

# Writing a PhD in Entrepreneurial Finance

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*Professor of Finance*

# Entrepreneurial finance

- ◆ The study of financing of start-ups, and their growth
  - Angel investors, banks, VCs, Private Equity, etc.
- ◆ Why would you want to study that?
  - 1. It is interesting
  - 2. We have data

# The Gender Productivity Gap\*

(Job Market Paper)

Link to most current version: <http://goo.gl/h3hNji>

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## Abstract

Using Danish matched employer-employee data, this paper estimates the relative productivity of men and women and finds that the gender “productivity gap” is 12 percent—seventy five percent of the 16 percent residual pay gap can be accounted for by productivity differences between men and women. I measure the productivity gap by estimating the efficiency units lost in a firm-level production function if a worker is female, holding other explanatory covariates such as age, education, experience, and hours worked constant. To study the mechanisms behind the 4 percent gap in pay that is unexplained by productivity, I use data on parenthood and age. Mothers are paid much lower wages than men, but their estimated productivity gap completely explains their pay gap. In contrast, women without children are estimated to be as productive as men but they are not compensated at the same rate as men. The decoupling of pay and productivity for women without children happens during their prime-child bearing years. I provide estimates of the productivity gap in the cross-section and estimates that account for endogenous sorting of women into less productive firms using a control-function approach inspired by Olley-Pakes. This paper also provides estimates of the gender productivity gap across industries and occupations. Though the results do vary across industries and occupations, the overall estimate of the productivity gap is fairly robust to the specification of the production function.

JEL Classification: J71, J31, J24

Keywords: Discrimination, Wage Gap, Labor Productivity

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**Table 2: Questions in entrepreneurship research**

Question	Selected Empirical Papers	Selected Data Sets Used	Potential Value-Added
What are the dynamics of new business formation and growth?	Birch (1979), Dunne, Roberts, and Samuelson (1989), Acs and Mueller (2008), Davis and Haltiwanger (2014)	Dun and Bradstreet microdata, Census of Manufactures microdata. Longitudinal Estab. and Ent. Microdata (LEEM), Quarterly Workforce Indicators	QWI and J2J: Ability to observe labor dynamics at firms 0-1 years old, stratified by a variety of observable characteristics
How does entrepreneurship interact with the business cycle?	Gertler and Gilchrist (1994), Carree (2002), Congregado et. al. (2010), Fort et. al. (2013)	Quarterly Financial Report--Manufacturing, County Business Patterns, Current Population Survey, Business Dynamics Statistics	QWI and J2J: Time-series measures of hiring, separations, and poaching at young firms vs. established firms
How does entrepreneurship depend on the available labor force?	Combes, Duranton, and Gobillon (2008), Doms, Lewis, and Robb (2011), Ouimet and Zarutski (2012), Figueiredo et. al. (2014)	French microdata, Kauffman Firm Survey, Decennial Census, LEHD microdata, Portuguese Administrative microdata	QWI and J2J: Observe demographics of the labor force at young firms, such as age, sex, race, and education
How and why are geographic and industrial clusters formed?	Ellison and Glaeser (1997), Rosenthal and Strange (2003), Glaeser, Kerr, and Ponzetto (2010), Kerr and Kominers (2010)	Census of Manufactures, Dun and Bradstreet Marketing Indicators, Longitudinal Business Database, U.S. Patent Office microdata	QWI and J2J: Statistics available at fine levels of geography and industry detail
How are spinoffs created?	Klepper (2001), Franco and Filson (2006), Chatterjee and Rossi-Hansberg (2012), Agarwal et al. (2013)	Business Employment Dynamics, Disk/Trend Industry DataStatistics of U.S. Businesses, LEHD Microdata	J2J: Ability to detect flows within an industry and geographic location
Where do entrepreneurs come from?	Evans and Leighton (1989), Hurst and Lusardi (2004), Lazear (2005), Hurst and Pugsley (2011)	Current Population Survey, NLSY, Panel Study of Income Dynamics, Data Set of Stanford Alumni, Statistics of U.S. Businesses	Future Sole-Prop Statistics: Info on previous employment status and industry experience of business owners
How do entrepreneurs fare in their outcomes?	Bates (1990), Holtz-Eakin, Joulfaian, and Rosen (1994), Hamilton (2000), Moskowitz and Vissing-Jørgensen (2002)	Characteristics of Business Owners, Internal Revenue Service microdata, Survey of Income and Program Participation, Survey of Consumer Finances	Future Sole-Prop Statistics: Ability to measure earnings and year-to-year survival of sole-proprietor businesses

# Ideal PhD student

- ◆ Strong background in finance / economics
  - Quantitative, empirical, theoretical
- ◆ Ambitious, hard working
- ◆ Deliver leading empirical research
  - Figure out how the world works