

### **Entrepreneurship in Focus**

FGF-Forschungsnetzwerk Entrepreneurship, Innovation und Mittelstand e.V. and IfM Bonn

Issue 07/2025

# Local Entrepreneurship Helps Places Bounce Back After Extreme Weather Shocks

Christian Heinzel, W. Scott Langford, Vinzenz Peters, Mark Sanders

#### **Summary**

The presence of entrepreneurial organizations in an economy is associated with greater regional resilience to external shocks. Why? Entrepreneurs are characterized by qualities that make them more resilient to crises, such as increased flexibility and being accustomed to functioning well under stress and pressure, strengthening the resilience of their regions. Policymakers and investors should recognize the resilience benefits of supporting local entrepreneurship.

Recent years have been characterized by a series of overlapping and compounding crises that have tested the resilience of our economies. These include the lingering effects of the Covid pandemic, energy and food price shocks driven by the war in Ukraine, and increasingly frequent and severe climate-related disasters that threaten infrastructure, livelihoods, and regional economic stability. Adding insult to injury, rising interest rates aimed at curbing inflation have increased debt burdens for both sovereigns and businesses, slowing down efforts for swift and sustained recoveries.

To many, these challenges underscore a new era of economic uncertainty, where crisis management and resilience-building become central to policy and business strategies. In this context, extreme weather events such as storms, floods, and wildfires constitute a distinct category of exogenous shocks, characterized by their potential for substantial physical damage, their often-unanticipated nature, their brief duration, and their infrequent occurrence. Because these shocks are typically concentrated in specific regions or locations, they permit a more precise identification of impacts and resilience than other types of shocks.

A recently published study in the *Journal of Business Venturing Insights* utilizes extreme weather shocks to demonstrate that regions with a higher concentration of young and small firms, proxying for local entrepreneurship, exhibit significantly greater resilience to exogenous shocks (Heinzel et al., 2025).

### How entrepreneurs contribute to the resilience of local economies

A priori, it is not clear that regions characterized by a higher density of young and small firms would be more resilient to extreme weather events.

On the one hand, we know that younger firms and small and medium-sized enterprises (SMEs) must be (more) resilient to survive. These organizations exhibit heightened responsiveness to both threats and opportunities, a greater aptitude for operating in uncertain environments, and a propensity to act on new information and innovate in response to shifting circumstances. In previous research, these features have been identified as predictors of both entrepreneurial success and psychological resilience (Korber and McNaughton 2018).

On the other hand, young and small firms may be more susceptible to the adverse effects of extreme weather events compared to their larger counterparts. Small businesses may lack redundancies or access to external capital during periods of economic downturn due to their limited size and scope. Moreover, they are often not geographically diversified, making them more vulnerable to local economic fluctuations (Miklian and Hoelscher 2021).

SMEs, especially young ones, thus exhibit a combination of distinctive advantages and disadvantages that play a pivotal role in shaping regional resilience. The net effect of their presence on local resilience is an empirical matter that merits further investigation.

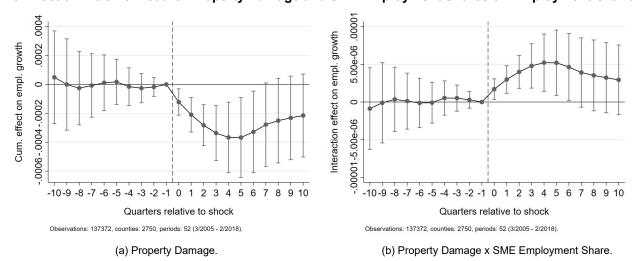
## The local resilience benefits of entrepreneurship

To address this question, Heinzel et al. (2025) analyze quarterly data from over 2,700 U.S. counties over the period 2003-2020, along with detailed information on damages caused by extreme weather events. Using an event study design, they examine the economic impact before, during, and after extreme weather events. They specifically inspect how the employment share of young and small firms influences the local labor markets' ability to withstand and recover from shocks.

Their findings indicate that extreme weather damages exert a substantial negative influence on employment growth, lasting for around five quarters (Panel (a) in the accompanying figure). The employment share of young and small firms is found to be a significant mitigating factor, as evidenced by Panel (b) of the accompanying figure. These findings are consistent with the notion



#### The Effect of Extreme Weather Property Damage and SME Employment Shares on Employment Growth



Panel (a) shows the cumulative event study estimates for leads and lags of property damage on county-quarter-level employment growth. Panel (b) shows the estimates for leads and lags of the interaction of the small firm employment share and property damage. The x-axis depicts the estimates for 10 leads (starting at t-10), the quarter of the event (t=0), and 10 lags (ending at t+10), including 95% confidence intervals. The first lead is set to zero. Please consult Heinzel et al. (2025) for full results.

that a region's resilience to extreme weather shocks is positively correlated with the number of entrepreneurial organizations in the local economy. The effects are both economically relevant and statistically significant.

### Strengthening local entrepreneurship to increase local economic resilience

By highlighting the systemic value of entrepreneurship, these findings go beyond existing knowledge about disaster response and resilience. While physical infrastructure and insurance remain pivotal in the face of climate shocks, the resilience of a locality is also contingent on the composition of its local economy and local businesses.

Policymakers and investors should therefore recognize the resilience-enhancing benefits of supporting local entrepreneurship. This includes the provision of targeted support for nascent firms, the elimination of superfluous barriers to entry, and the incorporation of entrepreneurship into resilience planning. Investing in young and small businesses benefits economic development and protects local economies from negative employment impacts of extreme weather events.

For future research, this study motivates deeper investigation into the underlying mechanisms that link entrepreneurship to regional resilience. For those involved in climate adaptation, regional economic development, or entrepreneurship policy, this study provides underlining empirical evidence that young and small firms deserve more attention—and investment—as part of resilience-building strategies.

Christian Heinzel is a PhD student at the University of Mannheim. Scott Langford is an Assistant Professor at Texas State University. Vinzenz Peters is a post-doctoral research economist at the Institut für Mittelstandsforschung Bonn. Mark Sanders is Professor of International economics at Maastricht University.

#### References:

Heinzel, C., Langford, W. S., Peters, V., & Sanders, M. (2025). Young and small firms and resilience to extreme weather events. Journal of Business Venturing Insights, 24, e00541. https://doi.org/10.1016/j.jbvi.2025.e00541

Korber, S., & McNaughton, R. B. (2017). Resilience and entrepreneurship: a systematic literature review. International Journal of Entrepreneurial Behavior & Research, 24(7), 1129–1154. https://doi.org/10.1108/ijebr-10-2016-0356

Miklian, J., & Hoelscher, K. (2021). SMEs and exogenous shocks: A conceptual literature review and forward research agenda. International Small Business Journal: Researching Entrepreneurship, 40(2), 178–204. https://doi.org/10.1177/02662426211050796

#### **Imprint**

The authors of the individual articles are responsible for the content of their articles

Editors: Prof. Dr. Dr. h.c. Friederike Welter (IfM Bonn, Univer-

sität Siegen)

Prof. Dr. Matthias Baum (FGF e.V., Universität Bay-

reuth)

V.i.S.d.P.: **Dr. Jutta Gröschl** (IfM Bonn).

Dr. Madlen Schwing (FGF e.V.)

Websites: www.ifm-bonn.org www.fgf-ev.de