

Immigration and Entrepreneurship in the United States

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NBER Entrepreneurship Program

Pierre Azoulay, Benjamin F. Jones, Daniel Kim, and Javier Miranda

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One economic narrative

“Immigrants take jobs”

- They expand labor supply
- Compete for jobs with native-born workers
- Wages fall

This narrative underpins policies that seek to limit immigration.

Existing Literature

- Mariel Boatlift “puzzle” (Card 1990; Borjas 2017)
- Absence of negative wage effects on natives in many additional studies (e.g., Hunt 1992, Friedberg 2001, Fogel and Peri 2016)
- Persistent economic gains for U.S. regions with more historical immigration (Sequeira et al. 2020, Tabellini 2020)
- What is going on...?

A different narrative

“Immigrants create jobs”

- For example, they start firms (e.g., Kerr & Kerr 2020)
- They increase demand for workers
- Wages rise

In this narrative, immigrants may improve welfare for native-born workers

This Paper

- Which immigration effect is stronger—the labor demand or the labor supply effect?
- If immigrants start businesses at high rates, but these tend to be small businesses, then this labor demand effect is weak and immigration may still depress wages
- But perhaps immigrants start lots of big firms...?

Theory: Put both forces together in general equilibrium

Empirics: Examine in comprehensive U.S. data

Theory (building on Lucas 1978)

- You can be a worker or an entrepreneur
- Workers receive a wage, w .
- Entrepreneurs start firms with production technology

$$y_i = a_i l_i^\beta$$

where

a_i is the entrepreneurial acumen of the founder,

l_i is the amount of labor employed at the firm, and

$\beta \in (0,1)$, indicating decreasing returns to scale

Theory

- Firms maximize profits.
- This pins down size of firm (employment and output)
- Increased founder acumen means larger firms, and more profit
- Potential founders weigh these profits against the prevailing wage. They start a firm if

$$a^*[g(\beta)] \geq w$$

Determining a^* , the threshold value of entrepreneurial acumen for entry to entrepreneurship

Theory

- Two forces for thinking about labor demand
 - 1) What share of individuals start firms?
 - 2) Conditional on starting these firms, how big are they?
- Example: Pareto distribution of entrepreneurial acumen.

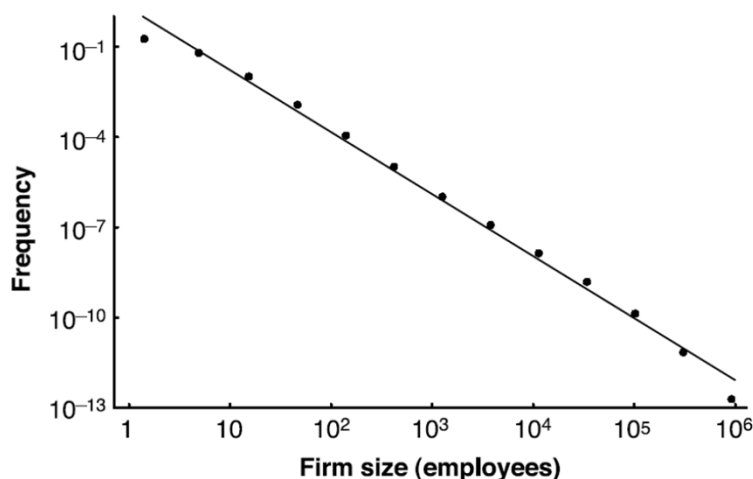
$$f(a) = \frac{\gamma a_{min}^{\gamma}}{a^{\gamma+1}}$$

In general equilibrium

- 1) Entrepreneur rate, worker rate, and wages pinned down
- 2) Zipf's Law for the firm size distribution

Zipf's Law

Axtell (2001)



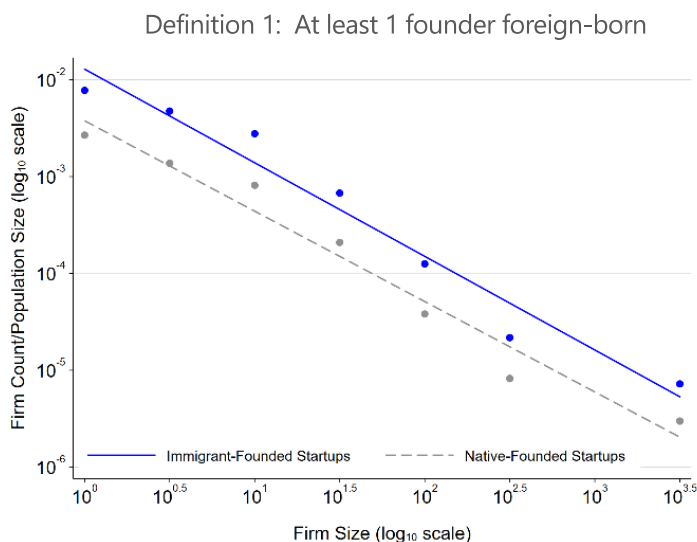
Theory – Add Immigrants

- Let there be N_0 native-born individuals, who have entrepreneurial acumen distributed $f_0(a)$.
- Let there be N_1 immigrant individuals, who have entrepreneurial acumen distributed $f_1(a)$.
- These individuals compete with each other for jobs and for employing workers.
- Proposition 1: Wages of native-born will be increasing with immigration (N_1) if the immigrant entrepreneurial acumen distribution is right-shifted ($f_1(a)$) compared to the native distribution ($f_0(a)$).

Empirics - Data

- 1) All new firms in the U.S. founded 2005-2010
 - 2) Representative sample of U.S. businesses today
 - 3) Fortune 500 companies
- Consider alternative ways of defining an immigrant-founded firm

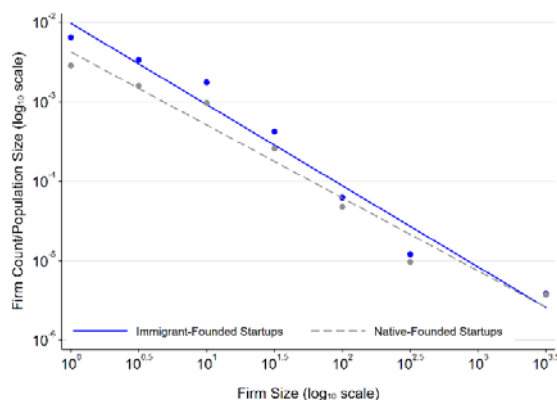
Findings, Administrative Data



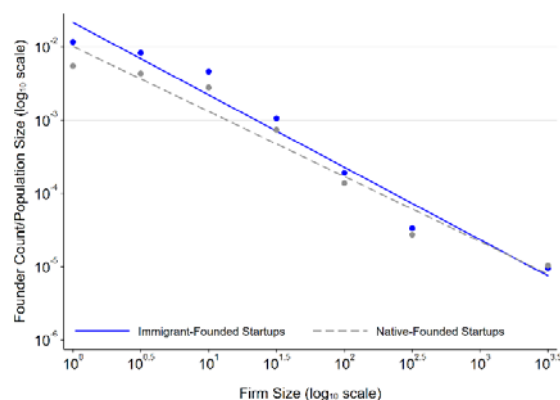
- Immigrant distribution is right shifted.
- Immigrants start firms with similar size distribution as those of native-born entrepreneurs.
- But they start firms at higher rates. Immigrants are “more entrepreneurial”.

Administrative Data - Robustness

Definition 2: Highest-paid founder foreign-born

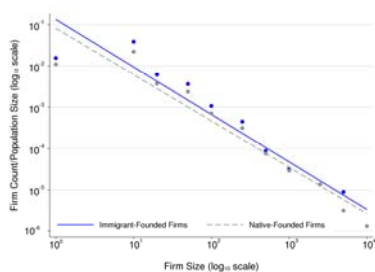


Definition 3: Proportional assignment

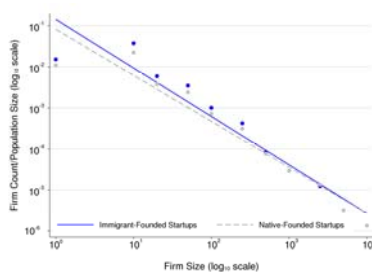


Representative Sample (SBO)

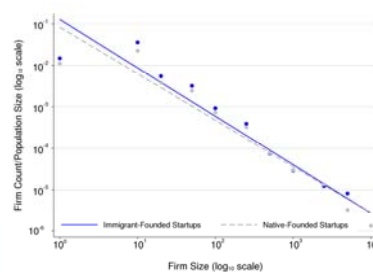
Definition 1:
At least 1 founder foreign-born



Definition 2:
Highest-share founder foreign-born



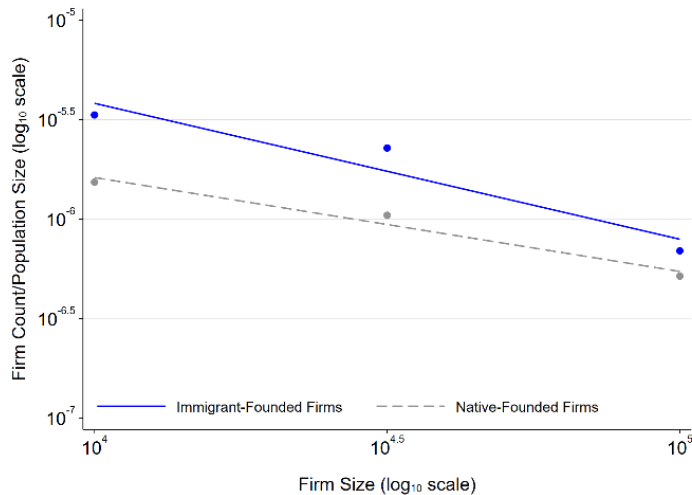
Definition 3:
Proportional assignment



- Similar findings to administrative data
- Immigrants start firms at an 80% higher rate than native-born individuals

Fortune 500 Firms

Definition 3: Proportional assignment



- Hand-collected data on founders of today's Fortune 500 companies
- Normalize founding rate by size of populations in founding year
- Similar results: immigrants to U.S. start eventual Fortune 500 firms at higher rates than native-born do

Discussion 1: Uncounted immigrants?

- Population measures for SBO and Fortune 500 analysis already include undocumented immigrants.
- How far off would these need to be to bring immigrant job creation rate down to native job creation rate?
 - Answer: Need to expand immigrant population by 42% (Administrative data) and 64% (Fortune 500 data).
 - This would mean that undocumented immigrant population is > 30m, whereas mainstream estimates are 10.5-12m.
- There is no evidence that immigration is understated by anything close to this magnitude.

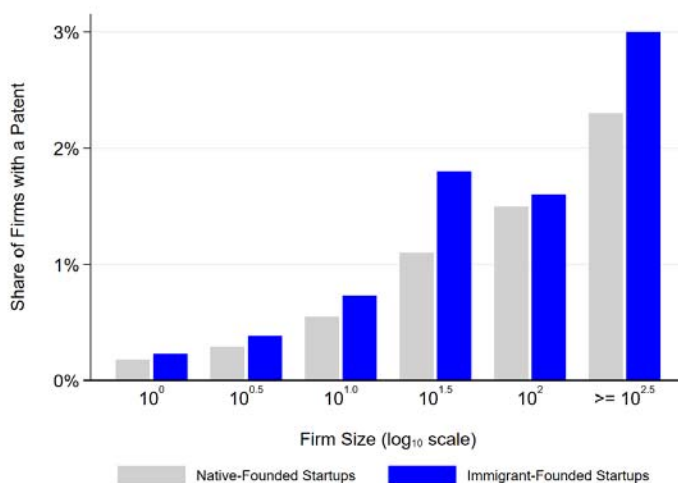
Discussion 2: Wages

- Lots of jobs from immigrant-founded firms, but perhaps low-wage jobs?

	DV = Ln(Annual Wages)					
	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant-founded firm	0.041*** (0.001)	0.045*** (0.001)	-0.000 (0.001)	-0.040*** (0.001)	0.008*** (0.001)	0.007*** (0.001)
Ln(Firm size)						-0.029*** (0.000)
Male				0.337*** (0.001)	0.245*** (0.001)	0.246*** (0.001)
Foreign born				0.082*** (0.001)	0.124*** (0.001)	0.121*** (0.001)
Observations (Individuals)	14,640,000	14,640,000	14,640,000	14,640,000	14,640,000	14,640,000
R-squared	0.000	0.001	0.010	0.131	0.230	0.231
Individual Age FEs				YES	YES	YES
Founding Year FEs		YES	YES	YES	YES	YES
County FEs			YES	YES	YES	YES
NAICS-4 FEs					YES	YES

- Study W-2 records for all workers in all new firms founded 2005-2010
- If anything, the evidence suggests that immigrant-founded firms pay slightly more than native-founded firms

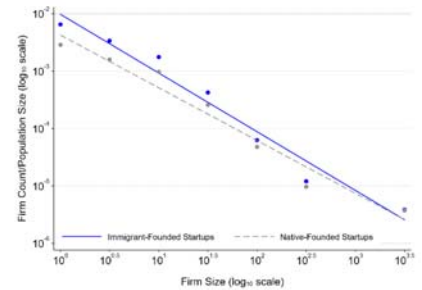
Discussion 3: Technology Businesses



- Administrative data, all 2005-2010 new firms
- Immigrants-founded firms more likely to have a patent in each size bucket
- Consistent with immigrant STEM orientation
- Model did not include innovation spillovers, but this suggests additional innovation benefits

Summary

- Integrating “immigrants take jobs” and “immigrants create jobs” perspectives, adding the force of founding firms.
- Develop simple model to provide general equilibrium intuition and make the measures precise.
- Administrative data to study all new firms. Also SBO and Fortune 500 data.
- Find labor demand side dominates; immigrants act more as job creators than job takers.
- If new ventures have technology spillovers, gains for domestic workers would further \uparrow .
- Can help resolve puzzles in studies of mass migration events (Mariel Boatlift, etc.).



Thank You