

Researchers

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Timeline

2015-2019

Sample Size

23,287 manufacturing establishments

Research Implemented by IPA

Yes

Comparing Entrepreneurship and Employment Growth in Colombia and the United States

Abstract

Startups in developing countries tend to grow more slowly on average than those in high-income countries, but the reasons why are not well understood. Researchers analyzed data on all manufacturers with more than 10 employees in Colombia and the U.S. over a period of 30 years to compare employment growth among manufacturers in each country. Results suggest that this average pattern is explained by differences in the tails of the distributions: slower growth over the lifecycles of businesses in Colombia than in the U.S. is driven by a smaller contribution among plants with extraordinary growth and a higher likelihood of young underperforming plants remaining active. The youngest cohorts of firms explain the bulk of employment growth in the medium term. These findings suggest that less dynamic high-growth entrepreneurship plays a role in the disparity in economic development between Colombia and the U.S.

Policy Issue

Startups in low- and middle-income countries grow more slowly over their life cycles than those in high-income countries, suggesting the life cycle growth of businesses may be a crucial driver of development.^[1] Previous research also shows that employment growth in the U.S. exhibits an “up or out” dynamics with most startups failing and exiting, but a small fraction of fast-growing survivors contributing disproportionately to aggregate job growth.^[2] To what extent are the differences employment dynamics between high- and lower-income countries driven by differences in the upper tail and lower tails of the respective distribution,

more than median growth? This research aimed to help answer this question.

Context of the Evaluation

Colombia's manufacturing sector accounts for approximately 13 percent of the country's GDP. Like many developing economies, in the early 1990s, Colombia instituted reforms that restructured its markets and liberalized its trade policies in an effort to improve efficiency. While these reforms affected manufacturing sectors and firms differently, the effects on the life cycle of firms is unclear. This study tracks manufacturing establishments in Colombia versus in the United States to analyze size distribution and long-run survival. Based on this analysis it seeks to understand what drives the slower average life cycle growth in Colombia.

Details of the Intervention

Note: *This is not a randomized controlled trial*

Researchers analyzed datasets about manufacturing firms in Colombia and the United States to compare employment growth among firms in the two countries.

This data used in this study from Colombia came from the Colombian Annual Manufacturing Survey, a census of non-micro manufacturing establishments from 1982-2012, which includes the period of trade reform in the 1990s. The data used for the U.S. was publicly available data from the Business Dynamic Statistics (BDS), which covers all employer businesses in the US' business registry. For comparability with the Colombian data, researchers restricted the sample to establishments with 10 or more employees for the main analysis of this paper. Both informal and formal businesses were included in the analysis.

Using this data, researchers examined patterns of growth over the life cycle across the entire distribution.

Results and Policy Lessons

On average, newer businesses outperformed older businesses on a number of dimensions, even after controlling for size differences. These differences were marked by greater differences from plant to plant among the young, with high average startup growth driven by 'superstars.' Moreover, despite the relatively modest contribution of the new businesses to overall employment, the youngest cohorts of plants explain the bulk of employment growth in the medium term. These findings suggest that less dynamic high-growth entrepreneurship plays a role in the disparity in economic development between Colombia and the U.S.

Patterns of growth for individual establishments: Younger establishments are smaller on average than older ones in both the U.S. and Colombia. Colombian plants grow at a slower pace than U.S. establishments. Younger businesses grow faster than older ones, although they are generally smaller and marked by greater heterogeneity. Young manufacturing

plants display a very marked pattern of an “up or out” dynamics, in which firms either grow quickly or stop producing.^[1] While these patterns hold true in both countries, and median life-cycle growth is similar for both, there is less dispersion in growth in Colombia vs. the US. Slower life cycle growth in the former is explained by a much less dynamic upper tail (more muted high-growth entrepreneurship), and less decided shedding of low growth businesses.

Size-Age Distribution: Colombia has 32% employment in micro and small establishments, compared to 4% in the U.S. Compared to the U.S., Colombia has a greater share of old plants that are small, and a larger average size of micro-establishments.

Age and size of firms: Net growth rates are higher for medium and large establishments than for small establishments in both the US and Colombia (controlling for age). In Colombia, while large establishments grow faster than small ones, there is a high degree of heterogeneity behind growth patterns for small startups. Only 8 percent of establishments born small make the transition from small into medium and large businesses. Moreover, 35 percent of them exit the market by age four.

Contribution to employment in the medium run: In Colombia, young firms contribute the bulk of the net employment creation, despite the fact that they comprise only a small share of total employment at any point. This is also true in the U.S., where total employment by old establishments (established before 1982) decreased by over 170,000 jobs, while employment by plants born in recent years grew enough to sufficiently cancel out this reduction.

Impacts of market reforms: Life cycle employment growth for plants in Colombia was faster in the 2000s than it was 1980s, characterized by a period of outstanding growth by large-scale structural reforms. This suggests that Colombia’s market reforms in the early 1990s may have played a role in stimulating business growth.

Read the [NBER working paper](#).

Sources

[1] Hsieh and Klenow 2014, Caunedo and Yurdagul 2018

[2] Haltiwanger, Jarmin and Miranda, 2013

[3] Haltiwanger, John, Ron Jarmin, and Javier Miranda. 2013. “Who Creates Jobs? Small vs. Large vs. Young.” *Review of Economics and Statistics*, 95(2), 347-361.

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