"Historical Entrepreneurship and Local Growth"

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Extended Abstract

Regional economic activity often exhibits striking persistence over long historical time periods. Population concentrations, industrial specialization, and centers of innovation frequently endure for decades or even generations. Economic historians and regional economists have long emphasized that these patterns reflect persistent local capabilities embedded in human capital, institutions, and knowledge networks.

A growing literature documents similar persistence in entrepreneurship. Regions with historically high rates of business formation tend to remain entrepreneurial across generations. Studies of regional entrepreneurship in Germany and the United States find that local rates of firm formation remain strongly correlated over periods spanning many decades (Fritsch and Wyrwich 2014; Glaeser, Kerr, and Kerr 2015). Most existing work, however, measures entrepreneurship using counts of firms or self-employed workers. These measures capture the quantity of entrepreneurship but not its economic significance. Yet research on entrepreneurship increasingly emphasizes that new firms differ sharply in their growth potential. Most entrants remain small, while a small minority generate disproportionate innovation and employment growth (Schoar 2010; Guzman and Stern 2020).

This distinction raises a basic question about the long-run geography of entrepreneurship. Do historically entrepreneurial places remain entrepreneurial because they sustain high rates of firm entry, or because they sustain high-quality entrepreneurship?

More broadly, how persistent are different dimensions of regional economic capability?

Research Opportunity

New historical data make it possible to study these questions at national scale. The 1940 full-count Census records whether self-employed individuals employ other workers, allowing us to distinguish employer-entrepreneurs from subsistence self-employment and construct county-level measures of entrepreneurial activity consistent with modern definitions of entrepreneurship (Hurst and Pugsley 2011). The Census also records educational attainment for each individual, which allows us to measure the human capital composition of entrepreneurs and compare the allocation of skilled workers into entrepreneurship rather than wage employment.

The 1940 Census provides a useful historical baseline for this analysis. It captures regional entrepreneurship before the rise of modern venture capital, research-driven startup ecosystems,

and the contemporary technology sector, thus enabling us to compare regional entrepreneurial dynamics across very different economic environments.

We combine these historical measures with modern data on entrepreneurship and innovation. Contemporary firm formation and predicted growth potential are drawn from the Startup Cartography Project (Andrews, Fazio, Guzman, and Stern 2022). Innovation outcomes are measured using patent data from HistPat and PatentsView.

These sources allow us to construct a county-level panel linking entrepreneurship, innovation, and population across roughly seventy years.

Empirical Approach

We estimate persistence regressions linking contemporary county outcomes to their historical counterparts. Outcomes include:

- Population;
- Patenting;
- Entrepreneurial entry;
- Entrepreneurial quality.

Each outcome enters the regressions in logarithmic form. Rather than focusing on individual regressions in isolation, we compare the degree of persistence across these different dimensions of regional economic activity.

Population persistence provides a benchmark for regional stability. Comparing other outcomes to this benchmark allows us to assess which regional characteristics appear highly durable and which exhibit greater turnover across long horizons.

Preliminary Results

The results reveal a clear hierarchy of persistence (see Table 1). Population exhibits extremely strong persistence. Counties that were large in 1940 remain large today, with persistence coefficients near one. This pattern is consistent with earlier work showing that historical locational advantages generate durable population concentrations (Bleakley and Lin 2012).

Innovation activity is also persistent. Counties with high levels of patenting historically tend to remain innovation centers today. This pattern is consistent with evidence that regional innovation leadership often persists over long periods despite major technological transitions (e.g., Andrews and Whalley 2022).

Entrepreneurial entry shows a similar degree of persistence. Counties with high rates of employer entrepreneurship in 1940 tend to have higher levels of firm formation today. This finding suggests that geography of firm formation behaves more like the geography of innovation than like population.

Entrepreneurial quality, on the other hand, exhibits substantially weaker persistence. Counties with highly educated entrepreneurs historically are only weakly more likely to host high-quality startups today as measured by the Entrepreneurial Quality Index.

Taken together, the results suggest that persistence declines sharply as we move from population to innovation to entrepreneurial entry and finally to entrepreneurial quality.

Interpretation and Next Steps

These results suggest that different dimensions of regional economic activity persist over different time horizons. Population distributions appear highly durable, while innovation activity and entrepreneurial entry exhibit substantial but incomplete persistence. By contrast, the geographic distribution of high-growth entrepreneurial opportunities appears far less stable over long periods.

One interpretation is that while regional ecosystems may sustain innovation and firm formation, the frontier of entrepreneurial opportunities available in those regions evolve over time. Understanding why some regions successfully renew high-quality entrepreneurship while others do not is an important question that we seek to uncover in the proposed paper.

The full paper will explore several potential mechanisms, including the role of research universities, historical industrial structure, and access to entrepreneurial finance in shaping the long-run evolution of regional entrepreneurial ecosystems.

These findings speak directly to debates over place-based policies aimed at fostering entrepreneurship. Policies that increase the rate of business formation may reinforce existing entrepreneurial activity, while policies aimed at sustaining regional economic growth may depend more heavily on institutions that support the renewal of innovative opportunities. This distinction echoes a broader concern in the policy literature that programs designed to stimulate entrepreneurship often increase the quantity of new firms without necessarily generating high-growth ventures (Lerner 2009).

References

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Table 1: Persistence in County Characteristics

	(1) Population in 2010	(2) Patent Quantity in the 2010s	(3) Entrepreneur Quantity in 2010	(4) Entrepreneur Quality In 2010
Log population in 1940	1.053***			
	(0.020)			
Log patent quantity in the 1940s		0.762***		
		(0.018)		
Log entrepreneur quantity in 1940			0.758***	
			(0.033)	
Log entrepreneur quality in 1940				0.00024***
				(0.00007)
Observations	1,874	1,874	1,874	1,870
R^2	0.600	0.494	0.216	0.006

Notes: Each column reports a separate county-level OLS regression. Standard errors are in parentheses. Column (1) regresses log population in 2010 on log population in 1940. Column (2) regresses log patent quantity in the 2010s on log patent quantity in the 1940s. Column (3) regresses log entrepreneur quantity in 2010 on log employer count in 1940. Column (4) regresses log entrepreneur quality index in 2010 on log education year of entrepreneur in 1940.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.