Surging Business Formation in the Pandemic: Causes and Consequences?

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The analysis and conclusions set forth here are those of the authors and do not indicate concurrence by members of the Federal Reserve staff or the Board of Governors.
The surprising surge in business applications...

• Business Formation Statistics (BFS): Applications for Employer Identification Number (EIN).
  • Excluded: trusts, estates, financial instruments, etc.
  • “Likely employer” – traits predictive of actual employer firm birth; “High-propensity” in BFS data
• Pandemic pattern:
  • Two waves: 2020, 2021-present
  • Likely employers and likely nonemployers move together (in cross section too)
• Did applications transition to actual employer businesses?

Note: All applications = BA series; likely employers = HBA series; likely nonemployers is residual.
...was followed by surging employer entry.

### Entry rate indexes (2019:Q1 = 1)

- **Applications (BFS)**
- **Establishment births (BED)**
- **Firm births (BED)**
- **Firm births (BDS)**

Note: Applications are likely employer (HBA). All series expressed as rates except BFS.

- **Employer business formation surged** starting in 2021:Q2.
  - **Establishment births**: 1 million jobs per quarter, 2021:Q2-2022:Q4
  - **Firm birth** data less timely, but jump in year ending March 2022

- **This paper**:
  - Public-use data, various sources
  - Characterize the surge in applications and employer entry
  - Relate to pandemic themes: geographic and industry restructuring, “Great Resignation”
  - Is “dynamism” back?
Applications tell pandemic industry stories...

Top industries for application surge:

- **Nonstore retailers**: online retail, others
- **Professional, scientific, & technical services**: includes architectural design, computer systems design, R&D, etc.
- **Personal & laundry**: pet care, others.
- **Administrative & support services**: Temp help, document preparation, call centers, landscaping, etc.
- **Truck transportation**: general & specialized freight.

Industries conducive to pandemic work, lifestyle, and business

Note: Average weekly pace by quarter.
with similar patterns for employer entry.

- Sectors with large “likely employer” applications surge tend to also see surges in firm births (through March 2022).
- Similar for establishment births through 2022:Q4.
- At narrower (3-digit) industry level, correlation 0.34 and statistically significant (all applications, establishment openings).

Applications show cross-country and within-city restructuring...

- **Donut effect** in cities related non-linearly to pop density, estab density, and changes in WFH.
...and **employer entry** exhibits similar geographic patterns.

![Graph showing relationship between number of business applications per capita and establishments per capita. The slope is 0.045 with a standard error of 0.005.](image)

Note: Difference vs pre-pandemic pace (logs)

Establishments per capita

0.15

Slope = 0.045
S.E. = 0.005

Business applications per capita

0.10


Source: QCEW and Census Bureau population estimates.
Entry surge coincides with “Great Resignation”...

**Business entry and worker quits (2019 = 1)**

- Great Resignation: persistent surge in quit rates
- At county level, use proxy: Excess separations (separations in excess of job destruction)
...a relationship also found for county-level pandemic growth (vs. pre-pandemic)

- Application surge tightly correlated with surge in quits (or proxy for quits)
- Not shown: Much weaker relationship for layoffs (or layoffs proxy), which had only an initial, short-lived spike
- What is the story?
  - Likely: Many workers quitting to join (or start) new businesses
  - Less likely: business formation surge explained by layoffs and weak labor market

Dynamism revived?

Change in firm & employment shares, Mar 2020-2022

- Pandemic dynamism:
  - Shift of employment share toward young firms...
  - ... and small firms (though also largest)
  - Surge of reallocation

- But...
  - Pandemic entrants are small
  - Reallocation jump does not match pre-pandemic decline
  - Durable reversal of dynamism trends requires continued entry surge, robust post-entry growth

Source: BLS BED
Final comments

• What happened?
  • Initial application wave: Short-lived in Summer 2020; Second wave: Started early in 2021, more resilient & coincides with employer entry
  • Potential entrepreneurs saw opportunities from change in patterns of consumption, work, lifestyle, and business—and went after the opportunities
  • Entry surge facilitated or followed broader pandemic economic restructuring across industry and geography
  • Many “quitters” likely flowed to new businesses

• Result:
  • Changes to geographic and industry pattern of economic activity
  • A slightly younger firm age distribution, more activity at small firms
  • A pause in declining dynamism. Reversal? Too early to tell.

• Implications for innovation and productivity?
  • Reshuffling (e.g., within-city restructuring) – unlikely to boost productivity
  • Startup surge in innovation-intensive sectors – historically connected to increase in innovation and productivity