

Entrepreneurial Spillovers Across Coworkers

By Melanie Wallskog

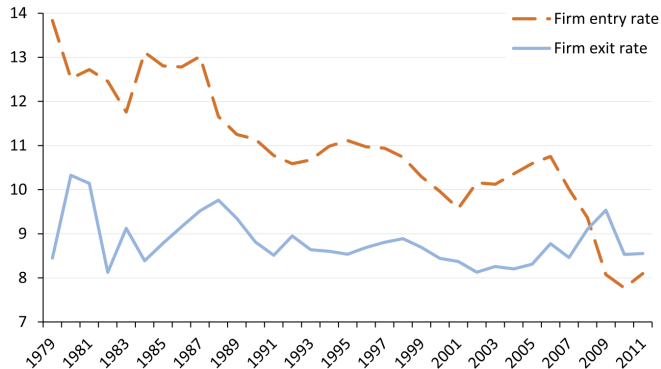
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Overview

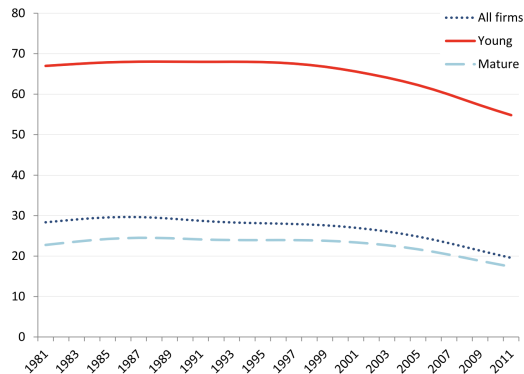
- ▶ Studies entrepreneurial spillovers across coworkers:
 - ▶ If your coworker has been an entrepreneur, are you more likely to become an entrepreneur?
 - ▶ What is the nature of the spillovers? Role model/motivation or learning?
 - ▶ How quantitatively important are these spillovers?
- ▶ Uses US Census matched employer-employee data to study these questions:
 - ▶ People are more likely to start new firms if exposed to entrepreneurial coworkers
 - ▶ More productive entrepreneurial coworkers breed more productive entrepreneurs
 - ▶ It matters at the aggregate level: spillovers account for 10% of entrepreneurship

Why is it important?



Entry and exit rates. From Decker, Haltiwanger, Jarmin, Miranda (2016)

Why is it important?



Percent of high-growth firms. From Decker, Haltiwanger, Jarmin, Miranda (2016)

Prior literature

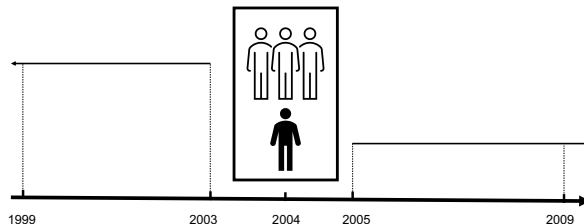
- ▶ Nanda and Sørensen (2010)
 - ▶ Use data from Denmark to study entrepreneurial spillovers across coworkers
- ▶ Lerner and Malmendier (2013):
 - ▶ Study entrepreneurial spillovers within HBS sections
 - ▶ Randomly assigned peer groups
 - ▶ Find negative effects, but HBS MBAs are a very selected group

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 - ▶ Use data from Denmark to study entrepreneurial spillovers across coworkers
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 - ▶ Randomly assigned peer groups
 - ▶ Find negative effects, but HBS MBAs are a very selected group
- ▶ This paper:
 - ▶ Uses comprehensive longitudinal data covering entire population in 18 states
 - ▶ Test the mechanism of productivity spillovers from successful entrepreneurs
 - ▶ Various tests to establish causality
 - ▶ Structural model to assess aggregate magnitude

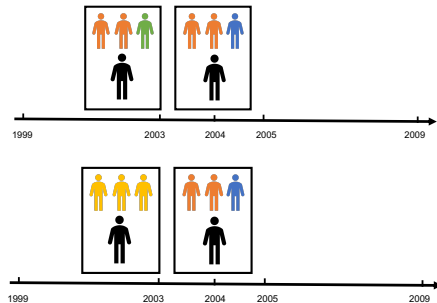
Empirical strategy

- ▶ The paper takes a single snapshot in 2004, and use share of coworkers in 2004 who were entrepreneurs in 1999–2003 to predict own entrepreneurship in 2005–2009



Empirical strategy

- ▶ Workers in 2004 are affected by coworkers before 2004 in the same firm or different firms



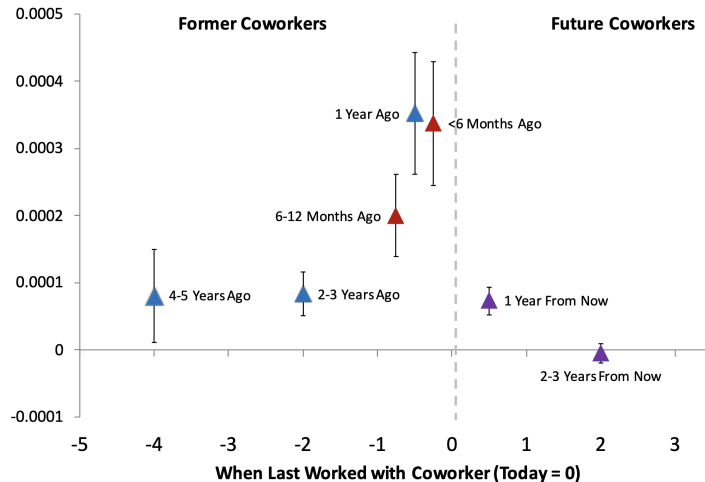
- ▶ This can explain why young workers “learn” the most from coworkers

Empirical strategy

- ▶ A key concern is that time-varying shocks at firm or establishment level affect the sorting of workers to firms. For example, when a firm invest in AI technology, it attracts former AI entrepreneurs and AI-skilled workers, who are likely to start a firm later
- ▶ When we consider the coworkers in the past, we can even control for establishment fixed effects. Why? Within establishments, different workers have different working history and different history of coworkers

$$Entrepreneurship_{ijt} = \sum_{\tau=t-k}^t \beta_{\tau} ShareCoworkerEntrepreneur_{i\tau} + \theta_{jt} + \epsilon_{it}$$

Caldwell and Harmon (2019)



Placebos

- ▶ Current placebo regresses future entrepreneurship on placebo coworkers who left the firm before 2004. Issue: time-varying firm shocks could be orthogonal to workers who already left
- ▶ Placebo 1: regress future entrepreneurship on lagged share of entrepreneurs in 2004 firm. For people who joined in 2003, shares before 2003 should not matter. For people who joined in 2002, shares before 2002 should not matter, etc.
- ▶ Placebo 2: regress future entrepreneurship on lagged share of entrepreneurs in firms the worker worked at before 2004. For example, if the worker left a firm in 2001, then the shares in that firm after 2001 should not matter.

Demographic groups

Group:	Dependent Variable: Entrepreneur in 2005-2009			
	Women		Immigrants	
	(1)	(2)	(3)	(4)
Share of coworkers with entrepreneurship	0.035*** (0.001)	0.047*** (0.001)	0.014*** (0.001)	0.014*** (0.001)
Share of coworkers with entrepreneurship × In group	-0.020*** (0.001)	-0.041*** (0.001)	0.049*** (0.001)	0.016*** (0.002)
Share of coworkers with entrepreneurship and in group		-0.037*** (0.002)		0.005** (0.002)
Share of coworkers with entrepreneurship and in group × In group		0.054*** (0.002)		0.036** (0.003)
Model (4) controls	x	x	x	x
Share of coworkers in group		x		x
Share of coworkers in group × In group		x		x
Mean(share entr. and in group)	0.013	0.013	0.007	0.007

- Spillover effect from women to women: 0.023 vs spillover effect from men to women: 0.006

The role of immigrants

- ▶ Spillover effect for non-immigrants: 0.014 vs spillover effect for immigrants: 0.063
- ▶ This is huge given entrepreneur rate for immigrants is 0.7% compared to 3.1% for the whole population
- ▶ Immigrants also generate more spillovers to than non-immigrants even for non-immigrants
- ▶ Is information barrier especially large for immigrants? Is there something special about immigrant entrepreneur coworkers? What sectors do these immigrants start new firms in? How do firms founded by immigrants perform?

Spillovers beyond coworkers

- ▶ Workers not only learn from coworkers, but can also learn from family, friends, social media connections, entrepreneurs within a region $\Rightarrow$ total entrepreneurial spillovers in the economy could be much larger
- ▶ Related to this paper: learning from entrepreneurs of own employers
 - ▶ Around 15% of US employment work at young firms less than 5 years old (Decker et al. JEP 2014)
 - ▶ 52% of entrepreneurs between 1999 and 2003 are still entrepreneur at current firm in 2004, and are more successful than people who are no longer entrepreneurs
 - ▶ If we apply the same calculation to entrepreneurs of current firms assuming that spillovers are equally large, what are the magnitudes?

Conclusion

- ▶ Important question and solid empirical work
- ▶ Suggestion:
 - ▶ Look into the dynamics of spillovers using the panel data structure
 - ▶ Explore the role of immigrants
- ▶ Good luck on the job market!