Discussion of Barrios, Hochberg, and Yi (2024)

“Hustling from Home? Work from Home Flexibility and Entrepreneurial Entry”

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New Phenomenon Work-From-Home Meets Long-Standing Question “What Drives New Business Formation?”

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This paper studies:

How has the increased prevalence of Work-From-Home (WFH) influenced new business formation?

- Does WFH substitute or complement entrepreneurial activity?
- When? Why?

Context: New business formation in 2020

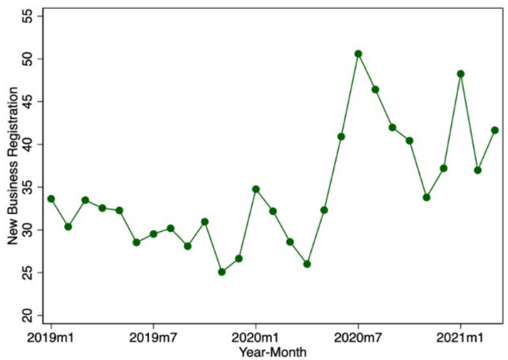
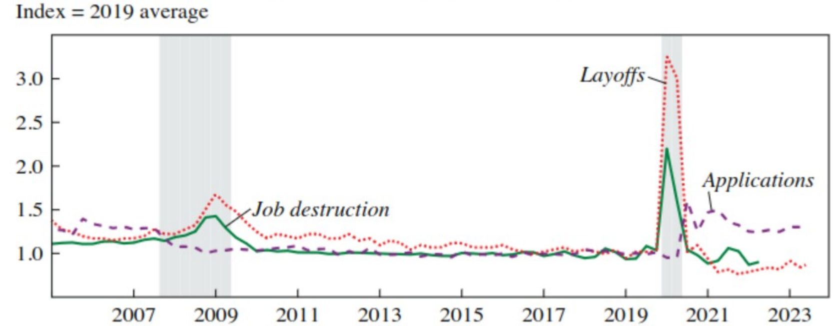


Figure 2. Trends in New Business Registration Surrounding the Covid-19 Pandemic

Notes: This figure displays average monthly number of new business registrations over time from January 2019 to March 2021. The sample include the seven U.S. states: FL, GA, KY, NY, TN, TX, and WA. The number of new business registrations is measured at the zip code level.

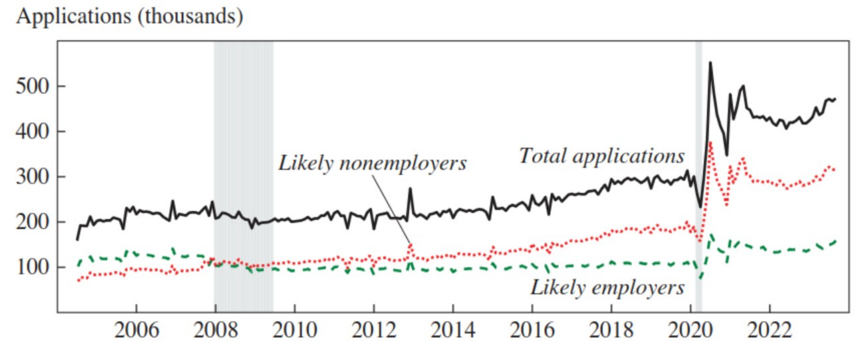
Panel B: Job destruction, layoffs, and applications



Source: QWI; JOLTS; BED; BFS; and the US Census Bureau J2J.

Note: Index of series expressed relative to employment or, for births, to establishments; seasonally adjusted. Applications are likely employers (HBA). Shaded areas indicate NBER recession dates.

Figure 1. New Business Applications



Source: Census Bureau Business Formation Statistics.

Note: Seasonally adjusted. Total applications = BA series; likely employers = HBA (high-propensity applications) series; likely nonemployers is residual. Shaded areas indicate NBER recession dates.

Source: Decker and Haltiwanger (2023)

Context:

- Existing literature has documented surge in new business formations in 2020
  - Potentially connected to: structural breaks, layoffs, quits

Recap

Main Finding:

- Increased new business formation in 2020 muted in zip codes with more WFH opportunities

Methodology:

- Analysis at zip-code level
- Exploiting differences in the teleworkability potential
  - Data: share of potentially teleworkable workforce constructed by Gupta et al. (2022)
- DiD design comparing zip codes pre/post March 2020
- Outcome variable: number of monthly new business registrations
  - Data: Startup Cartography Project

Interpretation of the main finding as a flexibility substitution channel:

- WFH reduces the desire to start a new business in search for autonomy and flexibility

Key further pieces of evidence in support of the mechanism:

- Pattern more pronounced
  - in regions w higher internet speed and when using realized WFH based on remote job postings
  - In economically weaker regions
- Same pattern
  - using the share of women-led new businesses as alternative outcome variable
  - in survey responses on flexibility preferences & entrepreneurial intent among 1,000 individuals

Context for Discussion

Broadly:

- Paper documents very interesting geographic heterogeneity in pandemic-era business formation
- Flexibility substitution mechanism is plausible and consistent with results
- I am not fully convinced the paper currently nails the mechanism in the data

Plan for Discussion

1 Marginal business/ Sector composition
2 Within- vs. across-occupation mechanism?

3 Timing and alternative channels

4 Further thoughts on: C corporations, long-run survival, intra-household spillovers

1 Marginal business/ Sector composition

- Authors emphasize that most new businesses are small, traditional businesses rather than high-growth-oriented start-ups.

- Natural questions:
  - Which sectors are most of the new business registrations in?
  - Which occupations are most prevalent in these sectors?

- From Hurst and Pugsley (2011): “most small businesses are either
  - restaurants (full service, limited service, or bars),
  - skilled professionals (physicians, dentists, lawyers, accountants, architects, consultants),
  - skilled craftspersons (general contractors, plumbers, electricians, masons, painters, roofers),
  - professional service providers (clergy, insurance agents, real estate agents),
  - general service providers (auto repair, building services such as landscaping, barbers […]), or
  - small retailers (grocery stores, gas stations, clothing stores).”

Suggestion #1:
- More on the sectoral composition of the new businesses formed
- What is the marginal business affected?

1 Marginal business/ Sector composition

- Authors start with a pre-pandemic (2011-2018) benchmark at the zip-code-quarter level
  - 42 available states and the District of Columbia

Table 2. Relation between Telework Potential and New Business Entry before the Pandemic

	(1) Log New Business Registration	(2) Log New Business Registration	(3) Log New Business Registration
Teleworkable Share (std)	0.494***	0.146***	0.140***
	(0.013)	(0.014)	(0.014)
Controls	N	Y	Y
State-by-Quarter FE	N	N	Y
Observations	248,409	248,409	248,373
R-squared	0.120	0.694	0.819

This table presents the results from panel OLS regressions of log new business registration on teleworkable share. Teleworkable Share is standardized to have a mean of zero and a standard deviation of one. The sample spans years 2011 through 2018 and covers 42 available U.S. states and the District of Columbia. The level of observation is a zip code-quarter. In Column (1), no control variables or fixed effects are included. In Column (2), we control for the natural logarithm of population, AGI, unemployment rate (tax return share reporting unemployment compensation and BLS unemployment rate), and net outmigration. In Column (3), we additionally control for state-by-year quarter fixed effects. Other variable definitions can be found in Table 1 legend. Standard errors are reported in parenthesis and are clustered at the zip code level.

2 Within- vs across-occupation mechanism?

- To fix ideas:

- Low-WFH worker
- Entrepreneurial activity likely “traditional”

- High-WFH worker
- Entrepreneurial activity likely “growth-oriented”

- WFH potential
- Entrepreneurial activity ambiguous

- For the pre-pandemic finding:
  - Is it driven by a higher share of tax lawyers who found businesses?
  - Is it driven by more software engineers coexisting with more coffee shop openings?

Suggestion #2:
- Unpack the teleworkability measure, e.g.,
  - How much driven by few occupations? Which occupations?
- What drives the pre-pandemic finding?

2 Within- vs across-occupation mechanism?

- Pre-pandemic:
  - Did we see a structural shift in demand that is met with a structural shift in supply?
  - High-WFH workers may create the local demand for services that low-WFH workers provide

- During the pandemic:
  - High-WFH workers keep their job
  - Local service providers were hit hard by the lockdown measures

Suggestion #3:

- Any way to bring in within-occupation evidence?
- What do we learn from further mechanism tests for within-occupation vs across-occupation story?
  - E.g., across-occupation story still consistent with higher realized WFH levels in these regions?

3 Timing and alternative mechanisms

- Main specification in the paper:

$$\log(NBR_{i,t}) = \beta\ POST_t * TWShare_i + X_{i,t} + \gamma_t + \theta_i + \varepsilon_{i,t}, \quad (1)$$

controls for size, average income, unemployment rate, net outmigration, new Covid case rate

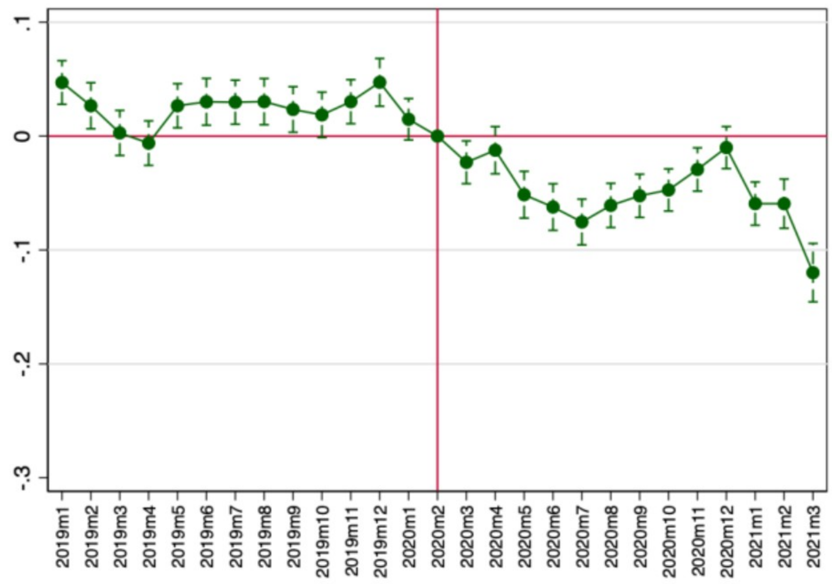


Figure 3. Dynamic Difference-in-Difference Estimates of the Effect of Telework on Entrepreneurship During the Pandemic

Suggestion #4:

- Rationalize the timing:
  - What explains the gradual decline and the large March 2021 drop?

3 Timing and alternative mechanisms

- **Employment-stability channel:**
- Those in occupations with high WFH potential were less likely to be furloughed, less need to start a business out of necessity (“forced entrepreneurial entry”, p14)

- **Product-complexity channel:**
- Occupations with high WFH potential are often office jobs where the product is more complex
  - e.g., insurance claims, clinical trial design
- Starting a new business there is harder compared to e.g. working as barista/ starting a coffee shop
- Disruption-induced new ventures more likely in industries with simpler products

Suggestion #5:

- Bring in richer controls (e.g., unemployment at the monthly level, occupational distribution) and report how the estimates change
- Discuss alternative mechanisms in more detail
  - E.g., employment-stability channel consistent w/ more pronounced effect in weaker regions?

4 Further thoughts: On C corporations

- Very interesting finding
  - Sign of the effect switches for alternative outcome variable:
  - Share of C corporations = # C corporations founded / # new business formations

Table 5. Compositional Effects: Growth Oriented Vs. Small Business Entrepreneurship

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Share of Corp Business Registration				Log Share of Corp New Business Registration			
Post X Teleworkable Share (std)	0.004**	0.011***	0.011***	0.012***	0.043***	0.068***	0.066***	0.053***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.007)	(0.005)	(0.005)	(0.005)
Lower Order Terms	Y	Y	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y	Y	Y
State FE	N	Y	N	N	N	Y	N	N
Year-Month FE	N	Y	Y	N	N	Y	Y	N
Zip FE	N	N	Y	Y	N	N	Y	Y
State-by-Month FE	N	N	N	Y	N	N	N	Y
Observations	63,434	63,434	63,429	63,429	49,365	49,365	49,289	49,289
R-squared	0.016	0.400	0.562	0.564	0.084	0.575	0.727	0.736

- To what extent is this a mechanical effect?
- Suppose:
  - Number of new C corporations unchanged across all zip codes
  - Number of new business formations increase less in zip codes with high WFH share
  - Then mechanically the share of C corporations increases more in zip codes with high WFH share

Suggestion #6:

- Look at the number of C corporation founded, decompose numerator vs. denominator effects

4 Further thoughts: On long-run survival

- Are these new business registrations in 2020 persistent firms?
- Anecdotal evidence:
  - Start of a cake business as a side hustle to (then newly remote) full-time job
  - New business registered
  - Business did not last long
- Are there geographic differences in the survival rates of pandemic-era business?

Suggestion #7:

- Take a longer-term perspective
  - Can we learn something about the success rates of the businesses founded following the major structural break in 2020 depending on the local conditions?

4 Further thoughts: On intra-household spillovers

- Authors zoom in on women-led new businesses
  - Idea: group that places high value on flexibility

- Unsure what to expect when taking into account not only individuals’ flexibility preferences but also those induced by a family

- There could be intra-household spillovers?
  - Man works from home, takes over more childcare responsibilities
  - Woman has more flexibility in her occupational choice

Final Thoughts

- Thought-provoking paper on
  - the effect of WFH on the formation of new businesses
  - regional heterogeneity in the surge of pandemic-era business registrations

Punchline:

- The shift toward WFH may have far-reaching consequences for entrepreneurship if non-pecuniary incentives behind entrepreneurship (e.g., autonomy, flexibility) are met by WFH instead

A few further thoughts prompted by the paper:

- To what extent does the career stage matter?
- Is autonomy desired by entrepreneurs the same as workplace flexibility?

Very much looking forward to the next version!