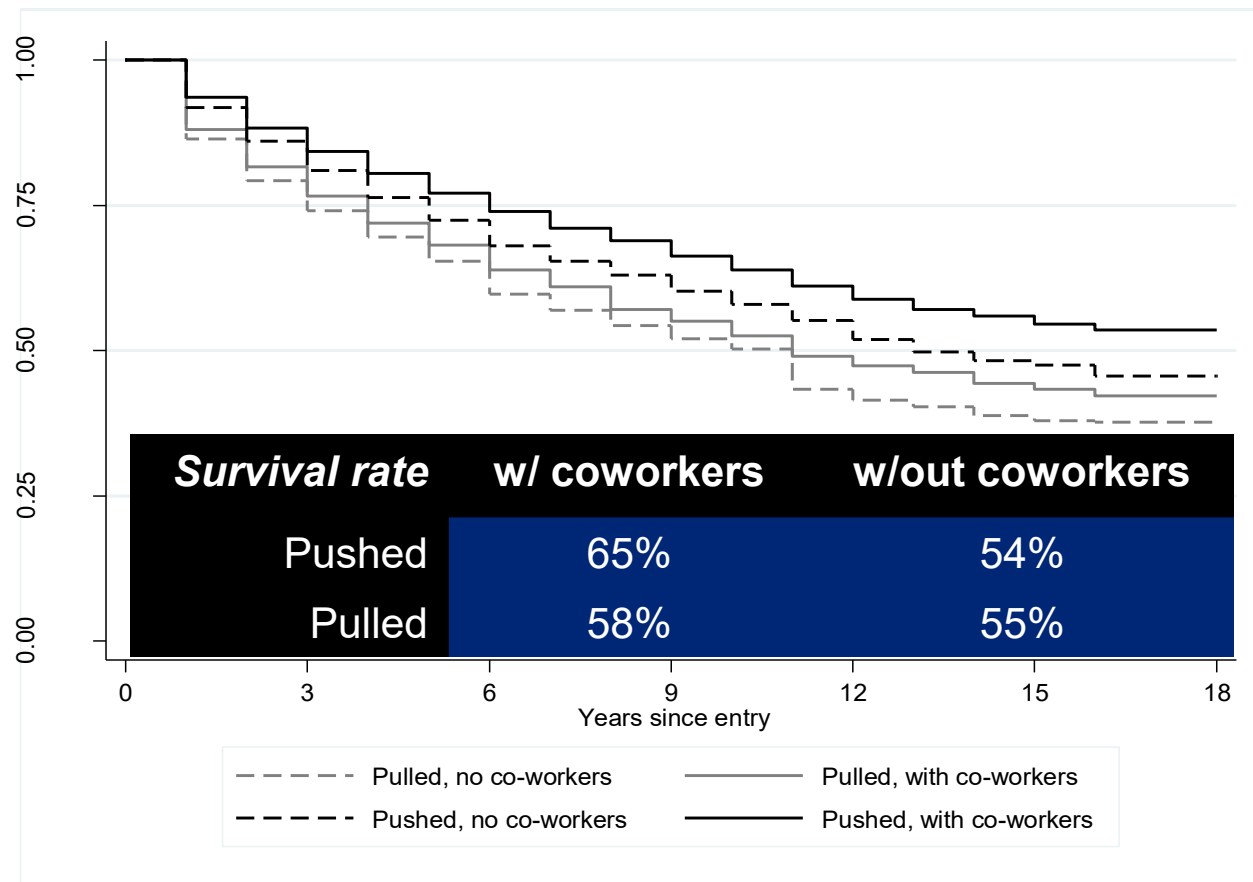
Data and Sample:

- **Quadros de Pessoal** database, matched employer-employee data from the Portuguese Ministry of Employment (1986-2009)
- Startups whose **founders were in wage employment before**
- Those originating from **downsizing** or **closed parent firms** are classified as **pushed-driven startups** (otherwise, pulled-driven)
- Total of **28,353 startups, with personnel**, founded between 1992-2007
- Possible to distinguish between the **founder** and the **workers**
- **Coworkers** are employees moving from the parent firm to the startup (among early hires)

Structure of the data

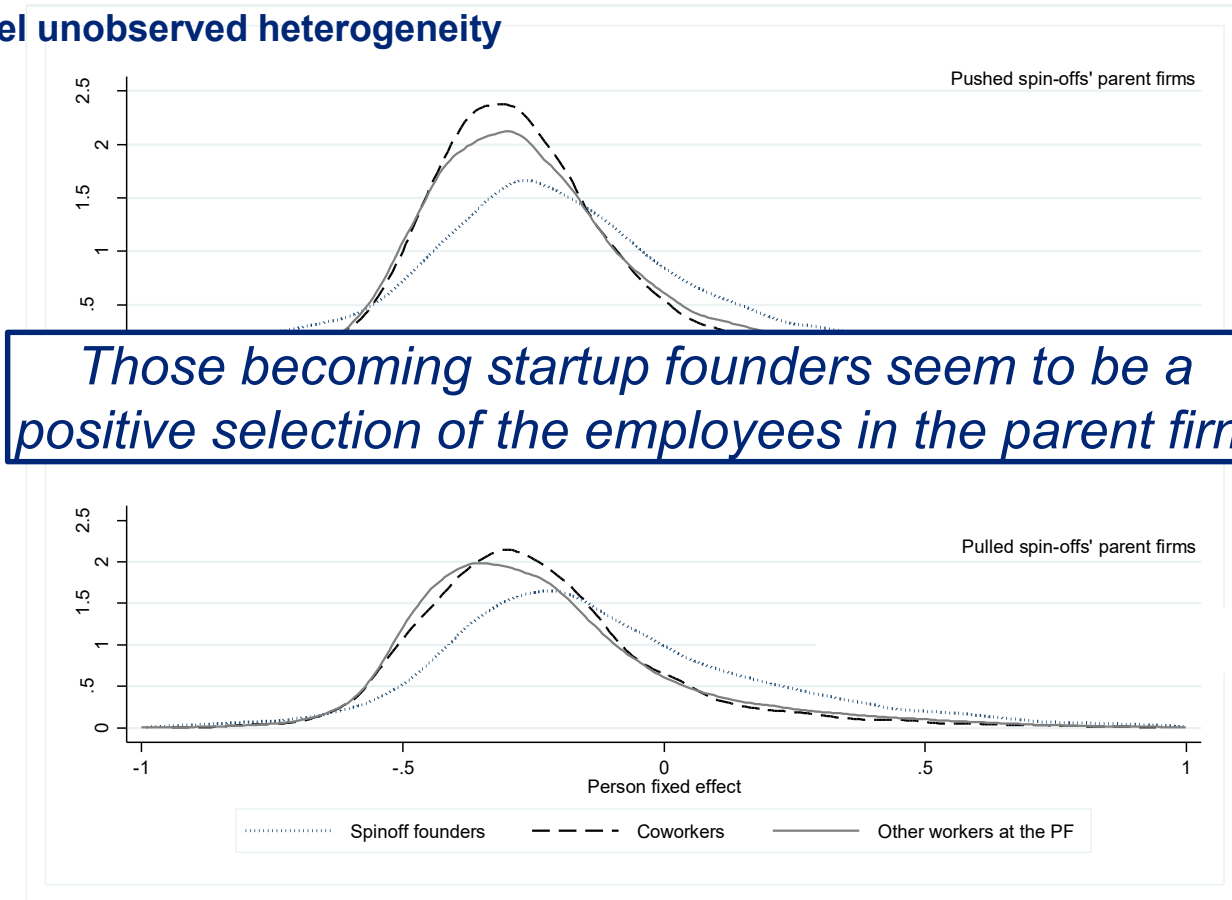


Survival of pushed and pulled-driven startups, w/ or w/out coworkers



Who spins-off?

Individual-level unobserved heterogeneity



Those becoming startup founders seem to be a positive selection of the employees in the parent firm



Who hires former coworkers?

- **Older** founders, with **lower levels of education/lower wage earners** on average
- More often in **pushed-driven** startups
- More often in startups established in the **same industry or region**
- Hiring coworkers decision is negatively correlated with unobservable factors driving individuals into e-ship (e.g., ability and/or risk taking preferences).
 - ***Negative selection of all the entrepreneurs in our sample***
- They may do so to try to compensate any relative disadvantage in terms of skills, knowledge, or experience >>> hiring coworkers may be endogenous to startup performance.



Method

Two empirical issues to be addressed:

- The best employees may leave employment and **self-select into e-ship**
- The **decision of hiring former coworkers** may be driven by individual unobservable characteristics and therefore **endogeneous to firm survival**

Multi-equation recursive systems (Roodman, 2011)

Controls:

individual's gender, age, education level,

previous management or e-ship experience,

tenure, wage and qualifications at the parent firm,

PF size, location, time, and industry dummies.

Exit equation also controls for:

entry size

ownership structure

workers' human capital.



The effect of hiring coworkers on spin-off exit risk

	Baseline single equation	Multi-equations estimation
Hire coworkers	-0.0789** (0.0329)	-0.1140* (0.0587)
Pushed spin-off	0.0338 (0.0250)	0.0368 (0.0261)
Hire coworkers*Pushed spin-off	-0.2338*** (0.0398)	-0.2261*** (0.0411)
Same 3d-industry of the PF	-0.0552*** (0.0200)	-0.0483** (0.0215)
Same municipality of the PF	-0.1084*** (0.0204)	-0.1081*** (0.0204)
Number of Observations	28,353	1,186,097
Log Likelihood	-13,849.0	-113,077.5

*, **, and *** mean significant at 10%, 5%, and 1% levels, respectively. Values in parentheses are robust standard errors. Controls as previously described.



Exploring the mechanisms through which coworkers may reduce new venture exit risk

	All startups	Pushed startups	Pulled startups
Hire coworkers	-0.1527** (0.0691)	-0.2556*** (0.0660)	-0.2081* (0.1105)
Pushed spin-off	0.0634** (0.0295)	<div style="border: 1px solid black; padding: 5px;"> Recruitment and adjustment costs increase hazards; pushed startups are even more vulnerable. industry or region </div>	
Hire coworkers*Pushed spin-off	-0.1348*** (0.0467)		
Same 3d-industry of the PF	-0.0457* (0.0276)	(0.0412)	(0.0374)
Same municipality of the PF	-0.0513** (0.0260)	-0.0253 (0.0416)	-0.0768** (0.0346)
Share of coworkers from the same industry of the PF	0.1318* (0.0797)	0.0981 (0.1010)	0.3124** (0.1577)
Share of coworkers from the same region of the PF	-0.1644** (0.0792)	-0.3223*** (0.1006)	0.3657** (0.1532)
Coworkers' average wage in the parent firm*	-0.0266** (0.0109)	-0.0155 (0.0119)	-0.1039*** (0.0265)
Turnover in initial workforce	0.2143*** (0.0212)	0.2968*** (0.0307)	0.1297*** (0.0297)
Number of Observations	1,186,097	283,300	902,797
Log Likelihood	-110,290.4	-49,255.4	-60,043.8

* The results are consistent when using the person-fixed effect as another proxy for ability and productivity potential.



The effect of hiring coworkers on other spin-off outcomes (Multi-equations estimation)

Average outcomes during the first three years of startup activity

	Employment growth	Hiring rates	Separation rates	Labor productivity	Sales growth
Hire coworkers	0.0213** (0.0106)	-0.0280*** (0.0103)	-0.0387*** (0.0056)	0.0764*** (0.0277)	0.0278* (0.0165)
Pushed spin-off	-0.0183*** (0.0052)	-0.0235*** (0.0048)	-0.0073 (0.0045)	-0.0440** (0.0224)	-0.0283** (0.0142)
Hire coworkers*Pushed spin-off	-0.0344*** (0.0078)	-0.0280*** (0.0072)	0.0073 (0.0068)	-0.0845** (0.0331)	-0.0711*** (0.0211)
Number of observations	1,186,097	1,186,097	1,186,097	1,186,097	1,186,097
Log-likelihood	-119,220.1	-117,618.9	-117,531.1	-141,172.1	-136,139.1

*, **, and *** mean significant at 10%, 5%, and 1% levels, respectively. For all outcomes the system of equations was extended in order to include an additional equation for the probability of surviving for at least three years, in order to take into account that surviving firms may correspond to the most efficient or represent the most talented entrepreneurs.

Startups hiring former coworkers seem to grow more during the first years and to be especially productive on average... but not pushed startups have less worker turnover afterwards... pushed-driven startups.



Main take-aways (1/2):

- Spin-offs **hiring coworkers** from the parent firm have **lower exit risks**
- The effects are particularly important in **pushed-driven startups**
- The **mechanisms** through which coworkers add value in these two types of spin-offs seem to differ:
- **Pushed spin-offs**
 - Benefit more from **intra-regional coworker mobility**
 - Are more vulnerable to **recruitment/workforce adjustment costs**
 - **Hire less – and grow less** – when hiring former coworkers
 - Do **not** seem to have **productivity gains** when hiring coworkers

Coworkers reduce pushed spin-offs' exit mostly by reducing searching costs.



Main take-aways (2/2):

▪ Pulled spin-offs

- Benefit more from **coworkers moving from other industries or regions**
- Are **also** vulnerable to **recruitment/workforce adjustment costs**, and face **lower turnover when hiring coworkers**
- **Grow more** and have **higher productivity levels** on average when hiring coworkers

Coworkers may reduce pulled spin-offs' exit not only by reducing searching costs, but also by transferring new knowledge (not existing in the firm), which may help boosting firm productivity and growth prospects



Discussion

- Labor (coworker) mobility plays an important role in pushed-driven spin-offs – a context largely overlooked in previous studies – and apparently through other mechanisms than knowledge transfer
- Pushed-driven startups' role in a) mitigating job losses caused by parent firm closure; b) avoiding the depreciation of human capital of recently displaced individuals
- Entrepreneurs hiring former coworkers seem to be a negative selection – lower chance of attracting better coworkers, which limits high growth prospects (especially in pushed-driven startups). A longer survival does not necessarily imply good performance. Scope for policy intervention.

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Thank you!

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