

Small Businesses and the Digital Divide

Impact of AI and Technology on Business Productivity

Nicolas Serrano-Velarde

Bocconi University

Washington - March 4, 2025

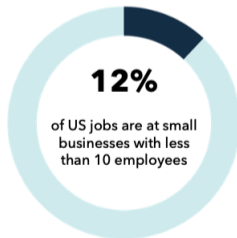
The Quiet Powerhouses: Small Businesses in the U.S. Economy



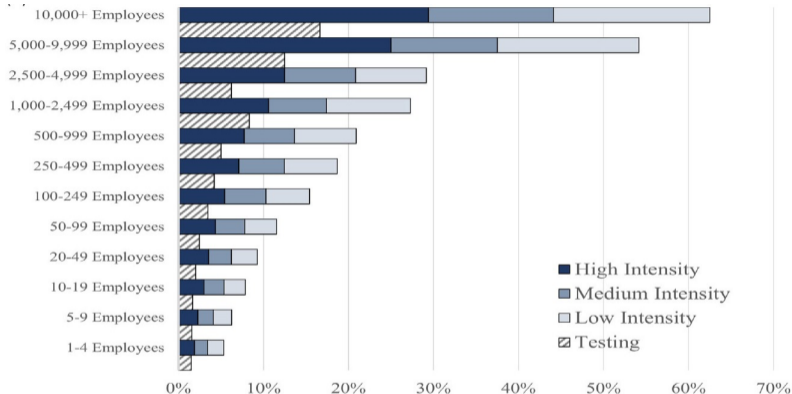
>> Find out how this % has changed over time (from 1992 to 2020) using raw data [here](#) <<



>> Get monthly insights on this segment from the [Intuit QuickBooks Small Business Index](#) <<



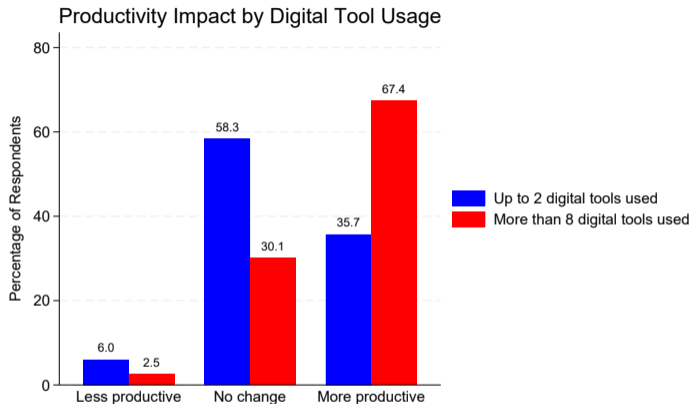
Tech Shy? Why Small Businesses Hesitate with AI



Source: McElheran, et al. "AI adoption in America: Who, what, and where." JEMS, 2024.

- Early AI use highly skewed and concentrated among larger firms.

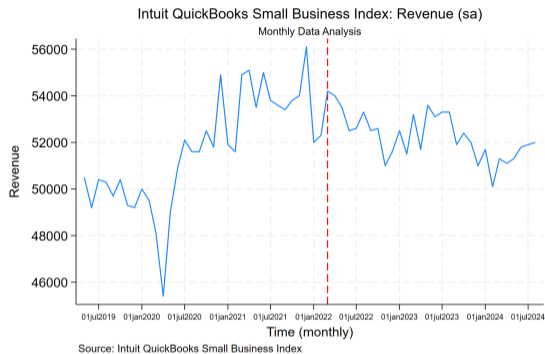
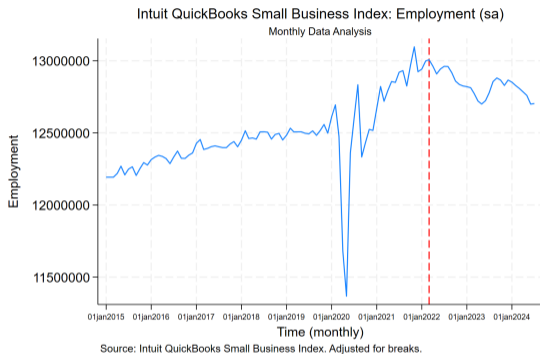
Digital Adoption Strongly Correlates with Productivity Growth



Source: Akcigit, Chhina, Cilasun, Miranda, Serrano-Velarde. "Intuit QuickBooks Small Business Index Annual Report 2025."

- Red: digital oriented firms also more likely to report higher productivity.
- Blue: digital laggards 30pp less likely to report higher productivity.

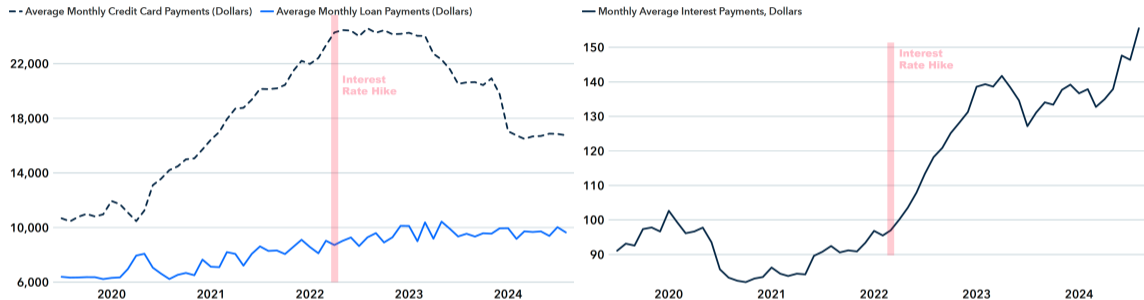
Economic Fragility: Small Firms Lose Ground in the Economy



Source: Akcigit, Chhina, Cilasun, Miranda, Ocakverdi, Serrano-Velarde (2023). "Intuit QuickBooks Small Business Index."

- Early 2022: inflection point for small business recovery with sustained declines through 2024.
- February 2025: employment contracted by -0.99% & revenues down by -0.79%.

Financial Fragility: Small Firms Rely Heavily on Credit Cards



Sources: Akcigit, Chhina, Cilasun, Miranda, Serrano-Velarde.

"Credit Card Entrepreneurs" (left), "Intuit QuickBooks Small Business Index Annual Report 2025"(right).

- CC Multiplier: access to CC helps mitigate constraints but at risk of overhang.
- CC and LT investments: short term financing inadequate for long term AI investment.